



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 10:24 PM GMT

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
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix) : 1.9-1692
EDS : rb-20026688
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac : 5.8.0135
CCP4 : 6.5.0
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk26865

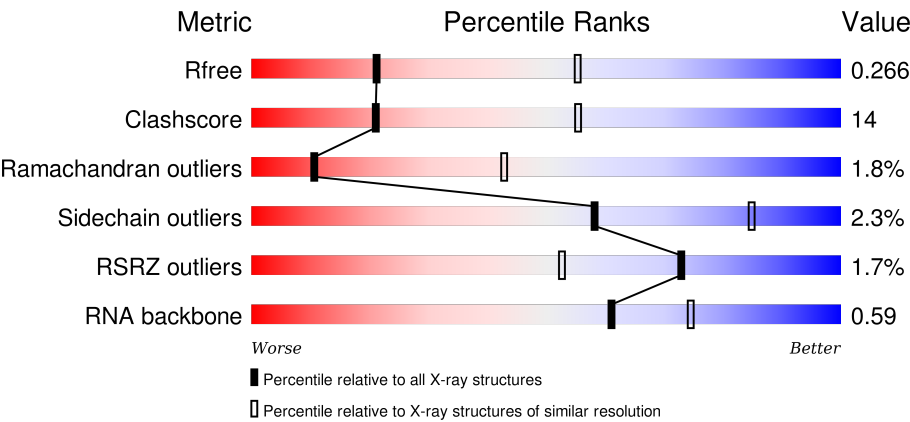
1 Overall quality at a glance i

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}	91344	1112 (3.16-3.08)
Clashscore	102246	1218 (3.16-3.08)
Ramachandran outliers	100387	1175 (3.16-3.08)
Sidechain outliers	100360	1175 (3.16-3.08)
RSRZ outliers	91569	1114 (3.16-3.08)
RNA backbone	2183	1010 (3.54-2.70)

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

Mol	Chain	Length	Quality of chain
1	A	525	<div><div>2%</div><div>50%23%•25%</div></div>
1	B	525	<div><div>%</div><div>52%22%•25%</div></div>
1	C	525	<div><div>2%</div><div>49%24%•25%</div></div>
1	D	525	<div><div>%</div><div>51%23%•25%</div></div>

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Mol	Chain	Length	Quality of chain
1	E	525	
1	F	525	
1	G	525	
1	H	525	
1	I	525	
1	J	525	
1	K	525	
1	L	525	
1	M	525	
2	N	78	

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
3	PB	G	601	-	-	-	X
3	PB	M	602	-	-	-	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

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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

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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

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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

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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

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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).

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

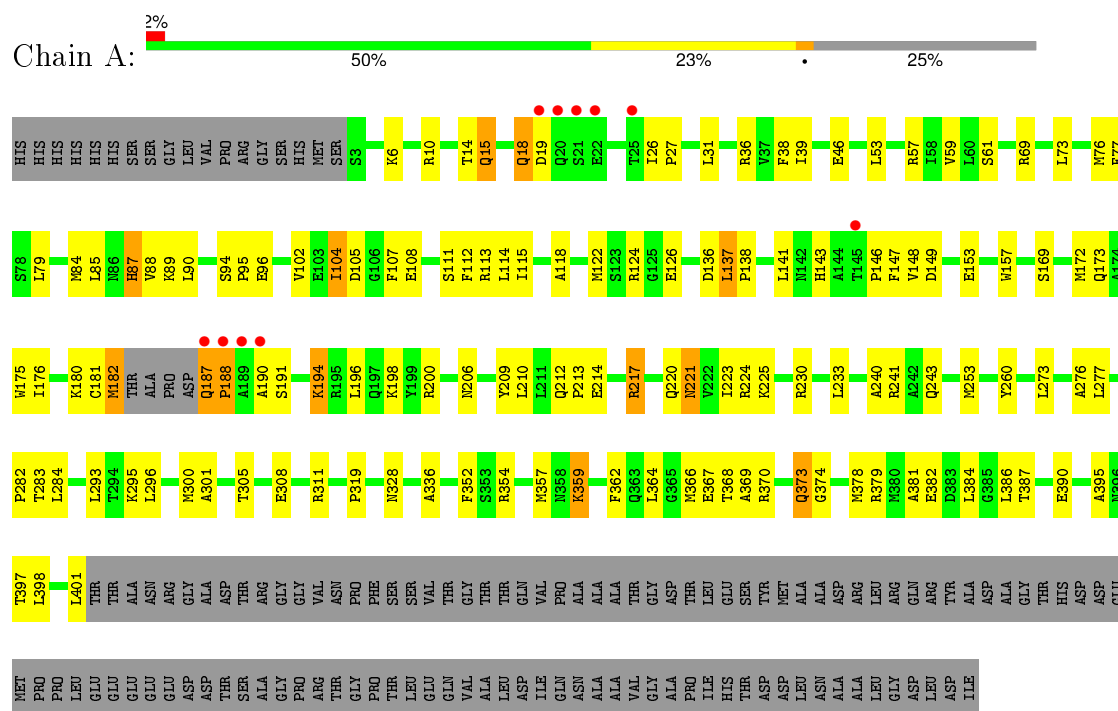
- Molecule 3 is LEAD (II) ION (three-letter code: Pb) (formula: Pb).

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

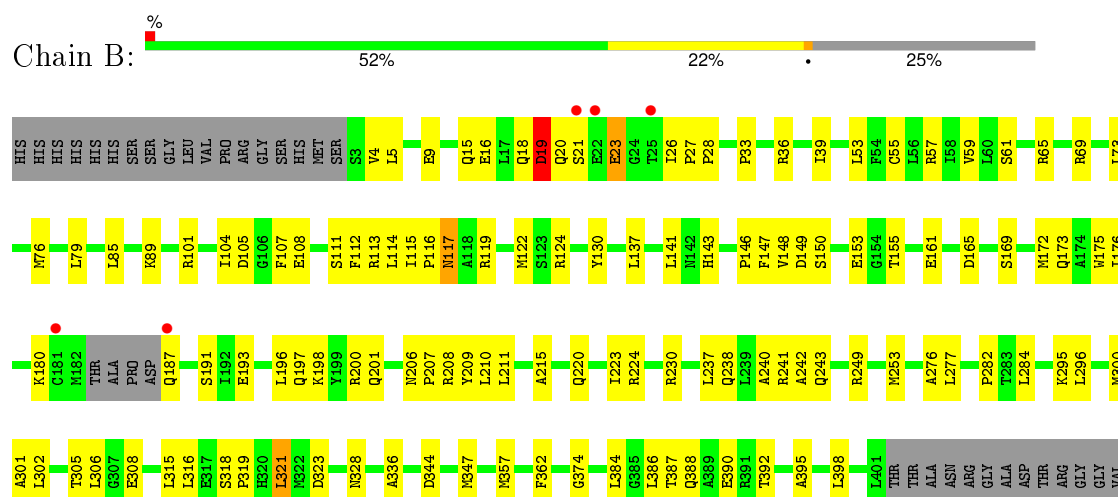
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors 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 ($\text{RSRZ} > 2$). 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.

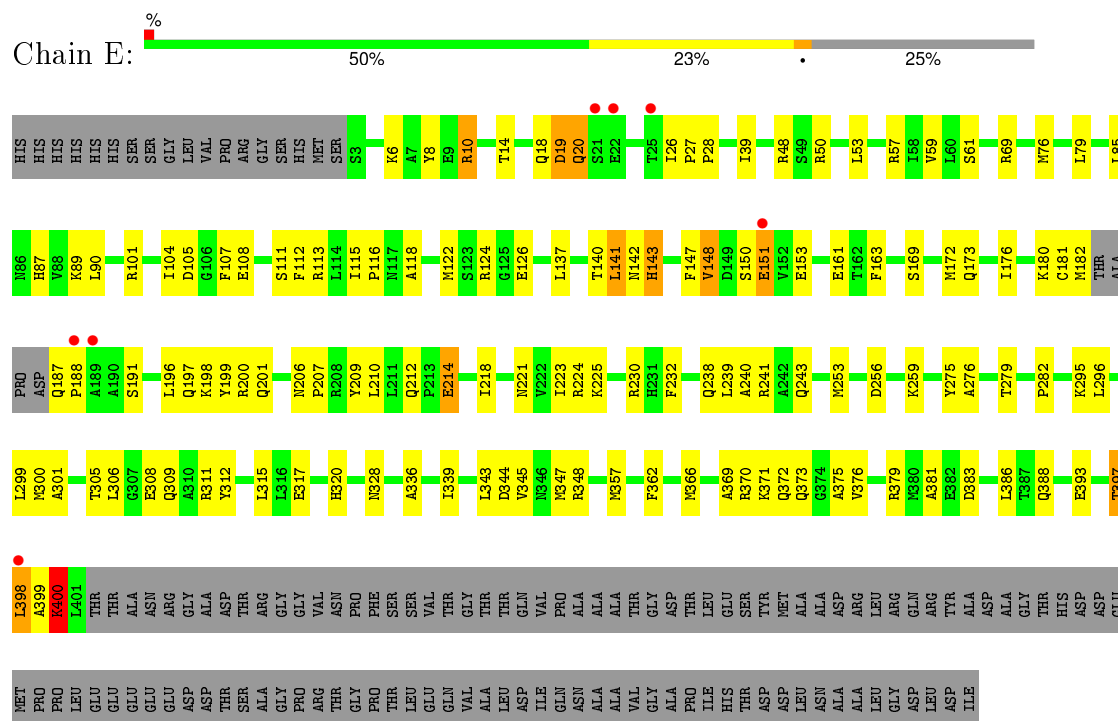
- Molecule 1: Nucleocapsid



- Molecule 1: Nucleocapsid

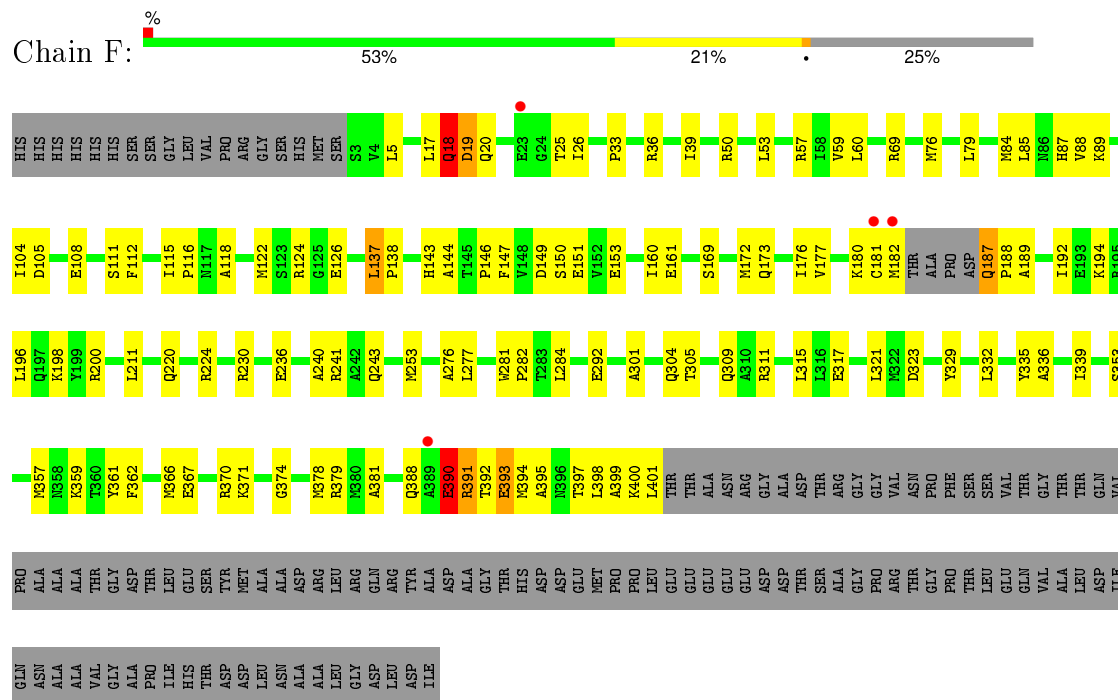


Chain E:



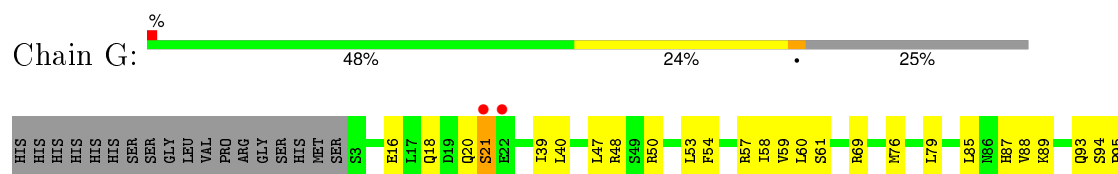
- Molecule 1: Nucleocapsid

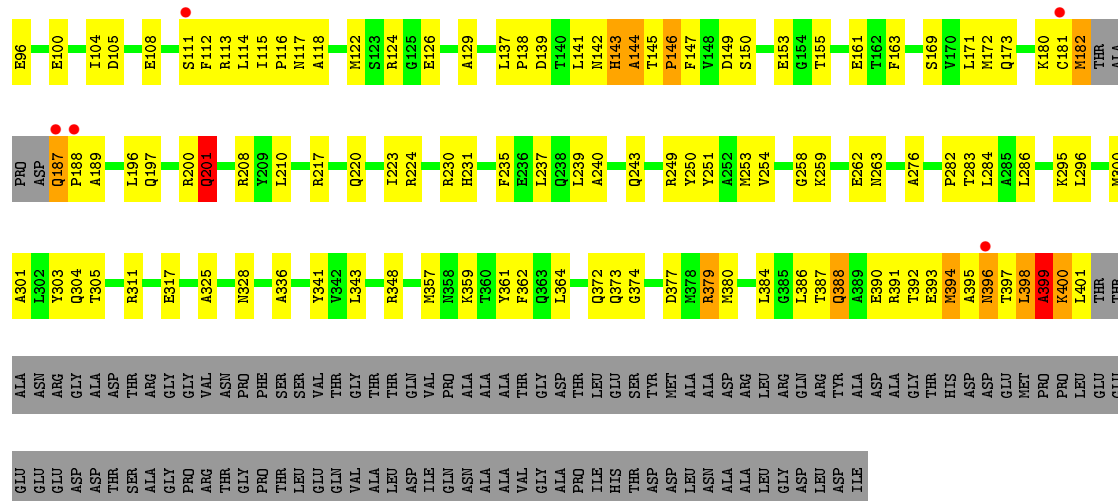
Chain F:



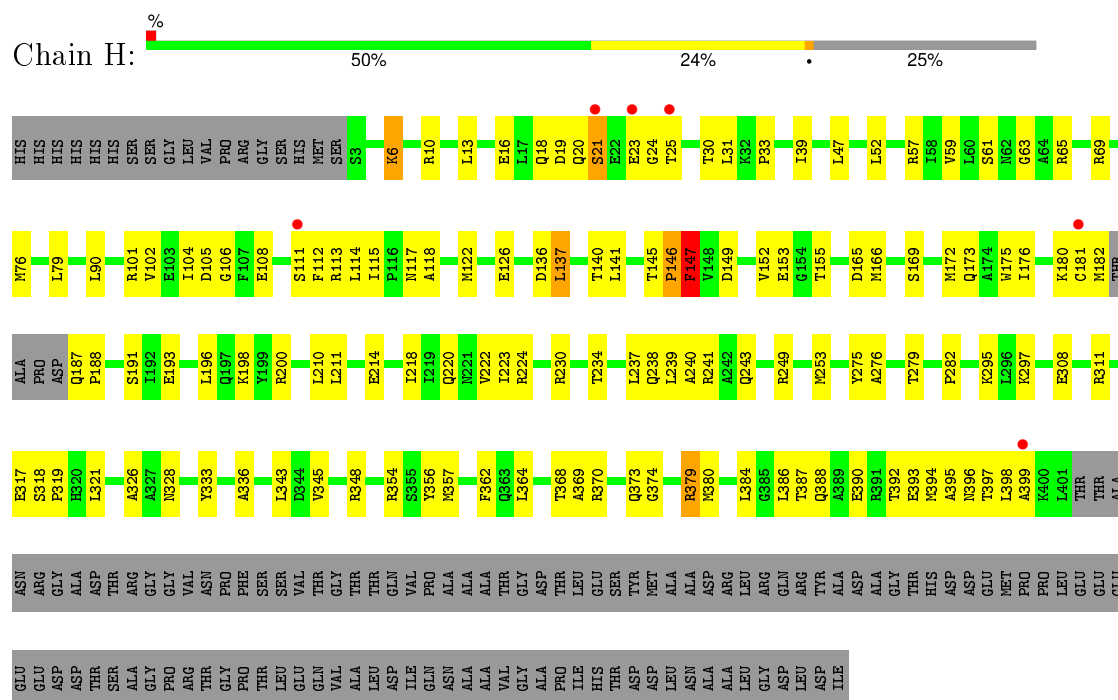
- Molecule 1: Nucleocapsid

Chain G:

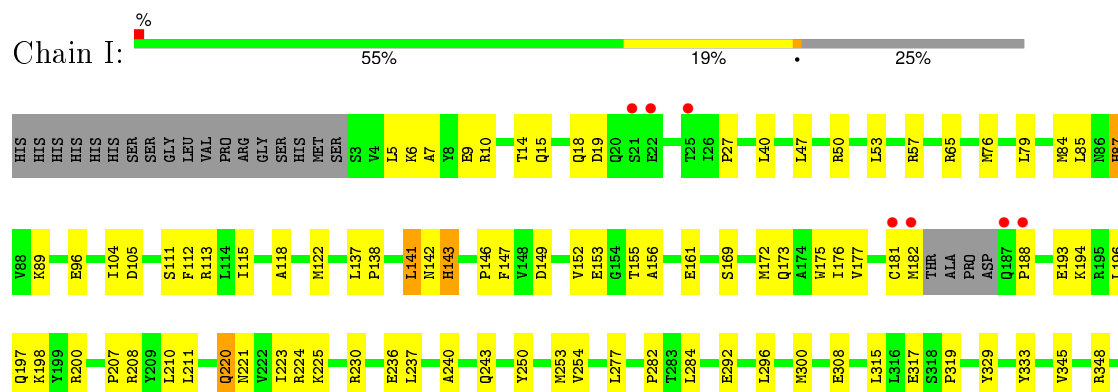


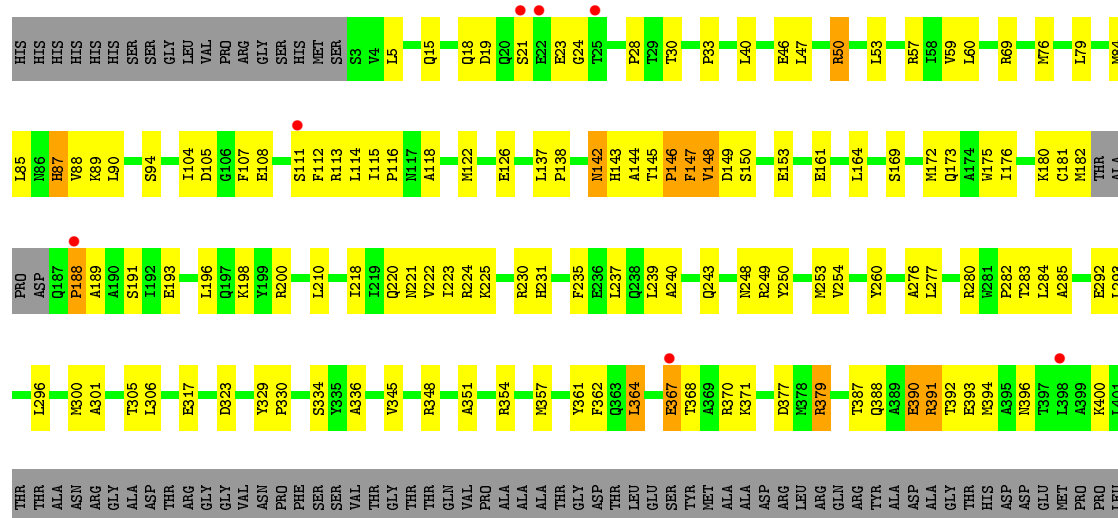


• Molecule 1: Nucleocapsid



• Molecule 1: Nucleocapsid

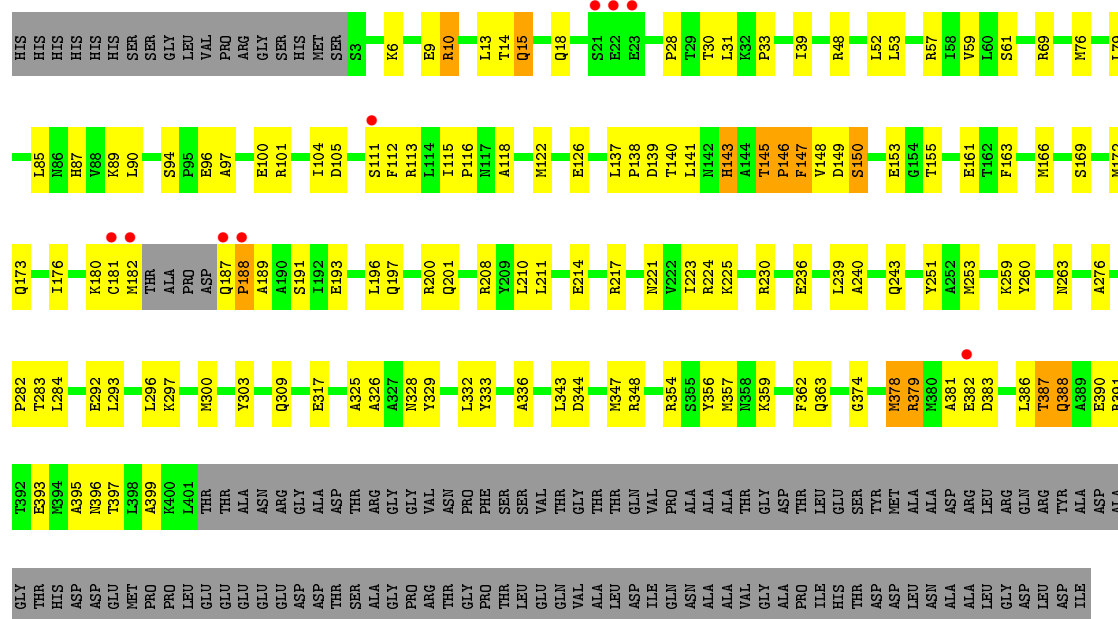




GLU GLU GLU GLU GLU ASP ASP THR THR SER ALA ALA GLY PRO PRO ARG ARG THR THR GLY PRO THR THR LEU LEU GLN VAL VAL ALA ALA LEU LEU ASP LEU ILE ILE GLN GLN ASN ASN ALA ALA ALA VAL VAL GLY GLY PRO PRO ILE ILE HIS THR THR ASP ASP LEU LEU ASN ASN ALA ALA ALA LEU LEU GLY GLY ASP ASP LEU LEU ASP ASP ILE ILE

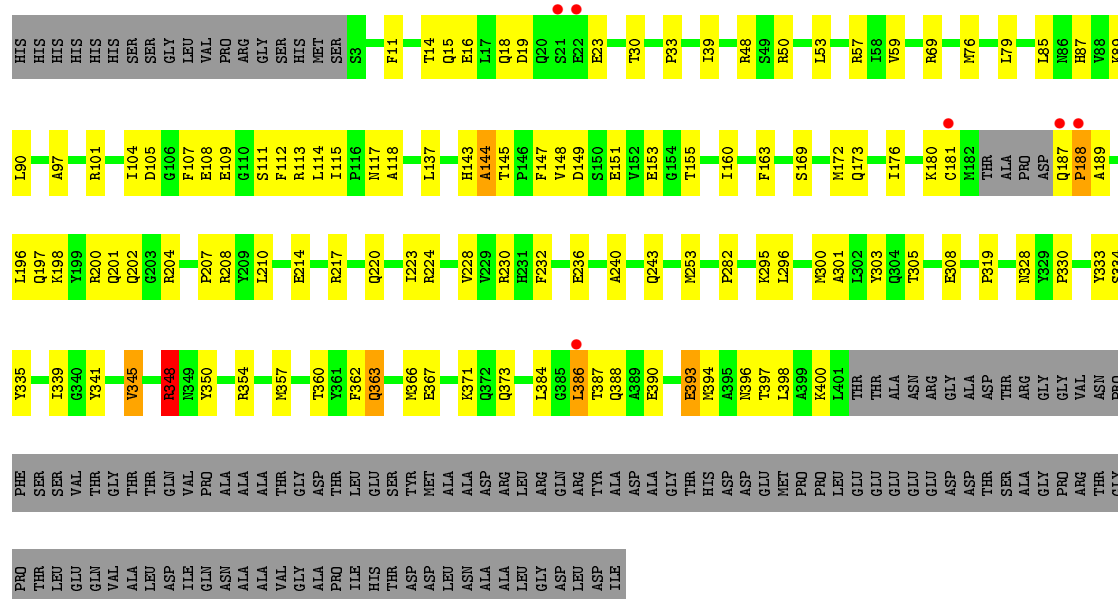
- Molecule 1: Nucleocapsid

Chain L: 



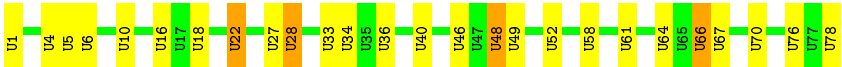
- Molecule 1: Nucleocapsid

Chain M:  %



- Molecule 2: RNA (78-MER)

Chain N: 67% 28% 5%



4 Data and refinement statistics

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 – 3.00	Depositor EDS
% Data completeness (in resolution range)	99.6 (45.01-3.11) 99.6 (45.01-3.00)	Depositor EDS
R_{merge}	0.18	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.51 (at 3.01Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.227 , 0.263 0.231 , 0.266	Depositor DCC
R_{free} test set	6472 reflections (5.14%)	DCC
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 , 30.6	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.52$, $\langle L^2 \rangle = 0.36$	Xtriage
Outliers	2 of 146767 reflections (0.001%)	Xtriage
F_o, F_c correlation	0.91	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.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.375 respectively for untwinned datasets, and 0.333, 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

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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(°)	Ideal(°)
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

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

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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:HD2	1:C:348:ARG:H	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:HE21	1:G:201:GLN:HA	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

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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:K:23:GLU:OE1	1:K:24:GLY:N	2.16	0.78
1:H:224:ARG:O	1:H:230:ARG:NH1	2.17	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:I:224:ARG:O	1:I:230:ARG:NH1	2.22	0.73
1:E:373:GLN:OE1	1:F:361:TYR:OH	2.06	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:J:241:ARG:NH1	1:J:311:ARG:HE	1.88	0.71
1:G:388:GLN:HE21	1:G:388:GLN:HA	1.55	0.71

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:196:LEU:HD23	1:L:210:LEU:HD11	1.74	0.68
1:G:181:CYS:O	1:G:182:MET:HB2	1.93	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:G:18:GLN:NE2	1:H:308:GLU:OE1	2.26	0.68
1:C:38:PHE:HB3	1:C:104:ILE:HD12	1.76	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:J:141:LEU:O	1:J:142:ASN:HB3	1.94	0.67
1:G:187:GLN:OE1	1:G:217:ARG:NH1	2.28	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:M:173:GLN:HE22	1:M:210:LEU:HA	1.60	0.66
1:J:181:CYS:O	1:J:182:MET:HG2	1.96	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: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: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: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:396:ASN:O	1:C:400:LYS:HG3	1.97	0.64
1:C:6:LYS:NZ	1:C:9:GLU:OE1	2.29	0.64
1:I:104:ILE:O	1:I:105:ASP:HB2	1.98	0.64

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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:G:59:VAL:O	1:G:69:ARG:NH1	2.31	0.64
1:E:345:VAL:O	1:E:348:ARG:HG2	1.95	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:G:104:ILE:O	1:G:105:ASP:HB2	1.96	0.64
1:B:387:THR:OG1	1:B:390:GLU:HG3	1.96	0.64
1:K:249:ARG:HH11	1:K:249:ARG:HG2	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:G:147:PHE:O	1:G:149:ASP:N	2.28	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:B:180:LYS:NZ	1:B:191:SER:OG	2.31	0.63
1:I:40:LEU:HD21	1:I:47:LEU:HG	1.79	0.63
1:I:401:LEU:HD22	1:M:363:GLN:NE2	2.13	0.63
1:E:221:ASN:OD1	1:E:224:ARG:NH1	2.31	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:F:104:ILE:O	1:F:105:ASP:HB2	2.00	0.62
1:E:57:ARG:NH1	1:E:153:GLU:OE1	2.32	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:K:188:PRO:CB	1:K:189:ALA:HA	2.30	0.62
1:H:240:ALA:O	1:H:243:GLN:HG2	2.00	0.62
1:C:390:GLU:O	1:C:394:MET:N	2.33	0.62
1:K:392:THR:O	1:K:396:ASN:N	2.29	0.62
1:J:104:ILE:O	1:J:105:ASP:HB2	2.00	0.62
1:E:397:THR:O	1:E:399:ALA:N	2.33	0.62
1:M:188:PRO:HB3	1:M:189:ALA:HB2	1.81	0.62
1:M:53:LEU:HD13	1:M:153:GLU:HG3	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:87:HIS:HE1	1:J:236:GLU:CD	2.03	0.62
1:D:59:VAL:O	1:D:69:ARG:NH1	2.33	0.61
1:C:87:HIS:HE1	1:C:251:TYR:OH	1.83	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:196:LEU:O	1:B:200:ARG:HG3	2.00	0.61
1:B:173:GLN:HE22	1:B:210:LEU:HA	1.64	0.61
1:G:143:HIS:O	1:G:145:THR:N	2.33	0.61
1:L:354:ARG:HH21	2:N:36:U:H5	1.47	0.61
1:L:155:THR:OG1	1:L:208:ARG:NH2	2.34	0.61
1:C:16:GLU:OE1	1:C:295:LYS:HE3	2.01	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:187:GLN:N	1:C:187:GLN:OE1	2.34	0.61
1:C:325:ALA:O	1:C:328:ASN:ND2	2.30	0.61
1:C:113:ARG:NH2	1:C:128:ASN:OD1	2.34	0.61
1:C:280:ARG:NH1	1:C:379:ARG:HH12	1.98	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:E:53:LEU:HD13	1:E:153:GLU:HG2	1.83	0.60
1:B:238:GLN:NE2	1:B:308:GLU:OE1	2.34	0.60
1:H:374:GLY:HA3	1:H:395:ALA:HA	1.83	0.60
1:G:143:HIS:CE1	1:G:150:SER:HB3	2.36	0.60
1:F:173:GLN:HE22	1:F:211:LEU:H	1.49	0.60
1:B:242:ALA:O	1:H:25:THR:N	2.24	0.60
1:H:152:VAL:O	1:H:155:THR:OG1	2.15	0.60
1:J:193:GLU:O	1:J:197:GLN:HG3	2.01	0.60
1:E:379:ARG:O	1:E:379:ARG:HD2	2.01	0.60
1:L:145:THR:HG22	1:L:153:GLU:OE1	2.01	0.60
1:D:363:GLN:HB2	1:J:401:LEU:HD21	1.84	0.60
1:A:196:LEU:O	1:A:200:ARG:HG3	2.01	0.60
1:C:283:THR:HG22	1:F:394:MET:HG3	1.84	0.60
1:M:333:TYR:OH	1:M:354:ARG:NH1	2.34	0.60
1:D:33:PRO:HB3	1:J:161:GLU:HG2	1.83	0.60

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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:M:308:GLU:OE1	1:M:308:GLU:N	2.27	0.60
1:H:311:ARG:HG3	1:H:311:ARG:HH11	1.65	0.60
1:B:165:ASP:O	1:B:169:SER:OG	2.17	0.60
1:K:147:PHE:O	1:K:149:ASP:N	2.32	0.60
1:F:374:GLY:HA3	1:F:395:ALA:HA	1.84	0.60
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: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: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:344:ASP:O	1:C:348:ARG:NH1	2.36	0.59
1:C:53:LEU:HD13	1:C:153:GLU:HG2	1.83	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:L:59:VAL:O	1:L:69:ARG:NH1	2.36	0.59
1:H:52:LEU:HD23	1:H:166:MET:CE	2.33	0.59
1:G:224:ARG:O	1:G:230:ARG:NH1	2.36	0.59
1:I:373:GLN:HB2	1:I:398:LEU:CD2	2.33	0.58
1:E:295:LYS:NZ	1:E:299:LEU:HD11	2.18	0.58
1:H:173:GLN:NE2	1:H:211:LEU:HG	2.18	0.58
1:C:240:ALA:O	1:C:243:GLN:HG2	2.03	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:N	1:M:400:LYS:HD2	2.17	0.58
1:C:386:LEU:HD11	1:L:282:PRO:HB3	1.85	0.58
1:M:207:PRO:HA	1:M:210:LEU:CD1	2.34	0.58
1:L:52:LEU:HD23	1:L:166:MET:CE	2.32	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:K:59:VAL:O	1:K:69:ARG:NH1	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:240:ALA:O	1:E:243:GLN:HG2	2.03	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: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:D:388:GLN:O	1:D:392:THR:OG1	2.21	0.58
1:L:359:LYS:O	1:L:363:GLN:HG3	2.03	0.58
1:H:13:LEU:HD21	1:H:297:LYS:HE2	1.85	0.58
1:K:364:LEU:HD12	1:K:367:GLU:OE1	2.03	0.58
1:I:207:PRO:HA	1:I:210:LEU:CD1	2.34	0.58
1:E:59:VAL:O	1:E:69:ARG:NH1	2.37	0.58
1:D:325:ALA:O	1:D:328:ASN:ND2	2.35	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:M:147:PHE:C	1:M:149:ASP:H	2.08	0.57
1:L:76:MET:HA	1:L:79:LEU:HD12	1.85	0.57
1:B:224:ARG:O	1:B:230:ARG:NH1	2.37	0.57
1:L:276:ALA:HB2	1:L:336:ALA:HB2	1.84	0.57
1:E:169:SER:O	1:E:173:GLN:HG3	2.04	0.57
1:J:392:THR:O	1:J:396:ASN:N	2.29	0.57
1:H:63:GLY:O	1:H:65:ARG:NH1	2.37	0.57
1:D:240:ALA:O	1:D:243:GLN:HG2	2.04	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:J:366:MET:HE2	1:J:370:ARG:HH21	1.70	0.57
1:B:249:ARG:HG3	1:B:249:ARG:HH11	1.69	0.57
1:M:240:ALA:O	1:M:243:GLN:HG2	2.04	0.57
1:M:104:ILE:HD11	1:M:114:LEU:HD22	1.87	0.57
1:F:240:ALA:O	1:F:243:GLN:HG2	2.03	0.57
1:A:240:ALA:O	1:A:243:GLN:HG2	2.05	0.57
1:K:104:ILE:O	1:K:105:ASP:HB2	2.03	0.57
1:A:10:ARG:HH11	1:A:10:ARG:HG2	1.70	0.57
1:L:396:ASN:HA	1:L:399:ALA:CB	2.34	0.56
1:J:59:VAL:O	1:J:69:ARG:NH1	2.37	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:E:311:ARG:NH2	1:F:18:GLN:HG3	2.19	0.56
1:A:190:ALA:O	1:A:194:LYS:N	2.37	0.56
1:J:393:GLU:O	1:J:397:THR:OG1	2.17	0.56
1:H:104:ILE:O	1:H:105:ASP:HB2	2.05	0.56
1:F:181:CYS:O	1:F:182:MET:HG2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:276:ALA:HB2	1:B:336:ALA:HB2	1.86	0.56
1:H:137:LEU:HD22	1:H:141:LEU:HD12	1.87	0.56
1:I:147:PHE:O	1:I:149:ASP:N	2.37	0.56
1:B:147:PHE:HA	1:B:210:LEU:O	2.05	0.56
1:B:61:SER:O	1:B:69:ARG:NH2	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:K:351:ALA:O	1:K:354:ARG:NH1	2.38	0.56
1:E:87:HIS:CE1	1:E:232:PHE:HZ	2.24	0.56
1:D:348:ARG:O	1:D:348:ARG:HD2	2.05	0.56
1:J:111:SER:HB2	1:J:112:PHE:HA	1.88	0.56
1:H:392:THR:HA	1:H:395:ALA:HB3	1.86	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:G:201:GLN:CA	1:G:201:GLN:HE21	2.13	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:J:282:PRO:HB2	1:K:394:MET:HE1	1.88	0.55
1:D:85:LEU:O	1:D:89:LYS:HG3	2.06	0.55
1:I:111:SER:HB2	1:I:112:PHE:HA	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: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:A:111:SER:HB2	1:A:112:PHE:HA	1.89	0.55
1:L:104:ILE:HG13	1:L:105:ASP:N	2.21	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:F:390:GLU:HA	1:F:393:GLU:HB3	1.87	0.55
1:G:311:ARG:HH12	1:K:15:GLN:HG3	1.72	0.55
1:A:111:SER:CB	1:A:112:PHE:HA	2.37	0.55
1:J:277:LEU:HD23	1:J:284:LEU:HD21	1.89	0.55
1:J:53:LEU:HD13	1:J:153:GLU:HG3	1.89	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:B:296:LEU:O	1:B:300:MET:HG3	2.07	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

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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:E:241:ARG:HD2	1:E:312:TYR:OH	2.07	0.54
1:H:230:ARG:HH21	1:H:317:GLU:HG3	1.73	0.54
1:G:388:GLN:NE2	1:G:388:GLN:HA	2.21	0.54
1:C:194:LYS:HD3	1:C:194:LYS:N	2.22	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:I:398:LEU:HA	1:I:400:LYS:CD	2.32	0.54
1:B:197:GLN:HE21	1:B:201:GLN:NE2	2.03	0.54
1:L:193:GLU:O	1:L:197:GLN:HG3	2.07	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: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:H:145:THR:HG23	1:H:146:PRO:O	2.08	0.54
1:J:196:LEU:O	1:J:200:ARG:HG3	2.07	0.54
1:H:140:THR:HG21	1:H:214:GLU:OE1	2.08	0.54
1:B:398:LEU:HD13	1:H:364:LEU:HD22	1.90	0.54
1:B:277:LEU:HD23	1:B:284:LEU:HD21	1.89	0.54
1:D:181:CYS:O	1:D:182:MET:HG3	2.08	0.54
1:B:15:GLN:HA	1:B:15:GLN:OE1	2.07	0.54
1:F:53:LEU:HD13	1:F:153:GLU:HG2	1.89	0.54
1:K:196:LEU:O	1:K:200:ARG:HG3	2.08	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:A:182:MET:HE1	1:A:217:ARG:O	2.08	0.53
1:G:379:ARG:HG3	1:G:380:MET:N	2.22	0.53
1:L:172:MET:O	1:L:176:ILE:HG13	2.07	0.53
1:K:277:LEU:HD23	1:K:284:LEU:HD21	1.88	0.53
1:I:155:THR:OG1	1:I:208:ARG:NH2	2.41	0.53
1:G:196:LEU:O	1:G:200:ARG:HG3	2.08	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:J:111:SER:CB	1:J:112:PHE:HA	2.38	0.53
1:D:238:GLN:OE1	1:D:309:GLN:NE2	2.36	0.53
1:C:388:GLN:OE1	1:C:392:THR:OG1	2.25	0.53
1:I:111:SER:CB	1:I:112:PHE:HA	2.39	0.53
1:F:36:ARG:NH1	1:F:126:GLU:OE2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:61:SER:O	1:L:69:ARG:NH2	2.40	0.53
1:A:111:SER:HA	1:A:113:ARG:H	1.74	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:J:65:ARG:NH2	1:J:66:ASP:OD2	2.38	0.53
1:H:357:MET:HE1	1:H:362:PHE:CD1	2.43	0.53
1:M:301:ALA:O	1:M:305:THR:HG23	2.08	0.53
1:I:296:LEU:O	1:I:300:MET:HG3	2.08	0.53
1:J:111:SER:HA	1:J:113:ARG:H	1.73	0.53
1:E:373:GLN:HB3	1:E:398:LEU:HD21	1.91	0.53
1:I:111:SER:HA	1:I:113:ARG:H	1.74	0.53
1:H:180:LYS:NZ	1:H:191:SER:OG	2.42	0.53
1:E:10:ARG:CG	1:E:10:ARG:HH11	2.21	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:A:283:THR:HA	1:M:394:MET:SD	2.49	0.53
1:H:111:SER:HA	1:H:113:ARG:H	1.74	0.53
1:B:39:ILE:HG12	1:B:101:ARG:O	2.09	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:K:182:MET:HE3	1:K:224:ARG:NH1	2.24	0.52
1:A:190:ALA:HB1	1:A:194:LYS:HD2	1.90	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:K:108:GLU:OE1	1:K:113:ARG:NE	2.35	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:H:61:SER:O	1:H:69:ARG:NH2	2.38	0.52
1:E:197:GLN:O	1:E:201:GLN:HG2	2.09	0.52
1:K:221:ASN:O	1:K:225:LYS:HG3	2.10	0.52
1:G:111:SER:HB2	1:G:112:PHE:HA	1.92	0.52
1:E:221:ASN:O	1:E:225:LYS:HG3	2.09	0.52
1:G:169:SER:O	1:G:173:GLN:HG3	2.09	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:H:52:LEU:HD23	1:H:166:MET:HE2	1.92	0.52
1:D:221:ASN:O	1:D:225:LYS:HD3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:111:SER:HB2	1:D:112:PHE:HA	1.92	0.52
1:D:296:LEU:O	1:D:300:MET:HG3	2.10	0.52
1:M:155:THR:OG1	1:M:208:ARG:NH2	2.42	0.52
1:J:50:ARG:NH1	1:J:111:SER:HB3	2.25	0.52
1:E:369:ALA:O	1:E:373:GLN:HG2	2.10	0.52
1:A:38:PHE:CD1	1:A:104:ILE:HD12	2.44	0.52
1:M:373:GLN:HG2	1:M:398:LEU:HD21	1.91	0.52
1:A:213:PRO:HG2	1:A:214:GLU:OE2	2.10	0.52
1:C:46:GLU:O	1:C:50:ARG:HB2	2.10	0.52
1:B:240:ALA:O	1:B:243:GLN:HG2	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:J:234:THR:O	1:J:238:GLN:HG3	2.10	0.51
1:E:206:ASN:HB3	1:E:209:TYR:HD2	1.75	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:J:20:GLN:NE2	1:J:320:HIS:CE1	2.75	0.51
1:H:147:PHE:HB3	1:H:152:VAL:HG11	1.93	0.51
1:C:280:ARG:NH1	1:C:379:ARG:NH1	2.58	0.51
1:J:87:HIS:CE1	1:J:236:GLU:OE2	2.64	0.51
1:M:396:ASN:O	1:M:400:LYS:HD3	2.11	0.51
1:F:277:LEU:HD23	1:F:284:LEU:HD21	1.91	0.51
1:M:111:SER:HB2	1:M:112:PHE:HA	1.91	0.51
1:F:169:SER:O	1:F:173:GLN:HG3	2.10	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: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: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:D:357:MET:HE1	1:D:362:PHE:CD1	2.46	0.51
1:J:223:ILE:O	1:J:230:ARG:HD3	2.10	0.51
1:B:169:SER:O	1:B:173:GLN:HG3	2.10	0.51
1:M:76:MET:HA	1:M:79:LEU:HD12	1.92	0.51
1:E:230:ARG:HG2	1:E:315:LEU:HG	1.93	0.51
1:L:223:ILE:O	1:L:230:ARG:HD3	2.11	0.51
1:C:198:LYS:HE3	2:N:34:U:O4'	2.11	0.51
1:I:65:ARG:CZ	1:I:65:ARG:HB3	2.39	0.51
1:I:40:LEU:HD11	1:I:47:LEU:HD21	1.92	0.51
1:G:284:LEU:O	1:H:380:MET:HE1	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:111:SER:HB2	1:B:112:PHE:HA	1.92	0.51
1:L:169:SER:O	1:L:173:GLN:HG3	2.11	0.51
1:G:111:SER:HA	1:G:113:ARG:H	1.75	0.51
1:C:172:MET:SD	1:C:253:MET:HG2	2.51	0.51
1:B:198:LYS:HE3	2:N:46:U:O4'	2.10	0.51
1:K:76:MET:HA	1:K:79:LEU:HD12	1.94	0.50
1:K:223:ILE:O	1:K:230:ARG:HD3	2.12	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: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:M:296:LEU:O	1:M:300:MET:HG3	2.11	0.50
1:J:20:GLN:OE1	1:J:320:HIS:HE1	1.93	0.50
1:H:111:SER:CB	1:H:112:PHE:HA	2.42	0.50
1:A:108:GLU:OE1	1:A:124:ARG:NH2	2.44	0.50
1:L:379:ARG:NH1	1:L:383:ASP:OD2	2.41	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: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:C:177:VAL:HG12	1:C:192:ILE:HD12	1.94	0.50
1:K:172:MET:O	1:K:176:ILE:HG13	2.11	0.50
1:L:357:MET:HE1	1:L:362:PHE:CD1	2.47	0.50
1:I:175:TRP:CZ3	1:I:237:LEU:HD11	2.46	0.50
1:H:196:LEU:O	1:H:200:ARG:HG3	2.12	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:C:104:ILE:O	1:C:115:ILE:O	2.29	0.50
1:G:111:SER:CB	1:G:112:PHE:HA	2.42	0.50
1:A:76:MET:HA	1:A:79:LEU:HD12	1.93	0.50
1:F:108:GLU:OE1	1:F:124:ARG:NH2	2.45	0.50
1:D:234:THR:O	1:D:238:GLN:HG3	2.12	0.50
1:H:111:SER:HB2	1:H:112:PHE:HA	1.93	0.50
1:K:104:ILE:HD11	1:K:114:LEU:HD22	1.94	0.50
1:A:364:LEU:O	1:A:368:THR:OG1	2.23	0.50
1:H:187:GLN:HB3	1:H:188:PRO:HD2	1.92	0.50
1:F:76:MET:HA	1:F:79:LEU:HD12	1.93	0.50
1:K:18:GLN:HG3	1:K:19:ASP:N	2.26	0.49
1:G:53:LEU:HD13	1:G:153:GLU:HG3	1.93	0.49
1:E:357:MET:HE1	1:E:362:PHE:CD1	2.47	0.49
1:G:161:GLU:HG2	1:K:33:PRO:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:G:104:ILE:HD12	1:G:114:LEU:HD22	1.95	0.49
1:D:111:SER:HA	1:D:113:ARG:H	1.77	0.49
1:C:31:LEU:HD13	1:F:160:ILE:HD11	1.94	0.49
1:A:206:ASN:HB3	1:A:209:TYR:HD2	1.77	0.49
1:H:173:GLN:OE1	1:H:210:LEU:HD12	2.13	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: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:K:181:CYS:O	1:K:224:ARG:NH1	2.45	0.49
1:I:149:ASP:O	1:I:152:VAL:HG22	2.13	0.49
1:G:104:ILE:O	1:G:115:ILE:O	2.29	0.49
1:C:235:PHE:O	1:C:239:LEU:HD13	2.13	0.49
1:M:196:LEU:O	1:M:200:ARG:HG3	2.13	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:E:259:LYS:NZ	1:F:323:ASP:OD1	2.40	0.49
1:C:276:ALA:HB2	1:C:336:ALA:HB2	1.94	0.49
1:I:221:ASN:O	1:I:225:LYS:HG3	2.13	0.49
1:H:149:ASP:O	1:H:152:VAL:HG12	2.12	0.49
1:G:276:ALA:HB2	1:G:336:ALA:HB2	1.95	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:M:198:LYS:HE3	2:N:10:U:O4'	2.13	0.49
1:G:40:LEU:HD21	1:G:47:LEU:HB3	1.94	0.49
1:F:116:PRO:HB3	1:F:122:MET:HE3	1.94	0.49
1:B:111:SER:HA	1:B:113:ARG:H	1.77	0.49
1:B:33:PRO:HB3	1:L:161:GLU:HG2	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: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:J:85:LEU:O	1:J:89:LYS:HG3	2.13	0.48
1:F:85:LEU:O	1:F:89:LYS:HG3	2.12	0.48
1:H:388:GLN:HG3	1:H:388:GLN:O	2.13	0.48
1:B:111:SER:CB	1:B:112:PHE:HA	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:23:GLU:H	1:B:23:GLU:CD	2.15	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:M:39:ILE:HG12	1:M:101:ARG:O	2.12	0.48
1:A:31:LEU:HD13	1:M:160:ILE:HD11	1.96	0.48
1:H:172:MET:SD	1:H:253:MET:HG2	2.52	0.48
1:A:6:LYS:HD2	1:A:6:LYS:HA	1.60	0.48
1:K:104:ILE:HG23	1:K:105:ASP:N	2.28	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:A:188:PRO:O	1:A:191:SER:HB3	2.14	0.48
1:K:182:MET:HA	1:K:220:GLN:NE2	2.28	0.48
1:D:241:ARG:HH12	1:D:308:GLU:HG3	1.79	0.48
1:K:169:SER:O	1:K:173:GLN:HG3	2.13	0.48
1:K:387:THR:HG22	1:K:390:GLU:CD	2.33	0.48
1:F:57:ARG:NH2	1:F:144:ALA:O	2.47	0.48
1:M:14:THR:O	1:M:18:GLN:HG2	2.13	0.48
1:I:169:SER:O	1:I:173:GLN:HG3	2.12	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: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:D:113:ARG:HG2	1:D:127:ILE:HG22	1.96	0.48
1:C:85:LEU:O	1:C:89:LYS:HG3	2.14	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:341:TYR:O	1:C:348:ARG:NH1	2.46	0.48
1:B:223:ILE:O	1:B:230:ARG:HD3	2.13	0.48
1:F:378:MET:HA	1:F:381:ALA:HB3	1.95	0.48
1:G:197:GLN:O	1:G:201:GLN:HB2	2.14	0.48
1:M:50:ARG:HH21	1:M:107:PHE:HB2	1.79	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:J:76:MET:HA	1:J:79:LEU:HD12	1.96	0.48
1:G:126:GLU:HA	1:G:129:ALA:HB3	1.95	0.48
1:J:292:GLU:HG2	1:J:329:TYR:HA	1.95	0.48
1:K:104:ILE:O	1:K:115:ILE:O	2.32	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:359:LYS:O	1:G:359:LYS:HD2	2.14	0.48
1:J:276:ALA:HB2	1:J:336:ALA:HB2	1.95	0.48
1:L:122:MET:HG2	1:L:126:GLU:OE1	2.14	0.48
1:K:260:TYR:OH	2:N:64:U:OP2	2.25	0.48
1:K:87:HIS:ND1	1:K:90:LEU:HD22	2.29	0.48
1:M:345:VAL:O	1:M:348:ARG:HD3	2.14	0.47
1:D:5:LEU:O	1:D:9:GLU:HG3	2.14	0.47
1:B:344:ASP:HB3	1:B:347:MET:HG2	1.96	0.47
1:E:111:SER:HA	1:E:113:ARG:H	1.78	0.47
1:C:281:TRP:HZ3	1:C:339:ILE:HG23	1.79	0.47
1:F:194:LYS:HE2	2:N:27:U:OP1	2.13	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:H:180:LYS:HB2	1:H:220:GLN:NE2	2.29	0.47
1:E:180:LYS:NZ	1:E:191:SER:OG	2.46	0.47
1:H:23:GLU:OE1	1:H:24:GLY:N	2.47	0.47
1:K:85:LEU:O	1:K:89:LYS:HG3	2.13	0.47
1:F:87:HIS:CE1	1:F:236:GLU:OE2	2.67	0.47
1:M:108:GLU:HG3	1:M:115:ILE:HG12	1.97	0.47
1:E:111:SER:CB	1:E:112:PHE:HA	2.44	0.47
1:A:169:SER:O	1:A:173:GLN:HG3	2.14	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:E:161:GLU:HG2	1:F:33:PRO:HB3	1.95	0.47
1:J:225:LYS:HE3	1:J:225:LYS:HB3	1.68	0.47
1:B:193:GLU:HA	1:B:196:LEU:HD13	1.96	0.47
1:F:230:ARG:HH21	1:F:317:GLU:HG3	1.80	0.47
1:D:197:GLN:O	1:D:201:GLN:HG3	2.15	0.47
1:A:397:THR:HG23	1:E:371:LYS:NZ	2.29	0.47
1:E:348:ARG:HH11	1:E:348:ARG:HG3	1.80	0.47
1:K:173:GLN:HE22	1:K:210:LEU:HA	1.79	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:A:387:THR:H	1:A:390:GLU:HG3	1.80	0.47
1:A:241:ARG:HH12	1:A:308:GLU:CG	2.26	0.47
1:F:367:GLU:HG2	1:F:371:LYS:HG3	1.97	0.47
1:J:90:LEU:HD21	1:J:239:LEU:HD11	1.97	0.47
1:B:57:ARG:NH1	1:B:153:GLU:OE2	2.47	0.47
1:K:107:PHE:CE1	1:K:114:LEU:HD23	2.49	0.47
1:I:292:GLU:HG2	1:I:329:TYR:HA	1.97	0.47

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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:F:198:LYS:HE3	2:N:28:U:O4'	2.15	0.47
1:D:142:ASN:O	1:D:143:HIS:HB2	2.15	0.47
1:M:387:THR:OG1	1:M:390:GLU:HG3	2.14	0.47
1:K:40:LEU:HD11	1:K:47:LEU:HD23	1.96	0.47
1:L:94:SER:HB3	1:L:97:ALA:HB2	1.97	0.47
1:A:85:LEU:O	1:A:89:LYS:HG3	2.15	0.47
1:G:397:THR:C	1:G:399:ALA:HB2	2.35	0.47
1:E:111:SER:HB2	1:E:112:PHE:HA	1.96	0.47
1:C:374:GLY:HA3	1:C:395:ALA:HA	1.97	0.47
1:E:306:LEU:HD21	1:E:320:HIS:CD2	2.50	0.47
1:F:393:GLU:HG2	1:F:394:MET:HB2	1.96	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:F:388:GLN:C	1:F:391:ARG:HB2	2.35	0.47
1:E:296:LEU:O	1:E:300:MET:HG3	2.15	0.47
1:I:345:VAL:O	1:I:348:ARG:HG3	2.14	0.47
1:B:5:LEU:O	1:B:9:GLU:HG3	2.15	0.47
1:D:282:PRO:HG2	1:D:372:GLN:NE2	2.30	0.47
1:L:147:PHE:HA	1:L:210:LEU:O	2.15	0.47
1:F:230:ARG:HG2	1:F:315:LEU:HG	1.96	0.47
1:M:104:ILE:O	1:M:115:ILE:O	2.33	0.47
1:H:249:ARG:NH1	1:H:249:ARG:HG3	2.30	0.47
1:F:188:PRO:HB3	1:F:189:ALA:HA	1.97	0.47
1:G:259:LYS:NZ	1:K:323:ASP:OD1	2.41	0.47
1:K:235:PHE:O	1:K:239:LEU:HD13	2.15	0.47
1:I:198:LYS:HE3	2:N:4:U:O4'	2.14	0.47
1:H:384:LEU:HD11	1:K:5:LEU:HD11	1.97	0.47
1:A:241:ARG:NH2	1:A:311:ARG:HH12	2.13	0.46
1:L:193:GLU:HA	1:L:196:LEU:HD13	1.97	0.46
1:F:57:ARG:NH1	1:F:153:GLU:OE2	2.48	0.46
1:B:85:LEU:O	1:B:89:LYS:HG3	2.14	0.46
1:F:276:ALA:HB2	1:F:336:ALA:HB2	1.97	0.46
1:K:371:LYS:HA	1:K:371:LYS:HD2	1.65	0.46
1:I:398:LEU:C	1:I:398:LEU:HD23	2.36	0.46
1:G:398:LEU:O	1:G:401:LEU:HB2	2.15	0.46
1:C:50:ARG:NH2	1:C:110:GLY:H	2.11	0.46
1:E:10:ARG:HG2	1:E:10:ARG:HH11	1.80	0.46
1:J:180:LYS:HB2	1:J:220:GLN:NE2	2.29	0.46
1:F:177:VAL:HG12	1:F:192:ILE:CD1	2.46	0.46
1:K:292:GLU:HG2	1:K:329:TYR:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:354:ARG:NH1	1:D:356:TYR:OH	2.48	0.46
1:I:5:LEU:O	1:I:9:GLU:HG3	2.16	0.46
1:A:87:HIS:CD2	1:A:90:LEU:HD22	2.51	0.46
1:G:18:GLN:HE22	1:H:308:GLU:HA	1.79	0.46
1:F:367:GLU:HG2	1:F:371:LYS:HE3	1.98	0.46
1:C:57:ARG:NH1	1:C:153:GLU:OE2	2.49	0.46
1:B:104:ILE:HG23	1:B:105:ASP:N	2.30	0.46
1:H:6:LYS:O	1:H:10:ARG:HG3	2.15	0.46
1:E:76:MET:HA	1:E:79:LEU:HD12	1.97	0.46
1:A:378:MET:HA	1:A:381:ALA:HB3	1.98	0.46
1:M:111:SER:CB	1:M:112:PHE:HA	2.45	0.46
1:D:116:PRO:HB3	1:D:122:MET:HE2	1.96	0.46
1:I:15:GLN:NE2	1:I:18:GLN:OE1	2.49	0.46
1:F:301:ALA:O	1:F:305:THR:HG23	2.15	0.46
1:F:392:THR:C	1:F:394:MET:H	2.18	0.46
1:A:104:ILE:HD11	1:A:114:LEU:HD13	1.97	0.46
1:A:104:ILE:HD13	1:A:114:LEU:HD22	1.98	0.46
1:A:87:HIS:CE1	1:E:28:PRO:HB3	2.45	0.46
1:G:399:ALA:HB3	1:G:401:LEU:H	1.79	0.46
1:G:263:ASN:OD1	1:G:303:TYR:OH	2.25	0.46
1:G:283:THR:HA	1:H:394:MET:SD	2.55	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:J:122:MET:HG2	1:J:126:GLU:OE1	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:E:196:LEU:O	1:E:200:ARG:HG3	2.16	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: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:C:239:LEU:HD23	1:L:28:PRO:HG2	1.98	0.46
1:L:386:LEU:HA	1:L:386:LEU:HD12	1.34	0.46
1:E:373:GLN:HB3	1:E:398:LEU:CD2	2.45	0.46
1:M:384:LEU:HB3	1:M:386:LEU:HD23	1.96	0.46
1:B:180:LYS:HB2	1:B:220:GLN:HE21	1.81	0.46
1:K:147:PHE:HA	1:K:210:LEU:O	2.16	0.46
1:J:301:ALA:O	1:J:305:THR:HG23	2.16	0.46
1:H:276:ALA:HB2	1:H:336:ALA:HB2	1.98	0.46
1:C:141:LEU:HA	1:C:141:LEU:HD12	1.81	0.46
1:E:386:LEU:HD11	1:F:282:PRO:HB3	1.98	0.46

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

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:L:260:TYR:OH	2:N:40:U:OP2	2.26	0.44
1:G:141:LEU:HD12	1:G:141:LEU:HA	1.77	0.44
1:B:321:LEU:HA	1:B:321:LEU:HD23	1.81	0.44
1:J:141:LEU:HA	1:J:141:LEU:HD23	1.71	0.44
1:D:165:ASP:O	1:D:169:SER:OG	2.22	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:L:90:LEU:HD21	1:L:239:LEU:HD11	1.99	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:I:400:LYS:HZ2	1:M:360:THR:HG22	1.82	0.44
1:G:373:GLN:HB2	1:G:398:LEU:HD22	1.99	0.44
1:E:147:PHE:O	1:E:148:VAL:HB	2.17	0.44
1:B:249:ARG:HG3	1:B:249:ARG:NH1	2.30	0.44
1:F:79:LEU:HA	1:F:84:MET:HE3	2.00	0.44
1:E:275:TYR:O	1:E:279:THR:OG1	2.24	0.44
1:H:218:ILE:O	1:H:222:VAL:HG23	2.18	0.44
1:K:296:LEU:O	1:K:300:MET:HG3	2.17	0.44
1:A:273:LEU:HB3	1:E:8:TYR:CE1	2.53	0.44
1:G:357:MET:HE1	1:G:362:PHE:CD1	2.52	0.44
1:C:48:ARG:HB3	1:C:163:PHE:CZ	2.51	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:G:146:PRO:O	1:G:147:PHE:HB2	2.17	0.44
1:G:210:LEU:HA	1:G:210:LEU:HD23	1.83	0.44
1:F:122:MET:HG2	1:F:126:GLU:OE1	2.18	0.44
1:D:6:LYS:HD2	1:D:10:ARG:HH21	1.83	0.44
1:A:180:LYS:HB2	1:A:220:GLN:HE21	1.82	0.44
1:C:234:THR:O	1:C:238:GLN:HG3	2.18	0.44
1:A:284:LEU:HD23	1:A:284:LEU:O	2.17	0.44
1:H:275:TYR:O	1:H:279:THR:OG1	2.23	0.44
1:A:398:LEU:HA	1:A:401:LEU:HB2	1.99	0.44
1:G:85:LEU:O	1:G:89:LYS:HG3	2.18	0.44
1:E:343:LEU:HD11	1:E:373:GLN:NE2	2.33	0.44
1:D:223:ILE:O	1:D:230:ARG:HD3	2.18	0.44
1:F:104:ILE:O	1:F:115:ILE:O	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:27:PRO:HB2	1:J:248:ASN:ND2	2.33	0.44
1:J:353:SER:O	1:J:354:ARG:HG2	2.18	0.44
1:E:276:ALA:HB2	1:E:336:ALA:HB2	1.99	0.44
1:L:386:LEU:CD1	1:L:390:GLU:HG2	2.43	0.44
1:J:137:LEU:HD22	1:J:141:LEU:HD12	2.00	0.44
1:D:146:PRO:O	1:D:147:PHE:CB	2.65	0.44
1:E:230:ARG:HH21	1:E:317:GLU:HG3	1.83	0.44
1:D:230:ARG:HH21	1:D:317:GLU:HG3	1.83	0.44
1:J:397:THR:O	1:J:400:LYS:N	2.38	0.44
1:A:260:TYR:OH	2:N:16:U:OP2	2.29	0.44
1:A:73:LEU:HD22	1:A:77:PHE:HE2	1.83	0.44
1:G:301:ALA:O	1:G:305:THR:HG23	2.18	0.44
1:L:387:THR:HG23	1:L:388:GLN:HG2	1.99	0.44
2:N:1:U:P	2:N:78:U:O3'	2.76	0.44
1:E:223:ILE:O	1:E:230:ARG:HD3	2.18	0.44
1:L:116:PRO:HB3	1:L:122:MET:CE	2.46	0.44
1:H:52:LEU:HD23	1:H:166:MET:HE3	1.99	0.44
1:C:116:PRO:HB3	1:C:122:MET:CE	2.48	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: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:E:295:LYS:HE3	1:E:328:ASN:HB3	1.99	0.44
1:B:180:LYS:HB2	1:B:220:GLN:NE2	2.32	0.44
1:I:40:LEU:HD11	1:I:47:LEU:CD2	2.47	0.44
1:J:210:LEU:HD23	1:J:210:LEU:HA	1.89	0.44
1:J:64:ALA:HB2	1:J:133:LEU:HD21	2.00	0.44
1:E:50:ARG:HH21	1:E:107:PHE:HB2	1.82	0.44
1:D:187:GLN:HB2	1:D:188:PRO:HD2	2.00	0.43
1:C:283:THR:HA	1:F:394:MET:SD	2.58	0.43
1:D:210:LEU:HD23	1:D:211:LEU:O	2.17	0.43
1:M:223:ILE:O	1:M:230:ARG:HD3	2.18	0.43
1:L:87:HIS:O	1:L:90:LEU:HB2	2.18	0.43
1:H:396:ASN:HA	1:H:399:ALA:HB3	2.00	0.43
1:A:374:GLY:HA3	1:A:395:ALA:HA	2.00	0.43
1:J:400:LYS:HZ1	1:J:401:LEU:HD22	1.83	0.43
1:J:65:ARG:HG3	1:J:66:ASP:H	1.83	0.43
1:K:377:ASP:OD1	1:K:379:ARG:HG3	2.19	0.43
1:K:46:GLU:OE2	1:K:50:ARG:NE	2.51	0.43
1:C:364:LEU:HD22	1:F:398:LEU:HD13	2.00	0.43
1:C:175:TRP:CZ3	1:C:237:LEU:HD11	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:394:MET:SD	1:L:283:THR:HA	2.58	0.43
1:G:390:GLU:O	1:G:394:MET:HB3	2.19	0.43
1:H:210:LEU:HA	1:H:210:LEU:HD12	1.83	0.43
1:D:148:VAL:HG12	1:D:149:ASP:N	2.33	0.43
1:L:172:MET:SD	1:L:253:MET:HG2	2.57	0.43
1:C:182:MET:HE1	1:C:221:ASN:HB2	1.99	0.43
1:G:39:ILE:HD11	1:G:88:VAL:HG21	2.00	0.43
1:C:104:ILE:O	1:C:105:ASP:CB	2.66	0.43
1:J:104:ILE:O	1:J:115:ILE:O	2.36	0.43
1:H:104:ILE:HG23	1:H:105:ASP:N	2.34	0.43
1:M:393:GLU:OE1	1:M:396:ASN:HB3	2.19	0.43
1:J:65:ARG:HG3	1:J:66:ASP:N	2.33	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:J:28:PRO:CG	1:K:239:LEU:HD23	2.48	0.43
1:L:200:ARG:HE	1:L:200:ARG:HB3	1.56	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:D:124:ARG:HG3	1:D:124:ARG:NH1	2.33	0.43
1:H:392:THR:HA	1:H:395:ALA:CB	2.48	0.43
1:C:152:VAL:O	1:C:155:THR:OG1	2.27	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:A:96:GLU:HG3	1:A:96:GLU:O	2.18	0.43
1:G:394:MET:HA	1:G:397:THR:HB	2.00	0.43
1:D:384:LEU:HB3	1:D:386:LEU:HD23	2.00	0.43
1:M:295:LYS:HE2	1:M:328:ASN:HB3	2.00	0.43
1:K:357:MET:HE1	1:K:362:PHE:CD1	2.53	0.43
1:L:292:GLU:HG2	1:L:329:TYR:HA	2.01	0.43
1:L:292:GLU:HB3	1:L:332:LEU:HD12	2.00	0.43
1:M:48:ARG:HB3	1:M:163:PHE:CZ	2.53	0.43
1:D:155:THR:OG1	1:D:208:ARG:NH2	2.51	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:L:230:ARG:HH21	1:L:317:GLU:HG3	1.82	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: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:M:85:LEU:O	1:M:89:LYS:HG3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:223:ILE:O	1:H:230:ARG:HD3	2.18	0.43
1:L:386:LEU:O	1:L:391:ARG:NH2	2.52	0.43
1:B:207:PRO:HA	1:B:210:LEU:HD12	2.00	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:M:180:LYS:HB2	1:M:220:GLN:HE21	1.84	0.43
1:K:280:ARG:CZ	1:K:379:ARG:HH21	2.32	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:C:104:ILE:HG22	1:C:105:ASP:N	2.34	0.43
1:L:221:ASN:O	1:L:225:LYS:HG3	2.18	0.43
1:C:295:LYS:HZ3	1:C:328:ASN:HB3	1.84	0.43
1:A:10:ARG:NH1	1:A:10:ARG:HG2	2.34	0.43
1:A:136:ASP:HB3	1:A:137:LEU:H	1.70	0.43
1:I:87:HIS:HE1	1:I:236:GLU:OE2	2.02	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:B:116:PRO:HB3	1:B:122:MET:HE2	2.00	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:G:94:SER:HA	1:G:95:PRO:HD3	1.90	0.43
1:K:250:TYR:O	1:K:254:VAL:HG23	2.19	0.43
1:C:195:ARG:NH2	2:N:33:U:OP2	2.51	0.43
1:C:35:ILE:HD13	1:C:228:VAL:HG21	2.00	0.43
1:I:122:MET:HB2	1:I:122:MET:HE3	1.92	0.43
1:J:241:ARG:HH12	1:J:311:ARG:HH21	1.65	0.42
1:E:339:ILE:O	1:E:343:LEU:HB2	2.19	0.42
1:K:146:PRO:HB2	1:K:147:PHE:H	1.66	0.42
1:M:107:PHE:CE1	1:M:114:LEU:HD23	2.54	0.42
1:L:15:GLN:HA	1:L:18:GLN:CB	2.49	0.42
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:G:237:LEU:HA	1:G:237:LEU:HD23	1.74	0.42
1:J:299:LEU:HD23	1:J:299:LEU:HA	1.83	0.42
1:I:400:LYS:NZ	1:M:360:THR:HG22	2.34	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:D:40:LEU:HD11	1:D:47:LEU:HD23	2.01	0.42
1:J:94:SER:HB3	1:J:97:ALA:HB2	2.00	0.42
1:G:57:ARG:NH2	1:G:144:ALA:O	2.51	0.42
1:L:10:ARG:O	1:L:14:THR:HG23	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:172:MET:SD	1:K:253:MET:HG2	2.59	0.42
2:N:4:U:H2'	2:N:5:U:O4'	2.20	0.42
1:D:198:LYS:HE3	2:N:76:U:O4'	2.18	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
1:E:140:THR:HB	1:E:214:GLU:OE1	2.19	0.42
1:E:48:ARG:HB3	1:E:163:PHE:CZ	2.55	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:104:ILE:HD11	1:H:114:LEU:CD2	2.50	0.42
1:K:390:GLU:O	1:K:394:MET:HB3	2.20	0.42
1:J:172:MET:O	1:J:176:ILE:HG13	2.20	0.42
1:H:47:LEU:CD2	1:H:106:GLY:HA2	2.49	0.42
1:B:73:LEU:HD23	1:B:73:LEU:HA	1.89	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: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: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:C:394:MET:O	1:C:397:THR:OG1	2.37	0.42
1:C:65:ARG:HG2	1:C:66:ASP:H	1.84	0.42
1:G:113:ARG:HD2	1:G:124:ARG:HH12	1.84	0.42
1:D:107:PHE:CE1	1:D:114:LEU:HD23	2.55	0.42
1:H:193:GLU:HA	1:H:196:LEU:HD12	2.02	0.42
1:A:172:MET:O	1:A:176:ILE:HG13	2.20	0.42
1:E:376:VAL:CG2	1:E:381:ALA:HB2	2.50	0.42
1:A:122:MET:HB2	1:A:122:MET:HE2	1.99	0.42
1:J:198:LYS:HE3	2:N:70:U:O4'	2.20	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:H:136:ASP:HB3	1:H:137:LEU:H	1.75	0.42
1:C:230:ARG:HG2	1:C:315:LEU:HG	2.01	0.42
1:B:55:CYS:O	1:B:59:VAL:HG23	2.20	0.42
1:A:26:ILE:HA	1:A:27:PRO:HD3	1.89	0.42
1:J:84:MET:O	1:J:88:VAL:HG23	2.19	0.42
1:G:180:LYS:HB2	1:G:220:GLN:NE2	2.33	0.42
1:B:20:GLN:HE22	1:B:302:LEU:HD11	1.85	0.42
1:B:306:LEU:HA	1:B:306:LEU:HD23	1.80	0.42
1:I:315:LEU:HA	1:I:315:LEU:HD12	1.92	0.42

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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:M:172:MET:SD	1:M:253:MET:HG2	2.60	0.42
1:L:96:GLU:HG3	1:L:96:GLU:O	2.20	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:E:243:GLN:HA	1:F:25:THR:O	2.19	0.42
1:C:373:GLN:C	1:C:398:LEU:HD23	2.41	0.42
1:C:10:ARG:O	1:C:14:THR:HG23	2.20	0.42
1:J:33:PRO:HD3	1:K:164:LEU:HD12	2.01	0.42
1:G:143:HIS:CG	1:G:143:HIS:O	2.73	0.42
1:I:50:ARG:NH1	1:I:111:SER:OG	2.53	0.42
1:D:26:ILE:HA	1:D:27:PRO:HD3	1.89	0.42
1:J:378:MET:SD	1:J:391:ARG:NH1	2.93	0.42
1:A:352:PHE:O	1:A:354:ARG:HG2	2.20	0.42
1:H:326:ALA:HB3	1:H:356:TYR:OH	2.20	0.42
1:J:143:HIS:O	1:J:144:ALA:HB3	2.20	0.42
1:L:343:LEU:HD12	1:L:343:LEU:HA	1.91	0.42
1:G:60:LEU:O	1:G:138:PRO:HD3	2.20	0.42
1:J:230:ARG:HH21	1:J:317:GLU:HG3	1.85	0.41
1:E:207:PRO:HA	1:E:210:LEU:CD1	2.45	0.41
1:D:400:LYS:HD2	1:D:400:LYS:C	2.39	0.41
1:F:281:TRP:HZ3	1:F:339:ILE:HG23	1.85	0.41
1:B:141:LEU:O	1:B:143:HIS:HA	2.20	0.41
1:L:181:CYS:O	1:L:182:MET:HB2	2.20	0.41
1:F:292:GLU:HG2	1:F:329:TYR:HA	2.02	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:I:96:GLU:O	1:I:96:GLU:HG3	2.20	0.41
1:C:345:VAL:O	1:C:348:ARG:HD3	2.21	0.41
1:H:295:LYS:HE2	1:H:328:ASN:HB3	2.03	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:J:400:LYS:HZ2	1:J:401:LEU:HD13	1.85	0.41
1:C:384:LEU:HB3	1:C:386:LEU:HD23	2.00	0.41
1:K:60:LEU:O	1:K:138:PRO:HD3	2.20	0.41
1:E:343:LEU:HD12	1:E:343:LEU:HA	1.69	0.41
1:A:104:ILE:O	1:A:115:ILE:O	2.38	0.41
1:F:315:LEU:HA	1:F:315:LEU:HD12	1.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:50:ARG:NH1	1:G:111:SER:HB3	2.35	0.41
1:B:147:PHE:O	1:B:148:VAL:HG12	2.20	0.41
1:F:57:ARG:NH1	1:F:153:GLU:OE1	2.54	0.41
1:H:396:ASN:HA	1:H:399:ALA:H	1.85	0.41
1:H:237:LEU:O	1:H:241:ARG:HG2	2.20	0.41
1:B:26:ILE:HA	1:B:27:PRO:HD3	1.85	0.41
1:A:36:ARG:NH2	1:A:126:GLU:OE2	2.43	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:B:28:PRO:HB3	1:L:87:HIS:NE2	2.36	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:L:378:MET:HA	1:L:381:ALA:HB3	2.01	0.41
1:G:48:ARG:HB3	1:G:163:PHE:CZ	2.56	0.41
1:D:248:ASN:HD21	1:I:27:PRO:HB2	1.85	0.41
1:J:37:VAL:O	1:J:101:ARG:O	2.38	0.41
1:F:390:GLU:HG3	1:F:393:GLU:HB3	2.01	0.41
1:D:241:ARG:HH12	1:D:308:GLU:CG	2.34	0.41
1:B:243:GLN:HA	1:H:25:THR:O	2.20	0.41
1:K:146:PRO:O	1:K:148:VAL:N	2.54	0.41
1:G:223:ILE:O	1:G:230:ARG:HD3	2.21	0.41
1:L:344:ASP:HB3	1:L:347:MET:HG2	2.03	0.41
1:D:87:HIS:CD2	1:D:90:LEU:HD22	2.56	0.41
1:K:330:PRO:O	1:K:334:SER:OG	2.27	0.41
1:D:96:GLU:HG3	1:D:96:GLU:O	2.20	0.41
1:E:241:ARG:NH1	1:E:308:GLU:HB2	2.35	0.41
1:B:384:LEU:HB3	1:B:386:LEU:HD23	2.02	0.41
1:H:152:VAL:HG13	1:H:153:GLU:N	2.36	0.41
1:F:149:ASP:O	1:F:151:GLU:N	2.51	0.41
1:J:392:THR:HA	1:J:395:ALA:HB3	2.01	0.41
1:H:172:MET:O	1:H:176:ILE:HG13	2.21	0.41
1:F:335:TYR:CZ	1:F:339:ILE:HD11	2.55	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:J:206:ASN:HA	1:J:207:PRO:HD3	1.94	0.41
1:K:84:MET:O	1:K:88:VAL:HG23	2.20	0.41
1:D:30:THR:HG22	1:D:31:LEU:O	2.20	0.41
1:I:177:VAL:HB	1:I:220:GLN:CG	2.39	0.41
1:G:104:ILE:HA	1:G:104:ILE:HD13	1.83	0.41
1:M:400:LYS:H	1:M:400:LYS:CD	2.34	0.41
1:B:15:GLN:NE2	1:L:303:TYR:CE1	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:173:GLN:HE22	1:L:211:LEU:H	1.67	0.41
1:J:180:LYS:HB2	1:J:220:GLN:HE21	1.85	0.41
1:H:76:MET:HA	1:H:79:LEU:HD12	2.01	0.41
1:K:345:VAL:O	1:K:348:ARG:HD3	2.20	0.41
1:D:14:THR:OG1	1:J:304:GLN:NE2	2.53	0.41
1:K:293:LEU:HD23	1:K:293:LEU:HA	1.89	0.41
1:A:39:ILE:HD11	1:A:88:VAL:HG21	2.02	0.41
1:E:386:LEU:HD12	1:E:386:LEU:HA	1.83	0.41
1:C:149:ASP:C	1:C:151:GLU:H	2.23	0.41
1:L:146:PRO:O	1:L:148:VAL:N	2.53	0.41
1:J:48:ARG:HB3	1:J:163:PHE:CZ	2.56	0.41
1:G:96:GLU:O	1:G:96:GLU:HG3	2.20	0.41
1:E:141:LEU:HA	1:E:141:LEU:HD12	1.80	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:C:55:CYS:O	1:C:59:VAL:HG23	2.20	0.41
1:I:155:THR:HG22	1:I:156:ALA:N	2.35	0.41
1:I:141:LEU:HA	1:I:141:LEU:HD12	1.92	0.41
1:E:172:MET:SD	1:E:253:MET:HG2	2.60	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:G:250:TYR:O	1:G:254:VAL:HG23	2.21	0.41
1:G:54:PHE:CZ	1:G:58:ILE:HD11	2.56	0.41
1:J:22:GLU:N	1:J:22:GLU:OE1	2.32	0.41
1:A:94:SER:HA	1:A:95:PRO:HD3	1.91	0.41
1:D:65:ARG:NE	1:J:159:GLU:OE1	2.54	0.41
1:G:343:LEU:HD12	1:G:343:LEU:HA	1.93	0.41
1:J:73:LEU:HA	1:J:73:LEU:HD23	1.94	0.41
1:G:87:HIS:HE1	1:G:251:TYR:OH	2.04	0.41
1:D:37:VAL:O	1:D:101:ARG:O	2.38	0.41
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:A:187:GLN:HB3	1:A:188:PRO:HD2	2.02	0.41
1:G:39:ILE:CD1	1:G:88:VAL:HG21	2.51	0.41
1:F:292:GLU:HB3	1:F:332:LEU:HD12	2.03	0.41
1:J:387:THR:HG22	1:J:388:GLN:H	1.86	0.41
1:A:276:ALA:HB2	1:A:336:ALA:HB2	2.01	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:F:180:LYS:HB2	1:F:220:GLN:NE2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:359:LYS:HD2	1:F:359:LYS:HA	1.88	0.41
1:G:286:LEU:HA	1:G:286:LEU:HD23	1.89	0.41
1:M:57:ARG:NH2	1:M:144:ALA:O	2.53	0.40
1:H:308:GLU:HG2	1:H:308:GLU:H	1.64	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:E:122:MET:HE2	1:E:122:MET:HB2	1.98	0.40
1:D:393:GLU:HG3	1:D:396:ASN:HB2	2.02	0.40
1:D:243:GLN:NE2	1:I:319:PRO:HG2	2.36	0.40
1:J:27:PRO:HB2	1:K:248:ASN:ND2	2.36	0.40
1:M:87:HIS:HE2	1:M:236:GLU:CD	2.24	0.40
1:B:172:MET:SD	1:B:253:MET:HG2	2.61	0.40
1:E:214:GLU:O	1:E:218:ILE:HG13	2.22	0.40
1:H:175:TRP:CZ3	1:H:237:LEU:HD13	2.56	0.40
1:B:4:VAL:HG21	1:L:293:LEU:HB3	2.03	0.40
1:E:199:TYR:OH	1:E:256:ASP:OD1	2.27	0.40
1:G:171:LEU:HA	1:G:171:LEU:HD23	1.90	0.40
1:H:343:LEU:HD12	1:H:343:LEU:HA	1.95	0.40
1:C:396:ASN:CG	1:C:397:THR:N	2.74	0.40
1:K:230:ARG:HH21	1:K:317:GLU:HG3	1.86	0.40
1:J:384:LEU:HB3	1:J:386:LEU:HD23	2.03	0.40
1:L:210:LEU:HA	1:L:210:LEU:HD12	1.94	0.40
1:C:53:LEU:HD23	1:C:53:LEU:HA	1.86	0.40
1:J:39:ILE:HG12	1:J:101:ARG:O	2.21	0.40
1:H:234:THR:O	1:H:238:GLN:HG3	2.21	0.40
1:C:164:LEU:HD12	1:L:33:PRO:HD3	2.02	0.40
1:J:155:THR:HG22	1:J:156:ALA:N	2.36	0.40
1:L:140:THR:OG1	1:L:214:GLU:HG2	2.22	0.40
1:J:96:GLU:HG3	1:J:96:GLU:O	2.21	0.40
1:K:361:TYR:O	1:K:364:LEU:HB3	2.22	0.40
1:C:295:LYS:NZ	1:C:328:ASN:HB3	2.36	0.40
1:F:194:LYS:HE3	1:F:194:LYS:HB3	1.78	0.40
1:B:36:ARG:NH2	1:B:130:TYR:OH	2.54	0.40
1:A:293:LEU:HD23	1:A:293:LEU:HA	1.90	0.40
1:B:155:THR:OG1	1:B:208:ARG:NH2	2.55	0.40
1:B:107:PHE:CE1	1:B:114:LEU:HD23	2.56	0.40
1:I:401:LEU:CD2	1:M:363:GLN:NE2	2.84	0.40
1:L:104:ILE:O	1:L:115:ILE:O	2.39	0.40
1:J:142:ASN:C	1:J:142:ASN:OD1	2.59	0.40
1:K:111:SER:HA	1:K:113:ARG:H	1.87	0.40
1:D:149:ASP:O	1:D:151:GLU:N	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:304:GLN:HG2	1:L:15:GLN:NE2	2.36	0.40
1:B:15:GLN:NE2	1:L:303:TYR:HE1	2.20	0.40
1:B:113:ARG:HD2	1:B:124:ARG:HH12	1.86	0.40
1:A:277:LEU:HD23	1:A:284:LEU:HD11	2.02	0.40
1:B:20:GLN:HE22	1:B:302:LEU:CD1	2.35	0.40
1:H:318:SER:HA	1:H:319:PRO:HD3	1.97	0.40
1:C:301:ALA:O	1:C:305:THR:HG23	2.21	0.40
1:C:148:VAL:H	1:C:212:GLN:HG3	1.86	0.40
1:A:175:TRP:CH2	1:A:233:LEU:HD22	2.57	0.40
1:A:79:LEU:HA	1:A:84:MET:HE3	2.03	0.40
1:E:26:ILE:HA	1:E:27:PRO:HD3	1.92	0.40
1:J:379:ARG:NH1	1:J:383:ASP:OD2	2.54	0.40
1:G:258:GLY:O	1:G:262:GLU:HG3	2.21	0.40
1:A:14:THR:O	1:A:18:GLN:N	2.53	0.40
1:B:316:LEU:HA	1:B:316:LEU:HD23	1.88	0.40
1:H:321:LEU:HD23	1:H:321:LEU:HA	1.87	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 ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	391/525 (74%)	372 (95%)	12 (3%)	7 (2%)	11 43

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	391/525 (74%)	376 (96%)	13 (3%)	2 (0%)	34	73
1	C	391/525 (74%)	371 (95%)	13 (3%)	7 (2%)	11	43
1	D	391/525 (74%)	374 (96%)	11 (3%)	6 (2%)	13	47
1	E	391/525 (74%)	372 (95%)	9 (2%)	10 (3%)	7	32
1	F	391/525 (74%)	370 (95%)	13 (3%)	8 (2%)	9	39
1	G	391/525 (74%)	367 (94%)	15 (4%)	9 (2%)	8	36
1	H	391/525 (74%)	373 (95%)	11 (3%)	7 (2%)	11	43
1	I	391/525 (74%)	371 (95%)	14 (4%)	6 (2%)	13	47
1	J	391/525 (74%)	372 (95%)	15 (4%)	4 (1%)	19	59
1	K	391/525 (74%)	371 (95%)	12 (3%)	8 (2%)	9	39
1	L	391/525 (74%)	370 (95%)	12 (3%)	9 (2%)	8	36
1	M	391/525 (74%)	372 (95%)	12 (3%)	7 (2%)	11	43
All	All	5083/6825 (74%)	4831 (95%)	162 (3%)	90 (2%)	11	43

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

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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

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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 ⓘ

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%)	52	83
1	B	334/435 (77%)	327 (98%)	7 (2%)	61	86
1	C	334/435 (77%)	327 (98%)	7 (2%)	61	86

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	D	334/435 (77%)	325 (97%)	9 (3%)	52	83
1	E	334/435 (77%)	328 (98%)	6 (2%)	66	89
1	F	334/435 (77%)	325 (97%)	9 (3%)	52	83
1	G	334/435 (77%)	327 (98%)	7 (2%)	61	86
1	H	334/435 (77%)	329 (98%)	5 (2%)	72	90
1	I	334/435 (77%)	327 (98%)	7 (2%)	61	86
1	J	334/435 (77%)	328 (98%)	6 (2%)	66	89
1	K	334/435 (77%)	323 (97%)	11 (3%)	45	79
1	L	334/435 (77%)	325 (97%)	9 (3%)	52	83
1	M	334/435 (77%)	328 (98%)	6 (2%)	66	89
All	All	4342/5655 (77%)	4244 (98%)	98 (2%)	58	85

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

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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

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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

Some 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

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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 ⓘ

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 ⓘ

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

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

Of 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 ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	395/525 (75%)	-0.18	10 (2%) 61 39	23, 41, 107, 139	3 (0%)
1	B	395/525 (75%)	-0.27	5 (1%) 79 63	22, 40, 106, 140	3 (0%)
1	C	395/525 (75%)	-0.26	8 (2%) 68 47	22, 40, 107, 139	3 (0%)
1	D	395/525 (75%)	-0.28	6 (1%) 76 58	21, 39, 102, 137	3 (0%)
1	E	395/525 (75%)	-0.25	7 (1%) 71 50	22, 40, 109, 140	3 (0%)
1	F	395/525 (75%)	-0.28	4 (1%) 84 70	20, 40, 108, 137	3 (0%)
1	G	395/525 (75%)	-0.32	7 (1%) 71 50	21, 38, 103, 141	3 (0%)
1	H	395/525 (75%)	-0.27	6 (1%) 76 58	20, 39, 105, 140	3 (0%)
1	I	395/525 (75%)	-0.30	7 (1%) 71 50	21, 38, 106, 138	3 (0%)
1	J	395/525 (75%)	-0.29	6 (1%) 76 58	21, 39, 107, 141	3 (0%)
1	K	395/525 (75%)	-0.32	7 (1%) 71 50	21, 39, 105, 139	3 (0%)
1	L	395/525 (75%)	-0.25	9 (2%) 64 41	22, 40, 107, 137	3 (0%)
1	M	395/525 (75%)	-0.26	6 (1%) 76 58	24, 39, 104, 139	3 (0%)
2	N	78/78 (100%)	-0.46	0 100 100	35, 44, 50, 54	0
All	All	5213/6903 (75%)	-0.27	88 (1%) 73 53	20, 40, 106, 141	39 (0%)

All (88) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	M	187	GLN	6.2
1	J	21	SER	5.8
1	H	21	SER	5.2
1	A	187	GLN	4.8
1	L	181	CYS	4.8
1	F	23	GLU	4.6
1	G	21	SER	4.5
1	J	22	GLU	4.2

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Mol	Chain	Res	Type	RSRZ
1	I	21	SER	4.1
1	D	22	GLU	4.1
1	E	21	SER	4.0
1	G	188	PRO	3.7
1	C	21	SER	3.6
1	L	23	GLU	3.5
1	K	21	SER	3.3
1	A	188	PRO	3.3
1	L	188	PRO	3.1
1	I	181	CYS	3.1
1	D	21	SER	3.1
1	F	389	ALA	3.1
1	A	21	SER	3.0
1	C	182	MET	3.0
1	L	382	GLU	3.0
1	E	25	THR	3.0
1	B	22	GLU	2.9
1	D	23	GLU	2.9
1	L	187	GLN	2.9
1	F	181	CYS	2.9
1	A	190	ALA	2.9
1	I	187	GLN	2.8
1	K	367	GLU	2.8
1	M	22	GLU	2.8
1	L	21	SER	2.8
1	A	189	ALA	2.8
1	I	188	PRO	2.8
1	B	21	SER	2.7
1	C	22	GLU	2.7
1	H	111	SER	2.7
1	E	188	PRO	2.7
1	G	181	CYS	2.6
1	C	181	CYS	2.6
1	H	25	THR	2.6
1	B	181	CYS	2.6
1	I	22	GLU	2.6
1	K	22	GLU	2.6
1	I	25	THR	2.6
1	L	182	MET	2.5
1	E	398	LEU	2.5
1	K	188	PRO	2.5
1	A	25	THR	2.5

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Mol	Chain	Res	Type	RSRZ
1	J	398	LEU	2.5
1	M	21	SER	2.5
1	C	20	GLN	2.4
1	M	188	PRO	2.4
1	J	19	ASP	2.4
1	K	25	THR	2.4
1	K	111	SER	2.3
1	J	181	CYS	2.3
1	K	398	LEU	2.3
1	A	22	GLU	2.3
1	B	25	THR	2.3
1	G	396	ASN	2.3
1	D	139	ASP	2.3
1	E	22	GLU	2.3
1	H	181	CYS	2.3
1	C	23	GLU	2.3
1	L	111	SER	2.2
1	G	111	SER	2.2
1	D	393	GLU	2.2
1	F	182	MET	2.2
1	L	22	GLU	2.2
1	D	111	SER	2.2
1	A	145	THR	2.1
1	M	386	LEU	2.1
1	H	23	GLU	2.1
1	A	20	GLN	2.1
1	M	181	CYS	2.1
1	E	189	ALA	2.1
1	I	182	MET	2.1
1	G	22	GLU	2.1
1	B	187	GLN	2.0
1	E	151	GLU	2.0
1	C	14	THR	2.0
1	C	188	PRO	2.0
1	H	399	ALA	2.0
1	G	187	GLN	2.0
1	J	18	GLN	2.0
1	A	19	ASP	2.0

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

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

6.3 Carbohydrates [i](#)

There are no carbohydrates 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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å ²)	Q<0.9
3	PB	B	601	1/1	0.97	0.60	9.45	194,194,194,194	0
3	PB	M	602	1/1	0.96	0.53	6.70	171,171,171,171	0
3	PB	G	601	1/1	0.94	0.30	2.64	113,113,113,113	0
3	PB	I	601	1/1	0.99	0.26	1.26	94,94,94,94	0
3	PB	I	602	1/1	0.99	0.24	0.95	94,94,94,94	0
3	PB	M	601	1/1	0.97	0.18	-0.31	83,83,83,83	0
3	PB	H	601	1/1	0.92	0.12	-0.91	59,59,59,59	1
3	PB	A	601	1/1	0.77	0.14	-1.02	70,70,70,70	1
3	PB	D	601	1/1	0.97	0.12	-1.73	82,82,82,82	1
3	PB	M	603	1/1	0.94	0.07	-1.77	83,83,83,83	1
3	PB	K	602	1/1	0.99	0.10	-1.82	62,62,62,62	0
3	PB	K	601	1/1	0.99	0.08	-2.09	56,56,56,56	0
3	PB	N	101	1/1	0.95	0.14	-	57,57,57,57	1
3	PB	M	604	1/1	0.87	0.12	-	76,76,76,76	1

6.5 Other polymers [i](#)

There are no such residues in this entry.