PDB ID : 2NVQ
Title : RNA Polymerase II Elongation Complex in 150 mM Mg+2 with 2'dUTP
Deposited on : 2006-11-13
Resolution : 2.90 Å (reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
with specific help available everywhere you see the symbol.

The following versions of software and data (see references) were used in the production of this report:

- MolProbity : 4.02b-467
- Mogul : 1.7.3 (157068), CSD as539be (2018)
- Xtriage (Phenix) : 1.13
- EDS : trunk30967
- Percentile statistics : 20171227.v01 (using entries in the PDB archive December 27th 2017)
- Refmac : 5.8.0158
- CCP4 : 7.0 (Gargrove)
- Ideal geometry (proteins) : Engh & Huber (2001)
- Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
- Validation Pipeline (wwPDB-VP) : trunk30967
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.90 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Whole archive (#Entries)</th>
<th>Similar resolution (#Entries, resolution range(Å))</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R_{\text{free}}$</td>
<td>111664</td>
<td>1716 (2.90-2.90)</td>
</tr>
<tr>
<td>Clashscore</td>
<td>122126</td>
<td>1924 (2.90-2.90)</td>
</tr>
<tr>
<td>Ramachandran outliers</td>
<td>120053</td>
<td>1884 (2.90-2.90)</td>
</tr>
<tr>
<td>Sidechain outliers</td>
<td>120020</td>
<td>1886 (2.90-2.90)</td>
</tr>
<tr>
<td>RSRZ outliers</td>
<td>108989</td>
<td>1669 (2.90-2.90)</td>
</tr>
<tr>
<td>RNA backbone</td>
<td>2636</td>
<td>1059 (3.20-2.60)</td>
</tr>
</tbody>
</table>

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for $\geq$3, 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq$5%. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Length</th>
<th>Quality of chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1733</td>
<td></td>
</tr>
</tbody>
</table>

Continued on next page...
### Mol | Chain | Length | Quality of chain
--- | --- | --- | ---
5 | B | 1224 | ![Quality graph](image)
6 | C | 318 | ![Quality graph](image)
7 | E | 215 | ![Quality graph](image)
8 | F | 155 | ![Quality graph](image)
9 | H | 146 | ![Quality graph](image)
10 | I | 122 | ![Quality graph](image)
11 | J | 70 | ![Quality graph](image)
12 | K | 120 | ![Quality graph](image)
13 | L | 70 | ![Quality graph](image)

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Type</th>
<th>Chain</th>
<th>Res</th>
<th>Chirality</th>
<th>Geometry</th>
<th>Clashes</th>
<th>Electron density</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>DUT</td>
<td>T</td>
<td>29[B]</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>16</td>
<td>MG</td>
<td>A</td>
<td>2002[A]</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>16</td>
<td>MG</td>
<td>A</td>
<td>2002[B]</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>
2 Entry composition

There are 16 unique types of molecules in this entry. The entry contains 29425 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 5’-R(*AP*UP*CP*GP*AP*GP*AP*GP*GP*A)-3’.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R</td>
<td>10</td>
<td>Total C N O P</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 2 is a DNA chain called 28-MER DNA template strand.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>T</td>
<td>28</td>
<td>Total C N O P</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 3 is a DNA chain called 5’-D(*CP*TP*GP*CP*TP*TP*AP*TP*CP*GP*GP*TP*AP*G)-3’.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>N</td>
<td>14</td>
<td>Total C N O P</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 4 is a protein called DNA-directed RNA polymerase II largest subunit.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>1405</td>
<td>Total C N O S</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 5 is a protein called DNA-directed RNA polymerase II 140 kDa polypeptide.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>B</td>
<td>1114</td>
<td>Total C N O S</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 6 is a protein called DNA-directed RNA polymerase II 45 kDa polypeptide.
- Molecule 7 is a protein called DNA-directed RNA polymerases I, II, and III 27 kDa polypeptide.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>E</td>
<td>214</td>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C N O S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1752 1111 309 321 11</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 8 is a protein called DNA-directed RNA polymerases I, II, and III 23 kDa polypeptide.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>F</td>
<td>85</td>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C N O S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>688 439 116 130 3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 9 is a protein called DNA-directed RNA polymerases I, II, and III 14.5 kDa polypeptide.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>H</td>
<td>133</td>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C N O S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1068 673 180 211 4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 10 is a protein called DNA-directed RNA polymerase II subunit 9.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>I</td>
<td>119</td>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C N O S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>971 596 179 186 10</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 11 is a protein called DNA-directed RNA polymerases I/II/III subunit 10.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>J</td>
<td>65</td>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C N O S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>532 339 93 94 6</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 12 is a protein called DNA-directed RNA polymerase II 13.6 kDa polypeptide.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>K</td>
<td>114</td>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C N O S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>919 590 156 171 2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 13 is a protein called DNA-directed RNA polymerases I, II, and III 7.7 kDa polypeptide.
Molecule 14 is DEOXYURIDINE-5'-TRIPHOSPHATE (three-letter code: DUT) (formula: \(C_9H_{15}N_2O_{14}P_3\)).

- Molecule 15 is ZINC ION (three-letter code: ZN) (formula: Zn).
- Molecule 16 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>A</td>
<td>2</td>
<td>Total</td>
<td>Mg</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: 5’-R(*AP*UP*CP*GP*AP*GP*AP*GP*GP*A)-3’
  Chain R:

- Molecule 2: 28-MER DNA template strand
  Chain T:

- Molecule 3: 5’-D(*CP*TP*GP*CP*TP*TP*AP*TP*CP*GP*GP*TP*AP*G)-3’
  Chain N:

- Molecule 4: DNA-directed RNA polymerase II largest subunit
  Chain A:
• Molecule 5: DNA-directed RNA polymerase II 140 kDa polypeptide

Chain B:
• Molecule 6: DNA-directed RNA polymerase II 45 kDa polypeptide

Chain C:

• Molecule 7: DNA-directed RNA polymerases I, II, and III 27 kDa polypeptide

Chain E:

• Molecule 8: DNA-directed RNA polymerases I, II, and III 23 kDa polypeptide

Chain F:

• Molecule 9: DNA-directed RNA polymerases I, II, and III 14.5 kDa polypeptide

Chain H:
• Molecule 10: DNA-directed RNA polymerase II subunit 9

Chain I:

• Molecule 11: DNA-directed RNA polymerases I/II/III subunit 10

Chain J:

• Molecule 12: DNA-directed RNA polymerase II 13.6 kDa polypeptide

Chain K:

• Molecule 13: DNA-directed RNA polymerases I, II, and III 7.7 kDa polypeptide

Chain L:
4  Data and refinement statistics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space group</td>
<td>C 1 2 1</td>
<td>Depositor</td>
</tr>
<tr>
<td>Cell constants</td>
<td>170.65Å 222.76Å 195.28Å</td>
<td>Depositor</td>
</tr>
<tr>
<td>a, b, c, α, β, γ</td>
<td>90.00° 101.31° 90.00°</td>
<td>Depositor</td>
</tr>
<tr>
<td>Resolution (Å)</td>
<td>48.45 – 2.90</td>
<td>Depositor</td>
</tr>
<tr>
<td>% Data completeness</td>
<td>92.7 (48.45-2.90)</td>
<td>Depositor</td>
</tr>
<tr>
<td>(in resolution range)</td>
<td>92.7 (48.14-2.90)</td>
<td>Depositor</td>
</tr>
<tr>
<td>R&lt;sub&gt;merge&lt;/sub&gt;</td>
<td>(Not available)</td>
<td>Depositor</td>
</tr>
<tr>
<td>R&lt;sub&gt;sym&lt;/sub&gt;</td>
<td>0.14</td>
<td>Depositor</td>
</tr>
<tr>
<td>&lt; I/σ(I) &gt; ¹</td>
<td>1.35 (at 2.91Å)</td>
<td>Xtriage</td>
</tr>
<tr>
<td>Refinement program</td>
<td>REFMAC 5.2.0005</td>
<td>Depositor</td>
</tr>
<tr>
<td>R, R&lt;sub&gt;free&lt;/sub&gt;</td>
<td>0.229 , 0.283</td>
<td>Depositor</td>
</tr>
<tr>
<td>R&lt;sub&gt;free&lt;/sub&gt; test set</td>
<td>4429 reflections (3.03%)</td>
<td>wwPDB-VP</td>
</tr>
<tr>
<td>Wilson B-factor (Å&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>59.7</td>
<td>Xtriage</td>
</tr>
<tr>
<td>Anisotropy</td>
<td>0.202</td>
<td>Xtriage</td>
</tr>
<tr>
<td>Bulk solvent k&lt;sub&gt;sol&lt;/sub&gt;(e/Å&lt;sup&gt;3&lt;/sup&gt;), B&lt;sub&gt;sol&lt;/sub&gt;(Å&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>0.27 , 28.6</td>
<td>EDS</td>
</tr>
<tr>
<td>L-test for twinning&lt;sup&gt;²&lt;/sup&gt;</td>
<td>&lt;</td>
<td>L</td>
</tr>
<tr>
<td>Estimated twinning fraction</td>
<td>No twinning to report.</td>
<td>Xtriage</td>
</tr>
<tr>
<td>F&lt;sub&gt;o&lt;/sub&gt;,F&lt;sub&gt;c&lt;/sub&gt; correlation</td>
<td>0.89</td>
<td>EDS</td>
</tr>
<tr>
<td>Total number of atoms</td>
<td>29425</td>
<td>wwPDB-VP</td>
</tr>
<tr>
<td>Average B, all atoms (Å&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>59.0</td>
<td>wwPDB-VP</td>
</tr>
</tbody>
</table>

Xtriage’s analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 2.67% of the height of the origin peak. No significant pseudotranslation is detected.

<sup>¹</sup> Intensities estimated from amplitudes.
<sup>²</sup> Theoretical values of < |L| >, < L<sup>2</sup> > for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.
5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, DUT, MG.

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Bond lengths</th>
<th>Bond angles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>RMSZ</td>
<td>#</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>1.30</td>
<td>1/243 (0.4%)</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>1.23</td>
<td>0/634</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>1.30</td>
<td>0/317</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>0.75</td>
<td>0/11241</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>0.86</td>
<td>2/9033 (0.0%)</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>0.83</td>
<td>2/2133 (0.1%)</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>0.65</td>
<td>0/1788</td>
</tr>
<tr>
<td>8</td>
<td>F</td>
<td>0.69</td>
<td>0/700</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>0.67</td>
<td>0/1086</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>0.78</td>
<td>1/989 (0.1%)</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>0.89</td>
<td>0/541</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>0.78</td>
<td>0/937</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>0.93</td>
<td>1/365 (0.3%)</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>0.81</td>
<td>7/30007 (0.0%)</td>
</tr>
</tbody>
</table>

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>#Chirality outliers</th>
<th>#Planarity outliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>0</td>
<td>21</td>
</tr>
</tbody>
</table>

All (7) bond length outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(Å)</th>
<th>Ideal(Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>L</td>
<td>34</td>
<td>CYS</td>
<td>CB-SG</td>
<td>-6.03</td>
<td>1.72</td>
<td>1.82</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>88</td>
<td>CYS</td>
<td>CB-SG</td>
<td>-5.95</td>
<td>1.72</td>
<td>1.81</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(Å)</th>
<th>Ideal(Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R</td>
<td>1</td>
<td>A</td>
<td>N9-C4</td>
<td>5.93</td>
<td>1.41</td>
<td>1.37</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>529</td>
<td>GLU</td>
<td>CG-CD</td>
<td>5.91</td>
<td>1.60</td>
<td>1.51</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>78</td>
<td>GLU</td>
<td>CG-CD</td>
<td>5.10</td>
<td>1.59</td>
<td>1.51</td>
</tr>
</tbody>
</table>

All (85) bond angle outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(°)</th>
<th>Ideal(°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>T</td>
<td>18</td>
<td>DA</td>
<td>O4’-C4’-C3’</td>
<td>-10.86</td>
<td>99.48</td>
<td>106.00</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>16</td>
<td>DC</td>
<td>O4’-C1’-N1</td>
<td>9.82</td>
<td>114.87</td>
<td>108.00</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>8</td>
<td>G</td>
<td>C4’-C3’-C2’</td>
<td>-9.14</td>
<td>93.46</td>
<td>102.60</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>1</td>
<td>DC</td>
<td>O4’-C1’-N1</td>
<td>8.83</td>
<td>114.18</td>
<td>108.00</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>8</td>
<td>G</td>
<td>O4’-C1’-N9</td>
<td>-8.56</td>
<td>101.35</td>
<td>108.20</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>5</td>
<td>DT</td>
<td>O4’-C1’-N1</td>
<td>8.49</td>
<td>113.94</td>
<td>108.00</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>5</td>
<td>DT</td>
<td>P-O3’-C3’</td>
<td>8.39</td>
<td>129.77</td>
<td>119.70</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>8</td>
<td>G</td>
<td>O5’-P-OP2</td>
<td>-8.35</td>
<td>98.19</td>
<td>105.70</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>6</td>
<td>DT</td>
<td>O4’-C1’-N1</td>
<td>8.28</td>
<td>113.79</td>
<td>108.00</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>4</td>
<td>DC</td>
<td>O4’-C1’-N1</td>
<td>8.17</td>
<td>113.72</td>
<td>108.00</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>6</td>
<td>G</td>
<td>O4’-C1’-N9</td>
<td>7.89</td>
<td>114.51</td>
<td>108.20</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>16</td>
<td>DC</td>
<td>C1’-O4’-C4’</td>
<td>-7.85</td>
<td>102.25</td>
<td>110.10</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>20</td>
<td>DC</td>
<td>O4’-C4’-C3’</td>
<td>-7.84</td>
<td>101.30</td>
<td>106.00</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>9</td>
<td>G</td>
<td>O4’-C1’-N9</td>
<td>-7.79</td>
<td>101.97</td>
<td>108.20</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>11</td>
<td>DG</td>
<td>O4’-C4’-C3’</td>
<td>-7.67</td>
<td>101.40</td>
<td>106.00</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>21</td>
<td>DC</td>
<td>O4’-C4’-C3’</td>
<td>-7.51</td>
<td>101.49</td>
<td>106.00</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>21</td>
<td>DC</td>
<td>C4’-C3’-C2’</td>
<td>-7.43</td>
<td>96.42</td>
<td>103.10</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>3</td>
<td>C</td>
<td>O4’-C1’-N1</td>
<td>7.01</td>
<td>113.81</td>
<td>108.20</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>11</td>
<td>DG</td>
<td>O4’-C1’-N9</td>
<td>7.00</td>
<td>112.90</td>
<td>108.00</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>18</td>
<td>DA</td>
<td>C4’-C3’-C2’</td>
<td>-6.99</td>
<td>96.81</td>
<td>103.10</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>78</td>
<td>CYS</td>
<td>CA-CB-SG</td>
<td>8.12</td>
<td>128.61</td>
<td>114.00</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>9</td>
<td>G</td>
<td>C5-C6-N1</td>
<td>6.61</td>
<td>114.80</td>
<td>111.50</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>8</td>
<td>G</td>
<td>C5-C6-N1</td>
<td>6.56</td>
<td>114.78</td>
<td>111.50</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(°)</th>
<th>Ideal(°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>N</td>
<td>7</td>
<td>DA</td>
<td>O4'-C1'-N9</td>
<td>6.56</td>
<td>112.59</td>
<td>108.00</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>13</td>
<td>DA</td>
<td>O4'-C1'-N9</td>
<td>6.53</td>
<td>112.57</td>
<td>108.00</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>21</td>
<td>DC</td>
<td>N3-C4-C5</td>
<td>6.49</td>
<td>124.50</td>
<td>121.90</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>23</td>
<td>DC</td>
<td>O4'-C1'-N1</td>
<td>6.42</td>
<td>112.49</td>
<td>108.00</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>8</td>
<td>G</td>
<td>N1-C6-O6</td>
<td>-6.38</td>
<td>116.07</td>
<td>119.90</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>6</td>
<td>G</td>
<td>C4'-C3'-C2'</td>
<td>-6.37</td>
<td>96.23</td>
<td>102.60</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>2</td>
<td>DT</td>
<td>P-O3'-C3'</td>
<td>6.33</td>
<td>127.29</td>
<td>119.70</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>13</td>
<td>DA</td>
<td>O4'-C1'-N9</td>
<td>6.29</td>
<td>112.40</td>
<td>108.00</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>2</td>
<td>DT</td>
<td>P-O4'-C1'</td>
<td>5.89</td>
<td>106.00</td>
<td>112.00</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>10</td>
<td>A</td>
<td>C5'-C4'-O4'</td>
<td>6.09</td>
<td>116.41</td>
<td>109.10</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>15</td>
<td>DA</td>
<td>P-O3'-C3'</td>
<td>6.05</td>
<td>126.96</td>
<td>119.70</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>8</td>
<td>DT</td>
<td>P-O3'-C3'</td>
<td>6.02</td>
<td>126.92</td>
<td>119.70</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>21</td>
<td>DC</td>
<td>N1-C2-O2</td>
<td>5.89</td>
<td>122.44</td>
<td>118.90</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>21</td>
<td>DC</td>
<td>C6-N1-C2</td>
<td>5.89</td>
<td>122.66</td>
<td>120.30</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>7</td>
<td>DA</td>
<td>P-O3'-C3'</td>
<td>5.82</td>
<td>126.68</td>
<td>119.70</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>5</td>
<td>DT</td>
<td>C1'-O4'-C4'</td>
<td>-5.80</td>
<td>104.30</td>
<td>110.10</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>2</td>
<td>U</td>
<td>O4'-C1'-N1</td>
<td>5.78</td>
<td>112.82</td>
<td>108.20</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>12</td>
<td>DT</td>
<td>P-O3'-C3'</td>
<td>5.76</td>
<td>126.62</td>
<td>119.70</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>8</td>
<td>DT</td>
<td>C4-C5-C7</td>
<td>5.74</td>
<td>122.44</td>
<td>119.00</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1020</td>
<td>ARG</td>
<td>NE-CZ-NH2</td>
<td>-5.74</td>
<td>117.43</td>
<td>120.30</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>492</td>
<td>LEU</td>
<td>CB-CG-CD1</td>
<td>-5.70</td>
<td>101.30</td>
<td>111.00</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>19</td>
<td>DT</td>
<td>C5-C4-O4</td>
<td>-5.69</td>
<td>120.92</td>
<td>124.90</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>2</td>
<td>DT</td>
<td>C6-C5-C7</td>
<td>-5.63</td>
<td>119.52</td>
<td>122.90</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>2</td>
<td>DT</td>
<td>O4'-C1'-N1</td>
<td>5.63</td>
<td>111.94</td>
<td>108.00</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>1</td>
<td>DC</td>
<td>C1'-O4'-C4'</td>
<td>-5.57</td>
<td>104.53</td>
<td>110.10</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>23</td>
<td>DC</td>
<td>P-O3'-C3'</td>
<td>-5.52</td>
<td>113.07</td>
<td>119.70</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>22</td>
<td>DT</td>
<td>O4'-C4'-C3'</td>
<td>-5.49</td>
<td>102.30</td>
<td>104.50</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>9</td>
<td>G</td>
<td>N9-C1'-C2'</td>
<td>-5.45</td>
<td>106.00</td>
<td>112.00</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>18</td>
<td>DA</td>
<td>N1-C2-N3</td>
<td>-5.43</td>
<td>126.59</td>
<td>129.30</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>18</td>
<td>DA</td>
<td>P-O5'-C5'</td>
<td>-5.40</td>
<td>112.26</td>
<td>120.90</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>3</td>
<td>C</td>
<td>P-O3'-C3'</td>
<td>-5.35</td>
<td>113.28</td>
<td>119.70</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>10</td>
<td>DA</td>
<td>O4'-C1'-N9</td>
<td>5.34</td>
<td>111.74</td>
<td>108.00</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>6</td>
<td>DT</td>
<td>C6-C5-C7</td>
<td>-5.34</td>
<td>119.70</td>
<td>122.90</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>78</td>
<td>CYS</td>
<td>N-CA-CB</td>
<td>5.32</td>
<td>120.17</td>
<td>110.60</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>1</td>
<td>DC</td>
<td>O4'-C1'-C2'</td>
<td>-5.30</td>
<td>101.66</td>
<td>105.90</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>668</td>
<td>ASP</td>
<td>CB-CG-OD2</td>
<td>5.28</td>
<td>123.05</td>
<td>118.30</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>10</td>
<td>DA</td>
<td>P-O3'-C3'</td>
<td>5.25</td>
<td>126.00</td>
<td>119.70</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>748</td>
<td>MET</td>
<td>CG-SD-CE</td>
<td>5.22</td>
<td>108.56</td>
<td>100.20</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>3</td>
<td>DG</td>
<td>C8-N9-C4</td>
<td>-5.22</td>
<td>104.31</td>
<td>106.40</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>3</td>
<td>DG</td>
<td>P-O3'-C3'</td>
<td>5.21</td>
<td>125.95</td>
<td>119.70</td>
</tr>
</tbody>
</table>
| 5   | B     | 722  | ASP | CB-CG-OD2  | 5.19| 122.97      | 118.30  

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(°)</th>
<th>Ideal(°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>N</td>
<td>3</td>
<td>DG</td>
<td>N3-C4-N9</td>
<td>5.16</td>
<td>129.09</td>
<td>126.00</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>5</td>
<td>A</td>
<td>O4'-C1'-N9</td>
<td>5.15</td>
<td>112.32</td>
<td>108.20</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>8</td>
<td>G</td>
<td>O4'-C4'-C3'</td>
<td>-5.12</td>
<td>98.88</td>
<td>104.00</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>28</td>
<td>DT</td>
<td>C6-C5-C7</td>
<td>-5.09</td>
<td>119.85</td>
<td>122.90</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>1</td>
<td>DC</td>
<td>P-O3'-C3'</td>
<td>5.09</td>
<td>125.80</td>
<td>119.70</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1166</td>
<td>CYS</td>
<td>CA-CB-SG</td>
<td>5.07</td>
<td>123.13</td>
<td>114.00</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>3</td>
<td>C</td>
<td>N1-C1'-C2'</td>
<td>-5.06</td>
<td>106.44</td>
<td>112.00</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>20</td>
<td>DC</td>
<td>N3-C4-C5</td>
<td>5.05</td>
<td>123.92</td>
<td>121.90</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>16</td>
<td>DC</td>
<td>O4'-C4'-C3'</td>
<td>-5.04</td>
<td>102.48</td>
<td>104.50</td>
</tr>
<tr>
<td>1</td>
<td>R</td>
<td>7</td>
<td>A</td>
<td>N9-C1'-C2''</td>
<td>-5.01</td>
<td>106.48</td>
<td>112.00</td>
</tr>
</tbody>
</table>

There are no chirality outliers.

All (21) planarity outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>1082</td>
<td>ASN</td>
<td>Peptide</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>115</td>
<td>LEU</td>
<td>Peptide</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>117</td>
<td>GLU</td>
<td>Peptide</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>218</td>
<td>ASP</td>
<td>Peptide</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>297</td>
<td>GLN</td>
<td>Peptide</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>298</td>
<td>PHE</td>
<td>Peptide</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>400</td>
<td>PRO</td>
<td>Peptide</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>402</td>
<td>ALA</td>
<td>Peptide</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>450</td>
<td>PRO</td>
<td>Peptide</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>671</td>
<td>ALA</td>
<td>Peptide</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>85</td>
<td>ASP</td>
<td>Peptide</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1155</td>
<td>SER</td>
<td>Peptide</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>137</td>
<td>TYR</td>
<td>Peptide</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>138</td>
<td>GLU</td>
<td>Peptide</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>36</td>
<td>ALA</td>
<td>Peptide</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>478</td>
<td>GLY</td>
<td>Peptide</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>647</td>
<td>GLY</td>
<td>Peptide</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>886</td>
<td>LYS</td>
<td>Peptide</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>981</td>
<td>ALA</td>
<td>Peptide</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>3</td>
<td>GLU</td>
<td>Peptide</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>4</td>
<td>GLU</td>
<td>Peptide</td>
</tr>
</tbody>
</table>

5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen...
atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Non-H</th>
<th>H(model)</th>
<th>H(added)</th>
<th>Clashes</th>
<th>Symm-Clashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R</td>
<td>216</td>
<td>0</td>
<td>109</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>566</td>
<td>0</td>
<td>316</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>284</td>
<td>0</td>
<td>161</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>11043</td>
<td>0</td>
<td>11133</td>
<td>534</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>8861</td>
<td>0</td>
<td>8884</td>
<td>458</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>2095</td>
<td>0</td>
<td>2051</td>
<td>91</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>1752</td>
<td>0</td>
<td>1776</td>
<td>56</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>F</td>
<td>688</td>
<td>0</td>
<td>707</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>1068</td>
<td>0</td>
<td>1040</td>
<td>52</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>971</td>
<td>0</td>
<td>927</td>
<td>32</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>532</td>
<td>0</td>
<td>542</td>
<td>38</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>919</td>
<td>0</td>
<td>929</td>
<td>43</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>363</td>
<td>0</td>
<td>386</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>56</td>
<td>0</td>
<td>22</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>A</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>B</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>C</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>I</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>J</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>L</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>A</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>29425</td>
<td>0</td>
<td>28983</td>
<td>1261</td>
<td>0</td>
</tr>
</tbody>
</table>

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 22.

All (1261) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:B:647:GLY:HA3</td>
<td>5:B:648:HIS:CB</td>
<td>1.51</td>
<td>1.34</td>
</tr>
<tr>
<td>5:B:800:GLN:HB3</td>
<td>11:J:52:THR:CG2</td>
<td>1.58</td>
<td>1.32</td>
</tr>
<tr>
<td>5:B:906:SER:HB3</td>
<td>5:B:946:ASN:HB2</td>
<td>1.25</td>
<td>1.16</td>
</tr>
<tr>
<td>5:B:647:GLY:HA3</td>
<td>5:B:648:HIS:HB2</td>
<td>1.21</td>
<td>1.16</td>
</tr>
<tr>
<td>2:T:18:DA:N1</td>
<td>14:T:29[B]:DUT:O2</td>
<td>1.78</td>
<td>1.15</td>
</tr>
</tbody>
</table>

*Continued on next page...*
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:B:1094:ARG:CG</td>
<td>5:B:1094:ARG:HH11</td>
<td>1.65</td>
<td>1.09</td>
</tr>
<tr>
<td>5:B:345:LYS:HA</td>
<td>5:B:347:LYS:H</td>
<td>0.97</td>
<td>1.08</td>
</tr>
<tr>
<td>5:B:1094:ARG:HG2</td>
<td>5:B:1094:ARG:NH1</td>
<td>1.54</td>
<td>1.08</td>
</tr>
<tr>
<td>5:B:647:GLY:HA3</td>
<td>5:B:648:HIS:HB3</td>
<td>1.30</td>
<td>1.08</td>
</tr>
<tr>
<td>4:A:672:ASP:CB</td>
<td>4:A:675:THR:HB</td>
<td>1.85</td>
<td>1.05</td>
</tr>
<tr>
<td>5:B:800:GLN:HB3</td>
<td>11:J:52:THR:HG21</td>
<td>1.31</td>
<td>1.03</td>
</tr>
<tr>
<td>2:T:18:DA:C2</td>
<td>14:T:29[B]:DUT:O2</td>
<td>2.11</td>
<td>1.02</td>
</tr>
<tr>
<td>5:B:709:ASP:O</td>
<td>5:B:710:LEU:HD23</td>
<td>1.60</td>
<td>1.00</td>
</tr>
<tr>
<td>5:B:647:GLY:CA</td>
<td>5:B:648:HIS:CB</td>
<td>2.36</td>
<td>1.00</td>
</tr>
<tr>
<td>5:B:708:GLU:O</td>
<td>5:B:712:PRO:HD3</td>
<td>1.60</td>
<td>1.00</td>
</tr>
<tr>
<td>5:B:801:LYS:O</td>
<td>11:J:52:THR:HG23</td>
<td>1.60</td>
<td>0.99</td>
</tr>
<tr>
<td>11:J:3:VAL:HG21</td>
<td>11:J:18:TRP:HB2</td>
<td>1.43</td>
<td>0.98</td>
</tr>
<tr>
<td>5:B:313:MET:HE1</td>
<td>5:B:390:LEU:HG</td>
<td>1.45</td>
<td>0.98</td>
</tr>
<tr>
<td>4:A:93:VAL:HG13</td>
<td>4:A:301:ALA:HB1</td>
<td>1.45</td>
<td>0.97</td>
</tr>
</tbody>
</table>
### Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:T:18:DA:H61</td>
<td>14:T:29</td>
<td>B</td>
<td>DUT:HN3</td>
</tr>
<tr>
<td>6:C:167:HIS:HD2</td>
<td>6:C:169:LYS:H</td>
<td>1.13</td>
<td>0.96</td>
</tr>
<tr>
<td>5:B:345:LYS:HA</td>
<td>5:B:347:LYS:N</td>
<td>1.80</td>
<td>0.96</td>
</tr>
<tr>
<td>4:A:56:PRO:O</td>
<td>4:A:57:ARG:HG3</td>
<td>1.65</td>
<td>0.94</td>
</tr>
<tr>
<td>7:E:64:PRO:HD3</td>
<td>7:E:76:GLY:HA2</td>
<td>1.49</td>
<td>0.93</td>
</tr>
<tr>
<td>4:A:609:ASP:O</td>
<td>4:A:611:GLN:N</td>
<td>2.01</td>
<td>0.92</td>
</tr>
<tr>
<td>5:B:647:GLY:CA</td>
<td>5:B:648:HIS:HB3</td>
<td>1.98</td>
<td>0.92</td>
</tr>
<tr>
<td>4:A:1364:ASN:HD21</td>
<td>4:A:1366:ARG:HG2</td>
<td>1.34</td>
<td>0.91</td>
</tr>
<tr>
<td>5:B:313:MET:CE</td>
<td>5:B:390:LEU:HG</td>
<td>1.99</td>
<td>0.91</td>
</tr>
<tr>
<td>4:A:1110:ASN:H</td>
<td>4:A:1110:ASN:HD22</td>
<td>1.18</td>
<td>0.91</td>
</tr>
<tr>
<td>5:B:1084:GLN:HE22</td>
<td>6:C:191:TYR:HA</td>
<td>1.36</td>
<td>0.91</td>
</tr>
<tr>
<td>4:A:590:ARG:NH1</td>
<td>4:A:590:ARG:HG3</td>
<td>1.78</td>
<td>0.90</td>
</tr>
<tr>
<td>4:A:56:PRO:C</td>
<td>4:A:57:ARG:HG3</td>
<td>1.90</td>
<td>0.90</td>
</tr>
<tr>
<td>6:C:56:THR:HG22</td>
<td>6:C:57:VAL:H</td>
<td>1.35</td>
<td>0.90</td>
</tr>
<tr>
<td>5:B:744:HIS:HD2</td>
<td>5:B:746:SER:H</td>
<td>1.15</td>
<td>0.90</td>
</tr>
<tr>
<td>4:A:943:LEU:O</td>
<td>4:A:945:GLU:N</td>
<td>2.05</td>
<td>0.89</td>
</tr>
<tr>
<td>4:A:68:GLN:NE2</td>
<td>4:A:68:GLN:O</td>
<td>2.05</td>
<td>0.88</td>
</tr>
<tr>
<td>4:A:672:ASP:OD1</td>
<td>4:A:675:THR:OG1</td>
<td>1.89</td>
<td>0.88</td>
</tr>
<tr>
<td>4:A:129:LYS:O</td>
<td>4:A:130:ASP:HB2</td>
<td>1.73</td>
<td>0.87</td>
</tr>
<tr>
<td>4:A:1364:ASN:HD22</td>
<td>4:A:1366:ARG:HG2</td>
<td>1.37</td>
<td>0.87</td>
</tr>
<tr>
<td>5:B:710:LEU:O</td>
<td>5:B:711:GLU:HB3</td>
<td>1.72</td>
<td>0.86</td>
</tr>
<tr>
<td>5:B:260:GLY:O</td>
<td>5:B:267:ARG:HD3</td>
<td>1.76</td>
<td>0.85</td>
</tr>
<tr>
<td>5:B:1094:ARG:HG2</td>
<td>5:B:1094:ARG:HH11</td>
<td>0.74</td>
<td>0.85</td>
</tr>
<tr>
<td>2:T:18:DA:N1</td>
<td>14:T:29</td>
<td>B</td>
<td>DUT:C2</td>
</tr>
<tr>
<td>4:A:1364:ASN:ND2</td>
<td>4:A:1366:ARG:CG</td>
<td>2.40</td>
<td>0.84</td>
</tr>
<tr>
<td>5:B:763:GLN:HG2</td>
<td>5:B:765:PRO:HD2</td>
<td>1.60</td>
<td>0.84</td>
</tr>
<tr>
<td>5:B:957:ASN:HD22</td>
<td>5:B:959:ASP:HB2</td>
<td>1.43</td>
<td>0.83</td>
</tr>
<tr>
<td>11:J:3:VAL:HG21</td>
<td>11:J:18:TRP:CB</td>
<td>2.08</td>
<td>0.83</td>
</tr>
<tr>
<td>4:A:567:LYS:HG3</td>
<td>4:A:568:PRO:HD2</td>
<td>1.61</td>
<td>0.83</td>
</tr>
<tr>
<td>5:B:140:ILE:HB</td>
<td>5:B:141:ASP:HB2</td>
<td>1.61</td>
<td>0.83</td>
</tr>
</tbody>
</table>

*Continued on next page...*
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:B:805:THR:HG21</td>
<td>5:B:815:ARG:HH21</td>
<td>1.44</td>
<td>0.83</td>
</tr>
<tr>
<td>4:A:218:ASP:H</td>
<td>4:A:219:PHE:HB3</td>
<td>1.43</td>
<td>0.82</td>
</tr>
<tr>
<td>4:A:134:ARG:HD3</td>
<td>4:A:221:SER:O</td>
<td>1.79</td>
<td>0.82</td>
</tr>
<tr>
<td>4:A:399:HIS:CB</td>
<td>4:A:400:PRO:CD</td>
<td>2.40</td>
<td>0.82</td>
</tr>
<tr>
<td>4:A:306:ASN:HD21</td>
<td>4:A:313:GLN:HB2</td>
<td>1.45</td>
<td>0.82</td>
</tr>
<tr>
<td>10:I:103:CYS:O</td>
<td>10:I:105:SER:N</td>
<td>2.13</td>
<td>0.81</td>
</tr>
<tr>
<td>5:B:90:ILE:CD1</td>
<td>5:B:134:LYS:HG21</td>
<td>2.10</td>
<td>0.81</td>
</tr>
<tr>
<td>5:B:639:ILE:HD11</td>
<td>5:B:691:GLU:HB2</td>
<td>1.62</td>
<td>0.81</td>
</tr>
<tr>
<td>7:E:175:LEU:HD12</td>
<td>7:E:176:PRO:HD2</td>
<td>1.63</td>
<td>0.81</td>
</tr>
<tr>
<td>5:B:287:ARG:NH1</td>
<td>5:B:324:ILE:O</td>
<td>2.14</td>
<td>0.81</td>
</tr>
<tr>
<td>4:A:672:ASP:CB</td>
<td>4:A:675:THR:OG1</td>
<td>2.29</td>
<td>0.80</td>
</tr>
<tr>
<td>4:A:1444:MET:HB2</td>
<td>8:F:133:VAL:HG12</td>
<td>1.64</td>
<td>0.80</td>
</tr>
<tr>
<td>4:A:567:LYS:CG</td>
<td>4:A:568:PRO:HD2</td>
<td>2.10</td>
<td>0.80</td>
</tr>
<tr>
<td>5:B:1084:GLN:NE2</td>
<td>6:C:191:TYR:HA</td>
<td>1.97</td>
<td>0.80</td>
</tr>
<tr>
<td>5:B:744:HIS:CD2</td>
<td>5:B:746:SER:H</td>
<td>1.99</td>
<td>0.80</td>
</tr>
<tr>
<td>5:B:63:ILE:O</td>
<td>5:B:67:SER:HB3</td>
<td>1.81</td>
<td>0.79</td>
</tr>
<tr>
<td>4:A:249:SER:O</td>
<td>4:A:250:ILE:CG1</td>
<td>2.30</td>
<td>0.79</td>
</tr>
<tr>
<td>5:B:176:SER:O</td>
<td>5:B:182:SER:HB3</td>
<td>1.82</td>
<td>0.79</td>
</tr>
<tr>
<td>5:B:363:HIS:O</td>
<td>5:B:364:ILE:HB</td>
<td>1.83</td>
<td>0.79</td>
</tr>
<tr>
<td>4:A:253:ASN:H</td>
<td>4:A:253:ASN:HD22</td>
<td>1.31</td>
<td>0.79</td>
</tr>
<tr>
<td>5:B:906:SER:HB3</td>
<td>5:B:946:ASN:CB</td>
<td>2.10</td>
<td>0.79</td>
</tr>
<tr>
<td>4:A:565:ILE:HG12</td>
<td>4:A:567:LYS:HZ1</td>
<td>1.48</td>
<td>0.78</td>
</tr>
<tr>
<td>5:B:476:ARG:O</td>
<td>5:B:478:GLY:N</td>
<td>2.17</td>
<td>0.78</td>
</tr>
<tr>
<td>5:B:1006:ILE:HD11</td>
<td>11:J:43:ARG:HB2</td>
<td>1.65</td>
<td>0.78</td>
</tr>
<tr>
<td>4:A:332:LYS:O</td>
<td>4:A:333:GLU:HG2</td>
<td>1.82</td>
<td>0.77</td>
</tr>
<tr>
<td>4:A:596:THR:O</td>
<td>4:A:598:LEU:N</td>
<td>2.17</td>
<td>0.77</td>
</tr>
<tr>
<td>5:B:800:GLN:CB</td>
<td>11:J:52:THR:HG21</td>
<td>2.14</td>
<td>0.77</td>
</tr>
<tr>
<td>5:B:882:THR:HB</td>
<td>5:B:934:LYS:O</td>
<td>1.83</td>
<td>0.77</td>
</tr>
<tr>
<td>5:B:167:ILE:HG22</td>
<td>5:B:167:ILE:O</td>
<td>1.84</td>
<td>0.77</td>
</tr>
<tr>
<td>5:B:1107:ALA:O</td>
<td>5:B:1108:ARG:HB3</td>
<td>1.85</td>
<td>0.77</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:B:973:ILE:HG23</td>
<td>5:B:974:PRO:HD2</td>
<td>1.66</td>
<td>0.77</td>
</tr>
<tr>
<td>7:E:108:GLY:HA3</td>
<td>7:E:132:ILE:HG22</td>
<td>1.65</td>
<td>0.77</td>
</tr>
<tr>
<td>5:B:879:ARG:H</td>
<td>5:B:879:ARG:NE</td>
<td>1.83</td>
<td>0.77</td>
</tr>
<tr>
<td>5:B:825:VAL:HG23</td>
<td>5:B:1010:LEU:HB3</td>
<td>1.65</td>
<td>0.76</td>
</tr>
<tr>
<td>5:B:864:LYS:HG2</td>
<td>5:B:871:THR:HG23</td>
<td>1.67</td>
<td>0.76</td>
</tr>
<tr>
<td>4:A:483:ASP:HA</td>
<td>5:B:988:GLY:HA2</td>
<td>1.66</td>
<td>0.76</td>
</tr>
<tr>
<td>5:B:102:VAL:HG23</td>
<td>5:B:112:LEU:HB2</td>
<td>1.66</td>
<td>0.76</td>
</tr>
<tr>
<td>5:B:211:VAL:CG2</td>
<td>5:B:483:LEU:HD13</td>
<td>2.15</td>
<td>0.76</td>
</tr>
<tr>
<td>5:B:137:TYR:O</td>
<td>5:B:138:GLU:HB2</td>
<td>1.85</td>
<td>0.76</td>
</tr>
<tr>
<td>4:A:208:LEU:O</td>
<td>4:A:208:LEU:HD22</td>
<td>1.86</td>
<td>0.75</td>
</tr>
<tr>
<td>5:B:906:SER:CB</td>
<td>5:B:946:ASN:HB2</td>
<td>2.13</td>
<td>0.75</td>
</tr>
<tr>
<td>5:B:1163:CYS:SG</td>
<td>5:B:1166:CYS:N</td>
<td>2.56</td>
<td>0.75</td>
</tr>
<tr>
<td>7:E:3:GLN:HG2</td>
<td>7:E:4:GLU:H</td>
<td>1.51</td>
<td>0.75</td>
</tr>
<tr>
<td>5:B:398:ARG:NH1</td>
<td>5:B:398:ARG:HB3</td>
<td>2.02</td>
<td>0.74</td>
</tr>
<tr>
<td>5:B:984:HIS:CE1</td>
<td>5:B:1025:HIS:HA</td>
<td>2.22</td>
<td>0.74</td>
</tr>
<tr>
<td>5:B:223:VAL:O</td>
<td>5:B:384:ARG:NH2</td>
<td>2.20</td>
<td>0.74</td>
</tr>
<tr>
<td>6:C:98:VAL:H</td>
<td>6:C:122:SER:HB2</td>
<td>1.51</td>
<td>0.74</td>
</tr>
<tr>
<td>4:A:567:LYS:HG3</td>
<td>4:A:568:PRO:CD</td>
<td>2.18</td>
<td>0.74</td>
</tr>
<tr>
<td>5:B:30:SER:O</td>
<td>5:B:34:ILE:HD12</td>
<td>1.88</td>
<td>0.74</td>
</tr>
<tr>
<td>5:B:530:VAL:HG11</td>
<td>5:B:385:LEU:HA</td>
<td>1.69</td>
<td>0.74</td>
</tr>
<tr>
<td>5:B:797:TYR:O</td>
<td>11:J:1:MET:HG2</td>
<td>1.86</td>
<td>0.74</td>
</tr>
<tr>
<td>5:B:269:ILE:HD11</td>
<td>5:B:386:LEU:HD21</td>
<td>1.69</td>
<td>0.73</td>
</tr>
<tr>
<td>4:A:1029:ARG:HG2</td>
<td>4:A:1029:ARG:NH1</td>
<td>1.94</td>
<td>0.73</td>
</tr>
<tr>
<td>4:A:1123:GLY:HA3</td>
<td>4:A:1124:HIS:CB</td>
<td>2.08</td>
<td>0.73</td>
</tr>
<tr>
<td>5:B:278:GLN:HG2</td>
<td>5:B:279:ASP:H</td>
<td>1.52</td>
<td>0.73</td>
</tr>
<tr>
<td>5:B:426:LYS:HE2</td>
<td>5:B:430:ARG:HH2</td>
<td>1.52</td>
<td>0.73</td>
</tr>
<tr>
<td>4:A:5:GLN:O</td>
<td>5:B:1159:ARG:NH2</td>
<td>2.22</td>
<td>0.73</td>
</tr>
<tr>
<td>5:B:647:GLY:CA</td>
<td>5:B:648:HIS:HB2</td>
<td>2.11</td>
<td>0.73</td>
</tr>
<tr>
<td>11:J:3:VAL:CG2</td>
<td>11:J:18:TRP:HB2</td>
<td>2.17</td>
<td>0.72</td>
</tr>
<tr>
<td>5:B:1160:VAL:HG11</td>
<td>5:B:1169:MET:HG2</td>
<td>1.71</td>
<td>0.72</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:B:25:ILE:HG23</td>
<td>5:B:29:ASP:HB2</td>
<td>1.70</td>
<td>0.72</td>
</tr>
<tr>
<td>5:B:216:GLU:OE1</td>
<td>5:B:537:LYS:HE2</td>
<td>1.90</td>
<td>0.72</td>
</tr>
<tr>
<td>4:A:1333:ILE:O</td>
<td>4:A:1337:GLU:HG3</td>
<td>1.89</td>
<td>0.72</td>
</tr>
<tr>
<td>4:A:399:HIS:CG</td>
<td>4:A:400:PRO:CD</td>
<td>2.72</td>
<td>0.72</td>
</tr>
<tr>
<td>5:B:899:ILE:HD11</td>
<td>5:B:911:ILE:HA</td>
<td>1.72</td>
<td>0.72</td>
</tr>
<tr>
<td>7:E:65:THR:HB</td>
<td>7:E:67:GLU:HB2</td>
<td>1.71</td>
<td>0.72</td>
</tr>
<tr>
<td>5:B:801:LYS:O</td>
<td>11:J:52:THR:CG2</td>
<td>2.35</td>
<td>0.72</td>
</tr>
<tr>
<td>5:B:346:GLU:HA</td>
<td>5:B:349:ILE:CD1</td>
<td>2.20</td>
<td>0.72</td>
</tr>
<tr>
<td>5:B:979:LYS:HE2</td>
<td>5:B:987:LYS:HG2</td>
<td>1.72</td>
<td>0.72</td>
</tr>
<tr>
<td>4:A:1364:ASN:HD22</td>
<td>4:A:1366:ARG:CG</td>
<td>2.01</td>
<td>0.72</td>
</tr>
<tr>
<td>4:A:1110:ASN:H</td>
<td>4:A:1110:ASN:ND2</td>
<td>1.86</td>
<td>0.72</td>
</tr>
<tr>
<td>4:A:666:ILE:CD1</td>
<td>5:B:1027:ILE:HG12</td>
<td>2.20</td>
<td>0.72</td>
</tr>
<tr>
<td>5:B:515:HIS:H</td>
<td>5:B:518:HIS:CD2</td>
<td>2.08</td>
<td>0.71</td>
</tr>
<tr>
<td>7:E:22:MET:CE</td>
<td>7:E:26:ARG:HH21</td>
<td>2.03</td>
<td>0.71</td>
</tr>
<tr>
<td>5:B:800:GLN:CB</td>
<td>11:J:52:THR:HG22</td>
<td>2.14</td>
<td>0.71</td>
</tr>
<tr>
<td>5:B:364:ILE:HD13</td>
<td>5:B:585:VAL:HG13</td>
<td>1.71</td>
<td>0.71</td>
</tr>
<tr>
<td>5:B:999:MET:HG3</td>
<td>5:B:1000:PRO:HD2</td>
<td>1.72</td>
<td>0.71</td>
</tr>
<tr>
<td>5:B:426:LYS:HE2</td>
<td>5:B:430:ARG:NH2</td>
<td>2.06</td>
<td>0.71</td>
</tr>
<tr>
<td>5:B:864:LYS:HB3</td>
<td>5:B:872:GLU:H</td>
<td>1.55</td>
<td>0.71</td>
</tr>
<tr>
<td>5:B:952:VAL:HG22</td>
<td>5:B:966:VAL:HG13</td>
<td>1.73</td>
<td>0.71</td>
</tr>
<tr>
<td>12:K:40:HIS:HE1</td>
<td>12:K:63:VAL:HG22</td>
<td>1.56</td>
<td>0.70</td>
</tr>
<tr>
<td>5:B:1211:ASN:O</td>
<td>5:B:1212:ILE:HG13</td>
<td>1.91</td>
<td>0.70</td>
</tr>
<tr>
<td>4:A:1063:MET:SD</td>
<td>4:A:1436:ILE:HG13</td>
<td>2.31</td>
<td>0.70</td>
</tr>
<tr>
<td>5:B:1175:LEU:O</td>
<td>5:B:1176:ASN:HB3</td>
<td>1.90</td>
<td>0.70</td>
</tr>
<tr>
<td>5:B:879:ARG:CZ</td>
<td>5:B:879:ARG:H</td>
<td>2.05</td>
<td>0.70</td>
</tr>
<tr>
<td>5:B:955:THR:HG22</td>
<td>5:B:956:THR:H</td>
<td>1.57</td>
<td>0.70</td>
</tr>
<tr>
<td>4:A:1345:ARG:HG3</td>
<td>4:A:1376:THR:HG21</td>
<td>1.74</td>
<td>0.70</td>
</tr>
<tr>
<td>5:B:705:MET:H</td>
<td>5:B:710:LEU:HD12</td>
<td>1.55</td>
<td>0.70</td>
</tr>
<tr>
<td>4:A:399:HIS:CD2</td>
<td>4:A:400:PRO:HD3</td>
<td>2.26</td>
<td>0.69</td>
</tr>
<tr>
<td>12:K:102:LYS:O</td>
<td>12:K:106:GLU:HG3</td>
<td>1.91</td>
<td>0.69</td>
</tr>
<tr>
<td>5:B:976:ILE:HG23</td>
<td>5:B:977:GLY:N</td>
<td>2.06</td>
<td>0.69</td>
</tr>
<tr>
<td>6:C:11:ARG:HD3</td>
<td>6:C:21:ILE:HD11</td>
<td>1.75</td>
<td>0.69</td>
</tr>
<tr>
<td>4:A:1161:THR:HG22</td>
<td>4:A:1163:ILE:N</td>
<td>2.06</td>
<td>0.69</td>
</tr>
<tr>
<td>4:A:553:VAL:HG13</td>
<td>4:A:648:ASN:ND2</td>
<td>2.08</td>
<td>0.69</td>
</tr>
<tr>
<td>4:A:800:VAL:O</td>
<td>4:A:802:ASN:N</td>
<td>2.25</td>
<td>0.69</td>
</tr>
<tr>
<td>6:C:56:THR:HG22</td>
<td>6:C:57:VAL:N</td>
<td>2.08</td>
<td>0.69</td>
</tr>
<tr>
<td>9:H:47:PHE:HB3</td>
<td>9:H:95:TYR:HD1</td>
<td>1.58</td>
<td>0.69</td>
</tr>
</tbody>
</table>

Continued on next page...
### Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:E:19:VAL:O</td>
<td>7:E:23:VAL:HG23</td>
<td>1.92</td>
<td>0.69</td>
</tr>
<tr>
<td>4:A:596:THR:C</td>
<td>4:A:598:LEU:H</td>
<td>1.94</td>
<td>0.68</td>
</tr>
<tr>
<td>4:A:31:SER:OG</td>
<td>4:A:83:HIS:CD2</td>
<td>2.46</td>
<td>0.68</td>
</tr>
<tr>
<td>5:B:802:PRO:HB3</td>
<td>5:B:1091:TYR:CG</td>
<td>2.29</td>
<td>0.68</td>
</tr>
<tr>
<td>2:T:18:DA:N1</td>
<td>14:T:29[B]:DUT:N3</td>
<td>2.42</td>
<td>0.68</td>
</tr>
<tr>
<td>4:A:568:PRO:O</td>
<td>4:A:569:LYS:CB</td>
<td>2.41</td>
<td>0.68</td>
</tr>
<tr>
<td>5:B:1006:ILE:HG22</td>
<td>5:B:1007:VAL:N</td>
<td>2.07</td>
<td>0.68</td>
</tr>
<tr>
<td>6:C:242:GLN:HB3</td>
<td>6:C:246:ARG:HE</td>
<td>1.59</td>
<td>0.67</td>
</tr>
<tr>
<td>5:B:712:PRO:O</td>
<td>5:B:713:ALA:HB3</td>
<td>1.94</td>
<td>0.67</td>
</tr>
<tr>
<td>4:A:761:MET:HG3</td>
<td>5:B:1021:MET:HG2</td>
<td>1.75</td>
<td>0.67</td>
</tr>
<tr>
<td>5:B:1023:VAL:O</td>
<td>5:B:1027:ILE:HG13</td>
<td>1.94</td>
<td>0.67</td>
</tr>
<tr>
<td>14:T:29[A]:DUT:O1B</td>
<td>14:T:29[A]:DUT:H5'2</td>
<td>1.94</td>
<td>0.67</td>
</tr>
<tr>
<td>4:A:251:SER:HB3</td>
<td>4:A:258:GLY:HA3</td>
<td>1.75</td>
<td>0.67</td>
</tr>
<tr>
<td>4:A:901:LEU:H</td>
<td>4:A:926:GLN:NE2</td>
<td>1.93</td>
<td>0.67</td>
</tr>
<tr>
<td>5:B:37:PHE:O</td>
<td>5:B:38:PHE:HB2</td>
<td>1.93</td>
<td>0.67</td>
</tr>
<tr>
<td>5:B:624:LEU:HD12</td>
<td>5:B:625:LYS:N</td>
<td>2.10</td>
<td>0.67</td>
</tr>
<tr>
<td>5:B:63:ILE:O</td>
<td>5:B:67:SER:CB</td>
<td>2.43</td>
<td>0.67</td>
</tr>
<tr>
<td>5:B:1156:ASP:O</td>
<td>5:B:1157:ALA:HB3</td>
<td>1.96</td>
<td>0.66</td>
</tr>
<tr>
<td>5:B:90:ILE:HD13</td>
<td>5:B:134:LYS:HG2</td>
<td>1.77</td>
<td>0.66</td>
</tr>
<tr>
<td>5:B:957:ASN:ND2</td>
<td>5:B:959:ASP:HB2</td>
<td>2.10</td>
<td>0.66</td>
</tr>
<tr>
<td>4:A:943:LEU:O</td>
<td>4:A:946:VAL:N</td>
<td>2.27</td>
<td>0.65</td>
</tr>
<tr>
<td>4:A:869:GLY:O</td>
<td>7:E:204:THR:HG21</td>
<td>1.95</td>
<td>0.65</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:A:1383:SER:O</td>
<td>4:A:1388:GLY:HA3</td>
<td>1.96</td>
<td>0.65</td>
</tr>
<tr>
<td>4:A:276:LEU:HD11</td>
<td>4:A:292:ALA:HB1</td>
<td>1.77</td>
<td>0.65</td>
</tr>
<tr>
<td>5:B:848:ARG:HH22</td>
<td>5:B:996:ARG:NH1</td>
<td>1.94</td>
<td>0.65</td>
</tr>
<tr>
<td>10:I:32:CYS:SG</td>
<td>10:I:33:SER:N</td>
<td>2.69</td>
<td>0.65</td>
</tr>
<tr>
<td>5:B:346:GLU:HA</td>
<td>5:B:349:ILE:HD12</td>
<td>1.79</td>
<td>0.65</td>
</tr>
<tr>
<td>5:B:879:ARG:O</td>
<td>5:B:882:THR:HG22</td>
<td>1.97</td>
<td>0.65</td>
</tr>
<tr>
<td>4:A:679:ILE:HG23</td>
<td>4:A:729:ALA:HB1</td>
<td>1.78</td>
<td>0.65</td>
</tr>
<tr>
<td>5:B:256:VAL:HG11</td>
<td>5:B:382:ILE:HD13</td>
<td>1.77</td>
<td>0.65</td>
</tr>
<tr>
<td>5:B:984:HIS:CD2</td>
<td>5:B:1024:ALA:HB3</td>
<td>2.31</td>
<td>0.65</td>
</tr>
<tr>
<td>10:I:63:GLY:HA3</td>
<td>10:I:104:LEU:HD11</td>
<td>1.77</td>
<td>0.64</td>
</tr>
<tr>
<td>6:C:258:ILE:CD1</td>
<td>12:K:42:LEU:HD21</td>
<td>2.26</td>
<td>0.64</td>
</tr>
<tr>
<td>4:A:117:GLU:C</td>
<td>4:A:118:HIS:O</td>
<td>2.34</td>
<td>0.64</td>
</tr>
<tr>
<td>4:A:117:GLU:H</td>
<td>4:A:118:HIS:CA</td>
<td>2.10</td>
<td>0.64</td>
</tr>
<tr>
<td>4:A:68:GLN:O</td>
<td>4:A:70:CYS:N</td>
<td>2.26</td>
<td>0.64</td>
</tr>
<tr>
<td>5:B:549:THR:HG22</td>
<td>5:B:550:ASP:H</td>
<td>1.62</td>
<td>0.64</td>
</tr>
<tr>
<td>5:B:1007:VAL:HG13</td>
<td>5:B:1008:PRO:HD2</td>
<td>1.78</td>
<td>0.64</td>
</tr>
<tr>
<td>4:A:117:GLU:H</td>
<td>4:A:118:HIS:C</td>
<td>2.00</td>
<td>0.64</td>
</tr>
<tr>
<td>5:B:398:ARG:CB</td>
<td>5:B:398:ARG:HH11</td>
<td>2.11</td>
<td>0.64</td>
</tr>
<tr>
<td>5:B:911:ILE:HD11</td>
<td>5:B:941:LEU:HD12</td>
<td>1.80</td>
<td>0.64</td>
</tr>
<tr>
<td>5:B:800:GLN:CB</td>
<td>11:I:52:THR:CG2</td>
<td>2.55</td>
<td>0.64</td>
</tr>
<tr>
<td>5:B:223:VAL:HG13</td>
<td>5:B:384:ARG:HH21</td>
<td>1.63</td>
<td>0.64</td>
</tr>
<tr>
<td>5:B:976:ILE:CG2</td>
<td>5:B:977:GLY:N</td>
<td>2.60</td>
<td>0.63</td>
</tr>
<tr>
<td>4:A:265:LYS:C</td>
<td>4:A:267:ALA:H</td>
<td>2.01</td>
<td>0.63</td>
</tr>
<tr>
<td>4:A:323:LYS:HG2</td>
<td>4:A:324:SER:N</td>
<td>2.06</td>
<td>0.63</td>
</tr>
<tr>
<td>7:E:77:SER:HB3</td>
<td>7:E:105:PHE:HA</td>
<td>1.79</td>
<td>0.63</td>
</tr>
<tr>
<td>2:T:15:DA:H2'</td>
<td>2:T:16:DC:O5'</td>
<td>1.98</td>
<td>0.63</td>
</tr>
<tr>
<td>5:B:211:VAL:HG23</td>
<td>5:B:483:LEU:HD13</td>
<td>1.80</td>
<td>0.63</td>
</tr>
<tr>
<td>6:C:167:HIS:CD2</td>
<td>6:C:169:LYS:H</td>
<td>2.05</td>
<td>0.63</td>
</tr>
<tr>
<td>5:B:807:ARG:HG3</td>
<td>5:B:807:ARG:HH11</td>
<td>1.64</td>
<td>0.63</td>
</tr>
<tr>
<td>5:B:1190:ASP:O</td>
<td>5:B:1191:ILE:HG13</td>
<td>1.99</td>
<td>0.63</td>
</tr>
<tr>
<td>7:E:62:ALA:HB3</td>
<td>7:E:78:LEU:HD22</td>
<td>1.80</td>
<td>0.63</td>
</tr>
</tbody>
</table>

Continued on next page...
### Interatomic Distance and Clash Overlap

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:C:142:VAL:H</td>
<td>11:J:16:ASP:HB3</td>
<td>1.64</td>
<td>0.62</td>
</tr>
<tr>
<td>6:C:31:ASN:OD1</td>
<td>6:C:34:ARG:NH1</td>
<td>2.32</td>
<td>0.62</td>
</tr>
<tr>
<td>5:B:136:THR:O</td>
<td>5:B:137:TYR:C</td>
<td>2.34</td>
<td>0.62</td>
</tr>
<tr>
<td>4:A:345:VAL:HG22</td>
<td>5:B:1128:LEU:O</td>
<td>1.99</td>
<td>0.62</td>
</tr>
<tr>
<td>5:B:995:ARG:HB3</td>
<td>5:B:997:GLU:OE2</td>
<td>1.99</td>
<td>0.62</td>
</tr>
<tr>
<td>6:C:70:ILE:HD11</td>
<td>6:C:144:ILE:CD1</td>
<td>2.30</td>
<td>0.62</td>
</tr>
<tr>
<td>5:B:911:ILE:HD11</td>
<td>5:B:941:LEU:HA</td>
<td>1.80</td>
<td>0.62</td>
</tr>
<tr>
<td>5:B:712:PRO:O</td>
<td>5:B:713:ALA:CB</td>
<td>2.47</td>
<td>0.62</td>
</tr>
<tr>
<td>6:C:33:LEU:HG</td>
<td>6:C:37:MET:HE3</td>
<td>1.82</td>
<td>0.62</td>
</tr>
<tr>
<td>9:H:2:SER:CB</td>
<td>9:H:3:ASN:HB2</td>
<td>2.28</td>
<td>0.62</td>
</tr>
<tr>
<td>5:B:1013:ASN:OD1</td>
<td>5:B:1014:PRO:HD2</td>
<td>1.99</td>
<td>0.62</td>
</tr>
<tr>
<td>5:B:710:LEU:O</td>
<td>5:B:711:GLU:CB</td>
<td>2.47</td>
<td>0.62</td>
</tr>
<tr>
<td>4:A:1129:GLU:HA</td>
<td>4:A:1132:LYS:HE3</td>
<td>1.82</td>
<td>0.61</td>
</tr>
<tr>
<td>5:B:293:PRO:HG2</td>
<td>5:B:296:GLU:HB2</td>
<td>1.81</td>
<td>0.61</td>
</tr>
<tr>
<td>5:B:976:ILE:O</td>
<td>5:B:990:ILE:O</td>
<td>2.17</td>
<td>0.61</td>
</tr>
<tr>
<td>4:A:673:GLY:N</td>
<td>4:A:674:PRO:HD2</td>
<td>2.15</td>
<td>0.61</td>
</tr>
<tr>
<td>6:C:73:GLN:HE21</td>
<td>6:C:74:SER:H</td>
<td>1.48</td>
<td>0.61</td>
</tr>
<tr>
<td>3:N:2:DT:HT1&quot;</td>
<td>3:N:3:DG:N7</td>
<td>2.15</td>
<td>0.61</td>
</tr>
<tr>
<td>12:K:91:CYS:O</td>
<td>12:K:95:ILE:HG13</td>
<td>2.00</td>
<td>0.61</td>
</tr>
<tr>
<td>5:B:1152:MET:O</td>
<td>5:B:1157:ALA:HB2</td>
<td>2.00</td>
<td>0.61</td>
</tr>
<tr>
<td>5:B:753:ALA:HA</td>
<td>5:B:756:ILE:HD12</td>
<td>1.83</td>
<td>0.61</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:F:72:LYS:HD3</td>
<td>8:F:142:SER:HB3</td>
<td>1.83</td>
<td>0.61</td>
</tr>
<tr>
<td>5:B:35:SER:HB3</td>
<td>5:B:39:ARG:HH21</td>
<td>1.64</td>
<td>0.61</td>
</tr>
<tr>
<td>5:B:516:ASN:H</td>
<td>5:B:516:ASN:HD22</td>
<td>1.48</td>
<td>0.61</td>
</tr>
<tr>
<td>4:A:115:LEU:O</td>
<td>4:A:122:MET:HG2</td>
<td>2.01</td>
<td>0.60</td>
</tr>
<tr>
<td>4:A:901:LEU:HD22</td>
<td>4:A:919:ILE:HG22</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>5:B:398:ARG:HB3</td>
<td>5:B:398:ARG:HH11</td>
<td>1.64</td>
<td>0.60</td>
</tr>
<tr>
<td>5:B:711:GLU:O</td>
<td>5:B:711:GLU:CG</td>
<td>2.50</td>
<td>0.60</td>
</tr>
<tr>
<td>4:A:247:ARG:N</td>
<td>4:A:248:PRO:HD3</td>
<td>2.16</td>
<td>0.60</td>
</tr>
<tr>
<td>5:B:280:ILE:HB</td>
<td>5:B:285:ILE:HD11</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>5:B:465:ASN:HA</td>
<td>5:B:476:ARG:HA</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>4:A:1189:SER:OG</td>
<td>4:A:1190:PRO:HD2</td>
<td>2.01</td>
<td>0.60</td>
</tr>
<tr>
<td>5:B:476:ARG:C</td>
<td>5:B:478:GLY:H</td>
<td>2.05</td>
<td>0.60</td>
</tr>
<tr>
<td>6:C:173:ALA:O</td>
<td>6:C:233:GLU:O</td>
<td>2.18</td>
<td>0.60</td>
</tr>
<tr>
<td>12:K:47:ARG:HD2</td>
<td>12:K:60:ALA:HA</td>
<td>1.82</td>
<td>0.60</td>
</tr>
<tr>
<td>5:B:20:ASP:CG</td>
<td>5:B:21:GLU:H</td>
<td>2.05</td>
<td>0.60</td>
</tr>
<tr>
<td>5:B:487:THR:OG1</td>
<td>5:B:777:ALA:O</td>
<td>2.20</td>
<td>0.60</td>
</tr>
<tr>
<td>4:A:115:LEU:HD12</td>
<td>4:A:122:MET:HE2</td>
<td>1.84</td>
<td>0.60</td>
</tr>
<tr>
<td>5:B:706:GLN:O</td>
<td>5:B:710:LEU:HB2</td>
<td>2.02</td>
<td>0.60</td>
</tr>
<tr>
<td>5:B:841:MET:HE3</td>
<td>5:B:990:ILE:HD11</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>5:B:955:THR:HG22</td>
<td>5:B:956:THR:N</td>
<td>2.18</td>
<td>0.59</td>
</tr>
<tr>
<td>7:E:28:TYR:HA</td>
<td>7:E:64:PRO:HA</td>
<td>1.84</td>
<td>0.59</td>
</tr>
<tr>
<td>9:H:2:SER:CA</td>
<td>9:H:3:ASN:HB2</td>
<td>2.32</td>
<td>0.59</td>
</tr>
<tr>
<td>4:A:828:ALA:HB2</td>
<td>5:B:530:GLY:HA2</td>
<td>1.84</td>
<td>0.59</td>
</tr>
<tr>
<td>5:B:886:LYS:HB3</td>
<td>5:B:887:HIS:HA</td>
<td>1.82</td>
<td>0.59</td>
</tr>
<tr>
<td>5:B:882:THR:HG23</td>
<td>5:B:883:LEU:H</td>
<td>1.68</td>
<td>0.59</td>
</tr>
<tr>
<td>4:A:1174:PHE:CD1</td>
<td>4:A:1174:PHE:C</td>
<td>2.76</td>
<td>0.59</td>
</tr>
<tr>
<td>5:B:879:ARG:N</td>
<td>5:B:879:ARG:NE</td>
<td>2.51</td>
<td>0.59</td>
</tr>
<tr>
<td>7:E:94:LYS:HE2</td>
<td>7:E:94:LYS:HA</td>
<td>1.84</td>
<td>0.59</td>
</tr>
<tr>
<td>4:A:1441:PHE:CZ</td>
<td>8:F:89:GLU:HA</td>
<td>2.38</td>
<td>0.59</td>
</tr>
<tr>
<td>4:A:828:ALA:CB</td>
<td>5:B:530:GLY:HA2</td>
<td>2.32</td>
<td>0.59</td>
</tr>
<tr>
<td>4:A:870:GLU:HG2</td>
<td>7:E:208:TYR:CD2</td>
<td>2.38</td>
<td>0.59</td>
</tr>
<tr>
<td>5:B:848:ARG:HA</td>
<td>6:C:69:LEU:HD21</td>
<td>1.84</td>
<td>0.58</td>
</tr>
<tr>
<td>7:E:41:ASP:O</td>
<td>7:E:45:LYS:HG2</td>
<td>2.03</td>
<td>0.58</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:A:218:ASP:O</td>
<td>4:A:221:SER:HB2</td>
<td>2.03</td>
<td>0.58</td>
</tr>
<tr>
<td>5:B:287:ARG:HD3</td>
<td>5:B:292:ILE:HA</td>
<td>1.85</td>
<td>0.58</td>
</tr>
<tr>
<td>5:B:313:MET:HE2</td>
<td>5:B:390:LEU:HG</td>
<td>1.81</td>
<td>0.58</td>
</tr>
<tr>
<td>4:A:452:LYS:HD3</td>
<td>4:A:510:GLN:OE1</td>
<td>2.03</td>
<td>0.58</td>
</tr>
<tr>
<td>4:A:64:ASN:HB3</td>
<td>4:A:66:LYS:HG2</td>
<td>1.84</td>
<td>0.58</td>
</tr>
<tr>
<td>5:B:802:PRO:HB3</td>
<td>5:B:1091:TYR:CD2</td>
<td>2.39</td>
<td>0.58</td>
</tr>
<tr>
<td>5:B:986:GLN:NE2</td>
<td>5:B:1022:THR:HG21</td>
<td>2.18</td>
<td>0.58</td>
</tr>
<tr>
<td>6:C:166:GLU:HG2</td>
<td>12:K:10:PHE:HZ</td>
<td>2.38</td>
<td>0.58</td>
</tr>
<tr>
<td>5:B:624:LEU:C</td>
<td>5:B:624:LEU:HD12</td>
<td>2.24</td>
<td>0.58</td>
</tr>
<tr>
<td>4:A:1435:PRO:O</td>
<td>4:A:1436:ILE:HD12</td>
<td>2.03</td>
<td>0.58</td>
</tr>
<tr>
<td>5:B:869:SER:O</td>
<td>5:B:870:ILE:HG13</td>
<td>2.03</td>
<td>0.58</td>
</tr>
<tr>
<td>10:I:1:103:CYS:C</td>
<td>10:I:1:105:SER:HZ</td>
<td>2.05</td>
<td>0.58</td>
</tr>
<tr>
<td>5:B:1149:GLU:HA</td>
<td>5:B:1153:GLU:OE2</td>
<td>2.04</td>
<td>0.57</td>
</tr>
<tr>
<td>6:C:73:GLN:HE21</td>
<td>6:C:75:MET:HZ</td>
<td>1.51</td>
<td>0.57</td>
</tr>
<tr>
<td>4:A:93:VAL:CG1</td>
<td>4:A:301:ALA:HB1</td>
<td>2.27</td>
<td>0.57</td>
</tr>
<tr>
<td>5:B:277:LYS:HZ1</td>
<td>5:B:335:GLY:HZ</td>
<td>1.52</td>
<td>0.57</td>
</tr>
<tr>
<td>5:B:834:ASN:HB3</td>
<td>5:B:840:ILE:HD12</td>
<td>1.86</td>
<td>0.57</td>
</tr>
<tr>
<td>5:B:345:LYS:N</td>
<td>5:B:346:GLU:HG3</td>
<td>2.20</td>
<td>0.57</td>
</tr>
<tr>
<td>6:C:242:GLN:HE21</td>
<td>6:C:246:ARG:HE</td>
<td>1.52</td>
<td>0.57</td>
</tr>
<tr>
<td>6:C:73:GLN:HE21</td>
<td>6:C:74:SER:N</td>
<td>2.03</td>
<td>0.57</td>
</tr>
<tr>
<td>5:B:370:PHE:O</td>
<td>5:B:372:SER:N</td>
<td>2.37</td>
<td>0.57</td>
</tr>
<tr>
<td>4:A:756:ILE:O</td>
<td>4:A:760:GLN:HG3</td>
<td>2.03</td>
<td>0.57</td>
</tr>
<tr>
<td>5:B:886:LYS:HB3</td>
<td>5:B:887:HIS:CA</td>
<td>2.34</td>
<td>0.57</td>
</tr>
<tr>
<td>4:A:276:LEU:CD1</td>
<td>4:A:292:ALA:HB1</td>
<td>2.34</td>
<td>0.57</td>
</tr>
<tr>
<td>7:E:175:LEU:CD1</td>
<td>7:E:176:PRO:HD2</td>
<td>2.35</td>
<td>0.57</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:B:1160:VAL:HG12</td>
<td>5:B:1161:HIS:H</td>
<td>1.70</td>
<td>0.57</td>
</tr>
<tr>
<td>6:C:39:ALA:HA</td>
<td>6:C:164:ALA:HB3</td>
<td>1.87</td>
<td>0.57</td>
</tr>
<tr>
<td>5:B:1182:CYS:SG</td>
<td>5:B:1185:CYS:HB3</td>
<td>2.44</td>
<td>0.56</td>
</tr>
<tr>
<td>5:B:784:ASN:OD1</td>
<td>5:B:788:ARG:HD2</td>
<td>2.05</td>
<td>0.56</td>
</tr>
<tr>
<td>5:B:840:ILE:HB</td>
<td>5:B:1011:ILE:HB</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>4:A:253:ASN:O</td>
<td>4:A:254:GLU:HB2</td>
<td>2.05</td>
<td>0.56</td>
</tr>
<tr>
<td>13:L:28:LYS:HB2</td>
<td>13:L:39:SER:HB2</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>5:B:831:SER:HB2</td>
<td>5:B:833:TYR:HD1</td>
<td>1.70</td>
<td>0.56</td>
</tr>
<tr>
<td>7:E:40:GLU:HA</td>
<td>7:E:43:LYS:HZ2</td>
<td>1.70</td>
<td>0.56</td>
</tr>
<tr>
<td>10:I:10:CYS:SG</td>
<td>10:I:32:CYS:HB3</td>
<td>2.45</td>
<td>0.56</td>
</tr>
<tr>
<td>5:B:705:MET:N</td>
<td>5:B:710:LEU:HD12</td>
<td>2.21</td>
<td>0.56</td>
</tr>
<tr>
<td>5:B:793:ALA:HB3</td>
<td>5:B:856:PHE:HB2</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>6:C:131:HIS:O</td>
<td>6:C:132:PRO:C</td>
<td>2.42</td>
<td>0.56</td>
</tr>
<tr>
<td>5:B:783:THR:HG22</td>
<td>11:J:63:TYR:HE1</td>
<td>1.69</td>
<td>0.56</td>
</tr>
<tr>
<td>4:A:37:PHE:HB2</td>
<td>4:A:52:GLY:HA3</td>
<td>1.86</td>
<td>0.56</td>
</tr>
<tr>
<td>10:I:75:CYS:HB3</td>
<td>10:I:78:CYS:O</td>
<td>2.05</td>
<td>0.56</td>
</tr>
<tr>
<td>4:A:549:MET:SD</td>
<td>4:A:577:ILE:CD1</td>
<td>2.94</td>
<td>0.56</td>
</tr>
<tr>
<td>3:N:12:DT:H5'</td>
<td>7:E:119:SER:CB</td>
<td>2.35</td>
<td>0.56</td>
</tr>
<tr>
<td>4:A:55:ASP:H</td>
<td>4:A:56:PRO:HD2</td>
<td>1.70</td>
<td>0.56</td>
</tr>
<tr>
<td>5:B:122:LEU:HD22</td>
<td>5:B:958:GLN:HB2</td>
<td>1.86</td>
<td>0.56</td>
</tr>
<tr>
<td>5:B:274:PRO:O</td>
<td>5:B:275:TYR:HB2</td>
<td>2.06</td>
<td>0.56</td>
</tr>
<tr>
<td>5:B:637:LEU:HD13</td>
<td>5:B:740:HIS:HB3</td>
<td>1.88</td>
<td>0.56</td>
</tr>
<tr>
<td>7:E:111:VAL:HG12</td>
<td>7:E:137:GLU:HG2</td>
<td>1.88</td>
<td>0.56</td>
</tr>
<tr>
<td>5:B:41:LYS:O</td>
<td>5:B:45:SER:HB3</td>
<td>2.06</td>
<td>0.56</td>
</tr>
<tr>
<td>5:B:515:HIS:HD2</td>
<td>5:B:517:THR:OG1</td>
<td>1.89</td>
<td>0.56</td>
</tr>
<tr>
<td>5:B:25:ILE:HD12</td>
<td>5:B:653:VAL:HG23</td>
<td>1.88</td>
<td>0.56</td>
</tr>
<tr>
<td>7:E:28:TYR:CE1</td>
<td>7:E:78:LEU:HD13</td>
<td>2.41</td>
<td>0.56</td>
</tr>
<tr>
<td>4:A:870:GLU:HB2</td>
<td>7:E:204:THR:HG21</td>
<td>1.86</td>
<td>0.56</td>
</tr>
<tr>
<td>5:B:850:LEU:HD21</td>
<td>5:B:1009:ASP:HB3</td>
<td>1.88</td>
<td>0.56</td>
</tr>
<tr>
<td>5:B:487:THR:HG22</td>
<td>5:B:488:TYR:N</td>
<td>2.20</td>
<td>0.55</td>
</tr>
<tr>
<td>5:B:523:CYS:HB2</td>
<td>5:B:750:GLY:N</td>
<td>2.22</td>
<td>0.55</td>
</tr>
<tr>
<td>5:B:639:ILE:CD1</td>
<td>5:B:691:GLU:HB2</td>
<td>2.33</td>
<td>0.55</td>
</tr>
<tr>
<td>5:B:516:ASN:ND2</td>
<td>5:B:516:ASN:H</td>
<td>2.04</td>
<td>0.55</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:E:197:LYS:HE3</td>
<td>7:E:199:ILE:HD11</td>
<td>1.88</td>
<td>0.55</td>
</tr>
<tr>
<td>5:B:245:GLU:HG2</td>
<td>5:B:246:LYS:N</td>
<td>1.89</td>
<td>0.55</td>
</tr>
<tr>
<td>5:B:246:LYS:N</td>
<td>5:B:245:GLU:HG2</td>
<td>2.06</td>
<td>0.55</td>
</tr>
<tr>
<td>6:C:56:THR:CG2</td>
<td>6:C:57:VAL:H</td>
<td>2.13</td>
<td>0.55</td>
</tr>
<tr>
<td>5:B:778:MET:HG2</td>
<td>5:B:794:ASN:HB3</td>
<td>1.87</td>
<td>0.55</td>
</tr>
<tr>
<td>5:B:711:GLU:O</td>
<td>5:B:711:GLU:HG3</td>
<td>1.71</td>
<td>0.55</td>
</tr>
<tr>
<td>10:I:32:CYS:O</td>
<td>10:I:33:SER:HB2</td>
<td>2.06</td>
<td>0.55</td>
</tr>
<tr>
<td>4:A:1025:ARG:HA</td>
<td>4:A:1030:ARG:HH11</td>
<td>1.72</td>
<td>0.54</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:A:58:LEU:O</td>
<td>4:A:58:LEU:HG</td>
<td>2.07</td>
<td>0.54</td>
</tr>
<tr>
<td>5:B:106:ILE:CD1</td>
<td>11:J:43:ARG:HB2</td>
<td>2.36</td>
<td>0.54</td>
</tr>
<tr>
<td>5:B:1099:VAL:C</td>
<td>5:B:1103:ILE:HD11</td>
<td>2.27</td>
<td>0.54</td>
</tr>
<tr>
<td>6:C:57:VAL:HG11</td>
<td>11:J:57:ILE:HD12</td>
<td>1.88</td>
<td>0.54</td>
</tr>
<tr>
<td>5:B:1084:GLN:OE1</td>
<td>5:B:1084:GLN:N</td>
<td>2.41</td>
<td>0.54</td>
</tr>
<tr>
<td>5:B:886:LYS:HD2</td>
<td>5:B:890:TYR:OH</td>
<td>2.07</td>
<td>0.54</td>
</tr>
<tr>
<td>9:H:2:SER:HB2</td>
<td>9:H:3:ASN:HB2</td>
<td>1.88</td>
<td>0.54</td>
</tr>
<tr>
<td>12:K:10:PHD:CD1</td>
<td>12:K:11:LEU:HD13</td>
<td>2.43</td>
<td>0.54</td>
</tr>
<tr>
<td>4:A:403:LYS:HB2</td>
<td>4:A:404:TYR:CD1</td>
<td>2.42</td>
<td>0.54</td>
</tr>
<tr>
<td>4:A:372:LYS:HA</td>
<td>4:A:435:HIS:CD2</td>
<td>2.43</td>
<td>0.54</td>
</tr>
<tr>
<td>5:B:62:ILE:HD12</td>
<td>5:B:418:LYS:HG3</td>
<td>1.89</td>
<td>0.54</td>
</tr>
<tr>
<td>10:1:78:CYS:SG</td>
<td>10:1:106:CYS:N</td>
<td>2.81</td>
<td>0.54</td>
</tr>
<tr>
<td>4:A:1082:ASN:ND2</td>
<td>4:A:1082:ASN:H</td>
<td>2.06</td>
<td>0.54</td>
</tr>
<tr>
<td>4:A:70:CYS:O</td>
<td>4:A:72:GLU:HG2</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>5:B:1017:ILE:H</td>
<td>5:B:1018:PRO:HD3</td>
<td>1.73</td>
<td>0.54</td>
</tr>
<tr>
<td>11:J:5:VAL:HG12</td>
<td>11:J:6:ARG:HG3</td>
<td>1.89</td>
<td>0.54</td>
</tr>
<tr>
<td>2:T:16:DC:H2'</td>
<td>2:T:17:DG:H8</td>
<td>1.71</td>
<td>0.54</td>
</tr>
<tr>
<td>5:B:886:LYS:CB</td>
<td>5:B:887:HIS:HA</td>
<td>2.37</td>
<td>0.54</td>
</tr>
<tr>
<td>2:T:20:DC:H2'</td>
<td>2:T:21:DC:O4'</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>4:A:467:THR:HG23</td>
<td>5:B:976:ILE:HG23</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>4:A:92:HIS:HE1</td>
<td>5:B:1210:MET:O</td>
<td>1.91</td>
<td>0.54</td>
</tr>
<tr>
<td>5:B:401:PHE:HA</td>
<td>5:B:404:LYS:HG3</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>5:B:475:SER:C</td>
<td>5:B:477:ALA:H</td>
<td>2.11</td>
<td>0.54</td>
</tr>
<tr>
<td>5:B:515:HIS:N</td>
<td>5:B:518:HIS:CD2</td>
<td>2.76</td>
<td>0.54</td>
</tr>
<tr>
<td>12:K:40:HIS:CE1</td>
<td>12:K:63:VAL:CG2</td>
<td>2.90</td>
<td>0.54</td>
</tr>
<tr>
<td>5:B:278:GLN:CG</td>
<td>5:B:279:ASP:H</td>
<td>2.16</td>
<td>0.54</td>
</tr>
<tr>
<td>5:B:361:LEU:HD11</td>
<td>5:B:381:MET:CE</td>
<td>2.38</td>
<td>0.53</td>
</tr>
<tr>
<td>4:A:1435:PRO:C</td>
<td>4:A:1436:ILE:HD12</td>
<td>2.28</td>
<td>0.53</td>
</tr>
<tr>
<td>5:B:563:MET:HE1</td>
<td>5:B:587:HIS:HB2</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>5:B:578:THR:OG1</td>
<td>5:B:593:PRO:HG3</td>
<td>2.08</td>
<td>0.53</td>
</tr>
<tr>
<td>5:B:363:HIS:O</td>
<td>5:B:364:ILE:CB</td>
<td>2.53</td>
<td>0.53</td>
</tr>
<tr>
<td>5:B:1135:ARG:HG3</td>
<td>5:B:1147:LEU:HD21</td>
<td>1.91</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:A:901:LEU:HB2</td>
<td>4:A:926:GLN:HG2</td>
<td>1.91</td>
<td>0.53</td>
</tr>
<tr>
<td>5:B:1002:THR:HG22</td>
<td>5:B:1006:ILE:H</td>
<td>1.73</td>
<td>0.53</td>
</tr>
<tr>
<td>5:B:292:ILE:H</td>
<td>5:B:293:PRO:HD2</td>
<td>1.74</td>
<td>0.53</td>
</tr>
<tr>
<td>7:E:30:ILE:HG23</td>
<td>7:E:34:GLU:OE1</td>
<td>2.08</td>
<td>0.53</td>
</tr>
<tr>
<td>6:C:100:THR:HG22</td>
<td>6:C:101:LEU:N</td>
<td>2.22</td>
<td>0.53</td>
</tr>
<tr>
<td>5:B:563:MET:HA</td>
<td>5:B:589:VAL:O</td>
<td>2.09</td>
<td>0.53</td>
</tr>
<tr>
<td>2:T:16:DC:C6</td>
<td>2:T:17:DG:C8</td>
<td>2.97</td>
<td>0.53</td>
</tr>
<tr>
<td>5:B:643:ASP:O</td>
<td>5:B:644:GLU:HB3</td>
<td>2.09</td>
<td>0.53</td>
</tr>
<tr>
<td>6:C:167:HIS:HD2</td>
<td>6:C:169:LYS:N</td>
<td>1.95</td>
<td>0.53</td>
</tr>
<tr>
<td>10:F:78:CYS:O</td>
<td>10:F:80:SER:N</td>
<td>2.40</td>
<td>0.53</td>
</tr>
<tr>
<td>5:B:1013:ASN:C</td>
<td>5:B:1015:HIS:H</td>
<td>2.12</td>
<td>0.53</td>
</tr>
<tr>
<td>5:B:515:HIS:N</td>
<td>5:B:518:HIS:HD2</td>
<td>2.07</td>
<td>0.53</td>
</tr>
<tr>
<td>5:B:872:GLU:HG2</td>
<td>5:B:916:THR:HB</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>4:A:746:MET:HG2</td>
<td>5:B:1015:HIS:CE1</td>
<td>2.44</td>
<td>0.52</td>
</tr>
<tr>
<td>4:A:102:VAL:HG12</td>
<td>4:A:211:PHE:CE1</td>
<td>2.44</td>
<td>0.52</td>
</tr>
<tr>
<td>4:A:451:HIS:HB3</td>
<td>4:A:454:SER:H</td>
<td>1.74</td>
<td>0.52</td>
</tr>
<tr>
<td>4:A:871:ASP:HB3</td>
<td>7:E:205:SER:HB3</td>
<td>1.90</td>
<td>0.52</td>
</tr>
<tr>
<td>7:E:3:GLN:HG2</td>
<td>7:E:4:GLU:N</td>
<td>2.21</td>
<td>0.52</td>
</tr>
<tr>
<td>2:T:18:DA:H2'</td>
<td>2:T:19:DT:C6</td>
<td>2.43</td>
<td>0.52</td>
</tr>
<tr>
<td>4:A:1410:PHE:HD2</td>
<td>5:B:1212:ILE:HD11</td>
<td>1.75</td>
<td>0.52</td>
</tr>
<tr>
<td>5:B:898:LEU:HB2</td>
<td>13:L:58:LYS:HE3</td>
<td>1.92</td>
<td>0.52</td>
</tr>
<tr>
<td>6:C:92:CYS:SG</td>
<td>6:C:94:LYS:HB2</td>
<td>2.50</td>
<td>0.52</td>
</tr>
<tr>
<td>4:A:1436:ILE:O</td>
<td>4:A:1438:THR:N</td>
<td>2.43</td>
<td>0.52</td>
</tr>
<tr>
<td>5:B:315:LYS:N</td>
<td>5:B:316:PRO:HD2</td>
<td>2.24</td>
<td>0.52</td>
</tr>
<tr>
<td>5:B:346:GLU:HA</td>
<td>5:B:349:ILE:HD13</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>4:A:567:LYS:NZ</td>
<td>9:H:95:TYR:CZ</td>
<td>2.75</td>
<td>0.52</td>
</tr>
<tr>
<td>5:B:1111:MET:HE2</td>
<td>5:B:1118:PRO:N</td>
<td>2.25</td>
<td>0.52</td>
</tr>
<tr>
<td>10:F:103:CYS:C</td>
<td>10:F:105:SER:N</td>
<td>2.60</td>
<td>0.52</td>
</tr>
<tr>
<td>4:A:1425:SER:O</td>
<td>4:A:1429:ILE:HG13</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>4:A:313:GLN:HG2</td>
<td>4:A:322:VAL:HG22</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>4:A:534:LEU:O</td>
<td>4:A:574:GLY:HA3</td>
<td>2.10</td>
<td>0.52</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:A:568:PRO:O</td>
<td>4:A:569:LYS:HB2</td>
<td>2.09</td>
<td>0.52</td>
</tr>
<tr>
<td>4:A:58:LEU:HB2</td>
<td>4:A:80:HIS:O</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>5:B:211:VAL:HG21</td>
<td>5:B:483:LEU:HD13</td>
<td>1.88</td>
<td>0.52</td>
</tr>
<tr>
<td>4:A:786:HIS:HE1</td>
<td>5:B:742,GLU:OE1</td>
<td>1.93</td>
<td>0.52</td>
</tr>
<tr>
<td>7:E:135:PHE:HB3</td>
<td>7:E:140:LEU:HD11</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>4:A:55:ASP:O</td>
<td>4:A:57:ARG:N</td>
<td>2.43</td>
<td>0.52</td>
</tr>
<tr>
<td>5:B:1006:ILE:CG2</td>
<td>5:B:1007:VA:5:N</td>
<td>2.73</td>
<td>0.52</td>
</tr>
<tr>
<td>3:N:8:DT:H2&quot;</td>
<td>3:N:9:DC:OP2</td>
<td>2.09</td>
<td>0.52</td>
</tr>
<tr>
<td>5:B:801:LYS:HG2</td>
<td>11:J:52:THR:O</td>
<td>2.09</td>
<td>0.52</td>
</tr>
<tr>
<td>11:J:45:CYS:O</td>
<td>11:J:48:ARG:HG3</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>1:R:2:U:H2'</td>
<td>1:R:3:C:H6</td>
<td>1.74</td>
<td>0.52</td>
</tr>
<tr>
<td>4:A:896:ARG:HD2</td>
<td>4:A:897:TYR:CE1</td>
<td>2.45</td>
<td>0.52</td>
</tr>
<tr>
<td>4:A:1348:LEU:HG</td>
<td>4:A:1372:VAL:HG22</td>
<td>1.91</td>
<td>0.51</td>
</tr>
<tr>
<td>7:E:100:ILE:HG23</td>
<td>7:E:105:PHE:HB2</td>
<td>1.91</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:102:VAL:HG12</td>
<td>5:B:103:ASN:N</td>
<td>2.24</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:957:ASN:ND2</td>
<td>5:B:959:ASP:H</td>
<td>2.09</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:1212:ILE:O</td>
<td>5:B:1214:PRO:HD3</td>
<td>2.11</td>
<td>0.51</td>
</tr>
<tr>
<td>4:A:34:LYS:HE2</td>
<td>4:A:35:ARG:DH2</td>
<td>2.26</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:287:ARG:HA</td>
<td>5:B:291:ILE:O</td>
<td>2.10</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:770:GLN:HG2</td>
<td>5:B:983:ARG:O</td>
<td>2.11</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:807:ARG:HG3</td>
<td>5:B:807:ARG:NH1</td>
<td>2.24</td>
<td>0.51</td>
</tr>
<tr>
<td>1:R:3:C:H42</td>
<td>2:T:26:DG:H1</td>
<td>1.57</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:542:MET:HE3</td>
<td>5:B:636:PRO:HG2</td>
<td>1.91</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:640:VAL:HG22</td>
<td>5:B:651:LEU:CD2</td>
<td>2.41</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:863:GLU:OE1</td>
<td>5:B:962:PHE:HB3</td>
<td>2.11</td>
<td>0.51</td>
</tr>
<tr>
<td>4:A:56:PRO:O</td>
<td>4:A:57:ARG:CG</td>
<td>2.51</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:794:ASN:HD22</td>
<td>5:B:794:ASN:N</td>
<td>2.07</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:844:SER:O</td>
<td>5:B:848:ARG:HG3</td>
<td>2.11</td>
<td>0.51</td>
</tr>
<tr>
<td>6:C:165:LYS:O</td>
<td>12:K:6:ARG:NH1</td>
<td>2.43</td>
<td>0.51</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:B:879:ARG:CA</td>
<td>5:B:879:ARG:NE</td>
<td>2.74</td>
<td>0.51</td>
</tr>
<tr>
<td>12:K:49:GLU:HA</td>
<td>12:K:52:ASN:ND2</td>
<td>2.25</td>
<td>0.51</td>
</tr>
<tr>
<td>4:A:130:ASP:O</td>
<td>4:A:132:LYS:N</td>
<td>2.35</td>
<td>0.51</td>
</tr>
<tr>
<td>4:A:135:PHE:HD1</td>
<td>4:A:222:LEU:HB2</td>
<td>1.75</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:1107:ALA:O</td>
<td>5:B:1108:ARG:CB</td>
<td>2.58</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:193:LYS:NZ</td>
<td>11:J:65:PRO:HG3</td>
<td>2.26</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:235:SER:OG</td>
<td>5:B:236:HIS:ND1</td>
<td>2.39</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:857:ARG:HH21</td>
<td>5:B:942:ARG:NH2</td>
<td>2.09</td>
<td>0.51</td>
</tr>
<tr>
<td>4:A:549:MET:SD</td>
<td>4:A:577:ILE:HD11</td>
<td>2.50</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:1073:TYR:N</td>
<td>5:B:1073:TYR:CD1</td>
<td>2.79</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:785:TYR:CD1</td>
<td>5:B:785:TYR:C</td>
<td>2.83</td>
<td>0.51</td>
</tr>
<tr>
<td>5:B:803:LEU:HG</td>
<td>5:B:822:ASN:ND2</td>
<td>2.26</td>
<td>0.51</td>
</tr>
<tr>
<td>8:F:111:LEU:H</td>
<td>8:F:111:LEU:HD12</td>
<td>1.76</td>
<td>0.51</td>
</tr>
<tr>
<td>4:A:1110:ASN:ND2</td>
<td>4:A:1110:ASN:N</td>
<td>2.52</td>
<td>0.50</td>
</tr>
<tr>
<td>5:B:906:SER:CB</td>
<td>5:B:946:ASN:CB</td>
<td>2.83</td>
<td>0.50</td>
</tr>
<tr>
<td>5:B:884:ARG:O</td>
<td>5:B:936:ASP:HB3</td>
<td>2.12</td>
<td>0.50</td>
</tr>
<tr>
<td>6:C:46:ILE:HA</td>
<td>6:C:159:ALA:HA</td>
<td>1.92</td>
<td>0.50</td>
</tr>
<tr>
<td>12:K:62:LYS:O</td>
<td>12:K:62:LYS:HG3</td>
<td>2.10</td>
<td>0.50</td>
</tr>
<tr>
<td>12:K:40:HIS:CE1</td>
<td>12:K:63:VAL:HG21</td>
<td>2.46</td>
<td>0.50</td>
</tr>
<tr>
<td>5:B:665:GLU:O</td>
<td>5:B:668:ASP:HB3</td>
<td>2.10</td>
<td>0.50</td>
</tr>
<tr>
<td>6:C:167:HIS:CD2</td>
<td>6:C:169:LYS:HB3</td>
<td>2.46</td>
<td>0.50</td>
</tr>
<tr>
<td>7:E:144:ILE:O</td>
<td>7:E:150:VAL:HG21</td>
<td>2.11</td>
<td>0.50</td>
</tr>
<tr>
<td>5:B:745:PRO:HB2</td>
<td>5:B:1047:PHE:CD1</td>
<td>2.47</td>
<td>0.50</td>
</tr>
<tr>
<td>7:E:15:ALA:O</td>
<td>7:E:19:VAL:HG23</td>
<td>2.12</td>
<td>0.50</td>
</tr>
<tr>
<td>9:H:5:LEU:HD12</td>
<td>9:H:60:ALA:O</td>
<td>2.11</td>
<td>0.50</td>
</tr>
<tr>
<td>4:A:567:LYS:O</td>
<td>4:A:569:LYS:N</td>
<td>2.45</td>
<td>0.50</td>
</tr>
<tr>
<td>4:A:647:GLY:O</td>
<td>4:A:651:LYS:HG3</td>
<td>2.11</td>
<td>0.50</td>
</tr>
<tr>
<td>4:A:800:VAL:O</td>
<td>4:A:800:VAL:HG12</td>
<td>2.11</td>
<td>0.50</td>
</tr>
<tr>
<td>5:B:120:ARG:HG2</td>
<td>5:B:955:THR:HG21</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>11:J:42:LYS:HG3</td>
<td>11:J:43:ARG:H</td>
<td>1.77</td>
<td>0.50</td>
</tr>
<tr>
<td>12:K:47:ARG:HH11</td>
<td>12:K:47:ARG:HB3</td>
<td>1.75</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:A:117:GLU:N</td>
<td>4:A:118:HIS:C</td>
<td>2.64</td>
<td>0.50</td>
</tr>
<tr>
<td>4:A:381:THR:HG23</td>
<td>4:A:382:PRO:HD2</td>
<td>1.92</td>
<td>0.50</td>
</tr>
<tr>
<td>5:B:843:GLN:HB2</td>
<td>5:B:993:THR:HB</td>
<td>1.94</td>
<td>0.50</td>
</tr>
<tr>
<td>4:A:32:VAL:O</td>
<td>4:A:57:ARG:NH1</td>
<td>2.44</td>
<td>0.50</td>
</tr>
<tr>
<td>4:A:826:ASP:HA</td>
<td>4:A:829:VAL:HB</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>4:A:244:PRO:HB2</td>
<td>4:A:245:PRO:CD</td>
<td>2.42</td>
<td>0.50</td>
</tr>
<tr>
<td>4:A:496:GLU:HB2</td>
<td>8:F:95:GLY:HA3</td>
<td>1.94</td>
<td>0.50</td>
</tr>
<tr>
<td>4:A:779:PHE:CE2</td>
<td>5:B:517:THR:HG22</td>
<td>2.47</td>
<td>0.50</td>
</tr>
<tr>
<td>6:C:163:ILE:HD12</td>
<td>6:C:165:LYS:HB2</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>4:A:775:ILE:O</td>
<td>4:A:797:LYS:HE2</td>
<td>2.12</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:464:GLY:HA3</td>
<td>5:B:478:GLY:HA2</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:981:ALA:O</td>
<td>5:B:1093:GLN:N</td>
<td>2.31</td>
<td>0.49</td>
</tr>
<tr>
<td>2:T:18:DA:H2</td>
<td>14:T:29[B]:DUT:O2</td>
<td>1.86</td>
<td>0.49</td>
</tr>
<tr>
<td>4:A:144:MET:O</td>
<td>8:F:133:VAL:N</td>
<td>2.42</td>
<td>0.49</td>
</tr>
<tr>
<td>4:A:754:SER:H</td>
<td>4:A:757:ASN:ND2</td>
<td>2.05</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:62:ILE:HG23</td>
<td>5:B:418:LYS:HG3</td>
<td>1.93</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:558:LEU:C</td>
<td>5:B:560:GLU:H</td>
<td>2.16</td>
<td>0.49</td>
</tr>
<tr>
<td>4:A:552:TRP:NE1</td>
<td>4:A:655:PHE:CD1</td>
<td>2.81</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:873:THR:O</td>
<td>5:B:914:LYS:HG3</td>
<td>2.12</td>
<td>0.49</td>
</tr>
<tr>
<td>9:H:83:GLN:HG3</td>
<td>12:K:54:ARG:HB3</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>11:J:3:VAL:CG2</td>
<td>11:J:18:TRP:CB</td>
<td>2.83</td>
<td>0.49</td>
</tr>
<tr>
<td>4:A:793:SER:HB2</td>
<td>4:A:794:PRO:HD2</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:416:LEU:HD12</td>
<td>5:B:466:TRP:HZ</td>
<td>2.47</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:567:GLU:CD</td>
<td>5:B:567:GLU:H</td>
<td>2.16</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:488:TYR:CE2</td>
<td>5:B:813:LYS:HB2</td>
<td>2.48</td>
<td>0.49</td>
</tr>
<tr>
<td>2:T:18:DA:H61</td>
<td>14:T:29[B]:DUT:O2</td>
<td>2.24</td>
<td>0.49</td>
</tr>
<tr>
<td>4:A:290:GLU:OE1</td>
<td>4:A:293:GLU:HG3</td>
<td>2.13</td>
<td>0.49</td>
</tr>
<tr>
<td>4:A:455:MET:O</td>
<td>5:B:1141:HIS:HE1</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:1168:LEU:HD22</td>
<td>5:B:1208:MET:HE2</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:185:THR:OG1</td>
<td>5:B:188:ASP:OD2</td>
<td>2.29</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:979:LYS:CE</td>
<td>5:B:987:LYS:HG2</td>
<td>2.42</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:190:TYR:HZ</td>
<td>5:B:196:PRO:HG3</td>
<td>2.47</td>
<td>0.49</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:B:287:ARG:O</td>
<td>5:B:289:LEU:N</td>
<td>2.46</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:526:GLU:HG3</td>
<td>5:B:771:SER:HB3</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:975:GLN:HG2</td>
<td>5:B:976:ILE:H</td>
<td>1.78</td>
<td>0.49</td>
</tr>
<tr>
<td>6:C:112:ASN:ND2</td>
<td>6:C:146:LYS:HG2</td>
<td>2.27</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:234:ILE:H</td>
<td>5:B:234:ILE:HD13</td>
<td>1.76</td>
<td>0.49</td>
</tr>
<tr>
<td>6:C:57:VAL:HG12</td>
<td>6:C:58:LEU:HD23</td>
<td>1.93</td>
<td>0.49</td>
</tr>
<tr>
<td>10:I:10:CYS:SG</td>
<td>10:I:31:THR:HB</td>
<td>2.52</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:882:THR:HG23</td>
<td>5:B:883:LEU:N</td>
<td>2.28</td>
<td>0.49</td>
</tr>
<tr>
<td>6:C:260:LEU:HG</td>
<td>6:C:264:GLN:HE22</td>
<td>1.78</td>
<td>0.49</td>
</tr>
<tr>
<td>4:A:91:PHE:HD2</td>
<td>4:A:297:GLN:OE1</td>
<td>1.96</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:1111:MET:HE2</td>
<td>5:B:1118:PRO:CD</td>
<td>2.43</td>
<td>0.49</td>
</tr>
<tr>
<td>5:B:911:ILE:HD11</td>
<td>5:B:941:LEU:CA</td>
<td>2.43</td>
<td>0.49</td>
</tr>
<tr>
<td>4:A:1340:GLY:HA2</td>
<td>7:E:183:PRO:HD2</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>9:H:7:ASP:O</td>
<td>9:H:8:ASP:HB2</td>
<td>2.12</td>
<td>0.49</td>
</tr>
<tr>
<td>4:A:871:ASP:HB3</td>
<td>7:E:204:THR:HG23</td>
<td>1.93</td>
<td>0.48</td>
</tr>
<tr>
<td>5:B:696:GLU:O</td>
<td>5:B:699:GLU:HB2</td>
<td>2.13</td>
<td>0.48</td>
</tr>
<tr>
<td>4:A:1111:MET:HG3</td>
<td>4:A:1114:PRO:HG3</td>
<td>1.94</td>
<td>0.48</td>
</tr>
<tr>
<td>4:A:335:ARG:NH1</td>
<td>5:B:1202:LEU:HD12</td>
<td>2.28</td>
<td>0.48</td>
</tr>
<tr>
<td>5:B:1037:LEU:HD13</td>
<td>5:B:1062:HIS:HB3</td>
<td>1.94</td>
<td>0.48</td>
</tr>
<tr>
<td>5:B:645:SER:C</td>
<td>5:B:647:GLY:H</td>
<td>2.17</td>
<td>0.48</td>
</tr>
<tr>
<td>6:C:27:LEU:HA</td>
<td>6:C:228:PHE:CZ</td>
<td>2.48</td>
<td>0.48</td>
</tr>
<tr>
<td>5:B:574:SER:N</td>
<td>5:B:575:PRO:HD3</td>
<td>2.28</td>
<td>0.48</td>
</tr>
<tr>
<td>6:C:70:ILE:HD11</td>
<td>6:C:144:ILE:HD12</td>
<td>1.94</td>
<td>0.48</td>
</tr>
<tr>
<td>5:B:783:THR:HG21</td>
<td>11:J:59:LYS:HB3</td>
<td>1.96</td>
<td>0.48</td>
</tr>
<tr>
<td>5:B:744:His:HD2</td>
<td>5:B:746:SER:N</td>
<td>1.97</td>
<td>0.48</td>
</tr>
<tr>
<td>3:N:12:DT:H5&quot;</td>
<td>7:E:119:SER:HB2</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>5:B:918:ILE:HG13</td>
<td>5:B:935:ARG:NH1</td>
<td>2.28</td>
<td>0.48</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:C:238:ILE:HG22</td>
<td>6:C:242:GLN:HB2</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>5:B:291:ILE:N</td>
<td>5:B:291:ILE:HD12</td>
<td>2.28</td>
<td>0.48</td>
</tr>
<tr>
<td>6:C:186:LEU:HB3</td>
<td>6:C:188:HIS:CD2</td>
<td>2.48</td>
<td>0.48</td>
</tr>
<tr>
<td>4:A:1002:GLY:O</td>
<td>4:A:1008:GLN:NE2</td>
<td>2.47</td>
<td>0.48</td>
</tr>
<tr>
<td>6:C:73:GLN:HE21</td>
<td>6:C:75:MET:N</td>
<td>2.12</td>
<td>0.48</td>
</tr>
<tr>
<td>4:A:1080:THR:CG2</td>
<td>4:A:1081:LEU:N</td>
<td>2.77</td>
<td>0.48</td>
</tr>
<tr>
<td>4:A:695:LYS:HD2</td>
<td>4:A:695:LYS:HA</td>
<td>1.56</td>
<td>0.48</td>
</tr>
<tr>
<td>5:B:1045:SER:O</td>
<td>5:B:1046:PRO:C</td>
<td>2.52</td>
<td>0.48</td>
</tr>
<tr>
<td>6:C:22:LEU:HD21</td>
<td>6:C:25:VAL:HG21</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>5:B:1016:ALA:HB1</td>
<td>5:B:1020:ARG:NH1</td>
<td>2.29</td>
<td>0.48</td>
</tr>
<tr>
<td>5:B:577:ALA:HB1</td>
<td>5:B:589:VAL:HB</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>6:C:77:ILE:HD12</td>
<td>6:C:161:LYS:HG3</td>
<td>1.96</td>
<td>0.48</td>
</tr>
<tr>
<td>4:A:672:ASP:OD1</td>
<td>4:A:675:THR:N</td>
<td>2.47</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:1054:GLY:HA2</td>
<td>5:B:1057:LYS:NZ</td>
<td>2.29</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:841:MET:O</td>
<td>5:B:993:THR:HA</td>
<td>2.14</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:998:ASP:OD1</td>
<td>6:C:35:ARG:NH2</td>
<td>2.47</td>
<td>0.47</td>
</tr>
<tr>
<td>4:A:381:THR:CG2</td>
<td>4:A:382:PRO:HD2</td>
<td>2.45</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:22:SER:O</td>
<td>5:B:654:ARG:HD2</td>
<td>2.14</td>
<td>0.47</td>
</tr>
<tr>
<td>14:T:29[B]:DUT:HG2</td>
<td>14:T:29[B]:DUT:O1A</td>
<td>2.13</td>
<td>0.47</td>
</tr>
<tr>
<td>4:A:1154:TYR:HE1</td>
<td>10:I:18:GLU:HG3</td>
<td>1.79</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:1135:ARG:NH2</td>
<td>5:B:1136:ASP:OD1</td>
<td>2.47</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:1180:PHE:O</td>
<td>5:B:1181:GLU:HG2</td>
<td>2.15</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:752:ALA:O</td>
<td>5:B:755:ILE:HG12</td>
<td>2.14</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:805:THR:HG22</td>
<td>5:B:809:MET:SD</td>
<td>2.54</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:881:ASN:HB2</td>
<td>5:B:933:SER:OG</td>
<td>2.14</td>
<td>0.47</td>
</tr>
<tr>
<td>4:A:842:VAL:HG11</td>
<td>5:B:1136:ASP:OD2</td>
<td>2.15</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:660:LYS:HE2</td>
<td>5:B:679:TYR:CD1</td>
<td>2.49</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:794:ASN:C</td>
<td>5:B:795:ILE:HD12</td>
<td>2.35</td>
<td>0.47</td>
</tr>
<tr>
<td>6:C:259:LEU:HD12</td>
<td>6:C:259:LEU:HA</td>
<td>1.77</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Continued on next page...
### Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:B:1094:ARG:CG</td>
<td>5:B:1094:ARG:NH1</td>
<td>2.38</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:378:LEU:O</td>
<td>5:B:382:ILE:HG12</td>
<td>2.15</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:53:GLN:HG2</td>
<td>5:B:547:VAL:HG13</td>
<td>1.95</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:745:PRO:O</td>
<td>5:B:748:ILE:HG12</td>
<td>2.15</td>
<td>0.47</td>
</tr>
<tr>
<td>7:E:64:PRO:CD</td>
<td>7:E:76:GLY:HA2</td>
<td>2.33</td>
<td>0.47</td>
</tr>
<tr>
<td>11:J:1:MET:O</td>
<td>11:J:2:ILE:HB</td>
<td>2.13</td>
<td>0.47</td>
</tr>
<tr>
<td>7:E:172:GLU:CG</td>
<td>7:E:213:ILE:HD12</td>
<td>2.45</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:900:ALA:HB3</td>
<td>13:L:61:THR:HG23</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:778:MET:HB3</td>
<td>5:B:796:LEU:HD13</td>
<td>1.95</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:821:GLN:HB2</td>
<td>5:B:851:PHE:CE2</td>
<td>2.50</td>
<td>0.47</td>
</tr>
<tr>
<td>8:F:140:ASP:OD1</td>
<td>8:F:141:GLY:N</td>
<td>2.48</td>
<td>0.47</td>
</tr>
<tr>
<td>4:A:312:PRO:O</td>
<td>4:A:313:GLN:NE2</td>
<td>2.48</td>
<td>0.47</td>
</tr>
<tr>
<td>4:A:455:MET:O</td>
<td>5:B:1141:HIS:CE1</td>
<td>2.68</td>
<td>0.47</td>
</tr>
<tr>
<td>5:B:550:ASP:OD1</td>
<td>5:B:551:PRO:HD2</td>
<td>2.15</td>
<td>0.47</td>
</tr>
<tr>
<td>6:C:69:LEU:N</td>
<td>6:C:69:LEU:HD12</td>
<td>2.30</td>
<td>0.47</td>
</tr>
<tr>
<td>14:T:29[B]:DUT:C3'</td>
<td>14:T:29[B]:DUT:C6</td>
<td>2.93</td>
<td>0.47</td>
</tr>
<tr>
<td>4:A:67:CYS:C</td>
<td>4:A:68:GLN:HG3</td>
<td>2.35</td>
<td>0.46</td>
</tr>
<tr>
<td>4:A:746:MET:HG2</td>
<td>5:B:1015:HIS:HE1</td>
<td>1.80</td>
<td>0.46</td>
</tr>
<tr>
<td>5:B:1175:LEU:O</td>
<td>5:B:1176:ASN:CB</td>
<td>2.63</td>
<td>0.46</td>
</tr>
<tr>
<td>5:B:470:LYS:O</td>
<td>5:B:471:LYS:HG3</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>5:B:562:GLY:O</td>
<td>5:B:563:MET:HB3</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>5:B:406:LEU:HD12</td>
<td>5:B:633:VAL:HG22</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>5:B:890:TYR:CE2</td>
<td>5:B:910:VAL:HG21</td>
<td>2.50</td>
<td>0.46</td>
</tr>
<tr>
<td>4:A:17:VAL:HB</td>
<td>4:A:1419:ASP:HB3</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>4:A:443:LEU:HD23</td>
<td>4:A:443:LEU:HA</td>
<td>1.73</td>
<td>0.46</td>
</tr>
<tr>
<td>5:B:798:TYR:OH</td>
<td>6:C:62:PHE:HE2</td>
<td>1.99</td>
<td>0.46</td>
</tr>
<tr>
<td>7:E:86:PRO:O</td>
<td>7:E:114:ASN:HB2</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>12:K:46:ILE:O</td>
<td>12:K:50:LEU:HB2</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>1:R:9:G:H2'</td>
<td>1:R:10:A:C8</td>
<td>2.50</td>
<td>0.46</td>
</tr>
</tbody>
</table>

*Continued on next page...*
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:A:324:SER:C</td>
<td>4:A:326:ARG:N</td>
<td>2.69</td>
<td>0.46</td>
</tr>
<tr>
<td>4:A:650:GLN:O</td>
<td>4:A:654:ASN:HB2</td>
<td>2.16</td>
<td>0.46</td>
</tr>
<tr>
<td>5:B:830:TYR:CZ</td>
<td>5:B:1000:PRO:HD3</td>
<td>2.49</td>
<td>0.46</td>
</tr>
<tr>
<td>7:E:100:ILE:O</td>
<td>7:E:101:GLN:O</td>
<td>2.52</td>
<td>0.46</td>
</tr>
<tr>
<td>5:B:680:THR:O</td>
<td>5:B:683:SER:HB2</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>6:C:35:ARG:NH1</td>
<td>12:K:41:THR:OG1</td>
<td>2.48</td>
<td>0.46</td>
</tr>
<tr>
<td>4:A:1158:PRO:HB3</td>
<td>4:A:1188:GLN:OE1</td>
<td>2.16</td>
<td>0.46</td>
</tr>
<tr>
<td>5:B:237:VAL:HG11</td>
<td>5:B:255:GLN:HE21</td>
<td>1.81</td>
<td>0.46</td>
</tr>
<tr>
<td>4:A:596:THR:C</td>
<td>4:A:598:LEU:N</td>
<td>2.61</td>
<td>0.46</td>
</tr>
<tr>
<td>4:A:808:LEU:HD12</td>
<td>4:A:808:LEU:N</td>
<td>2.30</td>
<td>0.46</td>
</tr>
<tr>
<td>5:B:1106:ARG:HG2</td>
<td>5:B:1107:ALA:N</td>
<td>2.31</td>
<td>0.46</td>
</tr>
<tr>
<td>4:A:949:ASP:N</td>
<td>4:A:949:ASP:OD1</td>
<td>2.45</td>
<td>0.46</td>
</tr>
<tr>
<td>6:C:254:LYS:HD3</td>
<td>12:K:42:LEU:HD13</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>14:T:29[B]:DUT:C6</td>
<td>14:T:29[B]:DUT:H3'</td>
<td>2.46</td>
<td>0.46</td>
</tr>
<tr>
<td>4:A:323:LYS:O</td>
<td>4:A:324:SER:HB3</td>
<td>2.16</td>
<td>0.46</td>
</tr>
<tr>
<td>5:B:140:ILE:H</td>
<td>5:B:141:ASP:C</td>
<td>2.19</td>
<td>0.46</td>
</tr>
<tr>
<td>5:B:273:LEU:HD21</td>
<td>5:B:360:PHE:CD1</td>
<td>2.51</td>
<td>0.46</td>
</tr>
<tr>
<td>11:J:5:VAL:O</td>
<td>11:J:6:ARG:O</td>
<td>2.33</td>
<td>0.46</td>
</tr>
<tr>
<td>4:A:1105:LEU:HB3</td>
<td>4:A:1384:VAL:CG2</td>
<td>2.46</td>
<td>0.46</td>
</tr>
<tr>
<td>4:A:847:ASP:OD2</td>
<td>4:A:858:ASN:HB2</td>
<td>2.16</td>
<td>0.46</td>
</tr>
<tr>
<td>5:B:1110:PRO:O</td>
<td>5:B:1119:VAL:HG13</td>
<td>2.16</td>
<td>0.46</td>
</tr>
<tr>
<td>14:T:29[B]:DUT:H3'</td>
<td>14:T:29[B]:DUT:H6</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>4:A:1118:VAL:HB</td>
<td>4:A:1306:LEU:HB2</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>4:A:567:LYS:HD3</td>
<td>9:H:95:TYR:CD1</td>
<td>2.50</td>
<td>0.46</td>
</tr>
<tr>
<td>5:B:1168:LEU:HB3</td>
<td>5:B:1208:MET:HE1</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>4:A:1156:PRO:O</td>
<td>4:A:1158:PRO:HD3</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:130:ASP:C</td>
<td>4:A:132:LYS:H</td>
<td>2.18</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:671:ALA:O</td>
<td>4:A:672:ASP:O</td>
<td>2.35</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:1156:ASP:O</td>
<td>5:B:1157:ALA:CB</td>
<td>2.61</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:25:ILE:HD12</td>
<td>5:B:653:VAL:CG2</td>
<td>2.46</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:658:ILE:HA</td>
<td>5:B:661:LEU:HD12</td>
<td>1.97</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:956:THR:HB</td>
<td>13:L:46:VAL:HG21</td>
<td>1.98</td>
<td>0.45</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:B:1076:HIS:CG</td>
<td>12:K:40:HIS:CD2</td>
<td>3.04</td>
<td>0.45</td>
</tr>
<tr>
<td>12:K:51:LEU:CD1</td>
<td>12:K:59:ALA:HB3</td>
<td>2.46</td>
<td>0.45</td>
</tr>
<tr>
<td>12:K:92:ASN:HA</td>
<td>12:K:95:Ile:HD12</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>1:R:2:U:H2'</td>
<td>1:R:3:C:C6</td>
<td>2.51</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:1171:GLN:H</td>
<td>4:A:1171:GLN:HG3</td>
<td>1.50</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:1277:GLU:O</td>
<td>4:A:1278:ASN:CB</td>
<td>2.64</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:608:ILE:C</td>
<td>4:A:609:ASP:O</td>
<td>2.53</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:120:GLU:O</td>
<td>4:A:121:LEU:HB2</td>
<td>2.15</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:651:LEU:HD11</td>
<td>5:B:707:PRO:HG3</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:711:ARG:NH1</td>
<td>10:I:95:THR:O</td>
<td>2.50</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:1155:SER:O</td>
<td>5:B:1156:ASP:O</td>
<td>2.34</td>
<td>0.45</td>
</tr>
<tr>
<td>7:E:127:ILE:H</td>
<td>7:E:127:ILE:HD13</td>
<td>1.82</td>
<td>0.45</td>
</tr>
<tr>
<td>3:N:11:DG:H1'</td>
<td>3:N:12:DT:H5'</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:249:SER:C</td>
<td>4:A:250:ILE:HG12</td>
<td>2.35</td>
<td>0.45</td>
</tr>
<tr>
<td>7:E:192:ARG:O</td>
<td>7:E:192:ARG:HG3</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>9:H:6:PHE:CG</td>
<td>9:H:7:ASP:N</td>
<td>2.84</td>
<td>0.45</td>
</tr>
<tr>
<td>9:H:89:TYR:O</td>
<td>9:H:91:ASP:N</td>
<td>2.50</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:1106:ARG:HG2</td>
<td>5:B:1108:ARG:H</td>
<td>1.82</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:1111:MET:CE</td>
<td>5:B:1118:PRO:HA</td>
<td>2.47</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:465:ASN:OD1</td>
<td>5:B:476:ARG:HB2</td>
<td>2.15</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:643:ASP:OD2</td>
<td>5:B:644:GLU:N</td>
<td>2.50</td>
<td>0.45</td>
</tr>
<tr>
<td>6:C:124:LEU:O</td>
<td>6:C:127:ARG:HG2</td>
<td>2.17</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:1341:ILE:HG22</td>
<td>7:E:182:ASP:OD2</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:446:ARG:HB2</td>
<td>4:A:487:MET:SD</td>
<td>2.57</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:826:ASP:N</td>
<td>4:A:826:ASP:OD1</td>
<td>2.49</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:852:TYR:CE2</td>
<td>4:A:1060:PRO:HB2</td>
<td>2.52</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:102:VAL:HG22</td>
<td>5:B:112:LEU:HD22</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>6:C:241:ASP:HB3</td>
<td>12:K:109:TRP:CE2</td>
<td>2.51</td>
<td>0.45</td>
</tr>
<tr>
<td>6:C:70:ILE:HD11</td>
<td>6:C:144:ILE:HD11</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:1341:ILE:HD13</td>
<td>4:A:1380:GLY:HA2</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:1436:ILE:O</td>
<td>4:A:1437:GLY:C</td>
<td>2.54</td>
<td>0.45</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:B:211:VAL:O</td>
<td>5:B:480:SER:HA</td>
<td>2.17</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:276:ILE:HD13</td>
<td>5:B:277:LYS:HE3</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>6:C:124:LEU:CD2</td>
<td>6:C:129:ILE:HG22</td>
<td>2.46</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:343:LYS:HE2</td>
<td>5:B:1151:LEU:HG</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:450:LEU:O</td>
<td>4:A:450:LEU:CD1</td>
<td>2.64</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:527:THR:OG1</td>
<td>5:B:528:PRO:HD2</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:403:LYS:O</td>
<td>4:A:404:TYR:O</td>
<td>2.35</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:474:VAL:HG22</td>
<td>4:A:478:TYR:HE1</td>
<td>1.82</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:283:VAL:CG2</td>
<td>5:B:321:GLY:HA3</td>
<td>2.47</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:226:PHE:HA</td>
<td>5:B:395:GLN:HG3</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:802:PRO:HD3</td>
<td>5:B:1091:TYR:CD1</td>
<td>2.51</td>
<td>0.45</td>
</tr>
<tr>
<td>5:B:890:TYR:CZ</td>
<td>5:B:910:VAL:HG21</td>
<td>2.52</td>
<td>0.45</td>
</tr>
<tr>
<td>6:C:152:GLU:HG2</td>
<td>6:C:153:LEU:N</td>
<td>2.32</td>
<td>0.45</td>
</tr>
<tr>
<td>7:E:127:ILE:N</td>
<td>7:E:128:PRO:HD3</td>
<td>2.32</td>
<td>0.45</td>
</tr>
<tr>
<td>2:T:16:DC:H2'</td>
<td>2:T:17:DG:C8</td>
<td>2.50</td>
<td>0.45</td>
</tr>
<tr>
<td>4:A:1172:LEU:H</td>
<td>4:A:1172:LEU:HD23</td>
<td>1.82</td>
<td>0.44</td>
</tr>
<tr>
<td>4:A:50:ILE:O</td>
<td>4:A:56:PRO:HD3</td>
<td>2.16</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:102:VAL:CG2</td>
<td>5:B:112:LEU:HB2</td>
<td>2.42</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:798:TYR:CD2</td>
<td>11:I:4:PRO:HG3</td>
<td>2.53</td>
<td>0.44</td>
</tr>
<tr>
<td>12:K:84:LYS:O</td>
<td>12:K:88:LYS:HG3</td>
<td>2.16</td>
<td>0.44</td>
</tr>
<tr>
<td>4:A:265:LYS:C</td>
<td>4:A:267:ALA:N</td>
<td>2.69</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:393:LYS:HE3</td>
<td>5:B:393:LYS:HA</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:654:ARG:H</td>
<td>5:B:657:HIS:HD2</td>
<td>1.65</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:637:LEU:HD11</td>
<td>5:B:693:ILE:HG13</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:911:ILE:CD1</td>
<td>5:B:941:LEU:HA</td>
<td>2.47</td>
<td>0.44</td>
</tr>
<tr>
<td>8:F:71:GLU:HA</td>
<td>8:F:72:LYS:HA</td>
<td>1.84</td>
<td>0.44</td>
</tr>
</tbody>
</table>

Continued on next page...
### Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:B:793:ALA:C</td>
<td>5:B:794:ASN:HD22</td>
<td>2.21</td>
<td>0.44</td>
</tr>
<tr>
<td>6:C:123:ASN:ND2</td>
<td>6:C:125:MET:HG3</td>
<td>2.32</td>
<td>0.44</td>
</tr>
<tr>
<td>6:C:99:LEU:HD22</td>
<td>6:C:99:LEU:N</td>
<td>2.32</td>
<td>0.44</td>
</tr>
<tr>
<td>4:A:1115:SER:HB3</td>
<td>4:A:1330:ASN:ND2</td>
<td>2.32</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:1096:ARG:O</td>
<td>5:B:1097:HIS:CB</td>
<td>2.66</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:416:LEU:HD11</td>
<td>5:B:460:ALA:CB</td>
<td>2.47</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:542:MET:HE1</td>
<td>5:B:743:ILE:HG13</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>7:E:213:ILE:HG12</td>
<td>7:E:214:CYS:H</td>
<td>1.82</td>
<td>0.44</td>
</tr>
<tr>
<td>11:J:53:HIS:HE1</td>
<td>11:J:55:ASP:OD1</td>
<td>2.01</td>
<td>0.44</td>
</tr>
<tr>
<td>4:A:40:THR:HG22</td>
<td>4:A:54:ASN:HD21</td>
<td>1.82</td>
<td>0.44</td>
</tr>
<tr>
<td>4:A:568:PRO:O</td>
<td>4:A:569:LYS:HB3</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:826:ALA:O</td>
<td>5:B:1011:ILE:HA</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:1190:ASP:C</td>
<td>5:B:1191:ILE:HG13</td>
<td>2.38</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:333:PHE:O</td>
<td>5:B:333:PHE:HD1</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>8:F:73:ALA:O</td>
<td>8:F:74:ILE:HG13</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:167:ILE:CG2</td>
<td>5:B:167:ILE:O</td>
<td>2.52</td>
<td>0.44</td>
</tr>
<tr>
<td>4:A:1059:HIS:CE1</td>
<td>8:F:87:LYS:H</td>
<td>2.36</td>
<td>0.44</td>
</tr>
<tr>
<td>12:K:113:THR:O</td>
<td>12:K:114:LEU:CB</td>
<td>2.65</td>
<td>0.44</td>
</tr>
<tr>
<td>4:A:55:ASP:N</td>
<td>4:A:56:PRO:HD2</td>
<td>2.33</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:383:ASN:HD21</td>
<td>5:B:387:LEU:HD22</td>
<td>1.81</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:788:ARG:NH1</td>
<td>5:B:790:ASP:OD1</td>
<td>2.49</td>
<td>0.44</td>
</tr>
<tr>
<td>4:A:830:LYS:HE2</td>
<td>4:A:1082:ASN:ND2</td>
<td>2.33</td>
<td>0.44</td>
</tr>
<tr>
<td>4:A:313:GLN:HG3</td>
<td>4:A:314:ALA:H</td>
<td>1.82</td>
<td>0.44</td>
</tr>
<tr>
<td>4:A:902:LEU:HG</td>
<td>4:A:926:GLN:HG3</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:515:HIS:H</td>
<td>5:B:518:HIS:HD2</td>
<td>1.56</td>
<td>0.44</td>
</tr>
<tr>
<td>5:B:950:ASP:HB3</td>
<td>5:B:967:ARG:HG2</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>4:A:670:ILE:HD12</td>
<td>5:B:1067:ARG:NH1</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:1160:VAL:HG12</td>
<td>5:B:1161:HIS:N</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:702:LEU:HA</td>
<td>5:B:702:LEU:HD12</td>
<td>1.81</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:879:ARG:HB3</td>
<td>5:B:880:THR:H</td>
<td>1.55</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:230:ARG:HG3</td>
<td>4:A:233:TRP:CZ3</td>
<td>2.52</td>
<td>0.43</td>
</tr>
</tbody>
</table>

*Continued on next page...*
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:A:984:LYS:O</td>
<td>4:A:988:LEU:HB3</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:1017:ILE:H</td>
<td>5:B:1018:PRO:CD</td>
<td>2.31</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:645:SER:O</td>
<td>5:B:647:GLY:N</td>
<td>2.49</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:65:GLU:HB3</td>
<td>5:B:66:ASP:H</td>
<td>1.54</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:991:GLY:O</td>
<td>5:B:992:ILE:HB</td>
<td>2.17</td>
<td>0.43</td>
</tr>
<tr>
<td>6:C:82:TYR:CE2</td>
<td>6:C:161:LYS:HD3</td>
<td>2.53</td>
<td>0.43</td>
</tr>
<tr>
<td>9:H:2:SER:N</td>
<td>9:H:3:ASN:HB2</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:567:LYS:Cβ</td>
<td>9:H:95:TYR:HA</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>6:C:69:LEU:HB3</td>
<td>11:J:6:ARG:HD2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>3:N:12:DT:H2&quot;</td>
<td>3:N:13:DA:OP2</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:315:LEU:HB3</td>
<td>4:A:316:GLN:H</td>
<td>1.55</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:1099:VAL:O</td>
<td>5:B:1103:ILE:CD1</td>
<td>2.66</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:431:TYR:CE2</td>
<td>5:B:447:ALA:HB3</td>
<td>2.53</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:760:ASP:OD1</td>
<td>5:B:760:ASP:N</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:1084:GLN:HG2</td>
<td>6:C:201:TRP:CH2</td>
<td>2.53</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:839:MET:HE1</td>
<td>5:B:1010:LEU:HD21</td>
<td>1.99</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:762:ASN:OD1</td>
<td>5:B:984:HIS:HD2</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:785:TYR:CD1</td>
<td>5:B:786:ASN:N</td>
<td>2.87</td>
<td>0.43</td>
</tr>
<tr>
<td>11:J:38:ARG:HB2</td>
<td>11:J:38:ARG:HE</td>
<td>1.69</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:1043:ASP:N</td>
<td>4:A:1043:ASP:OD1</td>
<td>2.51</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:904:THR:HG23</td>
<td>4:A:905:ASP:OD1</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:1096:ARG:O</td>
<td>5:B:1097:HIS:HB2</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:341:MET:HB3</td>
<td>5:B:1132:GLU:HB3</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:839:MET:CE</td>
<td>5:B:1010:LEU:HD21</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:955:THR:HG23</td>
<td>13:L:54:ARG:O</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>7:E:147:HIS:HB3</td>
<td>7:E:150:VAL:HG23</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>8:F:71:GLU:HA</td>
<td>8:F:72:LYS:O</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>10:I:94:ASP:N</td>
<td>10:I:94:ASP:OD2</td>
<td>2.51</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:1293:SER:HB2</td>
<td>4:A:1299:VAL:CG2</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:272:ALA:HA</td>
<td>4:A:275:SER:HB3</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:1016:ALA:HB1</td>
<td>5:B:1020:ARG:HH12</td>
<td>1.83</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:666:ILE:HD11</td>
<td>5:B:1027:ILE:HG12</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:806:THR:HG23</td>
<td>5:B:1045:SER:HA</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:1106:ARG:NH2</td>
<td>5:B:1109:GLY:H</td>
<td>2.17</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:798:TYR:N</td>
<td>5:B:799:PRO:HD3</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:911:ILE:HD11</td>
<td>5:B:941:LEU:CB</td>
<td>2.49</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:E:32:GLN:O</td>
<td>7:E:32:GLN:HG3</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>9:H:10:PHE:HA</td>
<td>9:H:30:SER:HA</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:224:PHE:HD2</td>
<td>4:A:229:SER:O</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>8:F:85:MET:O</td>
<td>8:F:155:LEU:HD21</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:1171:GLN:O</td>
<td>4:A:1174:PHE:CD2</td>
<td>2.71</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:673:GLY:N</td>
<td>4:A:674:PRO:CD</td>
<td>2.81</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:900:ASP:HA</td>
<td>4:A:926:GLN:NE2</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:1001:PHE:HZ</td>
<td>5:B:1073:TYR:HB2</td>
<td>2.54</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:1013:ASN:C</td>
<td>5:B:1015:His:N</td>
<td>2.72</td>
<td>0.43</td>
</tr>
<tr>
<td>12:K:37:LYS:HA</td>
<td>12:K:69:ALA:HB1</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>12:K:39:ASP:HB2</td>
<td>12:K:40:His:H</td>
<td>1.65</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:1004:ASN:CG</td>
<td>7:E:167:ARG:HD2</td>
<td>2.39</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:341:MET:HE2</td>
<td>4:A:1425:SER:HB3</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:1032:SER:HB3</td>
<td>5:B:1089:PRO:HG2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>12:K:10:PHE:CE1</td>
<td>12:K:11:LEU:HD13</td>
<td>2.54</td>
<td>0.43</td>
</tr>
<tr>
<td>12:K:49:GLU:C</td>
<td>12:K:51:LEU:H</td>
<td>2.20</td>
<td>0.43</td>
</tr>
<tr>
<td>2:T:17:DG:N3</td>
<td>2:T:17:DG:H2'</td>
<td>2.34</td>
<td>0.43</td>
</tr>
<tr>
<td>5:B:916:THR:HA</td>
<td>5:B:917:PRO:HD2</td>
<td>1.90</td>
<td>0.43</td>
</tr>
<tr>
<td>9:H:17:PRO:O</td>
<td>9:H:19:ARG:N</td>
<td>2.51</td>
<td>0.43</td>
</tr>
<tr>
<td>4:A:398:GLU:O</td>
<td>4:A:399:His:O</td>
<td>2.36</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:43:GLU:HG2</td>
<td>4:A:50:ILE:HG23</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:1111:MET:HE3</td>
<td>5:B:1118:PRO:HA</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:7:SER:OG</td>
<td>5:B:1161:His:HE1</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:470:LYS:C</td>
<td>5:B:472:ALA:H</td>
<td>2.22</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:493:SER:HA</td>
<td>5:B:751:VAL:HG11</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>8:F:76:LYS:HA</td>
<td>8:F:79:ARG:HD3</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>9:H:137:GLN:C</td>
<td>9:H:139:ASN:N</td>
<td>2.70</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:1400:CYS:O</td>
<td>4:A:1405:THR:HG23</td>
<td>2.18</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:516:SER:HB2</td>
<td>4:A:518:LYS:HG2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:784:LEU:HB3</td>
<td>4:A:786:His:HD2</td>
<td>1.85</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:1428:VAL:HG21</td>
<td>5:B:1135:ARG:HD2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:813:LYS:HA</td>
<td>5:B:816:GLU:OE1</td>
<td>2.18</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:398:ARG:NH1</td>
<td>5:B:398:ARG:CB</td>
<td>2.72</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:474:SER:C</td>
<td>5:B:476:ARG:N</td>
<td>2.70</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:558:LEU:O</td>
<td>5:B:560:GLU:N</td>
<td>2.53</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:758:PHE:HB3</td>
<td>5:B:761:His:CD2</td>
<td>2.54</td>
<td>0.42</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...  

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:B:883:LEU:N</td>
<td>5:B:883:LEU:HD23</td>
<td>2.34</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:956:THR:HA</td>
<td>5:B:961:LEU:O</td>
<td>2.19</td>
<td>0.42</td>
</tr>
<tr>
<td>7:E:113:GLN:HA</td>
<td>7:E:137:GLU:HG3</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>6:C:8:VAL:HG11</td>
<td>12:K:105:PHE:HD1</td>
<td>1.85</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:800:VAL:C</td>
<td>4:A:802:ASN:N</td>
<td>2.70</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:778:MET:O</td>
<td>5:B:819:ALA:HB1</td>
<td>2.19</td>
<td>0.42</td>
</tr>
<tr>
<td>6:C:18:VAL:CG2</td>
<td>6:C:240:VAL:HB</td>
<td>2.49</td>
<td>0.42</td>
</tr>
<tr>
<td>6:C:201:TRP:HA</td>
<td>6:C:202:PRO:HD3</td>
<td>1.79</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:174:LEU:O</td>
<td>5:B:175:ARG:HB3</td>
<td>2.18</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:828:ALA:HB1</td>
<td>5:B:530:GLY:HA2</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:870:ILE:O</td>
<td>5:B:870:ILE:HG22</td>
<td>2.19</td>
<td>0.42</td>
</tr>
<tr>
<td>6:C:70:ILE:CD1</td>
<td>6:C:144:ILE:HD11</td>
<td>2.49</td>
<td>0.42</td>
</tr>
<tr>
<td>7:E:22:MET:HE2</td>
<td>7:E:26:ARG:HH21</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>8:F:72:LYS:O</td>
<td>8:F:73:ALA:HB3</td>
<td>2.20</td>
<td>0.42</td>
</tr>
<tr>
<td>13:L:58:LYS:O</td>
<td>13:L:58:LYS:HG2</td>
<td>2.20</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:966:ASN:HB3</td>
<td>4:A:1044:TRP:HH2</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:116:GLU:HG2</td>
<td>5:B:120:ARG:HD3</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:471:LYS:O</td>
<td>5:B:476:ARG:HD3</td>
<td>2.18</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:36:ALA:HB2</td>
<td>5:B:661:LEU:HD22</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>6:C:244:VAL:HG21</td>
<td>12:K:105:PHE:CE1</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:1187:GLN:HG3</td>
<td>4:A:1188:GLN:H</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:1206:ASP:N</td>
<td>4:A:1274:ARG:HH12</td>
<td>2.18</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:323:LYS:HZ3</td>
<td>4:A:324:SER:N</td>
<td>2.18</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:458:LYS:O</td>
<td>5:B:462:ALA:N</td>
<td>2.52</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:1373:ASP:HA</td>
<td>4:A:1376:THR:HG22</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:909:ASP:HA</td>
<td>4:A:910:PRO:HD2</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:1065:GLN:HB2</td>
<td>5:B:1065:GLN:HE21</td>
<td>1.63</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:848:ARG:HD2</td>
<td>11:J:8:PHE:O</td>
<td>2.20</td>
<td>0.42</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:B:787:VAL:O</td>
<td>5:B:787:VAL:HG12</td>
<td>2.19</td>
<td>0.42</td>
</tr>
<tr>
<td>6:C:73:GLN:NE2</td>
<td>6:C:74:SER:H</td>
<td>2.15</td>
<td>0.42</td>
</tr>
<tr>
<td>6:C:99:LEU:CD2</td>
<td>6:C:99:LEU:N</td>
<td>2.83</td>
<td>0.42</td>
</tr>
<tr>
<td>12:K:58:PHE:HB3</td>
<td>12:K:76:GLN:HB3</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:1174:PHE:CD1</td>
<td>4:A:1175:SER:HB2</td>
<td>2.55</td>
<td>0.42</td>
</tr>
<tr>
<td>4:A:132:LYS:NZ</td>
<td>4:A:133:LYS:HE3</td>
<td>2.35</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:1111:MET:HE2</td>
<td>5:B:1118:PRO:CA</td>
<td>2.50</td>
<td>0.42</td>
</tr>
<tr>
<td>8:F:97:ARG:HD3</td>
<td>8:F:130:ILE:HG23</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>5:B:654:ARG:H</td>
<td>5:B:657:HIS:CD2</td>
<td>2.38</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:744:HIS:CD2</td>
<td>5:B:746:SER:OG</td>
<td>2.73</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:769:TYR:N</td>
<td>5:B:769:TYR:CD2</td>
<td>2.87</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:911:ILE:HD11</td>
<td>5:B:941:LEU:CD1</td>
<td>2.48</td>
<td>0.41</td>
</tr>
<tr>
<td>6:C:231:ASN:C</td>
<td>6:C:231:ASN:HD22</td>
<td>2.23</td>
<td>0.41</td>
</tr>
<tr>
<td>6:C:242:GLN:HB3</td>
<td>6:C:246:ARG:NE</td>
<td>2.32</td>
<td>0.41</td>
</tr>
<tr>
<td>7:E:102:GLU:C</td>
<td>7:E:104:ASN:H</td>
<td>2.23</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:622:LYS:HE2</td>
<td>10:I:59:VAL:HG11</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:273:LEU:HD11</td>
<td>5:B:285:ILE:HD12</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:796:LEU:HD12</td>
<td>5:B:796:LEU:HA</td>
<td>1.67</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:910:VAL:HG13</td>
<td>5:B:938:SER:HB3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>6:C:106:GLU:OE2</td>
<td>6:C:106:GLU:HA</td>
<td>2.19</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:1017:LEU:HB2</td>
<td>7:E:206:GLY:N</td>
<td>2.35</td>
<td>0.41</td>
</tr>
<tr>
<td>14:T:29[B]:DUT:C3'</td>
<td>14:T:29[B]:DUT:H6</td>
<td>2.49</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:512:VAL:HA</td>
<td>4:A:519:PRO:HA</td>
<td>2.01</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:1053:GLU:O</td>
<td>5:B:1057:LYS:HE3</td>
<td>2.19</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:1058:LEU:HA</td>
<td>5:B:1061:GLU:OE2</td>
<td>2.19</td>
<td>0.41</td>
</tr>
<tr>
<td>7:E:122:LYS:HA</td>
<td>7:E:122:LYS:HE3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:1086:PHE:H</td>
<td>4:A:1086:PHE:HD1</td>
<td>1.69</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:399:HIS:HB3</td>
<td>4:A:400:PRO:HD2</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:676:MET:SD</td>
<td>4:A:679:ILE:HD12</td>
<td>2.61</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:68:GLN:C</td>
<td>4:A:70:CYS:H</td>
<td>2.18</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:A:761:MET:CG</td>
<td>5:B:1021:MET:HG2</td>
<td>2.46</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:176:SER:O</td>
<td>5:B:182:SER:CB</td>
<td>2.62</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:273:LEU:O</td>
<td>5:B:276:ILE:HG22</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:475:SER:C</td>
<td>5:B:477:ALA:N</td>
<td>2.72</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:712:PRO:HD2</td>
<td>5:B:733:HIS:CE1</td>
<td>2.55</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:795:ILE:HD12</td>
<td>5:B:795:ILE:N</td>
<td>2.36</td>
<td>0.41</td>
</tr>
<tr>
<td>6:C:98:VAL:C</td>
<td>6:C:99:LEU:HD22</td>
<td>2.40</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:33:ALA:O</td>
<td>4:A:83:HIS:CD2</td>
<td>2.73</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:1007:VAL:HG13</td>
<td>5:B:1008:PRO:CD</td>
<td>2.49</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:386:LEU:C</td>
<td>5:B:388:CYS:H</td>
<td>2.23</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:886:LYS:CB</td>
<td>5:B:887:HIS:CA</td>
<td>2.96</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:360:PHE:HE2</td>
<td>5:B:374:LYS:HB3</td>
<td>1.84</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:815:ARG:HB3</td>
<td>5:B:815:ARG:HE</td>
<td>1.71</td>
<td>0.41</td>
</tr>
<tr>
<td>6:C:244:VAL:HG21</td>
<td>12:K:105:PHE:CZ</td>
<td>2.56</td>
<td>0.41</td>
</tr>
<tr>
<td>2:T:25:DC:H5&quot;</td>
<td>5:B:482:VAL:HG11</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:135:ARG:HH11</td>
<td>5:B:137:TYR:HA</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:784:ASN:HB3</td>
<td>11:J:63:TYR:CZ</td>
<td>2.55</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:984:HIS:CD2</td>
<td>5:B:1024:ALA:CB</td>
<td>3.03</td>
<td>0.41</td>
</tr>
<tr>
<td>6:C:41:ILE:HD13</td>
<td>6:C:41:ILE:HG21</td>
<td>1.78</td>
<td>0.41</td>
</tr>
<tr>
<td>7:E:198:ILE:CD1</td>
<td>7:E:212:ARG:HG3</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:1293:SER:HB2</td>
<td>4:A:1299:VAL:HG21</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:265:LYS:O</td>
<td>4:A:267:ALA:N</td>
<td>2.52</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:58:LEU:O</td>
<td>4:A:58:LEU:CG</td>
<td>2.68</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:1002:THR:CG2</td>
<td>5:B:1006:ILE:H</td>
<td>2.33</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:487:THR:CG2</td>
<td>5:B:488:TYR:N</td>
<td>2.83</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:640:VAL:HG22</td>
<td>5:B:651:LEU:HD23</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>6:C:134:ILE:HD12</td>
<td>6:C:141:GLY:H</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>6:C:238:ILE:CG2</td>
<td>6:C:242:GLN:HB2</td>
<td>2.51</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:I:77:LYS:O</td>
<td>10:I:79:HIS:N</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:409:SER:O</td>
<td>4:A:411:ASP:N</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:901:LEU:HB2</td>
<td>4:A:926:GLN:CG</td>
<td>2.51</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:899:VAL:HB</td>
<td>4:A:929:LEU:HD13</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:567:LYS:HG3</td>
<td>4:A:568:PRO:CG</td>
<td>2.51</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:1006:ILE:HG22</td>
<td>5:B:1007:VAL:H</td>
<td>1.83</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:318:VAL:HG21</td>
<td>10:I:13:MET:CE</td>
<td>2.51</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:744:HIS:HA</td>
<td>5:B:745:PRO:HD3</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>5:B:885:MET:HB3</td>
<td>5:B:886:LYS:H</td>
<td>1.68</td>
<td>0.41</td>
</tr>
<tr>
<td>6:C:229:TYR:CD1</td>
<td>6:C:229:TYR:N</td>
<td>2.89</td>
<td>0.41</td>
</tr>
<tr>
<td>6:C:177:GLU:HG3</td>
<td>6:C:231:ASN:HB3</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>10:I:55:THR:HG23</td>
<td>10:I:58:VAL:CG2</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>4:A:705:LYS:O</td>
<td>4:A:706:HIS:C</td>
<td>2.60</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:136:THR:O</td>
<td>5:B:137:TYR:O</td>
<td>2.39</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:709:ASP:C</td>
<td>5:B:710:LEU:HD23</td>
<td>2.35</td>
<td>0.40</td>
</tr>
<tr>
<td>6:C:74:SER:O</td>
<td>6:C:77:ILE:HB</td>
<td>2.22</td>
<td>0.40</td>
</tr>
<tr>
<td>8:F:128:LYS:HD3</td>
<td>8:F:149:GLU:O</td>
<td>2.21</td>
<td>0.40</td>
</tr>
<tr>
<td>4:A:1402:PHE:CD2</td>
<td>4:A:1403:GLU:HB2</td>
<td>2.56</td>
<td>0.40</td>
</tr>
<tr>
<td>4:A:265:LYS:HD3</td>
<td>4:A:322:VAL:HG21</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>4:A:351:THR:C</td>
<td>4:A:486:GLU:HG3</td>
<td>2.41</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:1153:GLU:N</td>
<td>5:B:1153:GLU:OE2</td>
<td>2.50</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:724:ASP:OD1</td>
<td>5:B:725:PRO:HD2</td>
<td>2.20</td>
<td>0.40</td>
</tr>
<tr>
<td>6:C:91:HIS:ND1</td>
<td>6:C:158:VAL:HG11</td>
<td>2.36</td>
<td>0.40</td>
</tr>
<tr>
<td>7:E:128:PRO:HA</td>
<td>7:E:129:PRO:C</td>
<td>2.41</td>
<td>0.40</td>
</tr>
<tr>
<td>12:K:87:LEU:O</td>
<td>12:K:90:ALA:HB3</td>
<td>2.21</td>
<td>0.40</td>
</tr>
<tr>
<td>4:A:1227:ILE:HG22</td>
<td>4:A:1228:TRP:N</td>
<td>2.36</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:850:LEU:CD2</td>
<td>5:B:1009:ASP:HB3</td>
<td>2.51</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:1106:ARG:CG</td>
<td>5:B:1107:ALA:N</td>
<td>2.85</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:996:ARG:HH22</td>
<td>6:C:173:ALA:HB3</td>
<td>1.85</td>
<td>0.40</td>
</tr>
<tr>
<td>6:C:63:ILE:HA</td>
<td>6:C:66:ARG:HG3</td>
<td>2.02</td>
<td>0.40</td>
</tr>
<tr>
<td>7:E:179:GLN:C</td>
<td>7:E:181:ALA:N</td>
<td>2.73</td>
<td>0.40</td>
</tr>
<tr>
<td>8:F:147:SER:O</td>
<td>8:F:151:LEU:HD12</td>
<td>2.22</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:A:545:GLN:O</td>
<td>4:A:549:MET:HG3</td>
<td>2.21</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:1046:PRO:HB2</td>
<td>5:B:1047:PHE:H</td>
<td>1.80</td>
<td>0.40</td>
</tr>
<tr>
<td>4:A:343:LYS:NZ</td>
<td>5:B:1156:ASP:HB2</td>
<td>2.37</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:1221:SER:C</td>
<td>5:B:1223:ASP:H</td>
<td>2.24</td>
<td>0.40</td>
</tr>
<tr>
<td>4:A:779:PHE:CTZ</td>
<td>5:B:517:THR:HA</td>
<td>2.56</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:711:GLU:H</td>
<td>5:B:712:PRO:HD3</td>
<td>1.87</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:705:MET:CE</td>
<td>5:B:742:GLU:HG2</td>
<td>2.52</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:762:ASN:HD22</td>
<td>5:B:762:ASN:HA</td>
<td>1.64</td>
<td>0.40</td>
</tr>
<tr>
<td>10:I:59:VAL:O</td>
<td>10:I:61:ASP:N</td>
<td>2.54</td>
<td>0.40</td>
</tr>
<tr>
<td>10:I:56:ALA:HB3</td>
<td>10:I:89:GLN:HG3</td>
<td>2.02</td>
<td>0.40</td>
</tr>
<tr>
<td>2:T:6:DG:N2</td>
<td>3:N:10:DG:N2</td>
<td>2.70</td>
<td>0.40</td>
</tr>
<tr>
<td>2:T:7:DA:H2'</td>
<td>2:T:7:DA:OP2</td>
<td>2.21</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:121:ASN:HA</td>
<td>5:B:207:GLY:HA3</td>
<td>2.04</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:278:GLN:CG</td>
<td>5:B:279:ASP:N</td>
<td>2.84</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:216:GLU:HB3</td>
<td>5:B:500:THR:HG23</td>
<td>2.02</td>
<td>0.40</td>
</tr>
<tr>
<td>5:B:796:LEU:HB3</td>
<td>5:B:799:PRO:HG3</td>
<td>2.04</td>
<td>0.40</td>
</tr>
</tbody>
</table>

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>Favoured</th>
<th>Allowed</th>
<th>Outliers</th>
<th>Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>1395/1733 (80%)</td>
<td>1153 (83%)</td>
<td>158 (11%)</td>
<td>84 (6%)</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1096/1224 (90%)</td>
<td>938 (86%)</td>
<td>108 (10%)</td>
<td>50 (5%)</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>264/318 (83%)</td>
<td>229 (87%)</td>
<td>27 (10%)</td>
<td>8 (3%)</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>212/215 (99%)</td>
<td>177 (84%)</td>
<td>28 (13%)</td>
<td>7 (3%)</td>
<td>4</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>Favoured</th>
<th>Allowed</th>
<th>Outliers</th>
<th>Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>F</td>
<td>83/155 (54%)</td>
<td>71 (86%)</td>
<td>11 (13%)</td>
<td>1 (1%)</td>
<td>14 43</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>129/146 (88%)</td>
<td>94 (73%)</td>
<td>22 (17%)</td>
<td>13 (10%)</td>
<td>0 1</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>117/122 (96%)</td>
<td>94 (80%)</td>
<td>14 (12%)</td>
<td>9 (8%)</td>
<td>1 2</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>63/70 (90%)</td>
<td>58 (92%)</td>
<td>2 (3%)</td>
<td>3 (5%)</td>
<td>2 9</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>112/120 (93%)</td>
<td>104 (93%)</td>
<td>8 (7%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>44/70 (63%)</td>
<td>28 (64%)</td>
<td>10 (23%)</td>
<td>6 (14%)</td>
<td>0 0</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>3515/4173 (84%)</td>
<td>2946 (84%)</td>
<td>388 (11%)</td>
<td>181 (5%)</td>
<td>2 8</td>
</tr>
</tbody>
</table>

All (181) Ramachandran outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>54</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>55</td>
<td>ASP</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>56</td>
<td>PRO</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>65</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>69</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>93</td>
<td>VAL</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>118</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>121</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>130</td>
<td>ASP</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>131</td>
<td>SER</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>168</td>
<td>GLY</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>250</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>254</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>300</td>
<td>VAL</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>315</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>323</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>324</td>
<td>SER</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>399</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>451</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>567</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>593</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>597</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>609</td>
<td>ASP</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>610</td>
<td>GLY</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>672</td>
<td>ASP</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>846</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>923</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>944</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1123</td>
<td>GLY</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>1166</td>
<td>ASP</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1221</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>65</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>67</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>137</td>
<td>TYR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>469</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>477</td>
<td>ALA</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>484</td>
<td>ASN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>531</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>648</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>711</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>713</td>
<td>ALA</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>731</td>
<td>VAL</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>879</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1046</td>
<td>PRO</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1156</td>
<td>ASP</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>50</td>
<td>MET</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>172</td>
<td>GLU</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>3</td>
<td>ASN</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>61</td>
<td>SER</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>62</td>
<td>SER</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>108</td>
<td>SER</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>109</td>
<td>LYS</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>131</td>
<td>ASN</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>132</td>
<td>LEU</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>33</td>
<td>SER</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>47</td>
<td>GLU</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>60</td>
<td>GLN</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>79</td>
<td>HIS</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>104</td>
<td>LEU</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>64</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>68</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>76</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>79</td>
<td>GLY</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>117</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>119</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>214</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>215</td>
<td>SER</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>266</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>283</td>
<td>GLY</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>297</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>307</td>
<td>ASP</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>312</td>
<td>PRO</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>404</td>
<td>TYR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>408</td>
<td>ASP</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>410</td>
<td>GLY</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>424</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>568</td>
<td>PRO</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>569</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>853</td>
<td>ASP</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>943</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1278</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1437</td>
<td>GLY</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>288</td>
<td>ALA</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>471</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>473</td>
<td>MET</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>864</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>870</td>
<td>ILE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>888</td>
<td>GLY</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>987</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>206</td>
<td>GLY</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>18</td>
<td>GLY</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>54</td>
<td>SER</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>90</td>
<td>ALA</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>3</td>
<td>THR</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>2</td>
<td>ILE</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>6</td>
<td>ARG</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>45</td>
<td>ALA</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>40</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>48</td>
<td>ALA</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>72</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>149</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>248</td>
<td>PRO</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>308</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>310</td>
<td>GLY</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>958</td>
<td>VAL</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1083</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1093</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>37</td>
<td>PHE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>104</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>290</td>
<td>GLY</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>364</td>
<td>ILE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>371</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>476</td>
<td>ARG</td>
</tr>
</tbody>
</table>

*Continued on next page...*
**Continued from previous page...**

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>B</td>
<td>559</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>644</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>647</td>
<td>GLY</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>712</td>
<td>PRO</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>992</td>
<td>ILE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1223</td>
<td>ASP</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>227</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>51</td>
<td>GLY</td>
</tr>
<tr>
<td>8</td>
<td>F</td>
<td>154</td>
<td>ASP</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>130</td>
<td>ARG</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>136</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>71</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>109</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>126</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>249</td>
<td>SER</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>332</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>400</td>
<td>PRO</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>418</td>
<td>SER</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>979</td>
<td>SER</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1014</td>
<td>ALA</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1084</td>
<td>PHE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>139</td>
<td>ALA</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>248</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>467</td>
<td>GLY</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>646</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>734</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1190</td>
<td>ASP</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>90</td>
<td>ASP</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>214</td>
<td>ASN</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>78</td>
<td>CYS</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>56</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>325</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>801</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1081</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>346</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>480</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1017</td>
<td>ILE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1108</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1157</td>
<td>ALA</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>130</td>
<td>GLY</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>142</td>
<td>VAL</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>240</td>
<td>VAL</td>
</tr>
</tbody>
</table>

*Continued on next page...*
### 5.3.2 Protein sidechains

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>Rotameric</th>
<th>Outliers</th>
<th>Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>1225/1520 (81%)</td>
<td>1052 (86%)</td>
<td>173 (14%)</td>
<td>4 11</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>967/1061 (91%)</td>
<td>851 (88%)</td>
<td>116 (12%)</td>
<td>5 16</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>234/274 (85%)</td>
<td>205 (88%)</td>
<td>29 (12%)</td>
<td>5 15</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>196/197 (100%)</td>
<td>172 (88%)</td>
<td>24 (12%)</td>
<td>5 16</td>
</tr>
</tbody>
</table>

*Continued on next page...*
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>Rotameric</th>
<th>Outliers</th>
<th>Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>F</td>
<td>75/137 (55%)</td>
<td>69 (92%)</td>
<td>6 (8%)</td>
<td>13 36</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>117/128 (91%)</td>
<td>96 (82%)</td>
<td>21 (18%)</td>
<td>2 6</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>113/116 (97%)</td>
<td>96 (85%)</td>
<td>17 (15%)</td>
<td>3 10</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>60/65 (92%)</td>
<td>52 (87%)</td>
<td>8 (13%)</td>
<td>4 13</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>99/102 (97%)</td>
<td>90 (91%)</td>
<td>9 (9%)</td>
<td>10 31</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>40/57 (70%)</td>
<td>27 (68%)</td>
<td>13 (32%)</td>
<td>0 0</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>3126/3657 (86%)</td>
<td>2710 (87%)</td>
<td>416 (13%)</td>
<td>4 13</td>
</tr>
</tbody>
</table>

All (416) residues with a non-rotameric sidechain are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>18</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>21</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>34</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>41</td>
<td>MET</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>43</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>47</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>50</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>54</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>57</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>58</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>64</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>68</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>69</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>70</td>
<td>CYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>71</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>86</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>93</td>
<td>VAL</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>118</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>121</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>130</td>
<td>ASP</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>143</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>147</td>
<td>VAL</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>163</td>
<td>SER</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>164</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>171</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>179</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>208</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>209</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>224</td>
<td>PHE</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>225</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>237</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>252</td>
<td>PHE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>253</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>256</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>271</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>298</td>
<td>PHE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>303</td>
<td>TYR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>315</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>316</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>320</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>323</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>325</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>335</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>344</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>351</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>359</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>379</td>
<td>VAL</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>398</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>403</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>424</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>434</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>436</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>440</td>
<td>ASP</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>443</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>445</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>450</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>451</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>452</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>455</td>
<td>MET</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>466</td>
<td>SER</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>469</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>470</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>472</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>475</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>481</td>
<td>ASP</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>485</td>
<td>ASP</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>496</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>501</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>509</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>533</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>541</td>
<td>ILE</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>566</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>567</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>590</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>595</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>598</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>612</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>618</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>629</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>635</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>658</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>672</td>
<td>ASP</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>678</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>688</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>691</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>695</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>702</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>703</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>710</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>764</td>
<td>CYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>768</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>774</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>801</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>821</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>830</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>833</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>855</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>865</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>867</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>886</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>896</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>902</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>906</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>907</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>908</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>920</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>932</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>938</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>940</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>941</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>960</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>961</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>969</td>
<td>GLN</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>973</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>977</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>982</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>992</td>
<td>ASP</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1001</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1005</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1025</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1029</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1037</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1058</td>
<td>VAL</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1077</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1082</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1084</td>
<td>PHE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1085</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1086</td>
<td>PHE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1094</td>
<td>VAL</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1095</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1109</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1110</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1112</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1130</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1138</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1142</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1146</td>
<td>VAL</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1162</td>
<td>VAL</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1171</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1172</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1173</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1174</td>
<td>PHE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1175</td>
<td>SER</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1176</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1215</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1221</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1234</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1261</td>
<td>LYS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1264</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1269</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1270</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1274</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1280</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1291</td>
<td>VAL</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1293</td>
<td>SER</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>1297</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1299</td>
<td>VAL</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1322</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1325</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1329</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1333</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1354</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1366</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1376</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1382</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1391</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1393</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1394</td>
<td>THR</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1398</td>
<td>MET</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1420</td>
<td>ASP</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1422</td>
<td>ARG</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1425</td>
<td>SER</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1426</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>46</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>65</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>68</td>
<td>THR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>94</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>133</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>134</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>137</td>
<td>TYR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>164</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>183</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>199</td>
<td>MET</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>217</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>234</td>
<td>ILE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>244</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>245</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>246</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>268</td>
<td>THR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>273</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>276</td>
<td>ILE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>277</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>299</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>324</td>
<td>ILE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>333</td>
<td>PHE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>346</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>361</td>
<td>LEU</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>B</td>
<td>366</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>391</td>
<td>ASP</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>393</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>394</td>
<td>ASP</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>396</td>
<td>ASP</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>398</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>404</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>408</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>416</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>425</td>
<td>THR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>437</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>468</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>469</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>471</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>482</td>
<td>VAL</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>485</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>495</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>498</td>
<td>THR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>537</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>541</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>542</td>
<td>MET</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>555</td>
<td>ILE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>579</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>624</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>628</td>
<td>THR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>637</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>642</td>
<td>ASP</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>646</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>655</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>658</td>
<td>ILE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>666</td>
<td>TYR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>682</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>690</td>
<td>VAL</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>710</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>731</td>
<td>VAL</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>734</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>751</td>
<td>VAL</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>763</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>790</td>
<td>ASP</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>791</td>
<td>THR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>792</td>
<td>MET</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>807</td>
<td>ARG</td>
</tr>
</tbody>
</table>

*Continued on next page...*
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>B</td>
<td>815</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>825</td>
<td>VAL</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>831</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>864</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>866</td>
<td>TYR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>868</td>
<td>MET</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>869</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>878</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>879</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>880</td>
<td>THR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>882</td>
<td>THR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>886</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>899</td>
<td>ILE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>916</td>
<td>THR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>919</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>933</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>944</td>
<td>THR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>959</td>
<td>ASP</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>963</td>
<td>PHE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>967</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>969</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>983</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>987</td>
<td>LYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>996</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>997</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>999</td>
<td>MET</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1010</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1022</td>
<td>THR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1065</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1092</td>
<td>TYR</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1094</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1096</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1099</td>
<td>VAL</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1101</td>
<td>ASP</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1103</td>
<td>ILE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1111</td>
<td>MET</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1138</td>
<td>MET</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1147</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1160</td>
<td>VAL</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1166</td>
<td>CYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1176</td>
<td>ASN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1178</td>
<td>ASN</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>B</td>
<td>1181</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1182</td>
<td>CYS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1186</td>
<td>ASP</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1190</td>
<td>ASP</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1194</td>
<td>ILE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1196</td>
<td>ILE</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1202</td>
<td>LEU</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1222</td>
<td>ARG</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>18</td>
<td>VAL</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>25</td>
<td>VAL</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>27</td>
<td>LEU</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>32</td>
<td>SER</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>36</td>
<td>VAL</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>57</td>
<td>VAL</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>62</td>
<td>PHE</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>75</td>
<td>MET</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>77</td>
<td>ILE</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>89</td>
<td>GLU</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>91</td>
<td>HIS</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>93</td>
<td>ASP</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>106</td>
<td>GLU</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>117</td>
<td>ASP</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>120</td>
<td>ILE</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>129</td>
<td>ILE</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>137</td>
<td>LYS</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>140</td>
<td>ASN</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>145</td>
<td>CYS</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>166</td>
<td>GLU</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>170</td>
<td>TRP</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>196</td>
<td>ASP</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>214</td>
<td>ASN</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>215</td>
<td>GLU</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>231</td>
<td>ASN</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>235</td>
<td>VAL</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>240</td>
<td>VAL</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>244</td>
<td>VAL</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>254</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>31</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>37</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>46</td>
<td>TYR</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>52</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>65</td>
<td>THR</td>
</tr>
</tbody>
</table>

Continued on next page...
## Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>E</td>
<td>66</td>
<td>GLU</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>67</td>
<td>GLU</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>87</td>
<td>SER</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>92</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>95</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>104</td>
<td>ASN</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>107</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>122</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>127</td>
<td>ILE</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>146</td>
<td>HIS</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>152</td>
<td>LYS</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>162</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>165</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>169</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>175</td>
<td>LEU</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>204</td>
<td>THR</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>207</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>212</td>
<td>ARG</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>213</td>
<td>ILE</td>
</tr>
<tr>
<td>8</td>
<td>F</td>
<td>76</td>
<td>LYS</td>
</tr>
<tr>
<td>8</td>
<td>F</td>
<td>77</td>
<td>ASP</td>
</tr>
<tr>
<td>8</td>
<td>F</td>
<td>82</td>
<td>THR</td>
</tr>
<tr>
<td>8</td>
<td>F</td>
<td>90</td>
<td>ARG</td>
</tr>
<tr>
<td>8</td>
<td>F</td>
<td>111</td>
<td>LEU</td>
</tr>
<tr>
<td>8</td>
<td>F</td>
<td>133</td>
<td>VAL</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>2</td>
<td>SER</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>11</td>
<td>GLN</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>19</td>
<td>ARG</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>31</td>
<td>THR</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>33</td>
<td>GLN</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>35</td>
<td>GLN</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>36</td>
<td>CYS</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>53</td>
<td>ASP</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>58</td>
<td>THR</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>59</td>
<td>ILE</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>76</td>
<td>THR</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>78</td>
<td>SER</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>89</td>
<td>LEU</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>92</td>
<td>ASP</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>94</td>
<td>ASP</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>110</td>
<td>ASP</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>130</td>
<td>ARG</td>
</tr>
</tbody>
</table>

*Continued on next page...*
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>H</td>
<td>132</td>
<td>LEU</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>136</td>
<td>LYS</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>139</td>
<td>ASN</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>145</td>
<td>ARG</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>12</td>
<td>ASN</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>29</td>
<td>CYS</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>33</td>
<td>SER</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>40</td>
<td>SER</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>50</td>
<td>THR</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>52</td>
<td>ILE</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>55</td>
<td>THR</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>61</td>
<td>ASP</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>70</td>
<td>ARG</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>74</td>
<td>GLU</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>78</td>
<td>CYS</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>83</td>
<td>ASN</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>84</td>
<td>VAL</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>90</td>
<td>GLN</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>92</td>
<td>ARG</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>94</td>
<td>ASP</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>104</td>
<td>LEU</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>7</td>
<td>CYS</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>13</td>
<td>VAL</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>19</td>
<td>GLU</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>28</td>
<td>ASP</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>43</td>
<td>ARG</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>48</td>
<td>ARG</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>55</td>
<td>ASP</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>62</td>
<td>ARG</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>11</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>18</td>
<td>LYS</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>20</td>
<td>LYS</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>31</td>
<td>VAL</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>42</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>50</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>78</td>
<td>THR</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>101</td>
<td>LEU</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>103</td>
<td>THR</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>27</td>
<td>LEU</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>31</td>
<td>CYS</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>34</td>
<td>CYS</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>38</td>
<td>LEU</td>
</tr>
</tbody>
</table>

Continued on next page...
Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (89) such sidechains are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>4</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>18</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>54</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>64</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>83</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>92</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>119</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>225</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>253</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>282</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>297</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>299</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>313</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>339</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>445</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>503</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>517</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>584</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>631</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>648</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>741</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>757</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>768</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>786</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>926</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>965</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>969</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>996</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1009</td>
<td>ASN</td>
</tr>
<tr>
<td>Mol</td>
<td>Chain</td>
<td>Res</td>
<td>Type</td>
</tr>
<tr>
<td>-----</td>
<td>-------</td>
<td>-----</td>
<td>------</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1082</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1110</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1130</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1218</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1265</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1364</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1387</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1393</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1427</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1432</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>121</td>
<td>ASN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>206</td>
<td>ASN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>215</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>255</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>325</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>366</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>383</td>
<td>ASN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>395</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>415</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>484</td>
<td>ASN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>513</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>515</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>516</td>
<td>ASN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>518</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>657</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>733</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>744</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>762</td>
<td>ASN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>794</td>
<td>ASN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>822</td>
<td>ASN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>887</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>957</td>
<td>ASN</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>984</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1015</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1025</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1062</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1076</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1141</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1161</td>
<td>HIS</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>73</td>
<td>GLN</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>112</td>
<td>ASN</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>123</td>
<td>ASN</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>C</td>
<td>167</td>
<td>HIS</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>203</td>
<td>GLN</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>214</td>
<td>ASN</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>231</td>
<td>ASN</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>242</td>
<td>GLN</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>264</td>
<td>GLN</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>104</td>
<td>ASN</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>3</td>
<td>ASN</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>11</td>
<td>GLN</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>33</td>
<td>GLN</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>12</td>
<td>ASN</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>83</td>
<td>ASN</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>116</td>
<td>ASN</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>53</td>
<td>HIS</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>40</td>
<td>HIS</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>52</td>
<td>ASN</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>65</td>
<td>HIS</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>76</td>
<td>GLN</td>
</tr>
</tbody>
</table>

5.3.3 RNA

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>Backbone Outliers</th>
<th>Pucker Outliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R</td>
<td>8/10 (80%)</td>
<td>1 (12%)</td>
<td>0</td>
</tr>
</tbody>
</table>

All (1) RNA backbone outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R</td>
<td>2</td>
<td>U</td>
</tr>
</tbody>
</table>

There are no RNA pucker outliers to report.

5.4 Non-standard residues in protein, DNA, RNA chains

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates

There are no carbohydrates in this entry.
5.6 Ligand geometry

Of 13 ligands modelled in this entry, 11 are monoatomic - leaving 2 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

<table>
<thead>
<tr>
<th>Mol</th>
<th>Type</th>
<th>Chain</th>
<th>Res</th>
<th>Link</th>
<th>Bond lengths</th>
<th>Bond angles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Counts</td>
<td>RMSZ</td>
</tr>
<tr>
<td>14</td>
<td>DUT</td>
<td>T</td>
<td>29[A]</td>
<td>16</td>
<td>22,29,29</td>
<td>1.41</td>
</tr>
<tr>
<td>14</td>
<td>DUT</td>
<td>T</td>
<td>29[B]</td>
<td>16</td>
<td>22,29,29</td>
<td>1.41</td>
</tr>
</tbody>
</table>

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Type</th>
<th>Chain</th>
<th>Res</th>
<th>Link</th>
<th>Chirals</th>
<th>Torsions</th>
<th>Rings</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>DUT</td>
<td>T</td>
<td>29[A]</td>
<td>16</td>
<td>-</td>
<td>0/18/34/34</td>
<td>0/2/2/2</td>
</tr>
<tr>
<td>14</td>
<td>DUT</td>
<td>T</td>
<td>29[B]</td>
<td>16</td>
<td>-</td>
<td>0/18/34/34</td>
<td>0/2/2/2</td>
</tr>
</tbody>
</table>

All (4) bond length outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(Å)</th>
<th>Ideal(Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>T</td>
<td>29[B]</td>
<td>DUT</td>
<td>C6-N1</td>
<td>3.43</td>
<td>1.40</td>
<td>1.35</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[A]</td>
<td>DUT</td>
<td>C6-N1</td>
<td>3.50</td>
<td>1.40</td>
<td>1.35</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[A]</td>
<td>DUT</td>
<td>C4-N3</td>
<td>4.13</td>
<td>1.40</td>
<td>1.33</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[B]</td>
<td>DUT</td>
<td>C4-N3</td>
<td>4.14</td>
<td>1.40</td>
<td>1.33</td>
</tr>
</tbody>
</table>

All (15) bond angle outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(°)</th>
<th>Ideal(°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>T</td>
<td>29[B]</td>
<td>DUT</td>
<td>C2'-C1'-N1</td>
<td>-4.64</td>
<td>103.46</td>
<td>114.27</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[B]</td>
<td>DUT</td>
<td>C5-C4-N3</td>
<td>-2.93</td>
<td>116.36</td>
<td>123.17</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[B]</td>
<td>DUT</td>
<td>O3B-PG-O1G</td>
<td>-2.93</td>
<td>93.80</td>
<td>111.48</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[B]</td>
<td>DUT</td>
<td>C5'-C4'-C3'</td>
<td>-2.85</td>
<td>98.02</td>
<td>114.74</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[A]</td>
<td>DUT</td>
<td>PB-O3B-PG</td>
<td>-2.58</td>
<td>123.97</td>
<td>132.63</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[B]</td>
<td>DUT</td>
<td>O3'-C3'-C2'</td>
<td>-2.50</td>
<td>101.81</td>
<td>110.86</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[A]</td>
<td>DUT</td>
<td>PB-O3A-PA</td>
<td>-2.31</td>
<td>124.87</td>
<td>132.63</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(°)</th>
<th>Ideal(°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>T</td>
<td>29[B]</td>
<td>DUT</td>
<td>O4'-C1'-N1</td>
<td>2.27</td>
<td>111.61</td>
<td>107.78</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[B]</td>
<td>DUT</td>
<td>O3G-PG-O2G</td>
<td>2.54</td>
<td>117.64</td>
<td>107.59</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[A]</td>
<td>DUT</td>
<td>O4'-C1'-N1</td>
<td>4.00</td>
<td>114.52</td>
<td>107.78</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[B]</td>
<td>DUT</td>
<td>O2G-PG-O1G</td>
<td>4.28</td>
<td>127.28</td>
<td>110.60</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[B]</td>
<td>DUT</td>
<td>O5'-C5'-C4'</td>
<td>7.66</td>
<td>135.64</td>
<td>109.00</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[B]</td>
<td>DUT</td>
<td>O4'-C4'-C5'</td>
<td>11.34</td>
<td>147.16</td>
<td>109.39</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[B]</td>
<td>DUT</td>
<td>C4-N3-C2</td>
<td>11.54</td>
<td>124.07</td>
<td>114.14</td>
</tr>
</tbody>
</table>

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 16 short contacts:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Clashes</th>
<th>Symm-Clashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>T</td>
<td>29[A]</td>
<td>DUT</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>T</td>
<td>29[B]</td>
<td>DUT</td>
<td>13</td>
<td>0</td>
</tr>
</tbody>
</table>

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.
6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>&lt;RSRZ&gt;</th>
<th>#RSRZ&gt;2</th>
<th>OWAB(Å²)</th>
<th>Q&lt;0.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R</td>
<td>10/10 (100%)</td>
<td>-0.51</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>28/28 (100%)</td>
<td>0.59</td>
<td>7 (25%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>14/14 (100%)</td>
<td>1.35</td>
<td>5 (35%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1405/1733 (81%)</td>
<td>0.34</td>
<td>88 (6%)</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1114/1224 (91%)</td>
<td>0.37</td>
<td>48 (4%)</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>266/318 (83%)</td>
<td>-0.02</td>
<td>1 (0%)</td>
<td>92</td>
<td>92</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>214/215 (99%)</td>
<td>0.58</td>
<td>27 (12%)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>F</td>
<td>85/155 (54%)</td>
<td>-0.11</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>133/146 (91%)</td>
<td>0.58</td>
<td>12 (9%)</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>119/122 (97%)</td>
<td>0.06</td>
<td>3 (2%)</td>
<td>57</td>
<td>54</td>
</tr>
<tr>
<td>11</td>
<td>J</td>
<td>65/70 (92%)</td>
<td>0.17</td>
<td>1 (1%)</td>
<td>73</td>
<td>72</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>114/120 (95%)</td>
<td>0.06</td>
<td>1 (0%)</td>
<td>84</td>
<td>83</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>46/70 (65%)</td>
<td>0.45</td>
<td>2 (4%)</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>3613/4225 (85%)</td>
<td>0.32</td>
<td>195 (5%)</td>
<td>26</td>
<td>21</td>
</tr>
</tbody>
</table>

All (195) RSRZ outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>RSRZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>1087</td>
<td>ALA</td>
<td>7.8</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1082</td>
<td>ASN</td>
<td>7.8</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>250</td>
<td>PHE</td>
<td>7.4</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>869</td>
<td>SER</td>
<td>7.4</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1089</td>
<td>VAL</td>
<td>6.7</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>69</td>
<td>THR</td>
<td>6.5</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>883</td>
<td>LEU</td>
<td>6.4</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>65</td>
<td>LEU</td>
<td>6.3</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>866</td>
<td>TYR</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>RSRZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>1085</td>
<td>HIS</td>
<td>6.3</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>93</td>
<td>MET</td>
<td>6.2</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>27</td>
<td>LEU</td>
<td>6.2</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>85</td>
<td>GLY</td>
<td>5.9</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>44</td>
<td>THR</td>
<td>5.7</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1224</td>
<td>PHE</td>
<td>5.7</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>311</td>
<td>GLN</td>
<td>5.6</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>121</td>
<td>MET</td>
<td>5.4</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1176</td>
<td>LEU</td>
<td>5.4</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1091</td>
<td>SER</td>
<td>5.3</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1083</td>
<td>THR</td>
<td>5.2</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>152</td>
<td>VAL</td>
<td>5.1</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>86</td>
<td>ASP</td>
<td>5.0</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>250</td>
<td>ILE</td>
<td>5.0</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1090</td>
<td>ALA</td>
<td>4.9</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>132</td>
<td>LEU</td>
<td>4.8</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>150</td>
<td>THR</td>
<td>4.8</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>429</td>
<td>PHE</td>
<td>4.7</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>149</td>
<td>GLU</td>
<td>4.7</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>168</td>
<td>GLY</td>
<td>4.6</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>249</td>
<td>ARG</td>
<td>4.5</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>256</td>
<td>GLN</td>
<td>4.5</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>115</td>
<td>LEU</td>
<td>4.3</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>316</td>
<td>GLN</td>
<td>4.3</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>882</td>
<td>THR</td>
<td>4.3</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>83</td>
<td>CYS</td>
<td>4.2</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1223</td>
<td>ASP</td>
<td>4.2</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>865</td>
<td>LYS</td>
<td>4.2</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>2</td>
<td>ASP</td>
<td>4.1</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>318</td>
<td>SER</td>
<td>4.1</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>126</td>
<td>SER</td>
<td>4.1</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>255</td>
<td>SER</td>
<td>4.0</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>50</td>
<td>MET</td>
<td>4.0</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>105</td>
<td>CYS</td>
<td>3.9</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>3</td>
<td>DA</td>
<td>3.9</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>474</td>
<td>SER</td>
<td>3.9</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>145</td>
<td>LYS</td>
<td>3.8</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1088</td>
<td>GLY</td>
<td>3.8</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>286</td>
<td>HIS</td>
<td>3.8</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>647</td>
<td>GLY</td>
<td>3.8</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>182</td>
<td>VAL</td>
<td>3.8</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>113</td>
<td>LEU</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>RSRZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>N</td>
<td>14</td>
<td>DG</td>
<td>3.7</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>49</td>
<td>SER</td>
<td>3.7</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>174</td>
<td>ILE</td>
<td>3.7</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>165</td>
<td>GLY</td>
<td>3.7</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>868</td>
<td>MET</td>
<td>3.6</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1175</td>
<td>SER</td>
<td>3.6</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1222</td>
<td>ARG</td>
<td>3.6</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1086</td>
<td>PHE</td>
<td>3.6</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>183</td>
<td>GLY</td>
<td>3.6</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>2</td>
<td>DT</td>
<td>3.6</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>153</td>
<td>PRO</td>
<td>3.5</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>666</td>
<td>TYR</td>
<td>3.5</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1234</td>
<td>GLU</td>
<td>3.5</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>257</td>
<td>ARG</td>
<td>3.4</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>251</td>
<td>ILE</td>
<td>3.4</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>709</td>
<td>ASP</td>
<td>3.4</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>1</td>
<td>DC</td>
<td>3.4</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1084</td>
<td>PHE</td>
<td>3.4</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>114</td>
<td>LEU</td>
<td>3.4</td>
</tr>
<tr>
<td>13</td>
<td>L</td>
<td>43</td>
<td>THR</td>
<td>3.4</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>96</td>
<td>PHE</td>
<td>3.3</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>119</td>
<td>SER</td>
<td>3.3</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>154</td>
<td>SER</td>
<td>3.3</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>141</td>
<td>LEU</td>
<td>3.3</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>123</td>
<td>LEU</td>
<td>3.2</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>84</td>
<td>ALA</td>
<td>3.2</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1173</td>
<td>HIS</td>
<td>3.2</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>870</td>
<td>ILE</td>
<td>3.2</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>129</td>
<td>PRO</td>
<td>3.2</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>171</td>
<td>GLN</td>
<td>3.2</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>52</td>
<td>ARG</td>
<td>3.1</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>133</td>
<td>ASN</td>
<td>3.1</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>146</td>
<td>MET</td>
<td>3.1</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>104</td>
<td>ASN</td>
<td>3.0</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>164</td>
<td>ARG</td>
<td>3.0</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>176</td>
<td>LYS</td>
<td>3.0</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>82</td>
<td>PRO</td>
<td>3.0</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>252</td>
<td>SER</td>
<td>3.0</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1184</td>
<td>GLY</td>
<td>3.0</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>317</td>
<td>LYS</td>
<td>3.0</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>109</td>
<td>HIS</td>
<td>3.0</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>124</td>
<td>VAL</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>RSRZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>E</td>
<td>122</td>
<td>LYS</td>
<td>2.9</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>86</td>
<td>PRO</td>
<td>2.9</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>49</td>
<td>LYS</td>
<td>2.9</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>144</td>
<td>THR</td>
<td>2.9</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>166</td>
<td>GLY</td>
<td>2.8</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>91</td>
<td>PHE</td>
<td>2.8</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>714</td>
<td>GLU</td>
<td>2.8</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>161</td>
<td>LEU</td>
<td>2.8</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>880</td>
<td>THR</td>
<td>2.7</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>645</td>
<td>SER</td>
<td>2.7</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>200</td>
<td>ARG</td>
<td>2.7</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>475</td>
<td>SER</td>
<td>2.7</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>246</td>
<td>LYS</td>
<td>2.7</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>90</td>
<td>VAL</td>
<td>2.7</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1188</td>
<td>GLN</td>
<td>2.6</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>110</td>
<td>PHE</td>
<td>2.6</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1221</td>
<td>SER</td>
<td>2.6</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>181</td>
<td>LEU</td>
<td>2.6</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>436</td>
<td>VAL</td>
<td>2.6</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>660</td>
<td>ASN</td>
<td>2.6</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>254</td>
<td>GLU</td>
<td>2.6</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>2</td>
<td>SER</td>
<td>2.6</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>162</td>
<td>VAL</td>
<td>2.6</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>733</td>
<td>HIS</td>
<td>2.6</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>134</td>
<td>LYS</td>
<td>2.6</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>45</td>
<td>GLN</td>
<td>2.5</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>4</td>
<td>DC</td>
<td>2.5</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>66</td>
<td>ASP</td>
<td>2.5</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>106</td>
<td>VAL</td>
<td>2.5</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>57</td>
<td>MET</td>
<td>2.5</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>108</td>
<td>SER</td>
<td>2.5</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>175</td>
<td>ARG</td>
<td>2.4</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>127</td>
<td>ILE</td>
<td>2.4</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>103</td>
<td>CYS</td>
<td>2.4</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>64</td>
<td>ASN</td>
<td>2.4</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>72</td>
<td>GLU</td>
<td>2.4</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>658</td>
<td>LEU</td>
<td>2.4</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>104</td>
<td>GLU</td>
<td>2.4</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>248</td>
<td>SER</td>
<td>2.4</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>55</td>
<td>ARG</td>
<td>2.4</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>83</td>
<td>GLN</td>
<td>2.4</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>244</td>
<td>LEU</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>RSRZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A</td>
<td>120</td>
<td>GLU</td>
<td>2.3</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>659</td>
<td>HIS</td>
<td>2.3</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>119</td>
<td>THR</td>
<td>2.3</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>167</td>
<td>CYS</td>
<td>2.3</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>356</td>
<td>LEU</td>
<td>2.3</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>151</td>
<td>ASP</td>
<td>2.3</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1000</td>
<td>PRO</td>
<td>2.3</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>1191</td>
<td>ILE</td>
<td>2.3</td>
</tr>
<tr>
<td>6</td>
<td>C</td>
<td>213</td>
<td>PRO</td>
<td>2.3</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>127</td>
<td>ALA</td>
<td>2.3</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>840</td>
<td>ILE</td>
<td>2.3</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>135</td>
<td>ARG</td>
<td>2.2</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>312</td>
<td>PRO</td>
<td>2.2</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>140</td>
<td>ILE</td>
<td>2.2</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>16</td>
<td>PHE</td>
<td>2.2</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>10</td>
<td>DA</td>
<td>2.2</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>57</td>
<td>ARG</td>
<td>2.2</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>117</td>
<td>LYS</td>
<td>2.2</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>247</td>
<td>GLY</td>
<td>2.2</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>844</td>
<td>SER</td>
<td>2.2</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>66</td>
<td>GLU</td>
<td>2.2</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>114</td>
<td>LEU</td>
<td>2.2</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>137</td>
<td>TYR</td>
<td>2.2</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>253</td>
<td>ASN</td>
<td>2.2</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>116</td>
<td>ASN</td>
<td>2.2</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>121</td>
<td>LEU</td>
<td>2.2</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>281</td>
<td>HIS</td>
<td>2.2</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>5</td>
<td>DC</td>
<td>2.2</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>867</td>
<td>GLY</td>
<td>2.2</td>
</tr>
<tr>
<td>9</td>
<td>H</td>
<td>92</td>
<td>ASP</td>
<td>2.2</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>47</td>
<td>CYS</td>
<td>2.2</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>108</td>
<td>MET</td>
<td>2.2</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>426</td>
<td>LEU</td>
<td>2.2</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>13</td>
<td>DA</td>
<td>2.2</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>67</td>
<td>SER</td>
<td>2.2</td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>82</td>
<td>PHE</td>
<td>2.1</td>
</tr>
<tr>
<td>2</td>
<td>T</td>
<td>11</td>
<td>DG</td>
<td>2.1</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>7</td>
<td>DA</td>
<td>2.1</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>383</td>
<td>TYR</td>
<td>2.1</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>999</td>
<td>MET</td>
<td>2.1</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>251</td>
<td>SER</td>
<td>2.1</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>656</td>
<td>TRP</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Continued on next page...
6.2 Non-standard residues in protein, DNA, RNA chains

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates

There are no carbohydrates in this entry.

6.4 Ligands

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled ‘$Q < 0.9$’ lists the number of atoms with occupancy less than 0.9.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Type</th>
<th>Chain</th>
<th>Res</th>
<th>Atoms</th>
<th>RSCC</th>
<th>RSR</th>
<th>B-factors(Å$^2$)</th>
<th>Q&lt;0.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>MG</td>
<td>A</td>
<td>2002[B]</td>
<td>1/1</td>
<td>\textbf{0.72}</td>
<td>\textbf{0.60}</td>
<td>33,33,33,33</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>MG</td>
<td>A</td>
<td>2002[A]</td>
<td>1/1</td>
<td>\textbf{0.72}</td>
<td>\textbf{0.60}</td>
<td>43,43,43,43</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>DUT</td>
<td>T</td>
<td>29[B]</td>
<td>28/28</td>
<td>0.73</td>
<td>0.40</td>
<td>70,73,79,80</td>
<td>28</td>
</tr>
<tr>
<td>14</td>
<td>DUT</td>
<td>T</td>
<td>29[A]</td>
<td>28/28</td>
<td>0.73</td>
<td>0.40</td>
<td>76,80,97,98</td>
<td>28</td>
</tr>
<tr>
<td>15</td>
<td>ZN</td>
<td>A</td>
<td>1734</td>
<td>1/1</td>
<td>0.77</td>
<td>0.11</td>
<td>84,84,84,84</td>
<td>0</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Type</th>
<th>Chain</th>
<th>Res</th>
<th>Atoms</th>
<th>RCC</th>
<th>RSR</th>
<th>B-factors(Å²)</th>
<th>Q&lt;0.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>ZN</td>
<td>I</td>
<td>203</td>
<td>1/1</td>
<td>0.89</td>
<td>0.17</td>
<td>83,83,83,83</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>MG</td>
<td>A</td>
<td>2001</td>
<td>1/1</td>
<td>0.95</td>
<td>0.29</td>
<td>46,46,46,46</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>ZN</td>
<td>B</td>
<td>1307</td>
<td>1/1</td>
<td>0.96</td>
<td>0.05</td>
<td>80,80,80,80</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>ZN</td>
<td>C</td>
<td>319</td>
<td>1/1</td>
<td>0.96</td>
<td>0.13</td>
<td>48,48,48,48</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>ZN</td>
<td>I</td>
<td>204</td>
<td>1/1</td>
<td>0.97</td>
<td>0.07</td>
<td>57,57,57,57</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>ZN</td>
<td>J</td>
<td>101</td>
<td>1/1</td>
<td>0.98</td>
<td>0.20</td>
<td>50,50,50,50</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>ZN</td>
<td>A</td>
<td>1735</td>
<td>1/1</td>
<td>0.98</td>
<td>0.07</td>
<td>78,78,78,78</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>ZN</td>
<td>L</td>
<td>105</td>
<td>1/1</td>
<td>0.98</td>
<td>0.06</td>
<td>91,91,91,91</td>
<td>0</td>
</tr>
</tbody>
</table>

6.5 Other polymers

There are no such residues in this entry.