



Full wwPDB X-ray Structure Validation Report ⓘ

Oct 12, 2023 – 04:26 AM EDT

PDB ID : 8ERI
Title : HTLV-1 capsid protein full-length
Authors : Yu, R.J.; Li, N.; Jacques, D.A.
Deposited on : 2022-10-11
Resolution : 2.25 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) : 1.13
EDS : 2.35.1
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.35.1

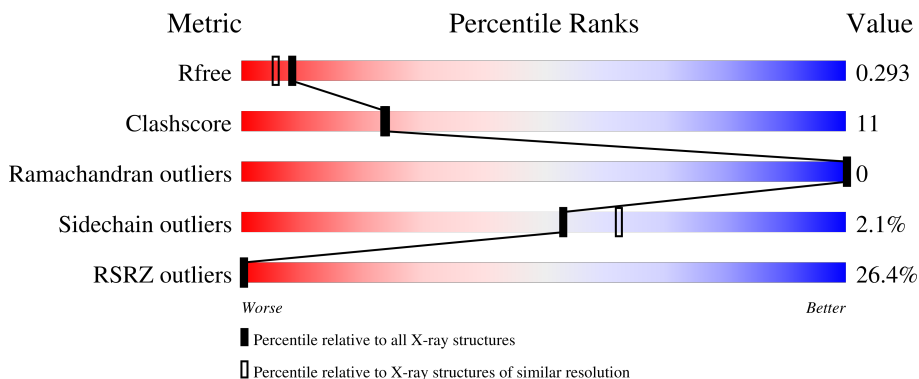
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION


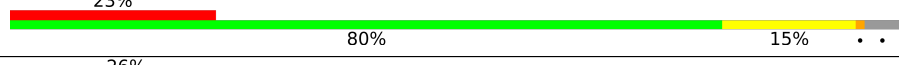

The reported resolution of this entry is 2.25 Å.

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}	130704	1377 (2.26-2.26)
Clashscore	141614	1487 (2.26-2.26)
Ramachandran outliers	138981	1449 (2.26-2.26)
Sidechain outliers	138945	1450 (2.26-2.26)
RSRZ outliers	127900	1356 (2.26-2.26)

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 $\leq 5\%$. 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	214	
1	B	214	
1	C	214	

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 9690 atoms, of which 4763 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 capsid protein p24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace	
			Total	C	H	N	O				S
1	A	206	3195	1011	1586	291	300	7	0	0	0
1	B	206	3195	1011	1586	291	300	7	0	0	0
1	C	206	3203	1014	1591	291	300	7	0	0	0

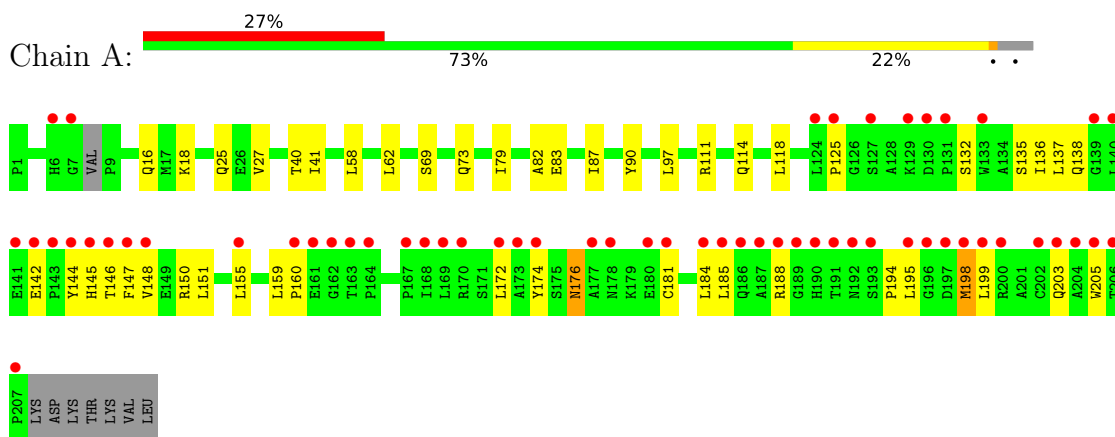
- Molecule 2 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	29	Total 29	O 29	0	0
2	B	35	Total 35	O 35	0	0
2	C	33	Total 33	O 33	0	0

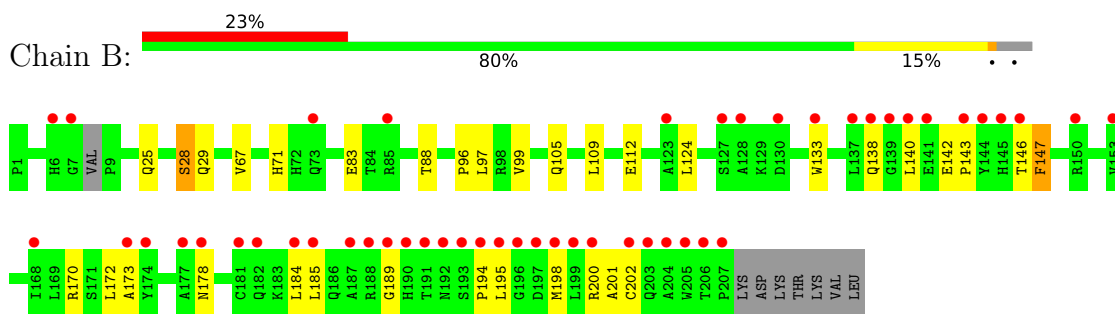
3 Residue-property plots [i](#)

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.

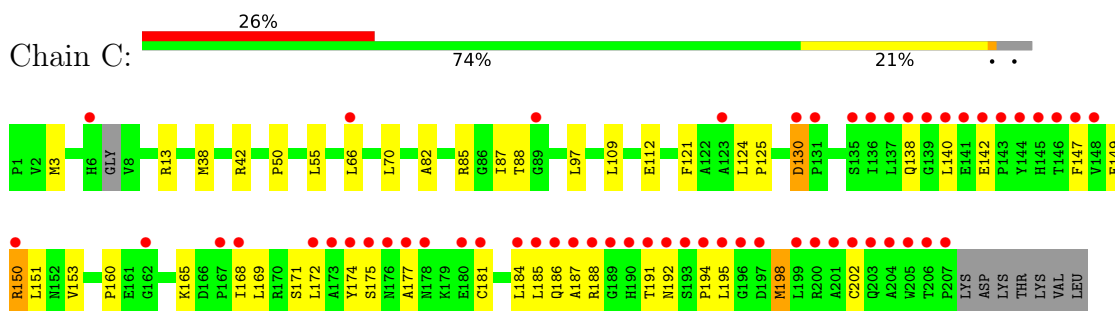
- Molecule 1: capsid protein p24



- Molecule 1: capsid protein p24



- Molecule 1: capsid protein p24



4 Data and refinement statistics

Property	Value	Source
Space group	F 2 2 2	Depositor
Cell constants a, b, c, α , β , γ	74.08Å 128.66Å 297.34Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	43.63 – 2.25 43.63 – 2.25	Depositor EDS
% Data completeness (in resolution range)	99.3 (43.63-2.25) 91.8 (43.63-2.25)	Depositor EDS
R_{merge}	0.14	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.28 (at 2.24Å)	Xtrriage
Refinement program	PHENIX 1.20.1	Depositor
R, R_{free}	0.251 , 0.288 0.251 , 0.293	Depositor DCC
R_{free} test set	1773 reflections (5.25%)	wwPDB-VP
Wilson B-factor (Å ²)	38.7	Xtrriage
Anisotropy	0.878	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.33 , 55.7	EDS
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	9690	wwPDB-VP
Average B, all atoms (Å ²)	118.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 14.33% 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, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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	0.29	0/1650	0.49	0/2246
1	B	0.30	0/1650	0.50	0/2246
1	C	0.27	0/1653	0.50	0/2252
All	All	0.29	0/4953	0.50	0/6744

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

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	1609	1586	1586	39	0
1	B	1609	1586	1586	27	0
1	C	1612	1591	1591	40	0
2	A	29	0	0	0	0
2	B	35	0	0	0	0
2	C	33	0	0	1	0
All	All	4927	4763	4763	106	0

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 11.

All (106) 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:B:88:THR:HG23	1:B:112:GLU:OE2	1.75	0.86
1:C:185:LEU:HB3	1:C:188:ARG:HG2	1.59	0.85
1:B:105:GLN:N	1:B:105:GLN:OE1	2.15	0.80
1:A:16:GLN:OE1	1:A:18:LYS:NZ	2.16	0.79
1:A:185:LEU:O	1:A:188:ARG:NH1	2.16	0.78
1:B:198:MET:SD	1:B:201:ALA:HB3	2.25	0.76
1:B:185:LEU:HD12	1:B:201:ALA:HB1	1.66	0.76
1:B:140:LEU:O	1:B:178:ASN:ND2	2.22	0.73
1:B:97:LEU:HD21	1:B:109:LEU:HD11	1.73	0.70
1:B:198:MET:O	1:B:201:ALA:N	2.25	0.69
1:C:150:ARG:HA	1:C:150:ARG:NE	2.09	0.66
1:A:137:LEU:HD12	1:A:176:ASN:O	1.96	0.66
1:B:142:GLU:OE2	1:B:146:THR:HG23	1.95	0.66
1:C:165:LYS:O	1:C:169:LEU:N	2.25	0.66
1:C:198:MET:N	1:C:198:MET:SD	2.69	0.65
1:A:199:LEU:O	1:A:203:GLN:N	2.30	0.65
1:C:97:LEU:HD11	1:C:109:LEU:HD11	1.80	0.64
1:C:191:THR:HG22	1:C:192:ASN:H	1.64	0.63
1:C:97:LEU:CD1	1:C:109:LEU:HD11	2.30	0.61
1:A:181:CYS:SG	1:A:205:TRP:CE2	2.95	0.60
1:C:195:LEU:HA	1:C:198:MET:SD	2.42	0.60
1:B:97:LEU:HD21	1:B:109:LEU:CD1	2.32	0.59
1:A:111:ARG:HD3	1:A:114:GLN:HE22	1.67	0.58
1:B:143:PRO:O	1:B:146:THR:HG22	2.03	0.58
1:B:67:VAL:HG13	1:B:124:LEU:HD12	1.85	0.58
1:B:142:GLU:OE2	1:B:146:THR:CG2	2.51	0.58
1:C:150:ARG:NH2	1:C:153:VAL:HG11	2.19	0.58
1:B:185:LEU:HD12	1:B:201:ALA:CB	2.35	0.57
1:A:155:LEU:HD22	1:A:159:LEU:HD11	1.87	0.56
1:A:41:ILE:HD12	1:A:118:LEU:CD2	2.34	0.56
1:A:79:ILE:O	1:A:83:GLU:HG3	2.06	0.56
1:C:172:LEU:O	1:C:175:SER:OG	2.24	0.56
1:C:185:LEU:HB3	1:C:188:ARG:CG	2.32	0.56
1:C:185:LEU:O	1:C:188:ARG:HG2	2.06	0.55
1:C:88:THR:HG22	1:C:112:GLU:OE2	2.07	0.55
1:A:125:PRO:HB2	1:A:160:PRO:HG3	1.90	0.54
1:C:130:ASP:OD2	1:C:130:ASP:N	2.38	0.54
1:C:124:LEU:HB2	1:C:125:PRO:HD3	1.90	0.53
1:B:184:LEU:HD23	1:B:202:CYS:SG	2.48	0.53
1:C:185:LEU:HD11	1:C:198:MET:HA	1.90	0.53
1:A:58:LEU:HD11	1:A:62:LEU:HD11	1.89	0.53
1:A:132:SER:O	1:A:135:SER:OG	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:184:LEU:O	1:A:185:LEU:HD23	2.10	0.51
1:C:82:ALA:CB	1:C:87:ILE:HD11	2.40	0.51
1:A:125:PRO:CB	1:A:160:PRO:HG3	2.40	0.51
1:B:28:SER:OG	1:B:29:GLN:N	2.42	0.51
1:C:85:ARG:NH2	2:C:302:HOH:O	2.44	0.50
1:B:97:LEU:CD2	1:B:109:LEU:HD11	2.40	0.50
1:A:195:LEU:HA	1:A:198:MET:SD	2.52	0.49
1:A:142:GLU:OE1	1:A:147:PHE:CD2	2.65	0.49
1:A:69:SER:O	1:A:73:GLN:HG2	2.13	0.49
1:C:50:PRO:HG2	1:C:55:LEU:HD21	1.94	0.48
1:A:27:VAL:HG23	1:A:40:THR:HG21	1.95	0.48
1:C:171:SER:HA	1:C:174:TYR:CE2	2.49	0.48
1:A:41:ILE:CD1	1:A:118:LEU:CD2	2.92	0.47
1:C:3:MET:HG3	1:C:13:ARG:HD2	1.95	0.47
1:B:138:GLN:HB2	1:B:147:PHE:CD2	2.48	0.47
1:C:184:LEU:HD22	1:C:202:CYS:SG	2.55	0.47
1:A:138:GLN:N	1:A:147:PHE:CZ	2.82	0.47
1:B:147:PHE:CZ	1:B:173:ALA:HA	2.50	0.46
1:A:185:LEU:HB3	1:A:188:ARG:HH11	1.81	0.46
1:A:142:GLU:OE2	1:A:150:ARG:NE	2.48	0.46
1:C:195:LEU:CA	1:C:198:MET:SD	3.03	0.46
1:B:170:ARG:HG2	1:B:195:LEU:HB2	1.97	0.46
1:B:195:LEU:HA	1:B:198:MET:HB3	1.96	0.46
1:C:186:GLN:O	1:C:187:ALA:HB3	2.16	0.45
1:A:174:TYR:CD2	1:A:185:LEU:HD13	2.51	0.45
1:C:125:PRO:HB2	1:C:160:PRO:HG3	1.98	0.45
1:A:82:ALA:HB1	1:A:87:ILE:HD11	1.99	0.45
1:C:150:ARG:HA	1:C:150:ARG:HE	1.81	0.44
1:A:41:ILE:HD12	1:A:118:LEU:HD21	1.99	0.44
1:A:111:ARG:HD3	1:A:114:GLN:NE2	2.32	0.44
1:A:194:PRO:HB2	1:A:198:MET:HE1	1.98	0.44
1:B:185:LEU:CD1	1:B:201:ALA:HB1	2.41	0.44
1:A:136:ILE:HG23	1:A:150:ARG:NH2	2.32	0.44
1:A:181:CYS:SG	1:A:205:TRP:CD1	3.10	0.44
1:C:194:PRO:O	1:C:198:MET:SD	2.75	0.44
1:A:144:TYR:O	1:A:148:VAL:HG23	2.17	0.44
1:A:151:LEU:HD13	1:A:172:LEU:HB3	1.98	0.44
1:C:138:GLN:CG	1:C:142:GLU:HB2	2.48	0.44
1:A:181:CYS:SG	1:A:205:TRP:CD2	3.11	0.44
1:C:38:MET:O	1:C:42:ARG:HG3	2.17	0.44
1:C:185:LEU:O	1:C:188:ARG:CG	2.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:90:TYR:CD1	1:A:97:LEU:HD12	2.53	0.43
1:B:189:GLY:O	1:B:194:PRO:HA	2.18	0.43
1:C:66:LEU:O	1:C:70:LEU:HD22	2.19	0.43
1:A:155:LEU:HD22	1:A:159:LEU:CD1	2.48	0.42
1:C:82:ALA:HB1	1:C:87:ILE:HD11	1.99	0.42
1:A:184:LEU:C	1:A:185:LEU:HD23	2.40	0.42
1:B:133:TRP:CE3	1:B:172:LEU:HD21	2.55	0.42
1:B:200:ARG:HG3	1:B:200:ARG:HH11	1.85	0.42
1:C:121:PHE:CD1	1:C:124:LEU:HD12	2.55	0.42
1:C:151:LEU:HD21	1:C:172:LEU:HB3	2.01	0.42
1:A:82:ALA:CB	1:A:87:ILE:HD11	2.49	0.41
1:B:71:HIS:HA	1:B:124:LEU:HD21	2.02	0.41
1:C:165:LYS:O	1:C:168:ILE:N	2.53	0.41
1:A:145:HIS:NE2	1:A:146:THR:HG23	2.35	0.41
1:B:185:LEU:CD1	1:B:201:ALA:CB	2.98	0.41
1:A:181:CYS:SG	1:A:205:TRP:NE1	2.92	0.41
1:C:185:LEU:CD1	1:C:198:MET:HB3	2.51	0.41
1:C:140:LEU:N	1:C:140:LEU:HD23	2.35	0.41
1:C:149:GLU:O	1:C:153:VAL:HG12	2.21	0.41
1:C:177:ALA:HB1	1:C:181:CYS:HB2	2.02	0.41
1:A:147:PHE:HE2	1:A:150:ARG:HH21	1.69	0.40
1:B:96:PRO:O	1:B:99:VAL:HG12	2.21	0.40
1:C:195:LEU:O	1:C:198:MET:SD	2.80	0.40

There are no symmetry-related clashes.

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	202/214 (94%)	194 (96%)	8 (4%)	0	100	100
1	B	202/214 (94%)	190 (94%)	12 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	C	202/214 (94%)	194 (96%)	8 (4%)	0	100	100
All	All	606/642 (94%)	578 (95%)	28 (5%)	0	100	100

There are no Ramachandran outliers to report.

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	174/182 (96%)	171 (98%)	3 (2%)	60	71
1	B	174/182 (96%)	170 (98%)	4 (2%)	50	59
1	C	175/182 (96%)	171 (98%)	4 (2%)	50	59
All	All	523/546 (96%)	512 (98%)	11 (2%)	53	62

All (11) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	25	GLN
1	A	176	ASN
1	A	198	MET
1	B	25	GLN
1	B	28	SER
1	B	83	GLU
1	B	147	PHE
1	C	130	ASP
1	C	147	PHE
1	C	150	ARG
1	C	198	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (6) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	39	GLN

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Mol	Chain	Res	Type
1	A	114	GLN
1	A	176	ASN
1	B	152	ASN
1	C	106	GLN
1	C	114	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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 monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

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, 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	206/214 (96%)	1.90	58 (28%) 0 0	36, 72, 229, 265	0
1	B	206/214 (96%)	1.73	49 (23%) 0 0	38, 72, 216, 252	0
1	C	206/214 (96%)	2.22	56 (27%) 0 0	37, 72, 240, 284	0
All	All	618/642 (96%)	1.95	163 (26%) 0 0	36, 72, 232, 284	0

All (163) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	191	THR	32.5
1	B	195	LEU	26.3
1	C	192	ASN	22.1
1	C	177	ALA	19.5
1	A	192	ASN	19.5
1	A	190	HIS	19.2
1	C	189	GLY	18.7
1	C	193	SER	18.1
1	C	190	HIS	17.8
1	B	191	THR	16.6
1	C	207	PRO	14.8
1	C	206	THR	14.5
1	A	188	ARG	13.8
1	B	140	LEU	13.6
1	A	189	GLY	12.7
1	A	7	GLY	12.5
1	A	193	SER	12.1
1	C	204	ALA	11.7
1	C	205	TRP	11.3
1	C	140	LEU	11.0
1	C	141	GLU	10.6
1	C	188	ARG	10.2
1	A	141	GLU	9.3

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Mol	Chain	Res	Type	RSRZ
1	B	207	PRO	8.8
1	B	200	ARG	8.4
1	B	188	ARG	8.4
1	A	185	LEU	8.1
1	A	191	THR	8.0
1	A	187	ALA	7.9
1	B	174	TYR	7.8
1	C	145	HIS	7.6
1	B	202	CYS	7.6
1	C	200	ARG	7.6
1	A	207	PRO	7.5
1	B	192	ASN	7.4
1	B	177	ALA	7.4
1	A	6	HIS	7.4
1	C	178	ASN	7.4
1	C	197	ASP	7.4
1	B	139	GLY	7.0
1	B	190	HIS	6.9
1	A	181	CYS	6.8
1	B	7	GLY	6.6
1	C	203	GLN	6.6
1	C	137	LEU	6.6
1	C	142	GLU	6.4
1	C	187	ALA	6.3
1	C	144	TYR	6.3
1	B	204	ALA	6.2
1	B	153	VAL	5.7
1	A	144	TYR	5.6
1	B	138	GLN	5.5
1	A	177	ALA	5.5
1	B	197	ASP	5.5
1	B	189	GLY	5.4
1	C	195	LEU	5.4
1	C	185	LEU	5.4
1	B	184	LEU	5.3
1	A	202	CYS	5.3
1	A	180	GLU	5.2
1	B	205	TRP	5.2
1	A	200	ARG	5.2
1	A	205	TRP	5.1
1	A	145	HIS	5.1
1	A	195	LEU	5.0

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Mol	Chain	Res	Type	RSRZ
1	C	138	GLN	5.0
1	B	206	THR	5.0
1	A	184	LEU	4.9
1	B	185	LEU	4.8
1	B	173	ALA	4.8
1	C	148	VAL	4.7
1	C	139	GLY	4.7
1	B	144	TYR	4.7
1	A	174	TYR	4.6
1	C	199	LEU	4.6
1	B	141	GLU	4.6
1	A	140	LEU	4.5
1	A	178	ASN	4.4
1	C	146	THR	4.4
1	A	203	GLN	4.4
1	B	6	HIS	4.4
1	A	143	PRO	4.3
1	C	201	ALA	4.2
1	A	162	GLY	4.2
1	B	196	GLY	4.2
1	C	196	GLY	4.2
1	A	139	GLY	4.1
1	B	193	SER	4.1
1	A	199	LEU	4.1
1	C	180	GLU	4.1
1	B	203	GLN	4.1
1	C	202	CYS	4.1
1	B	145	HIS	4.0
1	A	127	SER	4.0
1	A	206	THR	4.0
1	A	133	TRP	4.0
1	C	173	ALA	3.9
1	B	199	LEU	3.8
1	C	184	LEU	3.8
1	B	146	THR	3.8
1	A	129	LYS	3.7
1	A	204	ALA	3.7
1	B	181	CYS	3.6
1	A	168	ILE	3.6
1	C	136	ILE	3.6
1	B	137	LEU	3.6
1	C	143	PRO	3.5

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Mol	Chain	Res	Type	RSRZ
1	B	187	ALA	3.5
1	A	148	VAL	3.4
1	A	142	GLU	3.4
1	A	163	THR	3.4
1	B	198	MET	3.4
1	C	168	ILE	3.3
1	C	174	TYR	3.3
1	B	127	SER	3.2
1	B	168	ILE	3.2
1	B	178	ASN	3.2
1	A	146	THR	3.2
1	C	147	PHE	3.2
1	A	147	PHE	3.1
1	C	172	LEU	3.0
1	A	198	MET	3.0
1	C	150	ARG	3.0
1	A	186	GLN	3.0
1	A	131	PRO	2.9
1	B	128	ALA	2.9
1	A	196	GLY	2.9
1	A	130	ASP	2.9
1	A	164	PRO	2.9
1	C	6	HIS	2.8
1	A	167	PRO	2.8
1	C	135	SER	2.7
1	B	130	ASP	2.7
1	C	186	GLN	2.7
1	C	176	ASN	2.6
1	A	155	LEU	2.6
1	B	150	ARG	2.6
1	B	123	ALA	2.6
1	B	143	PRO	2.5
1	A	197	ASP	2.5
1	C	194	PRO	2.5
1	A	124	LEU	2.5
1	B	133	TRP	2.4
1	A	172	LEU	2.4
1	C	89	GLY	2.4
1	A	169	LEU	2.4
1	C	167	PRO	2.3
1	C	130	ASP	2.3
1	C	162	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
1	B	182	GLN	2.3
1	B	194	PRO	2.2
1	C	66	LEU	2.1
1	B	85	ARG	2.1
1	A	173	ALA	2.1
1	C	175	SER	2.1
1	C	181	CYS	2.1
1	B	73	GLN	2.1
1	A	161	GLU	2.1
1	A	170	ARG	2.0
1	A	125	PRO	2.0
1	A	160	PRO	2.0
1	C	131	PRO	2.0
1	C	123	ALA	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](#)

There are no ligands in this entry.

6.5 Other polymers [i](#)

There are no such residues in this entry.