Full wwPDB X-ray Structure Validation Report ⓘ

Oct 26, 2024 – 07:25 AM EDT

PDB ID	:	4XJN
Title	:	Structure of the parainfluenza virus 5 nucleocapsid-RNA complex: an insight into paramyxovirus polymerase activity
Authors	:	Alayyoubi, M.; Leser, G.P.; Kors, C.A.; Lamb, R.A.
Deposited on	:	2015-01-08
Resolution	:	3.11 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
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

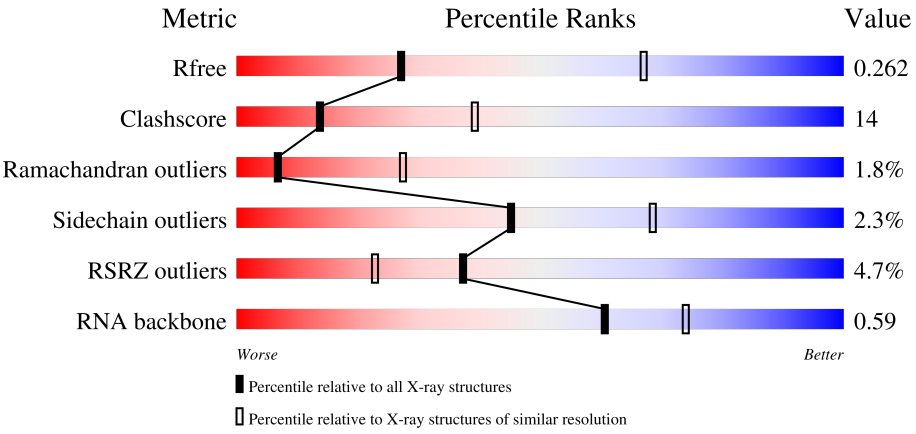
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.20.1
EDS	:	3.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.003 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.11 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.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	164625	1668 (3.14-3.10)
Clashscore	180529	1788 (3.14-3.10)
Ramachandran outliers	177936	1696 (3.14-3.10)
Sidechain outliers	177891	1696 (3.14-3.10)
RSRZ outliers	164620	1668 (3.14-3.10)
RNA backbone	3690	1012 (3.38-2.86)

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 of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. 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 <=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.

Mol	Chain	Length	Quality of chain
1	A	525	2% 50% 23% • 25%
1	B	525	3% 52% 22% • 25%
1	C	525	4% 49% 24% • 25%
1	D	525	5% 51% 23% • 25%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
1	E	525	2% 50% 23% 25%
1	F	525	4% 53% 21% 25%
1	G	525	5% 48% 24% 25%
1	H	525	3% 50% 24% 25%
1	I	525	5% 55% 19% 25%
1	J	525	3% 49% 26% 25%
1	K	525	2% 50% 23% 25%
1	L	525	3% 49% 24% 25%
1	M	525	4% 53% 21% 25%
2	N	78	67% 28% 5%

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:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
3	PB	B	601	-	-	-	X

2 Entry composition (i)

There are 3 unique types of molecules in this entry. The entry contains 42329 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 protein called Nucleocapsid.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	395	Total	C	N	O	S	16	0	0
			3135	1992	541	579	23			
1	B	395	Total	C	N	O	S	16	0	0
			3135	1992	541	579	23			
1	C	395	Total	C	N	O	S	16	0	0
			3135	1992	541	579	23			
1	D	395	Total	C	N	O	S	16	0	0
			3135	1992	541	579	23			
1	E	395	Total	C	N	O	S	16	0	0
			3135	1992	541	579	23			
1	F	395	Total	C	N	O	S	16	0	0
			3135	1992	541	579	23			
1	G	395	Total	C	N	O	S	16	0	0
			3135	1992	541	579	23			
1	H	395	Total	C	N	O	S	16	0	0
			3135	1992	541	579	23			
1	I	395	Total	C	N	O	S	16	0	0
			3135	1992	541	579	23			
1	J	395	Total	C	N	O	S	16	0	0
			3135	1992	541	579	23			
1	K	395	Total	C	N	O	S	16	0	0
			3135	1992	541	579	23			
1	L	395	Total	C	N	O	S	16	0	0
			3135	1992	541	579	23			
1	M	395	Total	C	N	O	S	16	0	0
			3135	1992	541	579	23			

There are 208 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-15	HIS	-	expression tag	UNP W5QKM4
A	-14	HIS	-	expression tag	UNP W5QKM4
A	-13	HIS	-	expression tag	UNP W5QKM4

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
A	-12	HIS	-	expression tag	UNP W5QKM4
A	-11	HIS	-	expression tag	UNP W5QKM4
A	-10	HIS	-	expression tag	UNP W5QKM4
A	-9	SER	-	expression tag	UNP W5QKM4
A	-8	SER	-	expression tag	UNP W5QKM4
A	-7	GLY	-	expression tag	UNP W5QKM4
A	-6	LEU	-	expression tag	UNP W5QKM4
A	-5	VAL	-	expression tag	UNP W5QKM4
A	-4	PRO	-	expression tag	UNP W5QKM4
A	-3	ARG	-	expression tag	UNP W5QKM4
A	-2	GLY	-	expression tag	UNP W5QKM4
A	-1	SER	-	expression tag	UNP W5QKM4
A	0	HIS	-	expression tag	UNP W5QKM4
B	-15	HIS	-	expression tag	UNP W5QKM4
B	-14	HIS	-	expression tag	UNP W5QKM4
B	-13	HIS	-	expression tag	UNP W5QKM4
B	-12	HIS	-	expression tag	UNP W5QKM4
B	-11	HIS	-	expression tag	UNP W5QKM4
B	-10	HIS	-	expression tag	UNP W5QKM4
B	-9	SER	-	expression tag	UNP W5QKM4
B	-8	SER	-	expression tag	UNP W5QKM4
B	-7	GLY	-	expression tag	UNP W5QKM4
B	-6	LEU	-	expression tag	UNP W5QKM4
B	-5	VAL	-	expression tag	UNP W5QKM4
B	-4	PRO	-	expression tag	UNP W5QKM4
B	-3	ARG	-	expression tag	UNP W5QKM4
B	-2	GLY	-	expression tag	UNP W5QKM4
B	-1	SER	-	expression tag	UNP W5QKM4
B	0	HIS	-	expression tag	UNP W5QKM4
C	-15	HIS	-	expression tag	UNP W5QKM4
C	-14	HIS	-	expression tag	UNP W5QKM4
C	-13	HIS	-	expression tag	UNP W5QKM4
C	-12	HIS	-	expression tag	UNP W5QKM4
C	-11	HIS	-	expression tag	UNP W5QKM4
C	-10	HIS	-	expression tag	UNP W5QKM4
C	-9	SER	-	expression tag	UNP W5QKM4
C	-8	SER	-	expression tag	UNP W5QKM4
C	-7	GLY	-	expression tag	UNP W5QKM4
C	-6	LEU	-	expression tag	UNP W5QKM4
C	-5	VAL	-	expression tag	UNP W5QKM4
C	-4	PRO	-	expression tag	UNP W5QKM4
C	-3	ARG	-	expression tag	UNP W5QKM4

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
C	-2	GLY	-	expression tag	UNP W5QKM4
C	-1	SER	-	expression tag	UNP W5QKM4
C	0	HIS	-	expression tag	UNP W5QKM4
D	-15	HIS	-	expression tag	UNP W5QKM4
D	-14	HIS	-	expression tag	UNP W5QKM4
D	-13	HIS	-	expression tag	UNP W5QKM4
D	-12	HIS	-	expression tag	UNP W5QKM4
D	-11	HIS	-	expression tag	UNP W5QKM4
D	-10	HIS	-	expression tag	UNP W5QKM4
D	-9	SER	-	expression tag	UNP W5QKM4
D	-8	SER	-	expression tag	UNP W5QKM4
D	-7	GLY	-	expression tag	UNP W5QKM4
D	-6	LEU	-	expression tag	UNP W5QKM4
D	-5	VAL	-	expression tag	UNP W5QKM4
D	-4	PRO	-	expression tag	UNP W5QKM4
D	-3	ARG	-	expression tag	UNP W5QKM4
D	-2	GLY	-	expression tag	UNP W5QKM4
D	-1	SER	-	expression tag	UNP W5QKM4
D	0	HIS	-	expression tag	UNP W5QKM4
E	-15	HIS	-	expression tag	UNP W5QKM4
E	-14	HIS	-	expression tag	UNP W5QKM4
E	-13	HIS	-	expression tag	UNP W5QKM4
E	-12	HIS	-	expression tag	UNP W5QKM4
E	-11	HIS	-	expression tag	UNP W5QKM4
E	-10	HIS	-	expression tag	UNP W5QKM4
E	-9	SER	-	expression tag	UNP W5QKM4
E	-8	SER	-	expression tag	UNP W5QKM4
E	-7	GLY	-	expression tag	UNP W5QKM4
E	-6	LEU	-	expression tag	UNP W5QKM4
E	-5	VAL	-	expression tag	UNP W5QKM4
E	-4	PRO	-	expression tag	UNP W5QKM4
E	-3	ARG	-	expression tag	UNP W5QKM4
E	-2	GLY	-	expression tag	UNP W5QKM4
E	-1	SER	-	expression tag	UNP W5QKM4
E	0	HIS	-	expression tag	UNP W5QKM4
F	-15	HIS	-	expression tag	UNP W5QKM4
F	-14	HIS	-	expression tag	UNP W5QKM4
F	-13	HIS	-	expression tag	UNP W5QKM4
F	-12	HIS	-	expression tag	UNP W5QKM4
F	-11	HIS	-	expression tag	UNP W5QKM4
F	-10	HIS	-	expression tag	UNP W5QKM4
F	-9	SER	-	expression tag	UNP W5QKM4

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
F	-8	SER	-	expression tag	UNP W5QKM4
F	-7	GLY	-	expression tag	UNP W5QKM4
F	-6	LEU	-	expression tag	UNP W5QKM4
F	-5	VAL	-	expression tag	UNP W5QKM4
F	-4	PRO	-	expression tag	UNP W5QKM4
F	-3	ARG	-	expression tag	UNP W5QKM4
F	-2	GLY	-	expression tag	UNP W5QKM4
F	-1	SER	-	expression tag	UNP W5QKM4
F	0	HIS	-	expression tag	UNP W5QKM4
G	-15	HIS	-	expression tag	UNP W5QKM4
G	-14	HIS	-	expression tag	UNP W5QKM4
G	-13	HIS	-	expression tag	UNP W5QKM4
G	-12	HIS	-	expression tag	UNP W5QKM4
G	-11	HIS	-	expression tag	UNP W5QKM4
G	-10	HIS	-	expression tag	UNP W5QKM4
G	-9	SER	-	expression tag	UNP W5QKM4
G	-8	SER	-	expression tag	UNP W5QKM4
G	-7	GLY	-	expression tag	UNP W5QKM4
G	-6	LEU	-	expression tag	UNP W5QKM4
G	-5	VAL	-	expression tag	UNP W5QKM4
G	-4	PRO	-	expression tag	UNP W5QKM4
G	-3	ARG	-	expression tag	UNP W5QKM4
G	-2	GLY	-	expression tag	UNP W5QKM4
G	-1	SER	-	expression tag	UNP W5QKM4
G	0	HIS	-	expression tag	UNP W5QKM4
H	-15	HIS	-	expression tag	UNP W5QKM4
H	-14	HIS	-	expression tag	UNP W5QKM4
H	-13	HIS	-	expression tag	UNP W5QKM4
H	-12	HIS	-	expression tag	UNP W5QKM4
H	-11	HIS	-	expression tag	UNP W5QKM4
H	-10	HIS	-	expression tag	UNP W5QKM4
H	-9	SER	-	expression tag	UNP W5QKM4
H	-8	SER	-	expression tag	UNP W5QKM4
H	-7	GLY	-	expression tag	UNP W5QKM4
H	-6	LEU	-	expression tag	UNP W5QKM4
H	-5	VAL	-	expression tag	UNP W5QKM4
H	-4	PRO	-	expression tag	UNP W5QKM4
H	-3	ARG	-	expression tag	UNP W5QKM4
H	-2	GLY	-	expression tag	UNP W5QKM4
H	-1	SER	-	expression tag	UNP W5QKM4
H	0	HIS	-	expression tag	UNP W5QKM4
I	-15	HIS	-	expression tag	UNP W5QKM4

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
I	-14	HIS	-	expression tag	UNP W5QKM4
I	-13	HIS	-	expression tag	UNP W5QKM4
I	-12	HIS	-	expression tag	UNP W5QKM4
I	-11	HIS	-	expression tag	UNP W5QKM4
I	-10	HIS	-	expression tag	UNP W5QKM4
I	-9	SER	-	expression tag	UNP W5QKM4
I	-8	SER	-	expression tag	UNP W5QKM4
I	-7	GLY	-	expression tag	UNP W5QKM4
I	-6	LEU	-	expression tag	UNP W5QKM4
I	-5	VAL	-	expression tag	UNP W5QKM4
I	-4	PRO	-	expression tag	UNP W5QKM4
I	-3	ARG	-	expression tag	UNP W5QKM4
I	-2	GLY	-	expression tag	UNP W5QKM4
I	-1	SER	-	expression tag	UNP W5QKM4
I	0	HIS	-	expression tag	UNP W5QKM4
J	-15	HIS	-	expression tag	UNP W5QKM4
J	-14	HIS	-	expression tag	UNP W5QKM4
J	-13	HIS	-	expression tag	UNP W5QKM4
J	-12	HIS	-	expression tag	UNP W5QKM4
J	-11	HIS	-	expression tag	UNP W5QKM4
J	-10	HIS	-	expression tag	UNP W5QKM4
J	-9	SER	-	expression tag	UNP W5QKM4
J	-8	SER	-	expression tag	UNP W5QKM4
J	-7	GLY	-	expression tag	UNP W5QKM4
J	-6	LEU	-	expression tag	UNP W5QKM4
J	-5	VAL	-	expression tag	UNP W5QKM4
J	-4	PRO	-	expression tag	UNP W5QKM4
J	-3	ARG	-	expression tag	UNP W5QKM4
J	-2	GLY	-	expression tag	UNP W5QKM4
J	-1	SER	-	expression tag	UNP W5QKM4
J	0	HIS	-	expression tag	UNP W5QKM4
K	-15	HIS	-	expression tag	UNP W5QKM4
K	-14	HIS	-	expression tag	UNP W5QKM4
K	-13	HIS	-	expression tag	UNP W5QKM4
K	-12	HIS	-	expression tag	UNP W5QKM4
K	-11	HIS	-	expression tag	UNP W5QKM4
K	-10	HIS	-	expression tag	UNP W5QKM4
K	-9	SER	-	expression tag	UNP W5QKM4
K	-8	SER	-	expression tag	UNP W5QKM4
K	-7	GLY	-	expression tag	UNP W5QKM4
K	-6	LEU	-	expression tag	UNP W5QKM4
K	-5	VAL	-	expression tag	UNP W5QKM4

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
K	-4	PRO	-	expression tag	UNP W5QKM4
K	-3	ARG	-	expression tag	UNP W5QKM4
K	-2	GLY	-	expression tag	UNP W5QKM4
K	-1	SER	-	expression tag	UNP W5QKM4
K	0	HIS	-	expression tag	UNP W5QKM4
L	-15	HIS	-	expression tag	UNP W5QKM4
L	-14	HIS	-	expression tag	UNP W5QKM4
L	-13	HIS	-	expression tag	UNP W5QKM4
L	-12	HIS	-	expression tag	UNP W5QKM4
L	-11	HIS	-	expression tag	UNP W5QKM4
L	-10	HIS	-	expression tag	UNP W5QKM4
L	-9	SER	-	expression tag	UNP W5QKM4
L	-8	SER	-	expression tag	UNP W5QKM4
L	-7	GLY	-	expression tag	UNP W5QKM4
L	-6	LEU	-	expression tag	UNP W5QKM4
L	-5	VAL	-	expression tag	UNP W5QKM4
L	-4	PRO	-	expression tag	UNP W5QKM4
L	-3	ARG	-	expression tag	UNP W5QKM4
L	-2	GLY	-	expression tag	UNP W5QKM4
L	-1	SER	-	expression tag	UNP W5QKM4
L	0	HIS	-	expression tag	UNP W5QKM4
M	-15	HIS	-	expression tag	UNP W5QKM4
M	-14	HIS	-	expression tag	UNP W5QKM4
M	-13	HIS	-	expression tag	UNP W5QKM4
M	-12	HIS	-	expression tag	UNP W5QKM4
M	-11	HIS	-	expression tag	UNP W5QKM4
M	-10	HIS	-	expression tag	UNP W5QKM4
M	-9	SER	-	expression tag	UNP W5QKM4
M	-8	SER	-	expression tag	UNP W5QKM4
M	-7	GLY	-	expression tag	UNP W5QKM4
M	-6	LEU	-	expression tag	UNP W5QKM4
M	-5	VAL	-	expression tag	UNP W5QKM4
M	-4	PRO	-	expression tag	UNP W5QKM4
M	-3	ARG	-	expression tag	UNP W5QKM4
M	-2	GLY	-	expression tag	UNP W5QKM4
M	-1	SER	-	expression tag	UNP W5QKM4
M	0	HIS	-	expression tag	UNP W5QKM4

- Molecule 2 is a RNA chain called RNA (78-MER).

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	N	78	Total 1560	C 702	N 156	O 624	P 78	0	0	0

- Molecule 3 is LEAD (II) ION (three-letter code: PB) (formula: Pb).

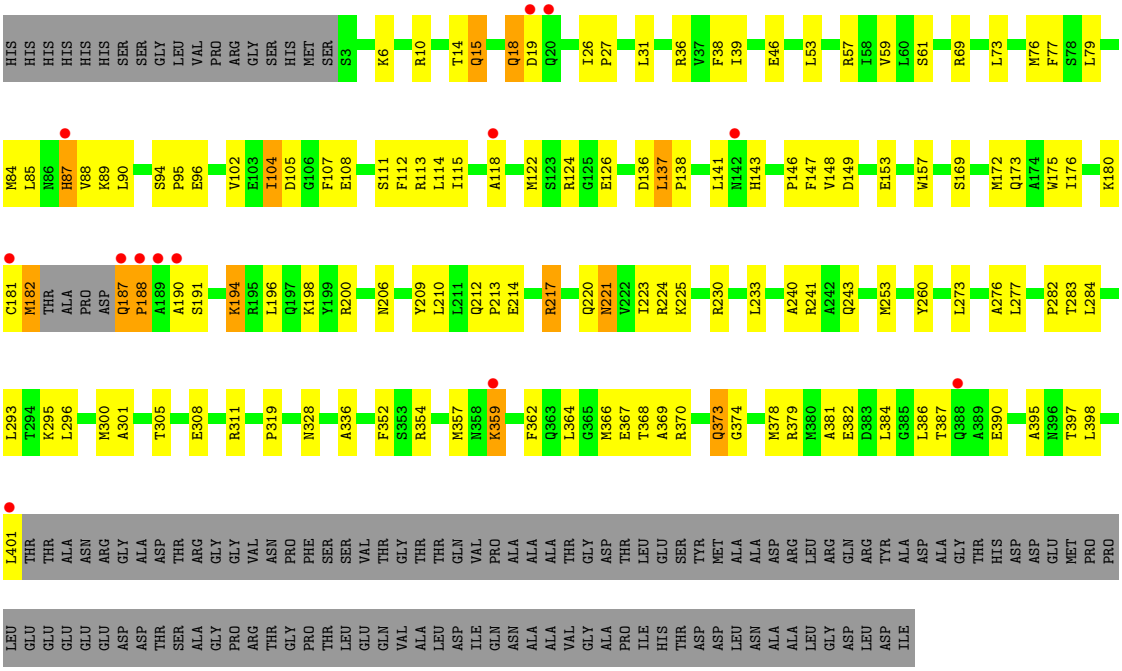
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	1	Total 1	Pb 1	0	0
3	B	1	Total 1	Pb 1	0	0
3	D	1	Total 1	Pb 1	0	0
3	G	1	Total 1	Pb 1	0	0
3	H	1	Total 1	Pb 1	0	0
3	I	2	Total 2	Pb 2	0	0
3	K	2	Total 2	Pb 2	0	0
3	M	4	Total 4	Pb 4	0	0
3	N	1	Total 1	Pb 1	0	0

3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide 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.

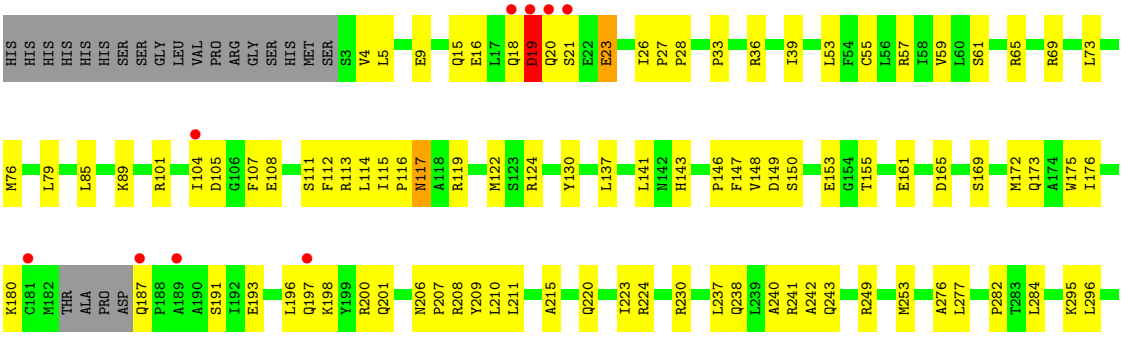
• Molecule 1: Nucleocapsid

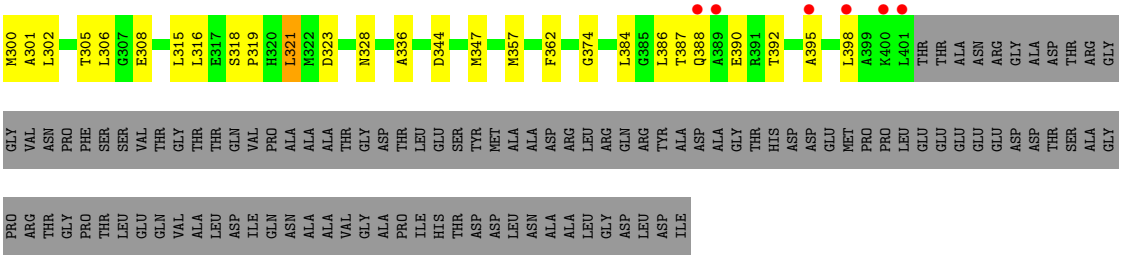
Chain A:



• Molecule 1: Nucleocapsid

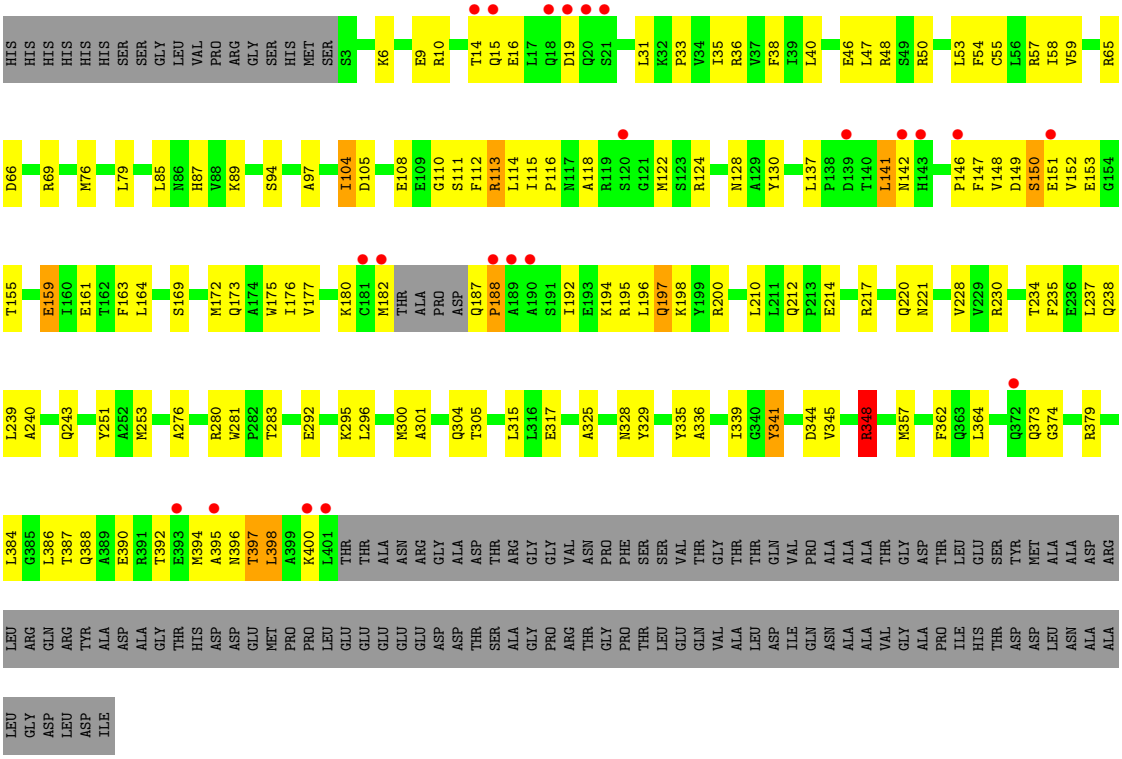
Chain B:





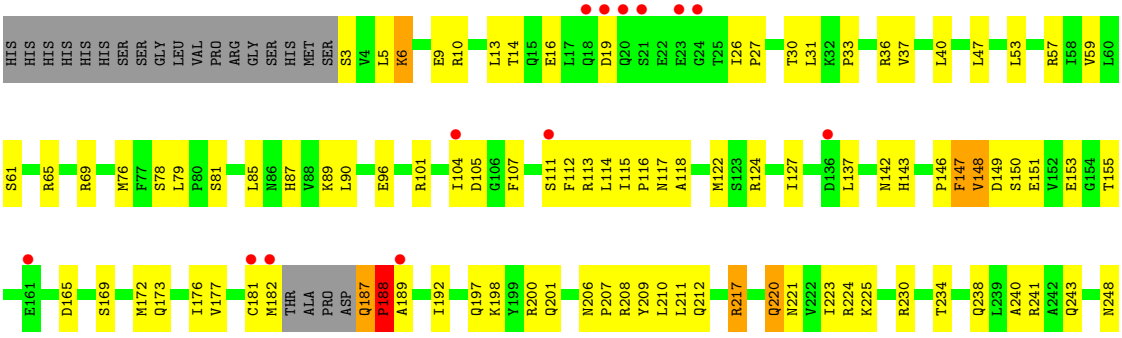
• Molecule 1: Nucleocapsid

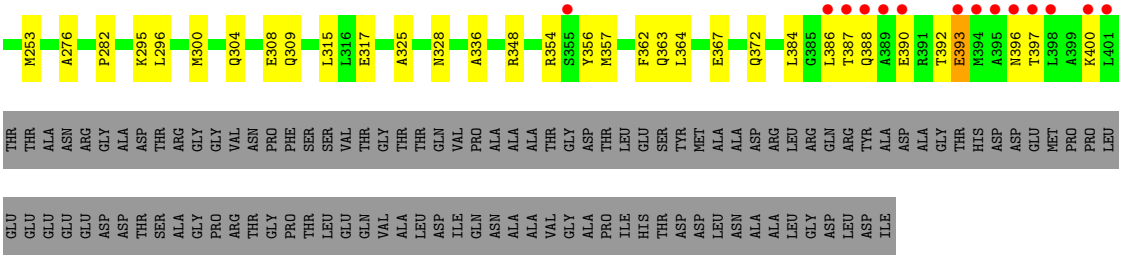
Chain C:



• Molecule 1: Nucleocapsid

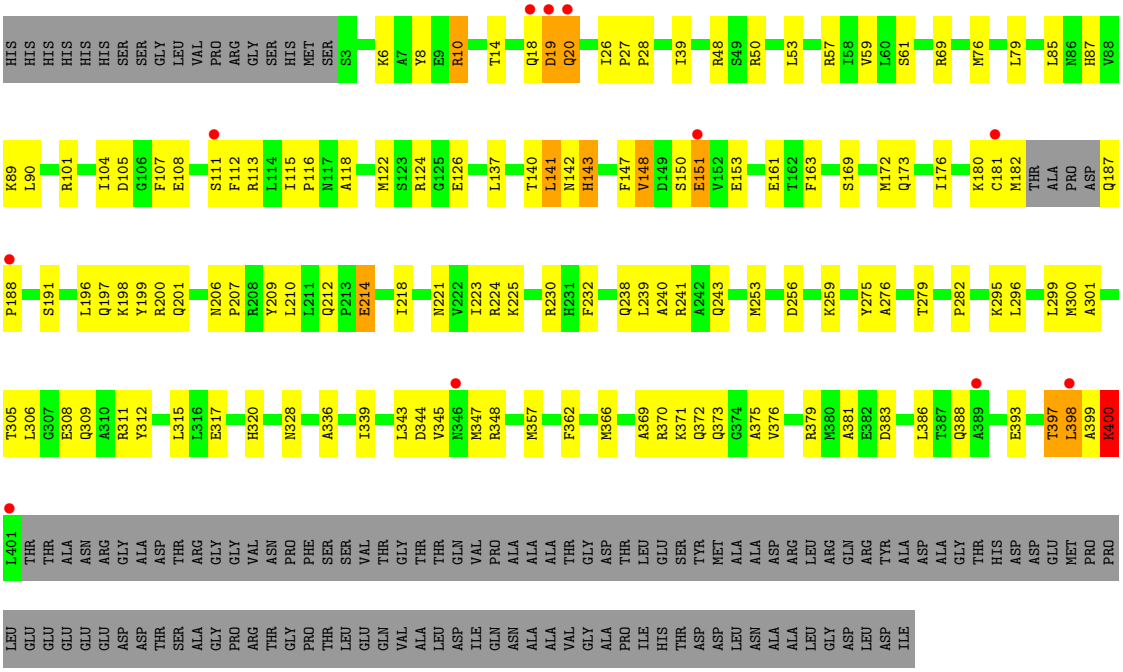
Chain D:





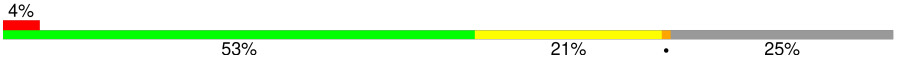
• Molecule 1: Nucleocapsid

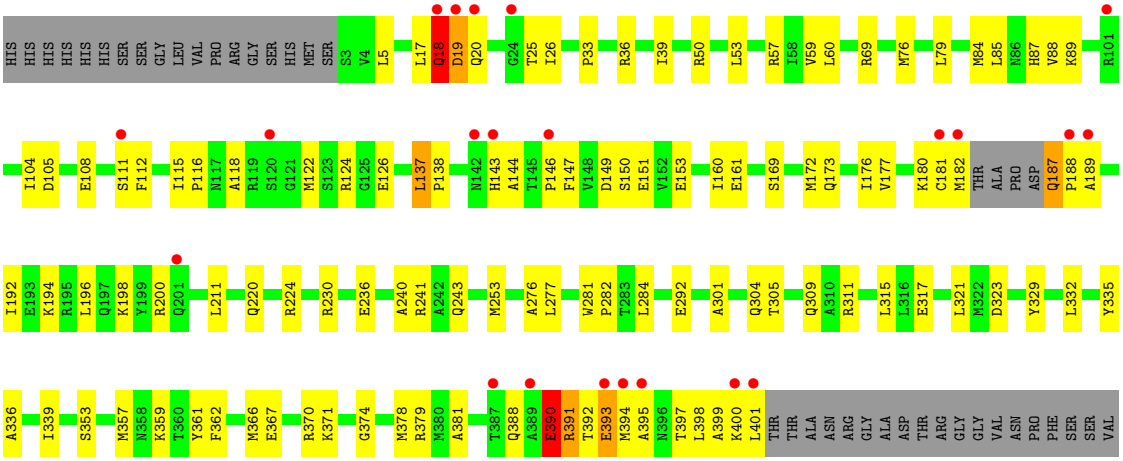
Chain E:

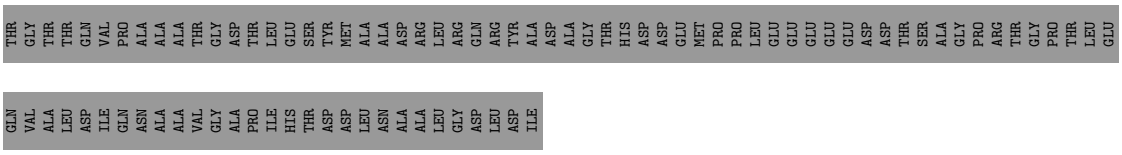


• Molecule 1: Nucleocapsid

Chain F:

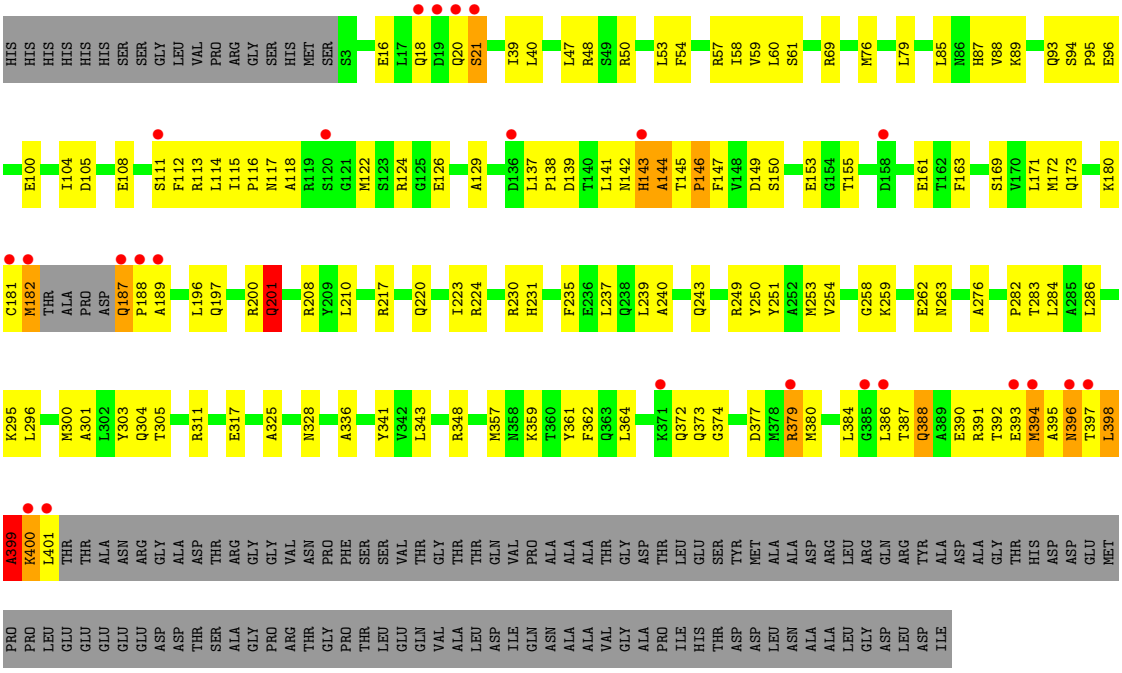






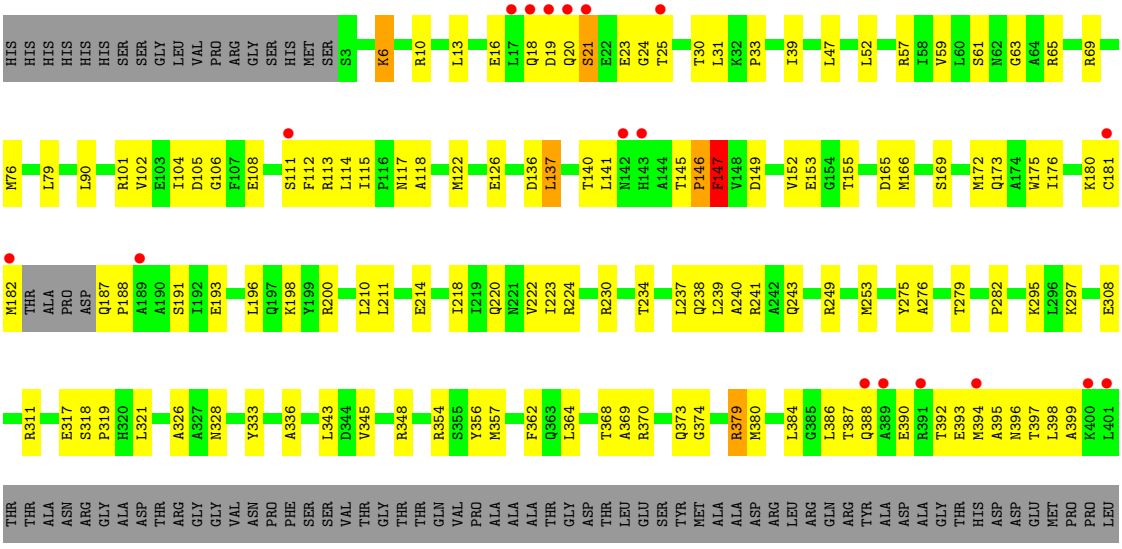
• Molecule 1: Nucleocapsid

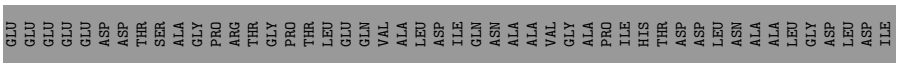
Chain G:



• Molecule 1: Nucleocapsid

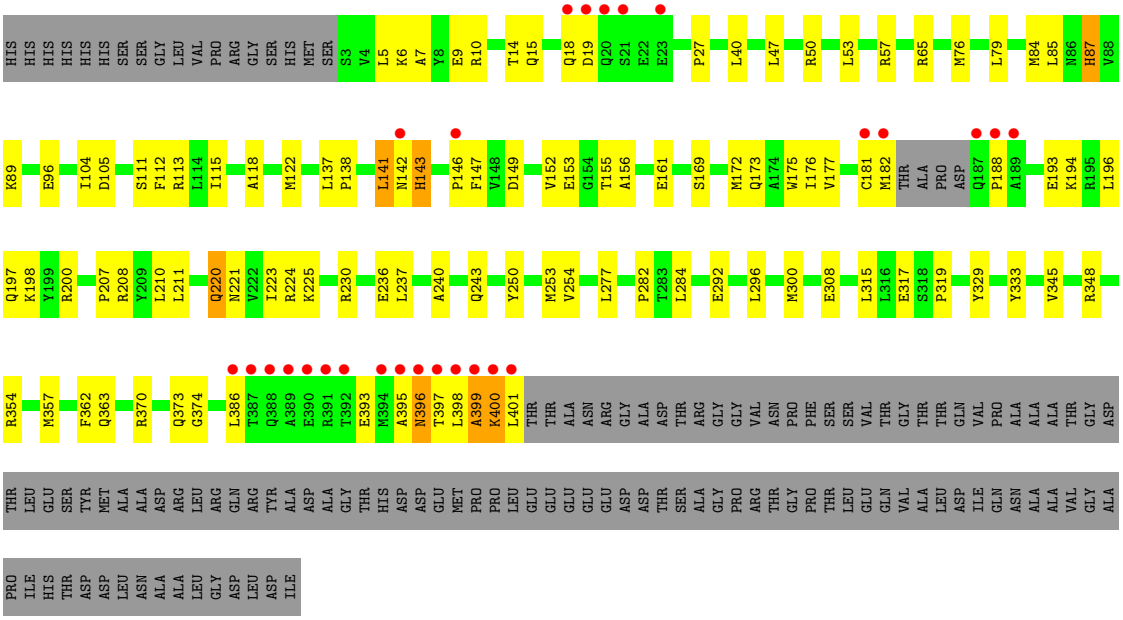
Chain H:





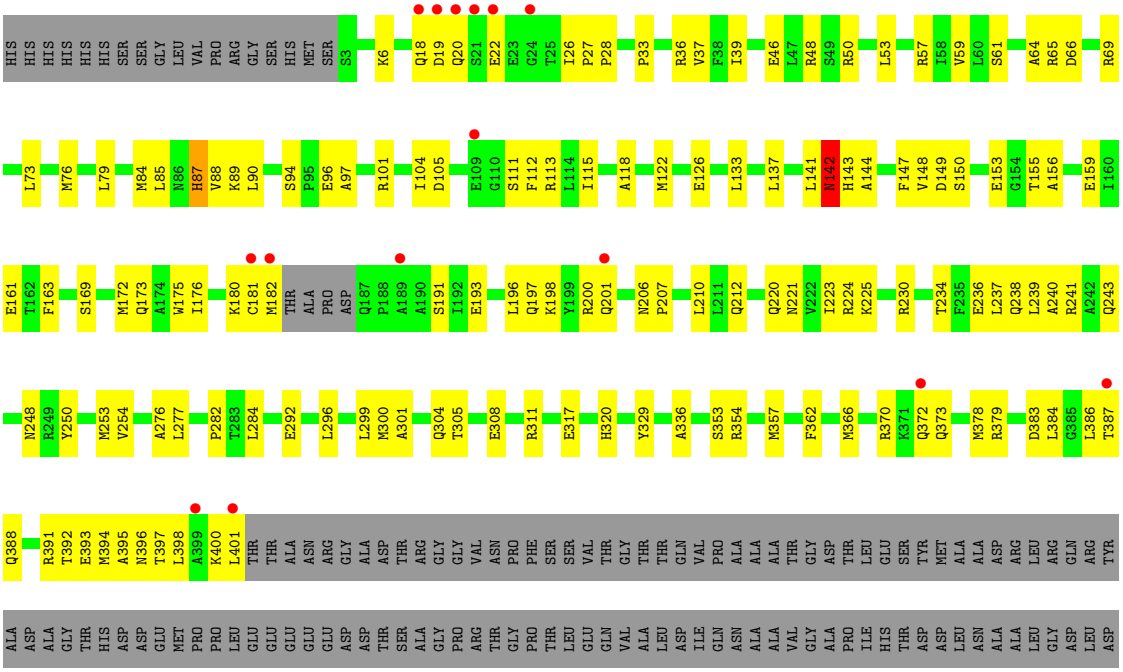
• Molecule 1: Nucleocapsid

Chain I:



• Molecule 1: Nucleocapsid

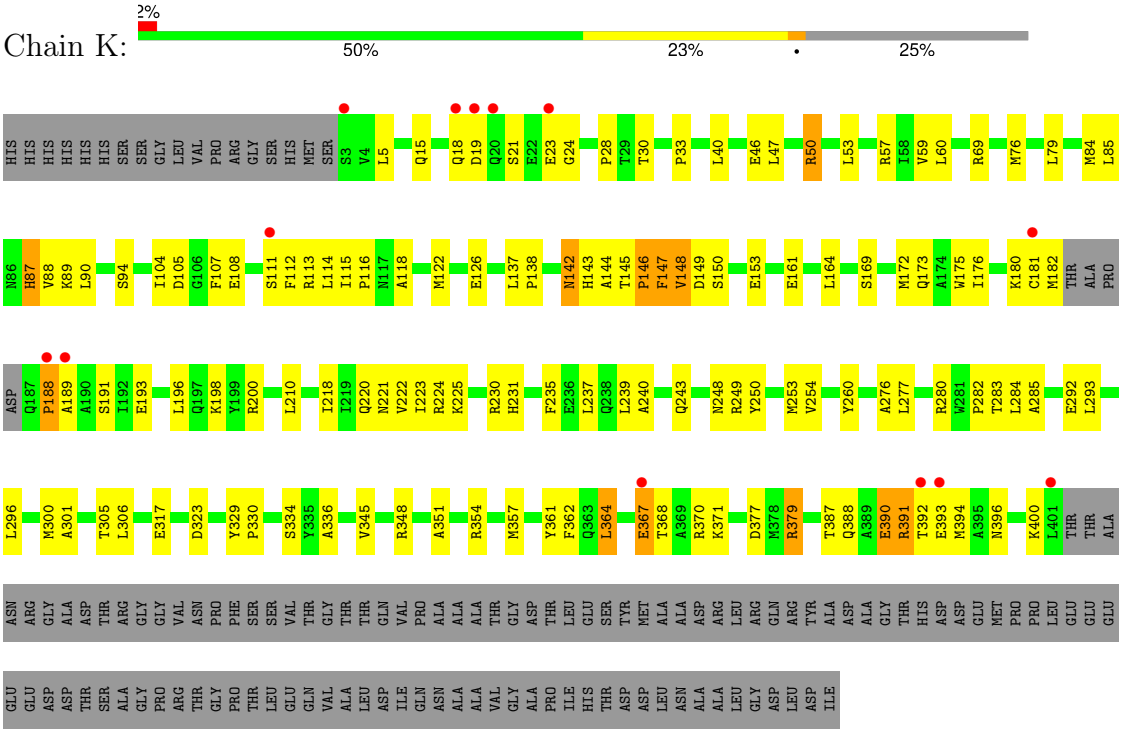
Chain J:



ILE

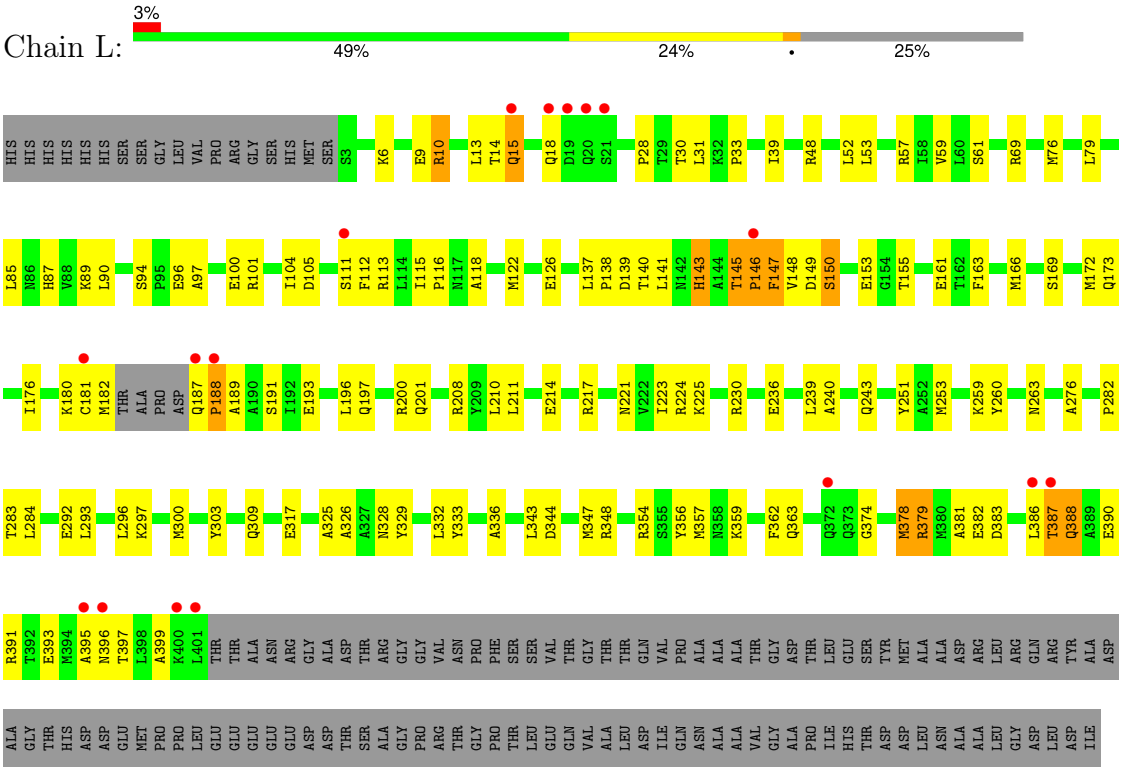
- Molecule 1: Nucleocapsid

Chain K:



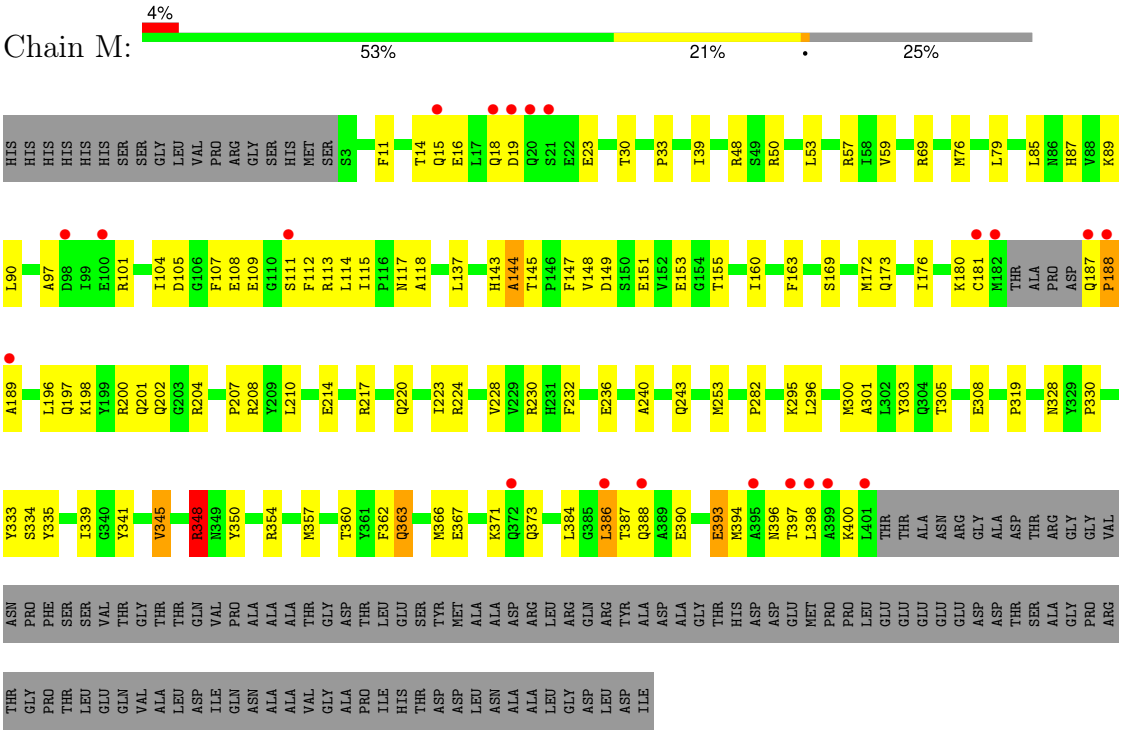
- Molecule 1: Nucleocapsid

Chain L:



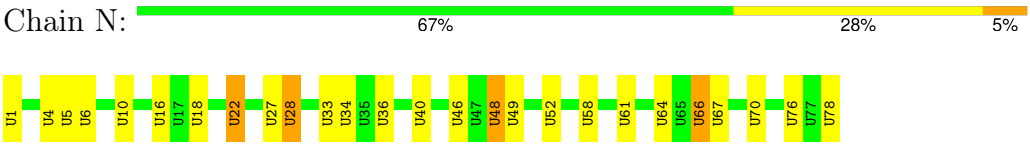
- Molecule 1: Nucleocapsid

Chain M:



- Molecule 2: RNA (78-MER)

Chain N:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α, β, γ	205.64Å 309.44Å 233.24Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	45.01 – 3.11 45.01 – 3.11	Depositor EDS
% Data completeness (in resolution range)	99.6 (45.01-3.11) 99.6 (45.01-3.11)	Depositor EDS
R_{merge}	0.18	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.51 (at 3.01Å)	Xtriage
Refinement program	PHENIX 1.9_1692	Depositor
R, R_{free}	0.227 , 0.263 0.227 , 0.262	Depositor DCC
R_{free} test set	6472 reflections (4.87%)	wwPDB-VP
Wilson B-factor (Å^2)	54.2	Xtriage
Anisotropy	0.148	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.31 , 27.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.52$, $< L^2 > = 0.36$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.90	EDS
Total number of atoms	42329	wwPDB-VP
Average B, all atoms (Å^2)	46.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.81% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ 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: PB

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).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.44	0/3194	0.69	2/4316 (0.0%)
1	B	0.44	0/3194	0.67	1/4316 (0.0%)
1	C	0.54	1/3194 (0.0%)	0.74	4/4316 (0.1%)
1	D	0.47	0/3194	0.66	0/4316
1	E	0.46	0/3194	0.72	2/4316 (0.0%)
1	F	0.48	1/3194 (0.0%)	0.71	3/4316 (0.1%)
1	G	0.49	0/3194	0.75	3/4316 (0.1%)
1	H	0.47	0/3194	0.70	2/4316 (0.0%)
1	I	0.45	0/3194	0.67	4/4316 (0.1%)
1	J	0.47	0/3194	0.69	0/4316
1	K	0.48	0/3194	0.69	1/4316 (0.0%)
1	L	0.48	0/3194	0.72	1/4316 (0.0%)
1	M	0.49	0/3194	0.70	3/4316 (0.1%)
2	N	0.42	0/1715	0.97	1/2648 (0.0%)
All	All	0.47	2/43237 (0.0%)	0.72	27/58756 (0.0%)

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.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	B	0	1
1	C	0	1
1	D	0	1
1	E	0	2
1	F	0	2
1	G	0	4
1	I	0	2
1	M	0	1

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
All	All	0	15

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	341	TYR	CD2-CE2	-8.85	1.26	1.39
1	F	390	GLU	CB-CG	5.12	1.61	1.52

All (27) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	G	379	ARG	NE-CZ-NH2	-9.18	115.71	120.30
1	G	399	ALA	N-CA-C	7.74	131.90	111.00
1	M	348	ARG	NE-CZ-NH2	7.06	123.83	120.30
1	M	388	GLN	CA-CB-CG	6.95	128.69	113.40
2	N	66	U	P-O3'-C3'	6.94	128.03	119.70
1	F	187	GLN	C-N-CD	-6.71	105.84	120.60
1	K	364	LEU	CA-CB-CG	6.66	130.61	115.30
1	E	10	ARG	NE-CZ-NH2	-6.61	116.99	120.30
1	L	10	ARG	NE-CZ-NH2	6.16	123.38	120.30
1	B	19	ASP	CB-CG-OD1	6.00	123.70	118.30
1	F	401	LEU	CA-CB-CG	5.92	128.92	115.30
1	C	197	GLN	CA-CB-CG	-5.91	100.39	113.40
1	I	400	LYS	N-CA-C	5.88	126.88	111.00
1	M	348	ARG	NE-CZ-NH1	-5.79	117.41	120.30
1	G	201	GLN	CA-CB-CG	5.73	126.00	113.40
1	A	182	MET	CG-SD-CE	-5.73	91.04	100.20
1	I	400	LYS	CB-CA-C	-5.72	98.96	110.40
1	H	18	GLN	N-CA-C	-5.71	95.60	111.00
1	C	398	LEU	CA-CB-CG	5.64	128.26	115.30
1	C	348	ARG	CA-CB-CG	5.51	125.52	113.40
1	E	20	GLN	CA-CB-CG	5.24	124.93	113.40
1	F	18	GLN	CA-CB-CG	5.24	124.92	113.40
1	I	400	LYS	C-N-CA	5.23	134.78	121.70
1	A	18	GLN	N-CA-C	-5.20	96.96	111.00
1	I	400	LYS	CA-CB-CG	5.12	124.66	113.40
1	C	398	LEU	N-CA-C	-5.11	97.21	111.00
1	H	147	PHE	N-CA-C	5.02	124.56	111.00

There are no chirality outliers.

All (15) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	187	GLN	Peptide
1	B	117	ASN	Peptide
1	C	397	THR	Peptide
1	D	188	PRO	Peptide
1	E	19	ASP	Peptide
1	E	400	LYS	Peptide
1	F	17	LEU	Peptide
1	F	390	GLU	Peptide
1	G	20	GLN	Peptide
1	G	396	ASN	Peptide
1	G	398	LEU	Peptide
1	G	399	ALA	Peptide
1	I	396	ASN	Peptide
1	I	399	ALA	Peptide
1	M	393	GLU	Peptide

5.2 Too-close contacts (i)

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.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3135	0	3145	93	0
1	B	3135	0	3145	93	1
1	C	3135	0	3145	108	1
1	D	3135	0	3145	100	0
1	E	3135	0	3145	107	0
1	F	3135	0	3145	90	0
1	G	3135	0	3145	111	2
1	H	3135	0	3145	104	0
1	I	3135	0	3145	82	2
1	J	3135	0	3145	111	0
1	K	3135	0	3145	101	0
1	L	3135	0	3145	102	1
1	M	3135	0	3144	86	0
2	N	1560	0	781	22	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
3	D	1	0	0	0	0
3	G	1	0	0	0	0
3	H	1	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	I	2	0	0	0	0
3	K	2	0	0	0	1
3	M	4	0	0	0	0
3	N	1	0	0	1	0
All	All	42329	0	41665	1193	4

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 14.

All (1193) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:188:PRO:HB2	1:D:189:ALA:HA	1.42	1.00
1:M:341:TYR:O	1:M:348:ARG:NH1	1.96	0.98
1:A:369:ALA:O	1:A:373:GLN:NE2	1.99	0.95
1:I:396:ASN:HA	1:I:399:ALA:H	1.31	0.94
1:C:348:ARG:H	1:C:348:ARG:HD2	1.30	0.93
1:E:397:THR:HG22	1:E:400:LYS:HD2	1.51	0.93
1:F:18:GLN:O	1:F:20:GLN:N	2.00	0.93
1:I:397:THR:O	1:I:400:LYS:HG3	1.70	0.90
1:E:372:GLN:HG3	1:E:375:ALA:HB2	1.54	0.89
1:E:393:GLU:O	1:E:397:THR:OG1	1.91	0.89
1:I:177:VAL:HB	1:I:220:GLN:HG3	1.53	0.88
1:G:201:GLN:HA	1:G:201:GLN:HE21	1.37	0.88
1:I:398:LEU:HA	1:I:400:LYS:HD3	1.55	0.87
1:J:241:ARG:HH21	1:J:308:GLU:HG3	1.39	0.86
1:I:398:LEU:HD23	1:I:398:LEU:O	1.76	0.86
1:A:386:LEU:HD11	1:E:282:PRO:HB3	1.59	0.85
1:C:214:GLU:OE1	1:C:217:ARG:NH1	2.09	0.84
1:G:155:THR:HG21	1:G:208:ARG:HH22	1.41	0.84
1:A:367:GLU:HA	1:A:370:ARG:HG3	1.60	0.83
1:J:197:GLN:O	1:J:201:GLN:HG2	1.78	0.83
1:D:189:ALA:HB3	1:D:192:ILE:HD12	1.60	0.83
1:C:396:ASN:OD1	1:C:397:THR:N	2.12	0.82
1:B:117:ASN:HB3	1:B:119:ARG:H	1.43	0.81
1:K:367:GLU:HG2	1:K:368:THR:N	1.91	0.81
1:L:333:TYR:OH	1:L:354:ARG:NH1	2.13	0.81
1:F:241:ARG:NH1	1:F:311:ARG:HE	1.80	0.80
1:K:142:ASN:O	1:K:144:ALA:N	2.13	0.80
1:J:20:GLN:HE22	1:J:320:HIS:CE1	2.01	0.79
1:E:397:THR:O	1:E:400:LYS:N	2.13	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:15:GLN:NE2	1:M:303:TYR:HE1	1.81	0.78
1:H:224:ARG:O	1:H:230:ARG:NH1	2.17	0.78
1:K:23:GLU:OE1	1:K:24:GLY:N	2.16	0.78
1:C:196:LEU:HD23	1:C:210:LEU:HD11	1.65	0.78
1:B:386:LEU:HD11	1:H:282:PRO:HB3	1.66	0.77
1:J:224:ARG:O	1:J:230:ARG:NH1	2.17	0.77
1:J:241:ARG:NH2	1:J:308:GLU:HG3	1.99	0.76
1:E:207:PRO:HA	1:E:210:LEU:HD13	1.67	0.76
1:J:46:GLU:OE2	1:J:50:ARG:NH2	2.18	0.76
1:C:341:TYR:O	1:C:348:ARG:NH2	2.19	0.76
1:F:390:GLU:O	1:F:393:GLU:N	2.15	0.76
1:K:193:GLU:HA	1:K:196:LEU:HD12	1.68	0.76
1:D:304:GLN:NE2	1:I:14:THR:OG1	2.19	0.75
1:E:311:ARG:HH22	1:F:18:GLN:HG3	1.51	0.75
1:G:57:ARG:NH1	1:G:153:GLU:OE2	2.20	0.75
1:M:187:GLN:HG2	1:M:188:PRO:HD2	1.67	0.75
1:L:386:LEU:HD11	1:L:390:GLU:HG2	1.67	0.74
1:K:224:ARG:O	1:K:230:ARG:NH1	2.20	0.74
1:G:386:LEU:HD11	1:K:282:PRO:HB3	1.69	0.74
1:A:241:ARG:HH12	1:A:308:GLU:HG3	1.53	0.74
1:H:16:GLU:OE1	1:H:295:LYS:NZ	2.18	0.73
1:G:155:THR:HG21	1:G:208:ARG:NH2	2.03	0.73
1:E:108:GLU:OE1	1:E:124:ARG:NH2	2.22	0.73
1:E:295:LYS:HZ3	1:E:299:LEU:HD11	1.52	0.73
1:E:373:GLN:OE1	1:F:361:TYR:OH	2.06	0.73
1:I:224:ARG:O	1:I:230:ARG:NH1	2.22	0.73
1:D:282:PRO:HB3	1:J:386:LEU:HD11	1.69	0.72
1:C:348:ARG:HD2	1:C:348:ARG:N	2.04	0.72
1:I:207:PRO:HA	1:I:210:LEU:HD12	1.71	0.72
1:A:138:PRO:HD2	1:A:141:LEU:HD12	1.71	0.72
1:H:387:THR:HB	1:H:390:GLU:HG3	1.71	0.72
1:A:104:ILE:O	1:A:105:ASP:HB2	1.89	0.72
1:K:388:GLN:OE1	1:K:388:GLN:N	2.21	0.72
1:E:379:ARG:NH1	1:E:383:ASP:OD1	2.23	0.72
1:L:104:ILE:O	1:L:105:ASP:HB2	1.89	0.71
1:K:182:MET:SD	1:K:221:ASN:ND2	2.63	0.71
1:M:143:HIS:O	1:M:145:THR:N	2.23	0.71
1:I:398:LEU:O	1:I:400:LYS:HB2	1.90	0.71
1:H:333:TYR:OH	1:H:354:ARG:NH1	2.24	0.71
1:G:388:GLN:HE21	1:G:388:GLN:HA	1.55	0.71
1:J:241:ARG:NH1	1:J:311:ARG:HE	1.88	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:397:THR:O	1:E:400:LYS:HG3	1.91	0.71
1:G:16:GLU:OE1	1:G:295:LYS:NZ	2.20	0.71
1:B:374:GLY:HA3	1:B:395:ALA:HA	1.73	0.71
1:B:197:GLN:HE21	1:B:201:GLN:HE21	1.37	0.70
1:L:379:ARG:O	1:L:379:ARG:NH1	2.24	0.70
1:E:150:SER:O	1:E:151:GLU:HB2	1.89	0.70
1:L:111:SER:OG	1:L:112:PHE:HA	1.90	0.70
1:L:187:GLN:HB2	1:L:188:PRO:HD2	1.74	0.70
1:K:94:SER:OG	1:K:231:HIS:ND1	2.22	0.70
1:L:57:ARG:NH1	1:L:153:GLU:OE1	2.25	0.70
1:A:87:HIS:HE1	1:E:28:PRO:HB3	1.56	0.70
1:M:57:ARG:NH1	1:M:153:GLU:OE2	2.25	0.70
1:G:393:GLU:O	1:G:397:THR:OG1	2.07	0.70
1:I:386:LEU:HD11	1:M:282:PRO:HB3	1.72	0.70
1:H:59:VAL:O	1:H:69:ARG:NH1	2.25	0.70
1:J:142:ASN:O	1:J:212:GLN:NE2	2.22	0.70
1:E:386:LEU:HD21	1:F:282:PRO:HB3	1.73	0.69
1:J:238:GLN:NE2	1:J:308:GLU:OE1	2.25	0.69
1:H:181:CYS:O	1:H:182:MET:HB2	1.90	0.69
1:M:341:TYR:C	1:M:348:ARG:HH12	1.93	0.69
1:K:111:SER:OG	1:K:112:PHE:HA	1.93	0.69
1:A:224:ARG:O	1:A:230:ARG:NH1	2.26	0.69
1:E:388:GLN:N	1:E:388:GLN:OE1	2.24	0.69
1:L:396:ASN:HA	1:L:399:ALA:HB3	1.74	0.69
1:B:16:GLU:OE1	1:B:295:LYS:NZ	2.20	0.69
1:D:16:GLU:OE1	1:D:295:LYS:NZ	2.21	0.69
1:M:11:PHE:O	1:M:15:GLN:HG2	1.93	0.69
1:E:148:VAL:HG23	1:E:212:GLN:HG2	1.73	0.68
1:L:393:GLU:O	1:L:397:THR:OG1	2.09	0.68
1:E:397:THR:C	1:E:400:LYS:HG3	2.12	0.68
1:F:111:SER:HB3	1:F:112:PHE:HA	1.75	0.68
1:G:374:GLY:HA3	1:G:395:ALA:HA	1.75	0.68
1:K:181:CYS:O	1:K:182:MET:HB2	1.92	0.68
1:C:9:GLU:OE2	1:F:379:ARG:NH2	2.27	0.68
1:K:396:ASN:O	1:K:400:LYS:HG2	1.94	0.68
1:C:15:GLN:HE21	1:F:304:GLN:HG2	1.59	0.68
1:I:373:GLN:HB2	1:I:398:LEU:HD22	1.75	0.68
1:I:333:TYR:OH	1:I:354:ARG:NH1	2.26	0.68
1:I:393:GLU:O	1:I:397:THR:OG1	2.04	0.68
1:L:53:LEU:HD13	1:L:153:GLU:HG2	1.76	0.68
1:G:181:CYS:O	1:G:182:MET:HB2	1.93	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:57:ARG:NH1	1:J:153:GLU:OE2	2.24	0.68
1:L:196:LEU:HD23	1:L:210:LEU:HD11	1.74	0.68
1:F:224:ARG:O	1:F:230:ARG:NH1	2.27	0.68
1:H:173:GLN:HE22	1:H:211:LEU:HG	1.58	0.68
1:C:38:PHE:HB3	1:C:104:ILE:HD12	1.76	0.68
1:G:18:GLN:NE2	1:H:308:GLU:OE1	2.26	0.68
1:H:57:ARG:NH1	1:H:153:GLU:OE2	2.28	0.68
1:F:393:GLU:O	1:F:397:THR:HG23	1.95	0.67
1:G:304:GLN:OE1	1:K:15:GLN:NE2	2.27	0.67
1:F:241:ARG:HH12	1:F:311:ARG:HE	1.43	0.67
1:K:57:ARG:NH1	1:K:153:GLU:OE2	2.28	0.67
1:D:177:VAL:HB	1:D:220:GLN:HG3	1.76	0.67
1:G:187:GLN:OE1	1:G:217:ARG:NH1	2.28	0.67
1:J:141:LEU:O	1:J:142:ASN:HB3	1.94	0.67
1:M:187:GLN:CG	1:M:188:PRO:HD2	2.24	0.67
1:D:386:LEU:HD11	1:I:282:PRO:HB3	1.77	0.67
1:G:282:PRO:HB3	1:H:386:LEU:HD11	1.76	0.67
1:I:7:ALA:HA	1:I:10:ARG:HE	1.60	0.67
1:I:196:LEU:O	1:I:200:ARG:HG3	1.95	0.66
1:A:15:GLN:NE2	1:M:303:TYR:CE1	2.61	0.66
1:C:33:PRO:HB3	1:F:161:GLU:HG2	1.77	0.66
1:D:238:GLN:NE2	1:D:308:GLU:OE1	2.28	0.66
1:J:181:CYS:O	1:J:182:MET:HG2	1.96	0.66
1:M:173:GLN:HE22	1:M:210:LEU:HA	1.60	0.66
1:C:147:PHE:O	1:C:149:ASP:N	2.28	0.66
1:J:147:PHE:O	1:J:149:ASP:N	2.28	0.66
1:C:187:GLN:HB2	1:C:188:PRO:HD2	1.77	0.66
1:B:76:MET:HA	1:B:79:LEU:HD12	1.78	0.65
1:G:108:GLU:OE1	1:G:124:ARG:NH2	2.29	0.65
1:B:147:PHE:O	1:B:149:ASP:N	2.26	0.65
1:D:147:PHE:O	1:D:149:ASP:N	2.30	0.65
1:E:224:ARG:O	1:E:230:ARG:NH1	2.30	0.65
1:E:295:LYS:HZ2	1:E:328:ASN:HB2	1.60	0.65
1:H:393:GLU:O	1:H:397:THR:HG23	1.96	0.65
1:D:61:SER:O	1:D:69:ARG:NH2	2.28	0.65
1:F:367:GLU:HA	1:F:370:ARG:HG3	1.78	0.65
1:I:161:GLU:HG2	1:M:33:PRO:HB3	1.77	0.65
1:A:57:ARG:NH1	1:A:153:GLU:OE2	2.29	0.65
1:C:6:LYS:NZ	1:C:9:GLU:OE1	2.29	0.64
1:C:396:ASN:O	1:C:400:LYS:HG3	1.97	0.64
1:I:104:ILE:O	1:I:105:ASP:HB2	1.98	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:221:ASN:OD1	1:L:224:ARG:NH1	2.30	0.64
1:L:116:PRO:HB3	1:L:122:MET:HE2	1.80	0.64
1:E:345:VAL:O	1:E:348:ARG:HG2	1.95	0.64
1:G:59:VAL:O	1:G:69:ARG:NH1	2.31	0.64
1:H:379:ARG:HD2	1:H:379:ARG:O	1.98	0.64
1:A:282:PRO:HB3	1:M:386:LEU:HD11	1.79	0.64
1:B:387:THR:OG1	1:B:390:GLU:HG3	1.96	0.64
1:G:104:ILE:O	1:G:105:ASP:HB2	1.96	0.64
1:K:249:ARG:HG2	1:K:249:ARG:HH11	1.63	0.64
1:A:378:MET:O	1:A:382:GLU:HG3	1.98	0.64
1:G:396:ASN:C	1:G:399:ALA:HB2	2.17	0.64
1:J:182:MET:HE1	1:J:221:ASN:HA	1.80	0.64
1:G:377:ASP:OD2	1:G:379:ARG:NE	2.30	0.63
1:D:224:ARG:O	1:D:230:ARG:NH1	2.30	0.63
1:D:104:ILE:HD11	1:D:114:LEU:HD22	1.80	0.63
1:B:180:LYS:NZ	1:B:191:SER:OG	2.31	0.63
1:C:50:ARG:HH22	1:C:110:GLY:H	1.47	0.63
1:D:53:LEU:HD13	1:D:153:GLU:HG2	1.80	0.63
1:E:104:ILE:O	1:E:105:ASP:HB2	1.98	0.63
1:G:147:PHE:O	1:G:149:ASP:N	2.28	0.63
1:I:40:LEU:HD21	1:I:47:LEU:HG	1.79	0.63
1:E:221:ASN:OD1	1:E:224:ARG:NH1	2.31	0.63
1:I:401:LEU:HD22	1:M:363:GLN:NE2	2.13	0.63
1:C:159:GLU:OE1	1:C:161:GLU:HG2	1.99	0.63
1:J:33:PRO:HB3	1:K:161:GLU:HG2	1.81	0.63
1:C:76:MET:HA	1:C:79:LEU:HD12	1.80	0.63
1:I:308:GLU:N	1:I:308:GLU:OE1	2.31	0.63
1:A:295:LYS:HE2	1:A:328:ASN:HB3	1.81	0.62
1:L:52:LEU:HD23	1:L:166:MET:HE2	1.80	0.62
1:E:57:ARG:NH1	1:E:153:GLU:OE1	2.32	0.62
1:F:104:ILE:O	1:F:105:ASP:HB2	2.00	0.62
1:A:59:VAL:O	1:A:69:ARG:NH1	2.33	0.62
1:L:240:ALA:O	1:L:243:GLN:HG2	1.99	0.62
1:H:240:ALA:O	1:H:243:GLN:HG2	2.00	0.62
1:K:188:PRO:CB	1:K:189:ALA:HA	2.30	0.62
1:C:390:GLU:O	1:C:394:MET:N	2.33	0.62
1:J:104:ILE:O	1:J:105:ASP:HB2	2.00	0.62
1:K:392:THR:O	1:K:396:ASN:N	2.29	0.62
1:E:397:THR:O	1:E:399:ALA:N	2.33	0.62
1:J:87:HIS:HE1	1:J:236:GLU:CD	2.03	0.62
1:M:53:LEU:HD13	1:M:153:GLU:HG3	1.82	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:188:PRO:HB3	1:M:189:ALA:HB2	1.81	0.62
1:C:87:HIS:HE1	1:C:251:TYR:OH	1.83	0.61
1:D:59:VAL:O	1:D:69:ARG:NH1	2.33	0.61
1:G:181:CYS:SG	3:N:101:PB:PB	2.01	0.61
1:L:224:ARG:O	1:L:230:ARG:NH1	2.32	0.61
1:A:147:PHE:O	1:A:149:ASP:N	2.32	0.61
1:I:193:GLU:O	1:I:197:GLN:HG2	2.00	0.61
1:B:173:GLN:HE22	1:B:210:LEU:HA	1.64	0.61
1:B:196:LEU:O	1:B:200:ARG:HG3	2.00	0.61
1:G:143:HIS:O	1:G:145:THR:N	2.33	0.61
1:C:16:GLU:OE1	1:C:295:LYS:HE3	2.01	0.61
1:L:155:THR:OG1	1:L:208:ARG:NH2	2.34	0.61
1:L:354:ARG:HH21	2:N:36:U:H5	1.47	0.61
1:A:182:MET:SD	1:A:221:ASN:ND2	2.74	0.61
1:E:116:PRO:HB3	1:E:122:MET:HE2	1.82	0.61
1:C:113:ARG:NH2	1:C:128:ASN:OD1	2.34	0.61
1:C:187:GLN:N	1:C:187:GLN:OE1	2.34	0.61
1:C:280:ARG:NH1	1:C:379:ARG:HH12	1.98	0.61
1:C:325:ALA:O	1:C:328:ASN:ND2	2.30	0.61
1:C:15:GLN:HE21	1:F:304:GLN:CG	2.12	0.61
1:C:388:GLN:O	1:C:392:THR:OG1	2.18	0.61
1:F:147:PHE:O	1:F:149:ASP:N	2.34	0.61
1:K:240:ALA:O	1:K:243:GLN:HG2	1.99	0.61
1:C:108:GLU:OE1	1:C:124:ARG:NH2	2.33	0.60
1:D:124:ARG:HG3	1:D:124:ARG:HH11	1.66	0.60
1:G:172:MET:SD	1:G:253:MET:HG2	2.41	0.60
1:B:238:GLN:NE2	1:B:308:GLU:OE1	2.34	0.60
1:E:53:LEU:HD13	1:E:153:GLU:HG2	1.83	0.60
1:H:374:GLY:HA3	1:H:395:ALA:HA	1.83	0.60
1:B:242:ALA:O	1:H:25:THR:N	2.24	0.60
1:F:173:GLN:HE22	1:F:211:LEU:H	1.49	0.60
1:G:143:HIS:CE1	1:G:150:SER:HB3	2.36	0.60
1:H:152:VAL:O	1:H:155:THR:OG1	2.15	0.60
1:A:196:LEU:O	1:A:200:ARG:HG3	2.01	0.60
1:D:363:GLN:HB2	1:J:401:LEU:HD21	1.84	0.60
1:E:379:ARG:HD2	1:E:379:ARG:O	2.01	0.60
1:J:193:GLU:O	1:J:197:GLN:HG3	2.01	0.60
1:L:145:THR:HG22	1:L:153:GLU:OE1	2.01	0.60
1:C:283:THR:HG22	1:F:394:MET:HG3	1.84	0.60
1:D:33:PRO:HB3	1:J:161:GLU:HG2	1.83	0.60
1:M:333:TYR:OH	1:M:354:ARG:NH1	2.34	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:53:LEU:HD13	1:B:153:GLU:HG2	1.84	0.60
1:B:388:GLN:O	1:B:392:THR:OG1	2.20	0.60
1:H:311:ARG:HG3	1:H:311:ARG:HH11	1.65	0.60
1:M:308:GLU:OE1	1:M:308:GLU:N	2.27	0.60
1:B:165:ASP:O	1:B:169:SER:OG	2.17	0.60
1:F:374:GLY:HA3	1:F:395:ALA:HA	1.84	0.60
1:K:147:PHE:O	1:K:149:ASP:N	2.32	0.60
1:G:76:MET:HA	1:G:79:LEU:HD12	1.84	0.59
1:H:105:ASP:CG	1:H:117:ASN:HD22	2.05	0.59
1:K:396:ASN:HB3	1:K:400:LYS:HE2	1.84	0.59
1:L:147:PHE:O	1:L:149:ASP:N	2.34	0.59
1:D:393:GLU:O	1:D:397:THR:HG23	2.03	0.59
1:A:87:HIS:HE1	1:E:28:PRO:CB	2.16	0.59
1:D:400:LYS:HD2	1:D:400:LYS:O	2.03	0.59
1:B:197:GLN:NE2	1:B:201:GLN:HE21	2.00	0.59
1:G:240:ALA:O	1:G:243:GLN:HG2	2.01	0.59
1:J:240:ALA:O	1:J:243:GLN:HG2	2.03	0.59
1:I:53:LEU:HD13	1:I:153:GLU:HG2	1.84	0.59
1:C:46:GLU:OE2	1:C:50:ARG:NH1	2.36	0.59
1:C:53:LEU:HD13	1:C:153:GLU:HG2	1.83	0.59
1:C:344:ASP:O	1:C:348:ARG:NH1	2.36	0.59
1:M:104:ILE:O	1:M:105:ASP:HB2	2.02	0.59
1:C:387:THR:N	1:C:390:GLU:OE2	2.36	0.59
1:D:188:PRO:HB2	1:D:189:ALA:CA	2.24	0.59
1:G:224:ARG:O	1:G:230:ARG:NH1	2.36	0.59
1:H:52:LEU:HD23	1:H:166:MET:CE	2.33	0.59
1:L:59:VAL:O	1:L:69:ARG:NH1	2.36	0.59
1:E:295:LYS:NZ	1:E:299:LEU:HD11	2.18	0.58
1:I:373:GLN:HB2	1:I:398:LEU:CD2	2.33	0.58
1:C:240:ALA:O	1:C:243:GLN:HG2	2.03	0.58
1:H:173:GLN:NE2	1:H:211:LEU:HG	2.18	0.58
1:C:386:LEU:HD11	1:L:282:PRO:HB3	1.85	0.58
1:E:308:GLU:OE1	1:E:308:GLU:N	2.29	0.58
1:F:59:VAL:O	1:F:69:ARG:NH1	2.36	0.58
1:M:400:LYS:HD2	1:M:400:LYS:N	2.17	0.58
1:L:52:LEU:HD23	1:L:166:MET:CE	2.32	0.58
1:M:207:PRO:HA	1:M:210:LEU:CD1	2.34	0.58
1:K:276:ALA:HB2	1:K:336:ALA:HB2	1.85	0.58
1:D:104:ILE:O	1:D:105:ASP:HB2	2.03	0.58
1:H:345:VAL:O	1:H:348:ARG:HG3	2.02	0.58
1:E:240:ALA:O	1:E:243:GLN:HG2	2.03	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:59:VAL:O	1:K:69:ARG:NH1	2.37	0.58
1:H:108:GLU:OE2	1:H:113:ARG:NE	2.26	0.58
1:C:396:ASN:OD1	1:C:397:THR:HG23	2.03	0.58
1:D:388:GLN:O	1:D:392:THR:OG1	2.21	0.58
1:H:13:LEU:HD21	1:H:297:LYS:HE2	1.85	0.58
1:I:147:PHE:HA	1:I:210:LEU:O	2.04	0.58
1:K:393:GLU:HA	1:K:396:ASN:HB2	1.86	0.58
1:L:359:LYS:O	1:L:363:GLN:HG3	2.03	0.58
1:D:325:ALA:O	1:D:328:ASN:ND2	2.35	0.58
1:E:59:VAL:O	1:E:69:ARG:NH1	2.37	0.58
1:I:207:PRO:HA	1:I:210:LEU:CD1	2.34	0.58
1:K:364:LEU:HD12	1:K:367:GLU:OE1	2.03	0.58
1:L:374:GLY:HA3	1:L:395:ALA:HA	1.86	0.57
1:J:50:ARG:HH11	1:J:111:SER:HB3	1.69	0.57
1:L:76:MET:HA	1:L:79:LEU:HD12	1.85	0.57
1:M:147:PHE:C	1:M:149:ASP:H	2.08	0.57
1:B:224:ARG:O	1:B:230:ARG:NH1	2.37	0.57
1:E:169:SER:O	1:E:173:GLN:HG3	2.04	0.57
1:L:276:ALA:HB2	1:L:336:ALA:HB2	1.84	0.57
1:D:240:ALA:O	1:D:243:GLN:HG2	2.04	0.57
1:H:63:GLY:O	1:H:65:ARG:NH1	2.37	0.57
1:J:392:THR:O	1:J:396:ASN:N	2.29	0.57
1:J:26:ILE:HD12	1:J:26:ILE:H	1.70	0.57
1:B:117:ASN:HB3	1:B:119:ARG:HB3	1.87	0.57
1:B:249:ARG:HG3	1:B:249:ARG:HH11	1.69	0.57
1:J:366:MET:HE2	1:J:370:ARG:HH21	1.70	0.57
1:M:240:ALA:O	1:M:243:GLN:HG2	2.04	0.57
1:A:240:ALA:O	1:A:243:GLN:HG2	2.05	0.57
1:F:240:ALA:O	1:F:243:GLN:HG2	2.03	0.57
1:M:104:ILE:HD11	1:M:114:LEU:HD22	1.87	0.57
1:A:10:ARG:HG2	1:A:10:ARG:HH11	1.70	0.57
1:K:104:ILE:O	1:K:105:ASP:HB2	2.03	0.57
1:J:59:VAL:O	1:J:69:ARG:NH1	2.37	0.56
1:L:396:ASN:HA	1:L:399:ALA:CB	2.34	0.56
1:M:16:GLU:OE1	1:M:295:LYS:NZ	2.22	0.56
1:M:224:ARG:O	1:M:230:ARG:NH1	2.37	0.56
1:A:190:ALA:O	1:A:194:LYS:N	2.37	0.56
1:E:311:ARG:NH2	1:F:18:GLN:HG3	2.19	0.56
1:B:276:ALA:HB2	1:B:336:ALA:HB2	1.86	0.56
1:F:181:CYS:O	1:F:182:MET:HG2	2.05	0.56
1:H:104:ILE:O	1:H:105:ASP:HB2	2.05	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:137:LEU:HD22	1:H:141:LEU:HD12	1.87	0.56
1:J:393:GLU:O	1:J:397:THR:OG1	2.17	0.56
1:B:61:SER:O	1:B:69:ARG:NH2	2.37	0.56
1:B:147:PHE:HA	1:B:210:LEU:O	2.05	0.56
1:I:147:PHE:O	1:I:149:ASP:N	2.37	0.56
1:H:104:ILE:HD11	1:H:114:LEU:HD22	1.86	0.56
1:L:6:LYS:HE3	1:L:10:ARG:NH2	2.21	0.56
1:D:348:ARG:HD2	1:D:348:ARG:O	2.05	0.56
1:E:87:HIS:CE1	1:E:232:PHE:HZ	2.24	0.56
1:K:351:ALA:O	1:K:354:ARG:NH1	2.38	0.56
1:H:392:THR:HA	1:H:395:ALA:HB3	1.86	0.56
1:J:111:SER:HB2	1:J:112:PHE:HA	1.88	0.56
1:L:138:PRO:HG2	1:L:141:LEU:HD13	1.87	0.56
1:L:296:LEU:O	1:L:300:MET:HG3	2.05	0.56
1:A:366:MET:HE2	1:A:370:ARG:HH21	1.70	0.56
1:J:87:HIS:CE1	1:J:236:GLU:CD	2.79	0.56
1:C:390:GLU:OE1	1:C:390:GLU:N	2.35	0.56
1:D:177:VAL:HB	1:D:220:GLN:CG	2.36	0.56
1:G:201:GLN:HE21	1:G:201:GLN:CA	2.13	0.56
1:D:85:LEU:O	1:D:89:LYS:HG3	2.06	0.55
1:J:282:PRO:HB2	1:K:394:MET:HE1	1.88	0.55
1:C:169:SER:O	1:C:173:GLN:HG3	2.05	0.55
1:G:116:PRO:HB3	1:G:122:MET:HE2	1.86	0.55
1:I:111:SER:HB2	1:I:112:PHE:HA	1.88	0.55
1:A:111:SER:HB2	1:A:112:PHE:HA	1.89	0.55
1:B:175:TRP:CZ3	1:B:237:LEU:HD11	2.41	0.55
1:G:387:THR:O	1:G:391:ARG:NE	2.38	0.55
1:B:207:PRO:HA	1:B:210:LEU:CD1	2.36	0.55
1:E:187:GLN:N	1:E:187:GLN:OE1	2.40	0.55
1:L:104:ILE:HG13	1:L:105:ASP:N	2.21	0.55
1:F:390:GLU:HA	1:F:393:GLU:HB3	1.87	0.55
1:A:111:SER:CB	1:A:112:PHE:HA	2.37	0.55
1:G:311:ARG:HH12	1:K:15:GLN:HG3	1.72	0.55
1:J:277:LEU:HD23	1:J:284:LEU:HD21	1.89	0.55
1:B:296:LEU:O	1:B:300:MET:HG3	2.07	0.55
1:C:59:VAL:O	1:C:69:ARG:NH1	2.39	0.55
1:G:341:TYR:O	1:G:348:ARG:NH1	2.38	0.55
1:J:53:LEU:HD13	1:J:153:GLU:HG3	1.89	0.55
1:G:94:SER:OG	1:G:231:HIS:ND1	2.37	0.55
1:H:249:ARG:HG3	1:H:249:ARG:HH11	1.71	0.55
1:G:399:ALA:HB1	1:G:400:LYS:HB3	1.88	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:196:LEU:O	1:F:200:ARG:HG3	2.07	0.55
1:G:249:ARG:HG3	1:G:249:ARG:HH11	1.72	0.55
1:E:142:ASN:O	1:E:143:HIS:HB2	2.05	0.54
1:I:277:LEU:HD23	1:I:284:LEU:HD21	1.88	0.54
1:C:194:LYS:HD3	1:C:194:LYS:N	2.22	0.54
1:E:241:ARG:HD2	1:E:312:TYR:OH	2.07	0.54
1:G:388:GLN:HA	1:G:388:GLN:NE2	2.21	0.54
1:H:230:ARG:HH21	1:H:317:GLU:HG3	1.73	0.54
1:D:221:ASN:OD1	1:D:225:LYS:NZ	2.32	0.54
1:J:373:GLN:HG3	1:J:398:LEU:HG	1.88	0.54
1:B:197:GLN:HE21	1:B:201:GLN:NE2	2.03	0.54
1:D:169:SER:O	1:D:173:GLN:HG3	2.06	0.54
1:F:172:MET:O	1:F:176:ILE:HG13	2.07	0.54
1:I:398:LEU:HA	1:I:400:LYS:CD	2.32	0.54
1:L:193:GLU:O	1:L:197:GLN:HG3	2.07	0.54
1:H:145:THR:HG23	1:H:146:PRO:O	2.08	0.54
1:I:230:ARG:HH21	1:I:317:GLU:HG3	1.72	0.54
1:K:188:PRO:HB2	1:K:189:ALA:HA	1.90	0.54
1:J:196:LEU:O	1:J:200:ARG:HG3	2.07	0.54
1:B:398:LEU:HD13	1:H:364:LEU:HD22	1.90	0.54
1:H:140:THR:HG21	1:H:214:GLU:OE1	2.08	0.54
1:B:277:LEU:HD23	1:B:284:LEU:HD21	1.89	0.54
1:B:15:GLN:OE1	1:B:15:GLN:HA	2.07	0.54
1:D:181:CYS:O	1:D:182:MET:HG3	2.08	0.54
1:F:53:LEU:HD13	1:F:153:GLU:HG2	1.89	0.54
1:I:57:ARG:NH1	1:I:153:GLU:OE2	2.40	0.54
1:J:196:LEU:HD23	1:J:210:LEU:HD21	1.89	0.54
1:K:196:LEU:O	1:K:200:ARG:HG3	2.08	0.54
1:A:182:MET:HE1	1:A:217:ARG:O	2.08	0.53
1:G:196:LEU:O	1:G:200:ARG:HG3	2.08	0.53
1:G:379:ARG:HG3	1:G:380:MET:N	2.22	0.53
1:I:155:THR:OG1	1:I:208:ARG:NH2	2.41	0.53
1:K:277:LEU:HD23	1:K:284:LEU:HD21	1.88	0.53
1:L:172:MET:O	1:L:176:ILE:HG13	2.07	0.53
1:A:146:PRO:O	1:A:147:PHE:HB2	2.08	0.53
1:J:169:SER:O	1:J:173:GLN:HG3	2.08	0.53
1:C:388:GLN:OE1	1:C:392:THR:OG1	2.25	0.53
1:D:238:GLN:OE1	1:D:309:GLN:NE2	2.36	0.53
1:F:36:ARG:NH1	1:F:126:GLU:OE2	2.41	0.53
1:I:111:SER:CB	1:I:112:PHE:HA	2.39	0.53
1:J:111:SER:CB	1:J:112:PHE:HA	2.38	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:111:SER:HA	1:A:113:ARG:H	1.74	0.53
1:L:61:SER:O	1:L:69:ARG:NH2	2.40	0.53
1:G:372:GLN:NE2	1:H:393:GLU:OE2	2.40	0.53
1:K:391:ARG:HG2	1:K:392:THR:N	2.23	0.53
1:E:397:THR:HG22	1:E:400:LYS:CD	2.34	0.53
1:F:172:MET:SD	1:F:253:MET:HG2	2.49	0.53
1:H:357:MET:HE1	1:H:362:PHE:CD1	2.43	0.53
1:I:296:LEU:O	1:I:300:MET:HG3	2.08	0.53
1:J:65:ARG:NH2	1:J:66:ASP:OD2	2.38	0.53
1:M:301:ALA:O	1:M:305:THR:HG23	2.08	0.53
1:E:10:ARG:HH11	1:E:10:ARG:CG	2.21	0.53
1:E:373:GLN:HB3	1:E:398:LEU:HD21	1.91	0.53
1:H:180:LYS:NZ	1:H:191:SER:OG	2.42	0.53
1:I:111:SER:HA	1:I:113:ARG:H	1.74	0.53
1:J:111:SER:HA	1:J:113:ARG:H	1.73	0.53
1:A:283:THR:HA	1:M:394:MET:SD	2.49	0.53
1:G:384:LEU:HB3	1:G:386:LEU:HD23	1.91	0.53
1:I:354:ARG:HH21	2:N:78:U:H5	1.55	0.53
1:B:39:ILE:HG12	1:B:101:ARG:O	2.09	0.53
1:H:111:SER:HA	1:H:113:ARG:H	1.74	0.53
1:K:198:LYS:HE3	2:N:64:U:O4'	2.09	0.53
1:J:394:MET:O	1:J:398:LEU:N	2.32	0.53
1:K:116:PRO:HB3	1:K:122:MET:HE3	1.91	0.53
1:A:190:ALA:HB1	1:A:194:LYS:HD2	1.90	0.52
1:K:182:MET:HE3	1:K:224:ARG:NH1	2.24	0.52
1:K:175:TRP:CZ3	1:K:237:LEU:HD11	2.45	0.52
1:L:39:ILE:HG12	1:L:101:ARG:O	2.10	0.52
1:D:57:ARG:NH1	1:D:153:GLU:OE1	2.42	0.52
1:I:240:ALA:O	1:I:243:GLN:HG2	2.09	0.52
1:J:175:TRP:CZ3	1:J:237:LEU:HD13	2.44	0.52
1:K:108:GLU:OE1	1:K:113:ARG:NE	2.35	0.52
1:E:197:GLN:O	1:E:201:GLN:HG2	2.09	0.52
1:H:61:SER:O	1:H:69:ARG:NH2	2.38	0.52
1:E:221:ASN:O	1:E:225:LYS:HG3	2.09	0.52
1:G:111:SER:HB2	1:G:112:PHE:HA	1.92	0.52
1:G:169:SER:O	1:G:173:GLN:HG3	2.09	0.52
1:K:221:ASN:O	1:K:225:LYS:HG3	2.10	0.52
1:F:393:GLU:OE2	1:F:394:MET:HE3	2.09	0.52
1:M:169:SER:O	1:M:173:GLN:HG3	2.09	0.52
1:D:111:SER:HB2	1:D:112:PHE:HA	1.92	0.52
1:D:221:ASN:O	1:D:225:LYS:HD3	2.10	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:296:LEU:O	1:D:300:MET:HG3	2.10	0.52
1:H:52:LEU:HD23	1:H:166:MET:HE2	1.92	0.52
1:M:155:THR:OG1	1:M:208:ARG:NH2	2.42	0.52
1:A:38:PHE:CD1	1:A:104:ILE:HD12	2.44	0.52
1:A:213:PRO:HG2	1:A:214:GLU:OE2	2.10	0.52
1:E:369:ALA:O	1:E:373:GLN:HG2	2.10	0.52
1:J:50:ARG:NH1	1:J:111:SER:HB3	2.25	0.52
1:M:373:GLN:HG2	1:M:398:LEU:HD21	1.91	0.52
1:B:240:ALA:O	1:B:243:GLN:HG2	2.10	0.52
1:C:46:GLU:O	1:C:50:ARG:HB2	2.10	0.52
1:D:393:GLU:HA	1:D:396:ASN:HB2	1.92	0.52
1:K:180:LYS:NZ	1:K:191:SER:OG	2.42	0.52
1:K:122:MET:HG2	1:K:126:GLU:OE1	2.09	0.52
1:E:206:ASN:HB3	1:E:209:TYR:HD2	1.75	0.51
1:J:234:THR:O	1:J:238:GLN:HG3	2.10	0.51
1:K:87:HIS:O	1:K:90:LEU:HB2	2.10	0.51
1:L:87:HIS:HE1	1:L:251:TYR:OH	1.92	0.51
1:C:280:ARG:NH1	1:C:379:ARG:NH1	2.58	0.51
1:H:147:PHE:HB3	1:H:152:VAL:HG11	1.93	0.51
1:J:20:GLN:NE2	1:J:320:HIS:CE1	2.75	0.51
1:F:277:LEU:HD23	1:F:284:LEU:HD21	1.91	0.51
1:J:87:HIS:CE1	1:J:236:GLU:OE2	2.64	0.51
1:M:111:SER:HB2	1:M:112:PHE:HA	1.91	0.51
1:M:396:ASN:O	1:M:400:LYS:HD3	2.11	0.51
1:B:175:TRP:HZ3	1:B:237:LEU:HD11	1.74	0.51
1:D:172:MET:O	1:D:176:ILE:HG13	2.09	0.51
1:F:169:SER:O	1:F:173:GLN:HG3	2.10	0.51
1:I:374:GLY:HA3	1:I:395:ALA:HA	1.92	0.51
1:J:357:MET:HE1	1:J:362:PHE:CD1	2.45	0.51
1:D:357:MET:HE1	1:D:362:PHE:CD1	2.46	0.51
1:D:387:THR:OG1	1:D:390:GLU:HG3	2.10	0.51
1:I:138:PRO:HD2	1:I:141:LEU:HD22	1.92	0.51
1:B:169:SER:O	1:B:173:GLN:HG3	2.10	0.51
1:J:223:ILE:O	1:J:230:ARG:HD3	2.10	0.51
1:M:76:MET:HA	1:M:79:LEU:HD12	1.92	0.51
1:C:198:LYS:HE3	2:N:34:U:O4'	2.11	0.51
1:E:230:ARG:HG2	1:E:315:LEU:HG	1.93	0.51
1:I:65:ARG:CZ	1:I:65:ARG:HB3	2.39	0.51
1:L:223:ILE:O	1:L:230:ARG:HD3	2.11	0.51
1:B:111:SER:HB2	1:B:112:PHE:HA	1.92	0.51
1:G:284:LEU:O	1:H:380:MET:HE1	2.09	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:40:LEU:HD11	1:I:47:LEU:HD21	1.92	0.51
1:L:169:SER:O	1:L:173:GLN:HG3	2.11	0.51
1:B:198:LYS:HE3	2:N:46:U:O4'	2.10	0.51
1:C:172:MET:SD	1:C:253:MET:HG2	2.51	0.51
1:G:111:SER:HA	1:G:113:ARG:H	1.75	0.51
1:K:76:MET:HA	1:K:79:LEU:HD12	1.94	0.50
1:D:3:SER:HA	1:D:6:LYS:HE3	1.91	0.50
1:G:361:TYR:OH	1:H:373:GLN:OE1	2.15	0.50
1:K:53:LEU:HD13	1:K:153:GLU:HG2	1.94	0.50
1:K:87:HIS:CE1	1:K:90:LEU:HD22	2.46	0.50
1:K:223:ILE:O	1:K:230:ARG:HD3	2.12	0.50
1:M:296:LEU:O	1:M:300:MET:HG3	2.11	0.50
1:A:108:GLU:OE1	1:A:124:ARG:NH2	2.44	0.50
1:H:111:SER:CB	1:H:112:PHE:HA	2.42	0.50
1:J:20:GLN:OE1	1:J:320:HIS:HE1	1.93	0.50
1:E:181:CYS:O	1:E:182:MET:HG2	2.10	0.50
1:G:283:THR:HG22	1:H:394:MET:HG3	1.92	0.50
1:L:379:ARG:NH1	1:L:383:ASP:OD2	2.41	0.50
1:C:177:VAL:HG12	1:C:192:ILE:HD12	1.94	0.50
1:G:388:GLN:HE21	1:G:388:GLN:CA	2.24	0.50
1:M:147:PHE:O	1:M:149:ASP:N	2.44	0.50
1:K:172:MET:O	1:K:176:ILE:HG13	2.11	0.50
1:H:196:LEU:O	1:H:200:ARG:HG3	2.12	0.50
1:I:175:TRP:CZ3	1:I:237:LEU:HD11	2.46	0.50
1:L:357:MET:HE1	1:L:362:PHE:CD1	2.47	0.50
1:A:76:MET:HA	1:A:79:LEU:HD12	1.93	0.50
1:C:104:ILE:O	1:C:115:ILE:O	2.29	0.50
1:F:108:GLU:OE1	1:F:124:ARG:NH2	2.45	0.50
1:G:111:SER:CB	1:G:112:PHE:HA	2.42	0.50
1:H:390:GLU:HA	1:H:393:GLU:HB3	1.94	0.50
1:L:187:GLN:HE22	1:L:217:ARG:HD2	1.77	0.50
1:A:364:LEU:O	1:A:368:THR:OG1	2.23	0.50
1:D:234:THR:O	1:D:238:GLN:HG3	2.12	0.50
1:F:76:MET:HA	1:F:79:LEU:HD12	1.93	0.50
1:H:111:SER:HB2	1:H:112:PHE:HA	1.93	0.50
1:H:187:GLN:HB3	1:H:188:PRO:HD2	1.92	0.50
1:K:104:ILE:HD11	1:K:114:LEU:HD22	1.94	0.50
1:K:18:GLN:HG3	1:K:19:ASP:N	2.26	0.49
1:C:36:ARG:NH2	1:C:130:TYR:OH	2.45	0.49
1:D:276:ALA:HB2	1:D:336:ALA:HB2	1.94	0.49
1:E:357:MET:HE1	1:E:362:PHE:CD1	2.47	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:53:LEU:HD13	1:G:153:GLU:HG3	1.93	0.49
1:G:161:GLU:HG2	1:K:33:PRO:HB3	1.94	0.49
1:A:206:ASN:HB3	1:A:209:TYR:HD2	1.77	0.49
1:C:31:LEU:HD13	1:F:160:ILE:HD11	1.94	0.49
1:D:111:SER:HA	1:D:113:ARG:H	1.77	0.49
1:G:104:ILE:HD12	1:G:114:LEU:HD22	1.95	0.49
1:A:357:MET:HE1	1:A:362:PHE:CD1	2.48	0.49
1:G:364:LEU:HD22	1:H:398:LEU:HD13	1.94	0.49
1:H:173:GLN:OE1	1:H:210:LEU:HD12	2.13	0.49
1:B:197:GLN:HA	1:B:200:ARG:HB2	1.95	0.49
1:L:143:HIS:CE1	1:L:150:SER:HB3	2.48	0.49
1:C:235:PHE:O	1:C:239:LEU:HD13	2.13	0.49
1:G:104:ILE:O	1:G:115:ILE:O	2.29	0.49
1:I:149:ASP:O	1:I:152:VAL:HG22	2.13	0.49
1:K:181:CYS:O	1:K:224:ARG:NH1	2.45	0.49
1:M:196:LEU:O	1:M:200:ARG:HG3	2.13	0.49
1:C:276:ALA:HB2	1:C:336:ALA:HB2	1.94	0.49
1:E:259:LYS:NZ	1:F:323:ASP:OD1	2.40	0.49
1:E:295:LYS:NZ	1:E:328:ASN:HB2	2.28	0.49
1:H:181:CYS:SG	2:N:48:U:H1'	2.53	0.49
1:K:145:THR:HG23	1:K:146:PRO:O	2.12	0.49
1:G:276:ALA:HB2	1:G:336:ALA:HB2	1.95	0.49
1:H:149:ASP:O	1:H:152:VAL:HG12	2.12	0.49
1:I:221:ASN:O	1:I:225:LYS:HG3	2.13	0.49
1:J:180:LYS:NZ	1:J:191:SER:OG	2.46	0.49
1:A:53:LEU:HD13	1:A:153:GLU:HG3	1.95	0.49
1:G:40:LEU:HD21	1:G:47:LEU:HB3	1.94	0.49
1:M:198:LYS:HE3	2:N:10:U:O4'	2.13	0.49
1:B:33:PRO:HB3	1:L:161:GLU:HG2	1.94	0.49
1:B:111:SER:HA	1:B:113:ARG:H	1.77	0.49
1:F:116:PRO:HB3	1:F:122:MET:HE3	1.94	0.49
1:J:172:MET:SD	1:J:253:MET:HG2	2.53	0.49
1:A:221:ASN:OD1	1:A:224:ARG:NH2	2.42	0.48
1:D:146:PRO:O	1:D:147:PHE:HB2	2.11	0.48
1:F:85:LEU:O	1:F:89:LYS:HG3	2.12	0.48
1:F:395:ALA:O	1:F:399:ALA:HB2	2.13	0.48
1:H:104:ILE:O	1:H:115:ILE:O	2.31	0.48
1:H:122:MET:HG2	1:H:126:GLU:OE1	2.13	0.48
1:H:388:GLN:O	1:H:388:GLN:HG3	2.13	0.48
1:J:85:LEU:O	1:J:89:LYS:HG3	2.13	0.48
1:B:23:GLU:H	1:B:23:GLU:CD	2.15	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:111:SER:CB	1:B:112:PHE:HA	2.43	0.48
1:A:6:LYS:HD2	1:A:6:LYS:HA	1.60	0.48
1:A:31:LEU:HD13	1:M:160:ILE:HD11	1.96	0.48
1:A:61:SER:O	1:A:69:ARG:NH2	2.45	0.48
1:D:206:ASN:HB3	1:D:209:TYR:HD2	1.77	0.48
1:H:172:MET:SD	1:H:253:MET:HG2	2.52	0.48
1:M:39:ILE:HG12	1:M:101:ARG:O	2.12	0.48
1:A:188:PRO:O	1:A:191:SER:HB3	2.14	0.48
1:D:111:SER:CB	1:D:112:PHE:HA	2.44	0.48
1:E:172:MET:O	1:E:176:ILE:HG13	2.13	0.48
1:G:239:LEU:HD23	1:K:28:PRO:HG2	1.95	0.48
1:I:142:ASN:O	1:I:143:HIS:HB2	2.12	0.48
1:K:104:ILE:HG23	1:K:105:ASP:N	2.28	0.48
1:D:241:ARG:HH12	1:D:308:GLU:HG3	1.79	0.48
1:F:57:ARG:NH2	1:F:144:ALA:O	2.47	0.48
1:I:169:SER:O	1:I:173:GLN:HG3	2.12	0.48
1:K:169:SER:O	1:K:173:GLN:HG3	2.13	0.48
1:K:182:MET:HA	1:K:220:GLN:NE2	2.28	0.48
1:K:387:THR:HG22	1:K:390:GLU:CD	2.33	0.48
1:M:14:THR:O	1:M:18:GLN:HG2	2.13	0.48
1:A:198:LYS:HE3	2:N:16:U:O4'	2.13	0.48
1:B:18:GLN:HG2	1:B:19:ASP:N	2.28	0.48
1:C:85:LEU:O	1:C:89:LYS:HG3	2.14	0.48
1:D:113:ARG:HG2	1:D:127:ILE:HG22	1.96	0.48
1:G:61:SER:O	1:G:69:ARG:NH2	2.41	0.48
1:J:61:SER:O	1:J:69:ARG:NH2	2.40	0.48
1:L:111:SER:HA	1:L:113:ARG:H	1.78	0.48
1:L:197:GLN:O	1:L:201:GLN:HG3	2.14	0.48
1:B:223:ILE:O	1:B:230:ARG:HD3	2.13	0.48
1:C:341:TYR:O	1:C:348:ARG:NH1	2.46	0.48
1:F:378:MET:HA	1:F:381:ALA:HB3	1.95	0.48
1:C:296:LEU:O	1:C:300:MET:HG3	2.13	0.48
1:F:357:MET:HE1	1:F:362:PHE:CD1	2.49	0.48
1:G:126:GLU:HA	1:G:129:ALA:HB3	1.95	0.48
1:G:197:GLN:O	1:G:201:GLN:HB2	2.14	0.48
1:J:76:MET:HA	1:J:79:LEU:HD12	1.96	0.48
1:J:292:GLU:HG2	1:J:329:TYR:HA	1.95	0.48
1:M:50:ARG:HH21	1:M:107:PHE:HB2	1.79	0.48
1:B:104:ILE:O	1:B:115:ILE:O	2.31	0.48
1:C:94:SER:HB3	1:C:97:ALA:HB2	1.96	0.48
1:G:359:LYS:HD2	1:G:359:LYS:O	2.14	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:276:ALA:HB2	1:J:336:ALA:HB2	1.95	0.48
1:K:104:ILE:O	1:K:115:ILE:O	2.32	0.48
1:K:87:HIS:ND1	1:K:90:LEU:HD22	2.29	0.48
1:K:260:TYR:OH	2:N:64:U:OP2	2.25	0.48
1:L:122:MET:HG2	1:L:126:GLU:OE1	2.14	0.48
1:B:344:ASP:HB3	1:B:347:MET:HG2	1.96	0.47
1:C:281:TRP:HZ3	1:C:339:ILE:HG23	1.79	0.47
1:D:5:LEU:O	1:D:9:GLU:HG3	2.14	0.47
1:E:111:SER:HA	1:E:113:ARG:H	1.78	0.47
1:F:194:LYS:HE2	2:N:27:U:OP1	2.13	0.47
1:M:345:VAL:O	1:M:348:ARG:HD3	2.14	0.47
1:A:319:PRO:HG2	1:M:243:GLN:NE2	2.29	0.47
1:G:296:LEU:O	1:G:300:MET:HG3	2.15	0.47
1:D:104:ILE:O	1:D:115:ILE:O	2.33	0.47
1:E:180:LYS:NZ	1:E:191:SER:OG	2.46	0.47
1:F:87:HIS:CE1	1:F:236:GLU:OE2	2.67	0.47
1:H:23:GLU:OE1	1:H:24:GLY:N	2.47	0.47
1:H:180:LYS:HB2	1:H:220:GLN:NE2	2.29	0.47
1:K:85:LEU:O	1:K:89:LYS:HG3	2.13	0.47
1:A:169:SER:O	1:A:173:GLN:HG3	2.14	0.47
1:E:111:SER:CB	1:E:112:PHE:HA	2.44	0.47
1:E:161:GLU:HG2	1:F:33:PRO:HB3	1.95	0.47
1:E:198:LYS:HE3	2:N:22:U:O4'	2.15	0.47
1:E:301:ALA:O	1:E:305:THR:HG23	2.15	0.47
1:J:225:LYS:HE3	1:J:225:LYS:HB3	1.68	0.47
1:M:108:GLU:HG3	1:M:115:ILE:HG12	1.97	0.47
1:A:397:THR:HG23	1:E:371:LYS:NZ	2.29	0.47
1:B:193:GLU:HA	1:B:196:LEU:HD13	1.96	0.47
1:D:197:GLN:O	1:D:201:GLN:HG3	2.15	0.47
1:F:230:ARG:HH21	1:F:317:GLU:HG3	1.80	0.47
1:A:387:THR:H	1:A:390:GLU:HG3	1.80	0.47
1:E:348:ARG:HG3	1:E:348:ARG:HH11	1.80	0.47
1:H:180:LYS:HB2	1:H:220:GLN:HE21	1.79	0.47
1:I:172:MET:SD	1:I:253:MET:HG2	2.54	0.47
1:K:173:GLN:HE22	1:K:210:LEU:HA	1.79	0.47
1:A:85:LEU:O	1:A:89:LYS:HG3	2.15	0.47
1:A:241:ARG:HH12	1:A:308:GLU:CG	2.26	0.47
1:B:57:ARG:NH1	1:B:153:GLU:OE2	2.47	0.47
1:D:142:ASN:O	1:D:143:HIS:HB2	2.15	0.47
1:F:198:LYS:HE3	2:N:28:U:O4'	2.15	0.47
1:F:367:GLU:HG2	1:F:371:LYS:HG3	1.97	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:388:GLN:O	1:F:391:ARG:HB2	2.14	0.47
1:I:292:GLU:HG2	1:I:329:TYR:HA	1.97	0.47
1:J:90:LEU:HD21	1:J:239:LEU:HD11	1.97	0.47
1:K:40:LEU:HD11	1:K:47:LEU:HD23	1.96	0.47
1:K:107:PHE:CE1	1:K:114:LEU:HD23	2.49	0.47
1:L:94:SER:HB3	1:L:97:ALA:HB2	1.97	0.47
1:M:387:THR:OG1	1:M:390:GLU:HG3	2.14	0.47
1:C:374:GLY:HA3	1:C:395:ALA:HA	1.97	0.47
1:E:111:SER:HB2	1:E:112:PHE:HA	1.96	0.47
1:E:306:LEU:HD21	1:E:320:HIS:CD2	2.50	0.47
1:G:397:THR:C	1:G:399:ALA:HB2	2.35	0.47
1:B:5:LEU:O	1:B:9:GLU:HG3	2.15	0.47
1:E:296:LEU:O	1:E:300:MET:HG3	2.15	0.47
1:F:388:GLN:C	1:F:391:ARG:HB2	2.35	0.47
1:F:393:GLU:HG2	1:F:394:MET:HB2	1.96	0.47
1:I:345:VAL:O	1:I:348:ARG:HG3	2.14	0.47
1:M:207:PRO:HA	1:M:210:LEU:HD12	1.97	0.47
1:M:400:LYS:N	1:M:400:LYS:CD	2.78	0.47
1:D:282:PRO:HG2	1:D:372:GLN:NE2	2.30	0.47
1:F:188:PRO:HB3	1:F:189:ALA:HA	1.97	0.47
1:F:230:ARG:HG2	1:F:315:LEU:HG	1.96	0.47
1:G:259:LYS:NZ	1:K:323:ASP:OD1	2.41	0.47
1:H:249:ARG:HG3	1:H:249:ARG:NH1	2.30	0.47
1:H:384:LEU:HD11	1:K:5:LEU:HD11	1.97	0.47
1:I:198:LYS:HE3	2:N:4:U:O4'	2.14	0.47
1:K:235:PHE:O	1:K:239:LEU:HD13	2.15	0.47
1:L:147:PHE:HA	1:L:210:LEU:O	2.15	0.47
1:M:104:ILE:O	1:M:115:ILE:O	2.33	0.47
1:A:241:ARG:NH2	1:A:311:ARG:HH12	2.13	0.46
1:B:85:LEU:O	1:B:89:LYS:HG3	2.14	0.46
1:F:57:ARG:NH1	1:F:153:GLU:OE2	2.48	0.46
1:F:276:ALA:HB2	1:F:336:ALA:HB2	1.97	0.46
1:K:371:LYS:HD2	1:K:371:LYS:HA	1.65	0.46
1:L:193:GLU:HA	1:L:196:LEU:HD13	1.97	0.46
1:C:50:ARG:NH2	1:C:110:GLY:H	2.11	0.46
1:D:354:ARG:NH1	1:D:356:TYR:OH	2.48	0.46
1:E:10:ARG:HH11	1:E:10:ARG:HG2	1.80	0.46
1:F:177:VAL:HG12	1:F:192:ILE:CD1	2.46	0.46
1:G:398:LEU:O	1:G:401:LEU:HB2	2.15	0.46
1:I:5:LEU:O	1:I:9:GLU:HG3	2.16	0.46
1:I:398:LEU:HD23	1:I:398:LEU:C	2.36	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:180:LYS:HB2	1:J:220:GLN:NE2	2.29	0.46
1:K:292:GLU:HG2	1:K:329:TYR:HA	1.97	0.46
1:A:87:HIS:CD2	1:A:90:LEU:HD22	2.51	0.46
1:B:104:ILE:HG23	1:B:105:ASP:N	2.30	0.46
1:C:57:ARG:NH1	1:C:153:GLU:OE2	2.49	0.46
1:E:76:MET:HA	1:E:79:LEU:HD12	1.97	0.46
1:F:367:GLU:HG2	1:F:371:LYS:HE3	1.98	0.46
1:G:18:GLN:HE22	1:H:308:GLU:HA	1.79	0.46
1:H:6:LYS:O	1:H:10:ARG:HG3	2.15	0.46
1:A:378:MET:HA	1:A:381:ALA:HB3	1.98	0.46
1:D:116:PRO:HB3	1:D:122:MET:HE2	1.96	0.46
1:F:301:ALA:O	1:F:305:THR:HG23	2.15	0.46
1:I:15:GLN:NE2	1:I:18:GLN:OE1	2.49	0.46
1:M:111:SER:CB	1:M:112:PHE:HA	2.45	0.46
1:A:87:HIS:CE1	1:E:28:PRO:HB3	2.45	0.46
1:A:104:ILE:HD13	1:A:114:LEU:HD22	1.98	0.46
1:A:104:ILE:HD11	1:A:114:LEU:HD13	1.97	0.46
1:F:392:THR:C	1:F:394:MET:H	2.18	0.46
1:G:263:ASN:OD1	1:G:303:TYR:OH	2.25	0.46
1:G:399:ALA:HB3	1:G:401:LEU:H	1.79	0.46
1:D:200:ARG:HD2	1:D:207:PRO:HG3	1.97	0.46
1:E:39:ILE:HG12	1:E:101:ARG:O	2.15	0.46
1:G:283:THR:HA	1:H:394:MET:SD	2.55	0.46
1:J:122:MET:HG2	1:J:126:GLU:OE1	2.16	0.46
1:E:196:LEU:O	1:E:200:ARG:HG3	2.16	0.46
1:H:147:PHE:O	1:H:149:ASP:N	2.46	0.46
1:M:111:SER:HA	1:M:113:ARG:H	1.81	0.46
1:A:104:ILE:CD1	1:A:114:LEU:HD22	2.46	0.46
1:B:295:LYS:HE2	1:B:328:ASN:HB3	1.98	0.46
1:C:239:LEU:HD23	1:L:28:PRO:HG2	1.98	0.46
1:H:364:LEU:O	1:H:368:THR:OG1	2.25	0.46
1:H:369:ALA:O	1:H:373:GLN:HG2	2.16	0.46
1:B:180:LYS:HB2	1:B:220:GLN:HE21	1.81	0.46
1:C:141:LEU:HA	1:C:141:LEU:HD12	1.81	0.46
1:E:373:GLN:HB3	1:E:398:LEU:CD2	2.45	0.46
1:H:276:ALA:HB2	1:H:336:ALA:HB2	1.98	0.46
1:J:301:ALA:O	1:J:305:THR:HG23	2.16	0.46
1:K:147:PHE:HA	1:K:210:LEU:O	2.16	0.46
1:L:386:LEU:HD12	1:L:386:LEU:HA	1.34	0.46
1:M:384:LEU:HB3	1:M:386:LEU:HD23	1.96	0.46
1:A:301:ALA:O	1:A:305:THR:HG23	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:386:LEU:HD11	1:F:282:PRO:HB3	1.98	0.46
1:G:325:ALA:O	1:G:328:ASN:ND2	2.44	0.46
1:J:27:PRO:HB2	1:K:248:ASN:HD21	1.80	0.46
1:M:50:ARG:HH22	1:M:109:GLU:HA	1.81	0.46
1:M:350:TYR:HE1	2:N:6:U:H5"	1.81	0.46
1:H:90:LEU:HD21	1:H:239:LEU:HD11	1.98	0.45
1:C:196:LEU:O	1:C:200:ARG:HG3	2.16	0.45
1:C:230:ARG:HH21	1:C:317:GLU:HG3	1.82	0.45
1:F:188:PRO:CB	1:F:189:ALA:HA	2.47	0.45
1:G:392:THR:O	1:G:395:ALA:HB3	2.16	0.45
1:L:85:LEU:O	1:L:89:LYS:HG3	2.16	0.45
1:M:172:MET:O	1:M:176:ILE:HG13	2.16	0.45
1:M:197:GLN:O	1:M:201:GLN:HG2	2.16	0.45
1:A:172:MET:SD	1:A:253:MET:HG2	2.57	0.45
1:C:116:PRO:HB3	1:C:122:MET:HE2	1.97	0.45
1:D:146:PRO:HB2	1:D:211:LEU:HD22	1.98	0.45
1:F:390:GLU:CA	1:F:393:GLU:HB3	2.46	0.45
1:G:239:LEU:HD23	1:K:28:PRO:CG	2.47	0.45
1:G:377:ASP:OD1	1:G:379:ARG:HG2	2.17	0.45
1:K:301:ALA:O	1:K:305:THR:HG23	2.16	0.45
1:M:87:HIS:CE1	1:M:232:PHE:HZ	2.34	0.45
1:C:57:ARG:NH1	1:C:153:GLU:OE1	2.48	0.45
1:C:149:ASP:O	1:C:151:GLU:N	2.42	0.45
1:C:335:TYR:CZ	1:C:339:ILE:HD11	2.51	0.45
1:D:78:SER:O	1:D:81:SER:OG	2.34	0.45
1:D:181:CYS:O	1:D:224:ARG:NH1	2.50	0.45
1:H:165:ASP:O	1:H:169:SER:OG	2.24	0.45
1:J:282:PRO:C	1:K:394:MET:HE1	2.36	0.45
1:L:30:THR:HG22	1:L:31:LEU:O	2.16	0.45
1:L:180:LYS:NZ	1:L:191:SER:OG	2.50	0.45
1:M:330:PRO:O	1:M:334:SER:OG	2.28	0.45
1:A:107:PHE:CE1	1:A:114:LEU:HD23	2.51	0.45
1:A:148:VAL:HG12	1:A:212:GLN:HG2	1.99	0.45
1:B:65:ARG:NH2	1:L:161:GLU:OE2	2.40	0.45
1:D:104:ILE:HG23	1:D:105:ASP:N	2.32	0.45
1:E:104:ILE:O	1:E:115:ILE:O	2.33	0.45
1:I:76:MET:HA	1:I:79:LEU:HD12	1.98	0.45
1:I:85:LEU:O	1:I:89:LYS:HG3	2.16	0.45
1:J:296:LEU:O	1:J:300:MET:HG3	2.16	0.45
1:K:249:ARG:HH11	1:K:249:ARG:CG	2.28	0.45
1:L:236:GLU:OE2	1:L:251:TYR:OH	2.23	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:147:PHE:HA	1:A:210:LEU:O	2.17	0.45
1:B:237:LEU:O	1:B:241:ARG:HG2	2.17	0.45
1:E:366:MET:O	1:E:370:ARG:HG3	2.16	0.45
1:G:142:ASN:O	1:G:143:HIS:CB	2.65	0.45
1:I:79:LEU:HA	1:I:84:MET:HE3	1.99	0.45
1:I:357:MET:HE1	1:I:362:PHE:CD1	2.52	0.45
1:I:398:LEU:CA	1:I:400:LYS:HD3	2.38	0.45
1:B:282:PRO:HB3	1:L:386:LEU:CD2	2.47	0.45
1:B:357:MET:HE1	1:B:362:PHE:CD1	2.51	0.45
1:C:292:GLU:HG2	1:C:329:TYR:HA	1.98	0.45
1:F:388:GLN:HB3	1:F:391:ARG:HD3	1.98	0.45
1:K:388:GLN:N	1:K:388:GLN:CD	2.70	0.45
1:M:357:MET:HE1	1:M:362:PHE:CD1	2.52	0.45
1:A:46:GLU:HA	1:A:157:TRP:HB2	1.97	0.45
1:D:76:MET:HA	1:D:79:LEU:HD12	1.97	0.45
1:D:364:LEU:HD22	1:J:398:LEU:HD13	1.99	0.45
1:I:181:CYS:O	1:I:182:MET:HG2	2.16	0.45
1:K:218:ILE:O	1:K:222:VAL:HG23	2.17	0.45
1:A:296:LEU:O	1:A:300:MET:HG3	2.17	0.45
1:C:113:ARG:HH11	1:C:124:ARG:NH2	2.15	0.45
1:D:57:ARG:NH1	1:D:153:GLU:OE2	2.50	0.45
1:E:14:THR:O	1:E:18:GLN:N	2.50	0.45
1:F:366:MET:HE2	1:F:370:ARG:NH2	2.32	0.45
1:I:104:ILE:O	1:I:115:ILE:O	2.34	0.45
1:M:214:GLU:OE1	1:M:217:ARG:NH2	2.50	0.45
1:C:40:LEU:HD21	1:C:47:LEU:HB3	1.99	0.45
1:C:172:MET:O	1:C:176:ILE:HG13	2.16	0.45
1:E:116:PRO:HB3	1:E:122:MET:CE	2.47	0.45
1:F:321:LEU:HD23	1:F:321:LEU:HA	1.69	0.45
1:G:105:ASP:OD2	1:G:117:ASN:HA	2.17	0.45
1:L:325:ALA:O	1:L:328:ASN:ND2	2.42	0.45
1:M:87:HIS:O	1:M:90:LEU:HB2	2.17	0.45
1:M:180:LYS:HB2	1:M:220:GLN:NE2	2.31	0.45
1:A:181:CYS:O	1:A:182:MET:HB2	2.17	0.44
1:A:384:LEU:HD11	1:F:5:LEU:HD11	1.99	0.44
1:B:282:PRO:HB3	1:L:386:LEU:HD21	1.98	0.44
1:D:27:PRO:HB2	1:J:248:ASN:HD21	1.82	0.44
1:I:172:MET:O	1:I:176:ILE:HG13	2.17	0.44
1:I:250:TYR:O	1:I:254:VAL:HG23	2.18	0.44
1:L:13:LEU:HD21	1:L:297:LYS:HE2	1.99	0.44
1:L:263:ASN:OD1	1:L:303:TYR:OH	2.29	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:321:LEU:HD23	1:B:321:LEU:HA	1.81	0.44
1:D:230:ARG:HG2	1:D:315:LEU:HG	1.99	0.44
1:F:57:ARG:HG2	1:F:137:LEU:HD11	2.00	0.44
1:G:40:LEU:HD11	1:G:47:LEU:HD23	1.98	0.44
1:G:141:LEU:HD12	1:G:141:LEU:HA	1.77	0.44
1:I:223:ILE:O	1:I:230:ARG:HD3	2.17	0.44
1:J:148:VAL:H	1:J:212:GLN:HE21	1.64	0.44
1:L:260:TYR:OH	2:N:40:U:OP2	2.26	0.44
1:B:172:MET:O	1:B:176:ILE:HG13	2.16	0.44
1:C:180:LYS:HB2	1:C:220:GLN:NE2	2.32	0.44
1:D:104:ILE:HD11	1:D:114:LEU:CD2	2.47	0.44
1:D:105:ASP:CG	1:D:117:ASN:HD22	2.21	0.44
1:D:165:ASP:O	1:D:169:SER:OG	2.22	0.44
1:J:141:LEU:HD23	1:J:141:LEU:HA	1.71	0.44
1:L:90:LEU:HD21	1:L:239:LEU:HD11	1.99	0.44
1:A:273:LEU:HB3	1:E:8:TYR:CE1	2.53	0.44
1:B:249:ARG:HG3	1:B:249:ARG:NH1	2.30	0.44
1:C:48:ARG:HB3	1:C:163:PHE:CZ	2.51	0.44
1:E:147:PHE:O	1:E:148:VAL:HB	2.17	0.44
1:E:275:TYR:O	1:E:279:THR:OG1	2.24	0.44
1:F:79:LEU:HA	1:F:84:MET:HE3	2.00	0.44
1:G:357:MET:HE1	1:G:362:PHE:CD1	2.52	0.44
1:G:373:GLN:HB2	1:G:398:LEU:HD22	1.99	0.44
1:H:218:ILE:O	1:H:222:VAL:HG23	2.18	0.44
1:I:400:LYS:HZ2	1:M:360:THR:HG22	1.82	0.44
1:K:296:LEU:O	1:K:300:MET:HG3	2.17	0.44
1:A:180:LYS:HB2	1:A:220:GLN:HE21	1.82	0.44
1:A:284:LEU:O	1:A:284:LEU:HD23	2.17	0.44
1:A:398:LEU:HA	1:A:401:LEU:HB2	1.99	0.44
1:C:234:THR:O	1:C:238:GLN:HG3	2.18	0.44
1:D:6:LYS:HD2	1:D:10:ARG:HH21	1.83	0.44
1:F:122:MET:HG2	1:F:126:GLU:OE1	2.18	0.44
1:G:85:LEU:O	1:G:89:LYS:HG3	2.18	0.44
1:G:146:PRO:O	1:G:147:PHE:HB2	2.17	0.44
1:G:210:LEU:HD23	1:G:210:LEU:HA	1.83	0.44
1:H:275:TYR:O	1:H:279:THR:OG1	2.23	0.44
1:I:400:LYS:HE3	1:I:401:LEU:HB2	2.00	0.44
1:L:188:PRO:HB2	1:L:189:ALA:H	1.42	0.44
1:D:27:PRO:HB2	1:J:248:ASN:ND2	2.33	0.44
1:D:223:ILE:O	1:D:230:ARG:HD3	2.18	0.44
1:E:276:ALA:HB2	1:E:336:ALA:HB2	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:343:LEU:HD11	1:E:373:GLN:NE2	2.33	0.44
1:F:104:ILE:O	1:F:115:ILE:O	2.35	0.44
1:J:353:SER:O	1:J:354:ARG:HG2	2.18	0.44
1:A:73:LEU:HD22	1:A:77:PHE:HE2	1.83	0.44
1:A:260:TYR:OH	2:N:16:U:OP2	2.29	0.44
1:D:146:PRO:O	1:D:147:PHE:CB	2.65	0.44
1:D:230:ARG:HH21	1:D:317:GLU:HG3	1.83	0.44
1:E:230:ARG:HH21	1:E:317:GLU:HG3	1.83	0.44
1:G:301:ALA:O	1:G:305:THR:HG23	2.18	0.44
1:J:137:LEU:HD22	1:J:141:LEU:HD12	2.00	0.44
1:J:397:THR:O	1:J:400:LYS:N	2.38	0.44
1:L:386:LEU:CD1	1:L:390:GLU:HG2	2.43	0.44
1:L:387:THR:HG23	1:L:388:GLN:HG2	1.99	0.44
1:B:301:ALA:O	1:B:305:THR:HG23	2.17	0.44
1:C:111:SER:HB2	1:C:112:PHE:HA	2.00	0.44
1:C:116:PRO:HB3	1:C:122:MET:CE	2.48	0.44
1:E:223:ILE:O	1:E:230:ARG:HD3	2.18	0.44
1:F:39:ILE:HD11	1:F:88:VAL:HG21	2.00	0.44
1:H:47:LEU:HD21	1:H:106:GLY:HA2	2.00	0.44
1:H:52:LEU:HD23	1:H:166:MET:HE3	1.99	0.44
1:L:116:PRO:HB3	1:L:122:MET:CE	2.46	0.44
2:N:1:U:P	2:N:78:U:O3'	2.76	0.44
1:B:180:LYS:HB2	1:B:220:GLN:NE2	2.32	0.44
1:E:50:ARG:HH21	1:E:107:PHE:HB2	1.82	0.44
1:E:295:LYS:HE3	1:E:328:ASN:HB3	1.99	0.44
1:I:40:LEU:HD11	1:I:47:LEU:CD2	2.47	0.44
1:J:64:ALA:HB2	1:J:133:LEU:HD21	2.00	0.44
1:J:210:LEU:HD23	1:J:210:LEU:HA	1.89	0.44
1:A:374:GLY:HA3	1:A:395:ALA:HA	2.00	0.43
1:C:283:THR:HA	1:F:394:MET:SD	2.58	0.43
1:D:187:GLN:HB2	1:D:188:PRO:HD2	2.00	0.43
1:D:210:LEU:HD23	1:D:211:LEU:O	2.17	0.43
1:H:396:ASN:HA	1:H:399:ALA:HB3	2.00	0.43
1:L:87:HIS:O	1:L:90:LEU:HB2	2.18	0.43
1:M:223:ILE:O	1:M:230:ARG:HD3	2.18	0.43
1:C:175:TRP:CZ3	1:C:237:LEU:HD11	2.53	0.43
1:C:364:LEU:HD22	1:F:398:LEU:HD13	2.00	0.43
1:J:65:ARG:HG3	1:J:66:ASP:H	1.83	0.43
1:J:400:LYS:HZ1	1:J:401:LEU:HD22	1.83	0.43
1:K:46:GLU:OE2	1:K:50:ARG:NE	2.51	0.43
1:K:377:ASP:OD1	1:K:379:ARG:HG3	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:182:MET:HE1	1:C:221:ASN:HB2	1.99	0.43
1:C:394:MET:SD	1:L:283:THR:HA	2.58	0.43
1:D:148:VAL:HG12	1:D:149:ASP:N	2.33	0.43
1:G:39:ILE:HD11	1:G:88:VAL:HG21	2.00	0.43
1:G:390:GLU:O	1:G:394:MET:HB3	2.19	0.43
1:H:210:LEU:HD12	1:H:210:LEU:HA	1.83	0.43
1:L:172:MET:SD	1:L:253:MET:HG2	2.57	0.43
1:C:104:ILE:O	1:C:105:ASP:CB	2.66	0.43
1:D:172:MET:SD	1:D:253:MET:HG2	2.57	0.43
1:F:187:GLN:HA	1:F:188:PRO:HD2	1.76	0.43
1:H:104:ILE:HG23	1:H:105:ASP:N	2.34	0.43
1:J:28:PRO:CG	1:K:239:LEU:HD23	2.48	0.43
1:J:65:ARG:HG3	1:J:66:ASP:N	2.33	0.43
1:J:104:ILE:O	1:J:115:ILE:O	2.36	0.43
1:L:200:ARG:HE	1:L:200:ARG:HB3	1.56	0.43
1:M:393:GLU:OE1	1:M:396:ASN:HB3	2.19	0.43
1:A:96:GLU:O	1:A:96:GLU:HG3	2.18	0.43
1:C:152:VAL:O	1:C:155:THR:OG1	2.27	0.43
1:D:124:ARG:HG3	1:D:124:ARG:NH1	2.33	0.43
1:E:85:LEU:O	1:E:89:LYS:HG3	2.17	0.43
1:E:90:LEU:HD21	1:E:239:LEU:HD11	2.00	0.43
1:E:147:PHE:C	1:E:148:VAL:O	2.55	0.43
1:G:380:MET:HG2	1:K:285:ALA:HA	2.01	0.43
1:H:392:THR:HA	1:H:395:ALA:CB	2.48	0.43
1:D:155:THR:OG1	1:D:208:ARG:NH2	2.51	0.43
1:D:384:LEU:HB3	1:D:386:LEU:HD23	2.00	0.43
1:G:394:MET:HA	1:G:397:THR:HB	2.00	0.43
1:H:198:LYS:HE3	2:N:52:U:O4'	2.19	0.43
1:J:250:TYR:O	1:J:254:VAL:HG23	2.18	0.43
1:K:306:LEU:HD23	1:K:306:LEU:HA	1.81	0.43
1:K:357:MET:HE1	1:K:362:PHE:CD1	2.53	0.43
1:L:292:GLU:HB3	1:L:332:LEU:HD12	2.00	0.43
1:L:292:GLU:HG2	1:L:329:TYR:HA	2.01	0.43
1:M:48:ARG:HB3	1:M:163:PHE:CZ	2.53	0.43
1:M:295:LYS:HE2	1:M:328:ASN:HB3	2.00	0.43
1:C:304:GLN:HG2	1:L:15:GLN:HE22	1.83	0.43
1:G:235:PHE:O	1:G:239:LEU:HD13	2.18	0.43
1:J:400:LYS:HG2	1:J:401:LEU:N	2.33	0.43
1:L:15:GLN:HA	1:L:18:GLN:HB3	2.00	0.43
1:L:230:ARG:HH21	1:L:317:GLU:HG3	1.82	0.43
1:M:85:LEU:O	1:M:89:LYS:HG3	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:207:PRO:HA	1:B:210:LEU:HD12	2.00	0.43
1:B:323:ASP:OD1	1:L:259:LYS:NZ	2.47	0.43
1:C:357:MET:HE1	1:C:362:PHE:CD1	2.54	0.43
1:E:122:MET:HG2	1:E:126:GLU:OE1	2.19	0.43
1:G:230:ARG:HH21	1:G:317:GLU:HG3	1.83	0.43
1:H:223:ILE:O	1:H:230:ARG:HD3	2.18	0.43
1:K:280:ARG:CZ	1:K:379:ARG:HH21	2.32	0.43
1:L:386:LEU:O	1:L:391:ARG:NH2	2.52	0.43
1:M:180:LYS:HB2	1:M:220:GLN:HE21	1.84	0.43
1:A:10:ARG:HG2	1:A:10:ARG:NH1	2.34	0.43
1:A:136:ASP:HB3	1:A:137:LEU:H	1.70	0.43
1:B:116:PRO:HB3	1:B:122:MET:HE2	2.00	0.43
1:B:161:GLU:HG2	1:H:33:PRO:HB3	2.00	0.43
1:B:206:ASN:HB3	1:B:209:TYR:HD2	1.83	0.43
1:C:104:ILE:HG22	1:C:105:ASP:N	2.34	0.43
1:C:295:LYS:HZ3	1:C:328:ASN:HB3	1.84	0.43
1:I:87:HIS:HE1	1:I:236:GLU:OE2	2.02	0.43
1:L:221:ASN:O	1:L:225:LYS:HG3	2.18	0.43
1:A:221:ASN:O	1:A:225:LYS:HG3	2.18	0.43
1:A:223:ILE:O	1:A:230:ARG:HD3	2.19	0.43
1:C:35:ILE:HD13	1:C:228:VAL:HG21	2.00	0.43
1:C:195:ARG:NH2	2:N:33:U:OP2	2.51	0.43
1:G:94:SER:HA	1:G:95:PRO:HD3	1.90	0.43
1:I:122:MET:HB2	1:I:122:MET:HE3	1.92	0.43
1:K:250:TYR:O	1:K:254:VAL:HG23	2.19	0.43
1:B:108:GLU:HG3	1:B:115:ILE:HG12	2.00	0.42
1:C:111:SER:CB	1:C:112:PHE:HA	2.49	0.42
1:E:339:ILE:O	1:E:343:LEU:HB2	2.19	0.42
1:G:237:LEU:HA	1:G:237:LEU:HD23	1.74	0.42
1:J:241:ARG:HH12	1:J:311:ARG:HH21	1.65	0.42
1:J:299:LEU:HD23	1:J:299:LEU:HA	1.83	0.42
1:K:146:PRO:HB2	1:K:147:PHE:H	1.66	0.42
1:L:15:GLN:HA	1:L:18:GLN:CB	2.49	0.42
1:M:107:PHE:CE1	1:M:114:LEU:HD23	2.54	0.42
1:D:40:LEU:HD11	1:D:47:LEU:HD23	2.01	0.42
1:E:61:SER:O	1:E:69:ARG:NH2	2.46	0.42
1:I:243:GLN:NE2	1:M:319:PRO:HG2	2.35	0.42
1:I:400:LYS:NZ	1:M:360:THR:HG22	2.34	0.42
1:J:94:SER:HB3	1:J:97:ALA:HB2	2.00	0.42
1:D:198:LYS:HE3	2:N:76:U:O4'	2.18	0.42
1:E:48:ARG:HB3	1:E:163:PHE:CZ	2.55	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:140:THR:HB	1:E:214:GLU:OE1	2.19	0.42
1:G:57:ARG:NH2	1:G:144:ALA:O	2.51	0.42
1:K:172:MET:SD	1:K:253:MET:HG2	2.59	0.42
1:L:10:ARG:O	1:L:14:THR:HG23	2.19	0.42
1:L:326:ALA:HB3	1:L:356:TYR:OH	2.19	0.42
1:M:367:GLU:OE2	1:M:371:LYS:NZ	2.40	0.42
2:N:4:U:H2'	2:N:5:U:O4'	2.20	0.42
1:B:73:LEU:HD23	1:B:73:LEU:HA	1.89	0.42
1:B:197:GLN:HG2	1:B:201:GLN:HG3	2.01	0.42
1:D:148:VAL:H	1:D:212:GLN:HG3	1.84	0.42
1:E:230:ARG:NH2	1:E:317:GLU:HG3	2.34	0.42
1:H:47:LEU:CD2	1:H:106:GLY:HA2	2.49	0.42
1:H:104:ILE:HD11	1:H:114:LEU:CD2	2.50	0.42
1:J:172:MET:O	1:J:176:ILE:HG13	2.20	0.42
1:K:390:GLU:O	1:K:394:MET:HB3	2.20	0.42
1:B:104:ILE:O	1:B:105:ASP:HB2	2.18	0.42
1:C:54:PHE:CZ	1:C:58:ILE:HD11	2.54	0.42
1:D:187:GLN:OE1	1:D:217:ARG:NE	2.51	0.42
1:G:155:THR:CG2	1:G:208:ARG:HH22	2.22	0.42
1:M:59:VAL:O	1:M:69:ARG:NH1	2.52	0.42
1:M:202:GLN:OE1	1:M:204:ARG:NH1	2.52	0.42
1:A:122:MET:HB2	1:A:122:MET:HE2	1.99	0.42
1:A:172:MET:O	1:A:176:ILE:HG13	2.20	0.42
1:C:65:ARG:HG2	1:C:66:ASP:H	1.84	0.42
1:C:394:MET:O	1:C:397:THR:OG1	2.37	0.42
1:D:107:PHE:CE1	1:D:114:LEU:HD23	2.55	0.42
1:E:376:VAL:CG2	1:E:381:ALA:HB2	2.50	0.42
1:G:113:ARG:HD2	1:G:124:ARG:HH12	1.84	0.42
1:H:193:GLU:HA	1:H:196:LEU:HD12	2.02	0.42
1:J:198:LYS:HE3	2:N:70:U:O4'	2.20	0.42
1:A:26:ILE:HA	1:A:27:PRO:HD3	1.89	0.42
1:B:20:GLN:HE22	1:B:302:LEU:HD11	1.85	0.42
1:B:55:CYS:O	1:B:59:VAL:HG23	2.20	0.42
1:B:306:LEU:HD23	1:B:306:LEU:HA	1.80	0.42
1:C:65:ARG:HE	1:F:161:GLU:CD	2.22	0.42
1:C:187:GLN:HB2	1:C:188:PRO:CD	2.49	0.42
1:C:230:ARG:HG2	1:C:315:LEU:HG	2.01	0.42
1:G:180:LYS:HB2	1:G:220:GLN:NE2	2.33	0.42
1:H:136:ASP:HB3	1:H:137:LEU:H	1.75	0.42
1:I:315:LEU:HD12	1:I:315:LEU:HA	1.92	0.42
1:J:84:MET:O	1:J:88:VAL:HG23	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:97:ALA:HB2	1:M:228:VAL:HG13	2.02	0.42
1:I:224:ARG:HG3	1:I:225:LYS:N	2.34	0.42
1:L:14:THR:O	1:L:18:GLN:N	2.53	0.42
1:L:96:GLU:HG3	1:L:96:GLU:O	2.20	0.42
1:M:172:MET:SD	1:M:253:MET:HG2	2.60	0.42
1:C:10:ARG:O	1:C:14:THR:HG23	2.20	0.42
1:C:373:GLN:C	1:C:398:LEU:HD23	2.41	0.42
1:E:243:GLN:HA	1:F:25:THR:O	2.19	0.42
1:E:308:GLU:O	1:E:311:ARG:HG3	2.20	0.42
1:H:230:ARG:NH2	1:H:317:GLU:HG3	2.35	0.42
1:J:87:HIS:O	1:J:90:LEU:HB2	2.20	0.42
1:A:352:PHE:O	1:A:354:ARG:HG2	2.20	0.42
1:D:26:ILE:HA	1:D:27:PRO:HD3	1.89	0.42
1:G:60:LEU:O	1:G:138:PRO:HD3	2.20	0.42
1:G:143:HIS:O	1:G:143:HIS:CG	2.73	0.42
1:H:326:ALA:HB3	1:H:356:TYR:OH	2.20	0.42
1:I:50:ARG:NH1	1:I:111:SER:OG	2.53	0.42
1:J:33:PRO:HD3	1:K:164:LEU:HD12	2.01	0.42
1:J:143:HIS:O	1:J:144:ALA:HB3	2.20	0.42
1:J:378:MET:SD	1:J:391:ARG:NH1	2.93	0.42
1:L:343:LEU:HD12	1:L:343:LEU:HA	1.91	0.42
1:B:141:LEU:O	1:B:143:HIS:HA	2.20	0.41
1:D:400:LYS:HD2	1:D:400:LYS:C	2.39	0.41
1:E:207:PRO:HA	1:E:210:LEU:CD1	2.45	0.41
1:E:344:ASP:HB3	1:E:347:MET:HG2	2.02	0.41
1:F:60:LEU:O	1:F:138:PRO:HD3	2.19	0.41
1:F:281:TRP:HZ3	1:F:339:ILE:HG23	1.85	0.41
1:F:292:GLU:HG2	1:F:329:TYR:HA	2.02	0.41
1:I:96:GLU:HG3	1:I:96:GLU:O	2.20	0.41
1:J:230:ARG:HH21	1:J:317:GLU:HG3	1.85	0.41
1:L:181:CYS:O	1:L:182:MET:HB2	2.20	0.41
1:C:345:VAL:O	1:C:348:ARG:HD3	2.21	0.41
1:C:384:LEU:HB3	1:C:386:LEU:HD23	2.00	0.41
1:E:386:LEU:CD2	1:F:282:PRO:HB3	2.47	0.41
1:G:147:PHE:HA	1:G:210:LEU:O	2.19	0.41
1:H:295:LYS:HE2	1:H:328:ASN:HB3	2.03	0.41
1:J:400:LYS:HZ2	1:J:401:LEU:HD13	1.85	0.41
1:K:60:LEU:O	1:K:138:PRO:HD3	2.20	0.41
1:A:36:ARG:NH2	1:A:126:GLU:OE2	2.43	0.41
1:A:104:ILE:O	1:A:115:ILE:O	2.38	0.41
1:B:26:ILE:HA	1:B:27:PRO:HD3	1.85	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:147:PHE:O	1:B:148:VAL:HG12	2.20	0.41
1:E:343:LEU:HD12	1:E:343:LEU:HA	1.69	0.41
1:F:57:ARG:NH1	1:F:153:GLU:OE1	2.54	0.41
1:F:315:LEU:HD12	1:F:315:LEU:HA	1.89	0.41
1:G:50:ARG:NH1	1:G:111:SER:HB3	2.35	0.41
1:H:237:LEU:O	1:H:241:ARG:HG2	2.20	0.41
1:H:396:ASN:HA	1:H:399:ALA:H	1.85	0.41
1:B:28:PRO:HB3	1:L:87:HIS:NE2	2.36	0.41
1:D:248:ASN:HD21	1:I:27:PRO:HB2	1.85	0.41
1:G:48:ARG:HB3	1:G:163:PHE:CZ	2.56	0.41
1:G:104:ILE:HG22	1:G:105:ASP:N	2.35	0.41
1:H:136:ASP:O	1:H:137:LEU:HB2	2.19	0.41
1:I:173:GLN:HE22	1:I:211:LEU:H	1.68	0.41
1:J:28:PRO:HG2	1:K:239:LEU:HD23	2.02	0.41
1:J:37:VAL:O	1:J:101:ARG:O	2.38	0.41
1:L:378:MET:HA	1:L:381:ALA:HB3	2.01	0.41
1:B:243:GLN:HA	1:H:25:THR:O	2.20	0.41
1:D:87:HIS:CD2	1:D:90:LEU:HD22	2.56	0.41
1:D:96:GLU:O	1:D:96:GLU:HG3	2.20	0.41
1:D:241:ARG:HH12	1:D:308:GLU:CG	2.34	0.41
1:F:390:GLU:HG3	1:F:393:GLU:HB3	2.01	0.41
1:G:223:ILE:O	1:G:230:ARG:HD3	2.21	0.41
1:K:146:PRO:O	1:K:148:VAL:N	2.54	0.41
1:K:330:PRO:O	1:K:334:SER:OG	2.27	0.41
1:L:344:ASP:HB3	1:L:347:MET:HG2	2.03	0.41
1:B:384:LEU:HB3	1:B:386:LEU:HD23	2.02	0.41
1:D:30:THR:HG22	1:D:31:LEU:O	2.20	0.41
1:E:241:ARG:NH1	1:E:308:GLU:HB2	2.35	0.41
1:F:149:ASP:O	1:F:151:GLU:N	2.51	0.41
1:F:335:TYR:CZ	1:F:339:ILE:HD11	2.55	0.41
1:H:152:VAL:HG13	1:H:153:GLU:N	2.36	0.41
1:H:172:MET:O	1:H:176:ILE:HG13	2.21	0.41
1:J:206:ASN:HA	1:J:207:PRO:HD3	1.94	0.41
1:J:392:THR:HA	1:J:395:ALA:HB3	2.01	0.41
1:K:84:MET:O	1:K:88:VAL:HG23	2.20	0.41
1:L:48:ARG:HB3	1:L:163:PHE:CZ	2.56	0.41
1:M:335:TYR:CZ	1:M:339:ILE:HD11	2.55	0.41
1:A:39:ILE:HD11	1:A:88:VAL:HG21	2.02	0.41
1:B:15:GLN:NE2	1:L:303:TYR:CE1	2.89	0.41
1:D:14:THR:OG1	1:J:304:GLN:NE2	2.53	0.41
1:G:104:ILE:HD13	1:G:104:ILE:HA	1.83	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:76:MET:HA	1:H:79:LEU:HD12	2.01	0.41
1:I:177:VAL:HB	1:I:220:GLN:CG	2.39	0.41
1:J:180:LYS:HB2	1:J:220:GLN:HE21	1.85	0.41
1:K:293:LEU:HD23	1:K:293:LEU:HA	1.89	0.41
1:K:345:VAL:O	1:K:348:ARG:HD3	2.20	0.41
1:L:173:GLN:HE22	1:L:211:LEU:H	1.67	0.41
1:M:400:LYS:CD	1:M:400:LYS:H	2.34	0.41
1:C:149:ASP:C	1:C:151:GLU:H	2.23	0.41
1:E:141:LEU:HD12	1:E:141:LEU:HA	1.80	0.41
1:E:386:LEU:HA	1:E:386:LEU:HD12	1.83	0.41
1:G:96:GLU:HG3	1:G:96:GLU:O	2.20	0.41
1:J:48:ARG:HB3	1:J:163:PHE:CZ	2.56	0.41
1:L:146:PRO:O	1:L:148:VAL:N	2.53	0.41
1:A:94:SER:HA	1:A:95:PRO:HD3	1.91	0.41
1:B:5:LEU:HD21	1:L:284:LEU:HD21	2.03	0.41
1:B:211:LEU:HB3	1:B:215:ALA:HB3	2.02	0.41
1:B:318:SER:HA	1:B:319:PRO:HD3	1.93	0.41
1:C:55:CYS:O	1:C:59:VAL:HG23	2.20	0.41
1:D:37:VAL:O	1:D:101:ARG:O	2.38	0.41
1:D:65:ARG:NE	1:J:159:GLU:OE1	2.54	0.41
1:E:172:MET:SD	1:E:253:MET:HG2	2.60	0.41
1:G:54:PHE:CZ	1:G:58:ILE:HD11	2.56	0.41
1:G:87:HIS:HE1	1:G:251:TYR:OH	2.04	0.41
1:G:250:TYR:O	1:G:254:VAL:HG23	2.21	0.41
1:G:343:LEU:HD12	1:G:343:LEU:HA	1.93	0.41
1:I:141:LEU:HD12	1:I:141:LEU:HA	1.92	0.41
1:I:155:THR:HG22	1:I:156:ALA:N	2.35	0.41
1:J:22:GLU:OE1	1:J:22:GLU:N	2.32	0.41
1:J:73:LEU:HD23	1:J:73:LEU:HA	1.94	0.41
1:M:363:GLN:O	1:M:366:MET:HB2	2.21	0.41
1:M:396:ASN:OD1	1:M:397:THR:N	2.54	0.41
1:A:187:GLN:HB3	1:A:188:PRO:HD2	2.02	0.41
1:A:276:ALA:HB2	1:A:336:ALA:HB2	2.01	0.41
1:F:180:LYS:HB2	1:F:220:GLN:NE2	2.36	0.41
1:F:292:GLU:HB3	1:F:332:LEU:HD12	2.03	0.41
1:F:359:LYS:HA	1:F:359:LYS:HD2	1.88	0.41
1:G:39:ILE:CD1	1:G:88:VAL:HG21	2.51	0.41
1:G:286:LEU:HD23	1:G:286:LEU:HA	1.89	0.41
1:H:30:THR:HG22	1:H:31:LEU:O	2.21	0.41
1:H:39:ILE:HG12	1:H:101:ARG:O	2.21	0.41
1:J:387:THR:HG22	1:J:388:GLN:H	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:105:ASP:OD1	1:M:117:ASN:ND2	2.46	0.41
1:M:181:CYS:HA	1:M:224:ARG:HD3	2.03	0.41
1:B:4:VAL:HG21	1:L:293:LEU:HB3	2.03	0.40
1:B:172:MET:SD	1:B:253:MET:HG2	2.61	0.40
1:D:173:GLN:HE22	1:D:210:LEU:HA	1.86	0.40
1:D:230:ARG:NH2	1:D:317:GLU:HG3	2.36	0.40
1:D:243:GLN:NE2	1:I:319:PRO:HG2	2.36	0.40
1:D:393:GLU:HG3	1:D:396:ASN:HB2	2.02	0.40
1:E:122:MET:HE2	1:E:122:MET:HB2	1.98	0.40
1:E:199:TYR:OH	1:E:256:ASP:OD1	2.27	0.40
1:E:214:GLU:O	1:E:218:ILE:HG13	2.22	0.40
1:G:171:LEU:HD23	1:G:171:LEU:HA	1.90	0.40
1:H:175:TRP:CZ3	1:H:237:LEU:HD13	2.56	0.40
1:H:308:GLU:H	1:H:308:GLU:HG2	1.64	0.40
1:H:343:LEU:HD12	1:H:343:LEU:HA	1.95	0.40
1:J:27:PRO:HB2	1:K:248:ASN:ND2	2.36	0.40
1:M:57:ARG:NH2	1:M:144:ALA:O	2.53	0.40
1:M:87:HIS:HE2	1:M:236:GLU:CD	2.24	0.40
1:C:53:LEU:HD23	1:C:53:LEU:HA	1.86	0.40
1:C:164:LEU:HD12	1:L:33:PRO:HD3	2.02	0.40
1:C:396:ASN:CG	1:C:397:THR:N	2.74	0.40
1:H:234:THR:O	1:H:238:GLN:HG3	2.21	0.40
1:J:39:ILE:HG12	1:J:101:ARG:O	2.21	0.40
1:J:96:GLU:O	1:J:96:GLU:HG3	2.21	0.40
1:J:155:THR:HG22	1:J:156:ALA:N	2.36	0.40
1:J:384:LEU:HB3	1:J:386:LEU:HD23	2.03	0.40
1:K:230:ARG:HH21	1:K:317:GLU:HG3	1.86	0.40
1:L:140:THR:OG1	1:L:214:GLU:HG2	2.22	0.40
1:L:210:LEU:HD12	1:L:210:LEU:HA	1.94	0.40
1:A:293:LEU:HD23	1:A:293:LEU:HA	1.90	0.40
1:B:36:ARG:NH2	1:B:130:TYR:OH	2.54	0.40
1:B:107:PHE:CE1	1:B:114:LEU:HD23	2.56	0.40
1:B:155:THR:OG1	1:B:208:ARG:NH2	2.55	0.40
1:C:295:LYS:NZ	1:C:328:ASN:HB3	2.36	0.40
1:F:194:LYS:HB3	1:F:194:LYS:HE3	1.78	0.40
1:K:361:TYR:O	1:K:364:LEU:HB3	2.22	0.40
1:A:175:TRP:CH2	1:A:233:LEU:HD22	2.57	0.40
1:A:277:LEU:HD23	1:A:284:LEU:HD11	2.02	0.40
1:B:15:GLN:NE2	1:L:303:TYR:HE1	2.20	0.40
1:B:20:GLN:HE22	1:B:302:LEU:CD1	2.35	0.40
1:B:113:ARG:HD2	1:B:124:ARG:HH12	1.86	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:148:VAL:H	1:C:212:GLN:HG3	1.86	0.40
1:C:301:ALA:O	1:C:305:THR:HG23	2.21	0.40
1:C:304:GLN:HG2	1:L:15:GLN:NE2	2.36	0.40
1:D:149:ASP:O	1:D:151:GLU:N	2.53	0.40
1:H:318:SER:HA	1:H:319:PRO:HD3	1.97	0.40
1:I:401:LEU:CD2	1:M:363:GLN:NE2	2.84	0.40
1:J:142:ASN:OD1	1:J:142:ASN:C	2.59	0.40
1:K:111:SER:HA	1:K:113:ARG:H	1.87	0.40
1:L:104:ILE:O	1:L:115:ILE:O	2.39	0.40
1:A:14:THR:O	1:A:18:GLN:N	2.53	0.40
1:A:79:LEU:HA	1:A:84:MET:HE3	2.03	0.40
1:B:316:LEU:HD23	1:B:316:LEU:HA	1.88	0.40
1:E:26:ILE:HA	1:E:27:PRO:HD3	1.92	0.40
1:G:258:GLY:O	1:G:262:GLU:HG3	2.21	0.40
1:H:321:LEU:HD23	1:H:321:LEU:HA	1.87	0.40
1:J:379:ARG:NH1	1:J:383:ASP:OD2	2.54	0.40

All (4) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:100:GLU:OE2	3:K:601:PB:PB[3_555]	1.86	0.34
1:G:139:ASP:OD1	1:I:200:ARG:NH2[7_545]	2.13	0.07
1:B:119:ARG:NH1	1:G:100:GLU:OE1[3_555]	2.17	0.03
1:C:150:SER:OG	1:I:396:ASN:ND2[8_455]	2.18	0.02

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	391/525 (74%)	372 (95%)	12 (3%)	7 (2%)	7 27

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	391/525 (74%)	376 (96%)	13 (3%)	2 (0%)	25	56
1	C	391/525 (74%)	371 (95%)	13 (3%)	7 (2%)	7	27
1	D	391/525 (74%)	374 (96%)	11 (3%)	6 (2%)	8	31
1	E	391/525 (74%)	372 (95%)	9 (2%)	10 (3%)	4	20
1	F	391/525 (74%)	370 (95%)	13 (3%)	8 (2%)	6	24
1	G	391/525 (74%)	367 (94%)	15 (4%)	9 (2%)	5	22
1	H	391/525 (74%)	373 (95%)	11 (3%)	7 (2%)	7	27
1	I	391/525 (74%)	371 (95%)	14 (4%)	6 (2%)	8	31
1	J	391/525 (74%)	372 (95%)	15 (4%)	4 (1%)	13	40
1	K	391/525 (74%)	371 (95%)	12 (3%)	8 (2%)	6	24
1	L	391/525 (74%)	370 (95%)	12 (3%)	9 (2%)	5	22
1	M	391/525 (74%)	372 (95%)	12 (3%)	7 (2%)	7	27
All	All	5083/6825 (74%)	4831 (95%)	162 (3%)	90 (2%)	7	27

All (90) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	19	ASP
1	A	118	ALA
1	A	188	PRO
1	A	359	LYS
1	C	118	ALA
1	C	188	PRO
1	D	19	ASP
1	D	118	ALA
1	D	147	PHE
1	D	188	PRO
1	E	19	ASP
1	E	118	ALA
1	E	148	VAL
1	E	151	GLU
1	E	188	PRO
1	E	398	LEU
1	E	400	LYS
1	F	18	GLN
1	F	19	ASP
1	F	118	ALA
1	F	143	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	F	391	ARG
1	G	143	HIS
1	G	144	ALA
1	G	188	PRO
1	G	400	LYS
1	H	118	ALA
1	I	118	ALA
1	I	188	PRO
1	J	118	ALA
1	K	118	ALA
1	K	143	HIS
1	L	118	ALA
1	L	188	PRO
1	L	388	GLN
1	M	118	ALA
1	M	144	ALA
1	M	148	VAL
1	M	188	PRO
1	A	143	HIS
1	B	137	LEU
1	C	19	ASP
1	C	114	LEU
1	E	143	HIS
1	E	397	THR
1	F	146	PRO
1	G	21	SER
1	G	118	ALA
1	H	19	ASP
1	H	146	PRO
1	I	19	ASP
1	I	146	PRO
1	J	19	ASP
1	K	146	PRO
1	K	188	PRO
1	L	143	HIS
1	L	146	PRO
1	M	19	ASP
1	M	151	GLU
1	B	146	PRO
1	C	137	LEU
1	C	146	PRO
1	C	150	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	D	150	SER
1	F	150	SER
1	G	146	PRO
1	J	150	SER
1	K	150	SER
1	L	150	SER
1	F	137	LEU
1	G	189	ALA
1	H	21	SER
1	H	147	PHE
1	I	143	HIS
1	J	142	ASN
1	K	147	PHE
1	L	147	PHE
1	A	137	LEU
1	K	137	LEU
1	L	137	LEU
1	D	137	LEU
1	E	137	LEU
1	G	137	LEU
1	H	137	LEU
1	K	142	ASN
1	I	137	LEU
1	M	137	LEU
1	L	145	THR
1	H	102	VAL
1	A	102	VAL

5.3.2 Protein sidechains (i)

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.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	334/435 (77%)	325 (97%)	9 (3%)	40	65
1	B	334/435 (77%)	327 (98%)	7 (2%)	48	71
1	C	334/435 (77%)	327 (98%)	7 (2%)	48	71

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	D	334/435 (77%)	325 (97%)	9 (3%)	40	65
1	E	334/435 (77%)	328 (98%)	6 (2%)	54	75
1	F	334/435 (77%)	325 (97%)	9 (3%)	40	65
1	G	334/435 (77%)	327 (98%)	7 (2%)	48	71
1	H	334/435 (77%)	329 (98%)	5 (2%)	60	78
1	I	334/435 (77%)	327 (98%)	7 (2%)	48	71
1	J	334/435 (77%)	328 (98%)	6 (2%)	54	75
1	K	334/435 (77%)	323 (97%)	11 (3%)	33	60
1	L	334/435 (77%)	325 (97%)	9 (3%)	40	65
1	M	334/435 (77%)	328 (98%)	6 (2%)	54	75
All	All	4342/5655 (77%)	4244 (98%)	98 (2%)	45	68

All (98) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	15	GLN
1	A	87	HIS
1	A	104	ILE
1	A	194	LYS
1	A	217	ARG
1	A	221	ASN
1	A	359	LYS
1	A	373	GLN
1	A	379	ARG
1	B	19	ASP
1	B	21	SER
1	B	23	GLU
1	B	150	SER
1	B	187	GLN
1	B	315	LEU
1	B	321	LEU
1	C	104	ILE
1	C	113	ARG
1	C	141	LEU
1	C	142	ASN
1	C	159	GLU
1	C	197	GLN
1	C	348	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	D	6	LYS
1	D	13	LEU
1	D	36	ARG
1	D	148	VAL
1	D	187	GLN
1	D	217	ARG
1	D	220	GLN
1	D	367	GLU
1	D	393	GLU
1	E	6	LYS
1	E	20	GLN
1	E	141	LEU
1	E	214	GLU
1	E	238	GLN
1	E	309	GLN
1	F	18	GLN
1	F	19	ASP
1	F	26	ILE
1	F	50	ARG
1	F	309	GLN
1	F	353	SER
1	F	390	GLU
1	F	393	GLU
1	F	400	LYS
1	G	21	SER
1	G	93	GLN
1	G	182	MET
1	G	187	GLN
1	G	201	GLN
1	G	388	GLN
1	G	394	MET
1	H	6	LYS
1	H	20	GLN
1	H	21	SER
1	H	370	ARG
1	H	379	ARG
1	I	6	LYS
1	I	87	HIS
1	I	141	LEU
1	I	194	LYS
1	I	220	GLN
1	I	363	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	I	370	ARG
1	J	6	LYS
1	J	18	GLN
1	J	36	ARG
1	J	87	HIS
1	J	142	ASN
1	J	372	GLN
1	K	21	SER
1	K	30	THR
1	K	50	ARG
1	K	87	HIS
1	K	148	VAL
1	K	283	THR
1	K	367	GLU
1	K	370	ARG
1	K	379	ARG
1	K	390	GLU
1	K	391	ARG
1	L	9	GLU
1	L	15	GLN
1	L	139	ASP
1	L	309	GLN
1	L	348	ARG
1	L	378	MET
1	L	379	ARG
1	L	382	GLU
1	L	387	THR
1	M	23	GLU
1	M	30	THR
1	M	345	VAL
1	M	348	ARG
1	M	363	GLN
1	M	386	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (37) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	87	HIS
1	A	173	GLN
1	B	18	GLN
1	B	197	GLN
1	B	220	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	15	GLN
1	C	87	HIS
1	C	143	HIS
1	C	187	GLN
1	C	388	GLN
1	D	87	HIS
1	D	220	GLN
1	D	304	GLN
1	E	197	GLN
1	F	173	GLN
1	G	87	HIS
1	G	143	HIS
1	G	201	GLN
1	G	304	GLN
1	G	388	GLN
1	H	220	GLN
1	I	87	HIS
1	I	142	ASN
1	I	173	GLN
1	J	18	GLN
1	J	20	GLN
1	J	143	HIS
1	J	304	GLN
1	J	320	HIS
1	K	15	GLN
1	K	220	GLN
1	L	87	HIS
1	L	173	GLN
1	L	187	GLN
1	M	220	GLN
1	M	363	GLN
1	M	388	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
2	N	77/78 (98%)	8 (10%)	2 (2%)

All (8) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
2	N	18	U
2	N	22	U
2	N	28	U
2	N	48	U
2	N	49	U
2	N	58	U
2	N	61	U
2	N	67	U

All (2) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
2	N	48	U
2	N	66	U

5.4 Non-standard residues in protein, DNA, RNA chains (i)

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

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 14 ligands modelled in this entry, 14 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

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, 95^{th} 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.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A	395/525 (75%)	0.13	13 (3%) 49 32	13, 41, 98, 139	3 (0%)
1	B	395/525 (75%)	0.08	15 (3%) 44 28	14, 40, 99, 140	3 (0%)
1	C	395/525 (75%)	0.20	22 (5%) 31 19	12, 40, 102, 139	3 (0%)
1	D	395/525 (75%)	0.13	27 (6%) 25 15	13, 39, 99, 137	3 (0%)
1	E	395/525 (75%)	0.13	11 (2%) 55 36	14, 40, 101, 140	3 (0%)
1	F	395/525 (75%)	0.16	22 (5%) 31 19	14, 40, 99, 137	3 (0%)
1	G	395/525 (75%)	0.16	24 (6%) 28 17	13, 38, 98, 141	3 (0%)
1	H	395/525 (75%)	0.12	18 (4%) 38 23	14, 39, 98, 140	3 (0%)
1	I	395/525 (75%)	0.16	27 (6%) 25 15	13, 38, 98, 138	3 (0%)
1	J	395/525 (75%)	0.12	15 (3%) 44 28	13, 39, 98, 141	3 (0%)
1	K	395/525 (75%)	0.03	13 (3%) 49 32	14, 39, 98, 139	3 (0%)
1	L	395/525 (75%)	0.10	17 (4%) 40 25	12, 40, 102, 137	3 (0%)
1	M	395/525 (75%)	0.08	21 (5%) 33 20	14, 39, 99, 139	3 (0%)
2	N	78/78 (100%)	-0.27	0 100 100	35, 44, 50, 54	0
All	All	5213/6903 (75%)	0.12	245 (4%) 37 23	12, 40, 102, 141	39 (0%)

All (245) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	M	19	ASP	9.2
1	L	19	ASP	8.6
1	D	19	ASP	8.5
1	B	19	ASP	8.4
1	I	19	ASP	8.3
1	G	19	ASP	8.3
1	J	19	ASP	8.1
1	E	19	ASP	7.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	A	19	ASP	7.7
1	K	19	ASP	7.7
1	F	19	ASP	6.9
1	H	19	ASP	6.3
1	J	18	GLN	5.9
1	G	181	CYS	5.7
1	K	367	GLU	5.6
1	C	19	ASP	5.2
1	A	188	PRO	4.9
1	E	20	GLN	4.6
1	I	392	THR	4.6
1	J	401	LEU	4.6
1	L	401	LEU	4.6
1	C	20	GLN	4.5
1	D	401	LEU	4.4
1	G	188	PRO	4.4
1	G	396	ASN	4.4
1	H	20	GLN	4.3
1	J	20	GLN	4.2
1	F	181	CYS	4.2
1	K	20	GLN	4.0
1	F	389	ALA	4.0
1	C	21	SER	3.9
1	A	187	GLN	3.9
1	L	181	CYS	3.9
1	L	20	GLN	3.9
1	M	20	GLN	3.8
1	D	397	THR	3.8
1	I	142	ASN	3.7
1	E	401	LEU	3.7
1	I	391	ARG	3.6
1	L	187	GLN	3.6
1	E	181	CYS	3.6
1	D	21	SER	3.6
1	F	393	GLU	3.6
1	G	189	ALA	3.5
1	B	401	LEU	3.5
1	C	120	SER	3.5
1	A	20	GLN	3.5
1	I	188	PRO	3.5
1	K	18	GLN	3.5
1	I	18	GLN	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	D	18	GLN	3.4
1	D	20	GLN	3.4
1	H	189	ALA	3.4
1	G	187	GLN	3.4
1	C	143	HIS	3.4
1	D	393	GLU	3.4
1	B	20	GLN	3.3
1	C	401	LEU	3.3
1	A	388	GLN	3.3
1	C	181	CYS	3.2
1	J	189	ALA	3.2
1	I	401	LEU	3.2
1	K	401	LEU	3.2
1	H	401	LEU	3.2
1	L	18	GLN	3.1
1	C	182	MET	3.1
1	K	111	SER	3.1
1	H	21	SER	3.1
1	I	181	CYS	3.1
1	I	388	GLN	3.1
1	L	372	GLN	3.1
1	C	139	ASP	3.1
1	I	389	ALA	3.1
1	G	111	SER	3.1
1	D	394	MET	3.1
1	G	136	ASP	3.0
1	D	387	THR	3.0
1	M	187	GLN	3.0
1	A	181	CYS	3.0
1	B	181	CYS	3.0
1	H	181	CYS	3.0
1	J	22	GLU	3.0
1	K	188	PRO	3.0
1	J	201	GLN	2.9
1	G	143	HIS	2.9
1	A	401	LEU	2.9
1	I	182	MET	2.9
1	G	18	GLN	2.9
1	D	389	ALA	2.9
1	L	15	GLN	2.9
1	I	189	ALA	2.8
1	H	18	GLN	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	J	109	GLU	2.8
1	H	111	SER	2.8
1	F	401	LEU	2.8
1	D	396	ASN	2.7
1	A	190	ALA	2.7
1	M	395	ALA	2.7
1	M	401	LEU	2.7
1	L	111	SER	2.7
1	I	390	GLU	2.7
1	I	387	THR	2.7
1	A	189	ALA	2.7
1	I	21	SER	2.7
1	J	21	SER	2.7
1	E	188	PRO	2.6
1	M	188	PRO	2.6
1	I	397	THR	2.6
1	G	182	MET	2.6
1	I	187	GLN	2.6
1	C	188	PRO	2.6
1	A	87	HIS	2.6
1	J	182	MET	2.6
1	I	398	LEU	2.6
1	L	386	LEU	2.6
1	F	400	LYS	2.6
1	F	395	ALA	2.6
1	F	111	SER	2.6
1	J	181	CYS	2.6
1	B	388	GLN	2.5
1	M	18	GLN	2.5
1	D	390	GLU	2.5
1	L	400	LYS	2.5
1	H	182	MET	2.5
1	I	395	ALA	2.5
1	C	146	PRO	2.5
1	M	397	THR	2.5
1	B	189	ALA	2.5
1	K	23	GLU	2.5
1	G	386	LEU	2.5
1	C	18	GLN	2.5
1	M	181	CYS	2.5
1	B	395	ALA	2.5
1	D	182	MET	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	I	146	PRO	2.5
1	C	15	GLN	2.4
1	G	20	GLN	2.4
1	I	20	GLN	2.4
1	D	111	SER	2.4
1	M	21	SER	2.4
1	C	151	GLU	2.4
1	M	388	GLN	2.4
1	M	111	SER	2.4
1	C	142	ASN	2.4
1	G	385	GLY	2.4
1	E	18	GLN	2.4
1	H	143	HIS	2.4
1	F	394	MET	2.4
1	B	187	GLN	2.4
1	D	398	LEU	2.4
1	I	386	LEU	2.4
1	G	393	GLU	2.4
1	I	23	GLU	2.4
1	L	395	ALA	2.4
1	F	387	THR	2.4
1	M	398	LEU	2.3
1	C	393	GLU	2.3
1	D	181	CYS	2.3
1	A	118	ALA	2.3
1	C	395	ALA	2.3
1	J	387	THR	2.3
1	B	197	GLN	2.3
1	L	396	ASN	2.3
1	C	189	ALA	2.3
1	F	20	GLN	2.3
1	B	400	LYS	2.3
1	F	146	PRO	2.3
1	H	389	ALA	2.3
1	M	189	ALA	2.3
1	M	98	ASP	2.3
1	D	24	GLY	2.3
1	K	393	GLU	2.3
1	L	21	SER	2.3
1	G	397	THR	2.2
1	L	146	PRO	2.2
1	F	24	GLY	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	G	401	LEU	2.2
1	D	355	SER	2.2
1	L	188	PRO	2.2
1	H	391	ARG	2.2
1	C	400	LYS	2.2
1	H	394	MET	2.2
1	M	100	GLU	2.2
1	A	142	ASN	2.2
1	F	101	ARG	2.2
1	A	359	LYS	2.2
1	C	372	GLN	2.2
1	G	394	MET	2.2
1	M	386	LEU	2.2
1	B	389	ALA	2.2
1	F	189	ALA	2.2
1	I	399	ALA	2.2
1	F	143	HIS	2.2
1	B	21	SER	2.2
1	E	111	SER	2.2
1	D	23	GLU	2.2
1	M	182	MET	2.2
1	E	398	LEU	2.2
1	F	201	GLN	2.2
1	F	182	MET	2.1
1	H	17	LEU	2.1
1	C	14	THR	2.1
1	D	395	ALA	2.1
1	H	388	GLN	2.1
1	M	372	GLN	2.1
1	D	161	GLU	2.1
1	D	386	LEU	2.1
1	I	394	MET	2.1
1	G	120	SER	2.1
1	K	3	SER	2.1
1	E	389	ALA	2.1
1	J	399	ALA	2.1
1	M	399	ALA	2.1
1	D	104	ILE	2.1
1	J	24	GLY	2.1
1	J	372	GLN	2.1
1	I	400	LYS	2.1
1	E	151	GLU	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	B	398	LEU	2.1
1	G	21	SER	2.1
1	B	18	GLN	2.1
1	F	142	ASN	2.1
1	G	400	LYS	2.1
1	M	15	GLN	2.1
1	C	190	ALA	2.1
1	H	400	LYS	2.1
1	H	25	THR	2.1
1	F	18	GLN	2.1
1	G	158	ASP	2.1
1	D	400	LYS	2.0
1	L	387	THR	2.0
1	D	388	GLN	2.0
1	F	120	SER	2.0
1	E	346	ASN	2.0
1	D	136	ASP	2.0
1	F	188	PRO	2.0
1	G	371	LYS	2.0
1	B	104	ILE	2.0
1	K	189	ALA	2.0
1	K	392	THR	2.0
1	H	142	ASN	2.0
1	I	396	ASN	2.0
1	G	379	ARG	2.0
1	D	189	ALA	2.0
1	K	181	CYS	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (i)

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

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

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, 95^{th} 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.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	PB	B	601	1/1	0.64	0.41	194,194,194,194	0
3	PB	M	602	1/1	0.79	0.37	171,171,171,171	0
3	PB	M	603	1/1	0.90	0.09	83,83,83,83	1
3	PB	M	604	1/1	0.90	0.11	76,76,76,76	1
3	PB	H	601	1/1	0.92	0.06	59,59,59,59	1
3	PB	G	601	1/1	0.92	0.28	113,113,113,113	0
3	PB	D	601	1/1	0.93	0.08	82,82,82,82	1
3	PB	N	101	1/1	0.93	0.06	57,57,57,57	1
3	PB	A	601	1/1	0.95	0.09	70,70,70,70	1
3	PB	M	601	1/1	0.95	0.20	83,83,83,83	0
3	PB	I	601	1/1	0.96	0.25	94,94,94,94	0
3	PB	K	602	1/1	0.98	0.14	62,62,62,62	0
3	PB	I	602	1/1	0.98	0.24	94,94,94,94	0
3	PB	K	601	1/1	0.99	0.12	56,56,56,56	0

6.5 Other polymers (i)

There are no such residues in this entry.