



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 5, 2026 – 12:46 AM UTC

PDB ID : 4CYB / pdb_00004cyb
Title : DpsC from *Streptomyces coelicolor*
Authors : Townsend, P.D.; Hitchings, M.D.; Del Sol, R.; Pohl, E.
Deposited on : 2014-04-10
Resolution : 1.78 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	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

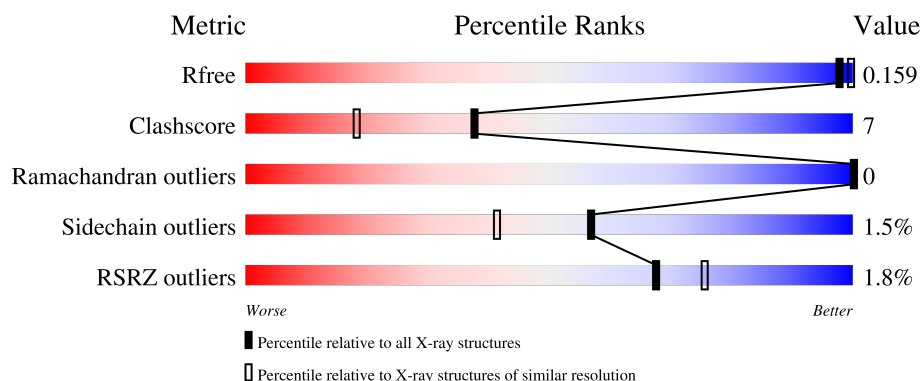
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 1.78 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}	180053	1365 (1.78-1.78)
Clashscore	190562	1395 (1.78-1.78)
Ramachandran outliers	187476	1382 (1.78-1.78)
Sidechain outliers	187428	1382 (1.78-1.78)
RSRZ outliers	180081	1365 (1.78-1.78)

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	173	
1	B	173	
1	C	173	
1	D	173	
1	E	173	

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Mol	Chain	Length	Quality of chain
1	F	173	2% 85% 13% ..
1	G	173	2% 82% 16% ..
1	H	173	2% 84% 14% ..
1	I	173	84% 14% ..
1	J	173	3% 87% 12% .
1	K	173	2% 83% 14% ..
1	L	173	% 83% 16% ..

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 18131 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 PUTATIVE DNA PROTECTION PROTEIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	172	Total	C	N	O	S	0	2	0
			1373	869	238	260	6			
1	B	172	Total	C	N	O	S	0	4	0
			1394	883	245	260	6			
1	C	172	Total	C	N	O	S	0	2	0
			1374	871	238	259	6			
1	D	171	Total	C	N	O	S	0	3	0
			1375	872	237	260	6			
1	E	171	Total	C	N	O	S	0	1	0
			1368	866	238	259	5			
1	F	172	Total	C	N	O	S	0	2	0
			1375	873	238	259	5			
1	G	172	Total	C	N	O	S	0	2	0
			1385	876	242	262	5			
1	H	172	Total	C	N	O	S	0	2	0
			1376	871	239	261	5			
1	I	172	Total	C	N	O	S	0	6	0
			1400	888	243	262	7			
1	J	173	Total	C	N	O	S	0	1	0
			1378	872	240	261	5			
1	K	171	Total	C	N	O	S	0	6	0
			1388	882	238	262	6			
1	L	172	Total	C	N	O	S	0	5	0
			1388	882	239	262	5			

- Molecule 2 is FE (III) ION (CCD ID: FE) (formula: Fe).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	1	Total	Fe	0	0
			1	1		
2	B	1	Total	Fe	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	C	1	Total 1	Fe 1	0	0
2	D	1	Total 1	Fe 1	0	0
2	E	1	Total 1	Fe 1	0	0
2	F	1	Total 1	Fe 1	0	0
2	G	1	Total 1	Fe 1	0	0
2	H	1	Total 1	Fe 1	0	0
2	I	1	Total 1	Fe 1	0	0
2	J	1	Total 1	Fe 1	0	0
2	K	1	Total 1	Fe 1	0	0
2	L	1	Total 1	Fe 1	0	0

- Molecule 3 is SODIUM ION (CCD ID: NA) (formula: Na).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	C	1	Total 1	Na 1	0	0
3	J	1	Total 1	Na 1	0	0
3	K	1	Total 1	Na 1	0	0
3	L	1	Total 1	Na 1	0	0

- Molecule 4 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	145	Total 145	O 145	0	0
4	B	130	Total 130	O 130	0	0
4	C	166	Total 166	O 166	0	0

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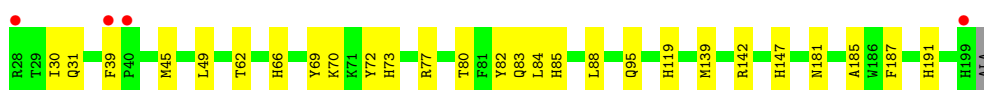
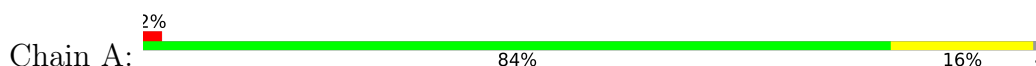
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	D	126	Total 126	O 126	0	0
4	E	136	Total 136	O 136	0	0
4	F	89	Total 89	O 89	0	0
4	G	136	Total 136	O 136	0	0
4	H	101	Total 101	O 101	0	0
4	I	157	Total 157	O 157	0	0
4	J	113	Total 113	O 113	0	0
4	K	140	Total 140	O 140	0	0
4	L	102	Total 102	O 102	0	0

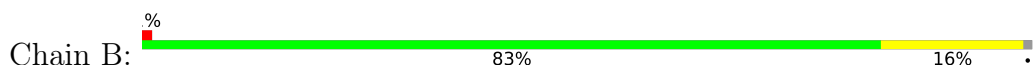
3 Residue-property plots [i](#)

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.

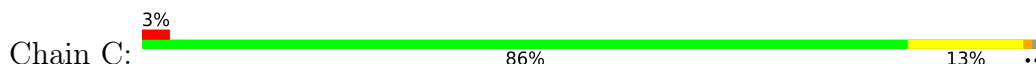
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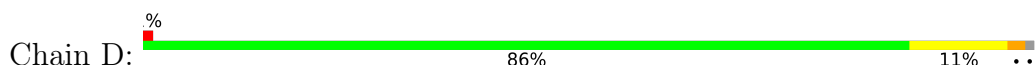
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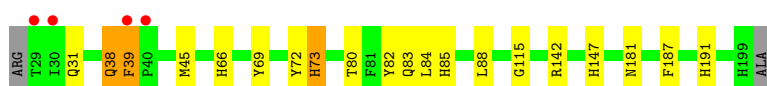
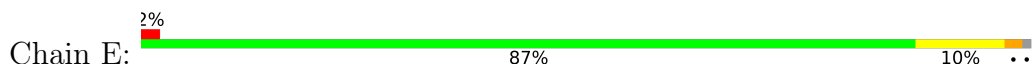
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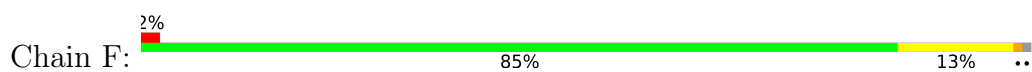
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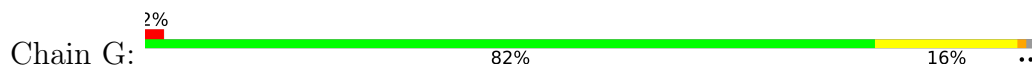
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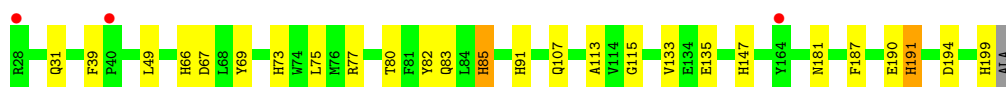
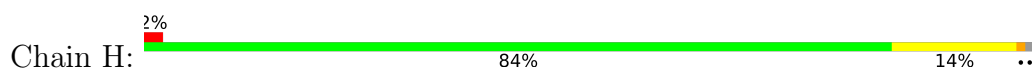
- Molecule 1: PUTATIVE DNA PROTECTION PROTEIN



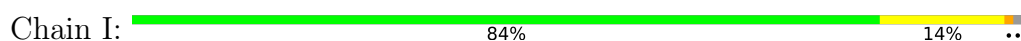
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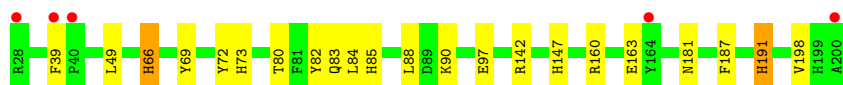
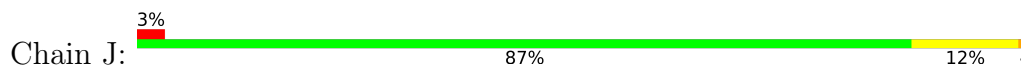
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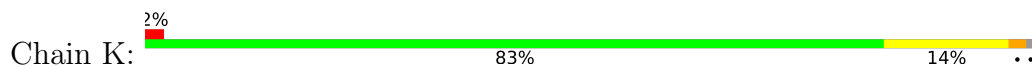
• Molecule 1: PUTATIVE DNA PROTECTION PROTEIN



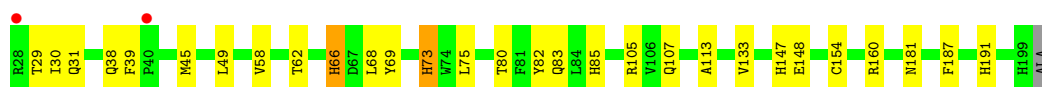
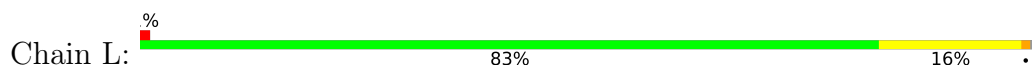
• Molecule 1: PUTATIVE DNA PROTECTION PROTEIN



• Molecule 1: PUTATIVE DNA PROTECTION PROTEIN



• Molecule 1: PUTATIVE DNA PROTECTION PROTEIN



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	92.22Å 153.12Å 170.28Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	153.12 – 1.78 113.86 – 1.78	Depositor EDS
% Data completeness (in resolution range)	100.0 (153.12-1.78) 100.0 (113.86-1.78)	Depositor EDS
R_{merge}	0.07	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.59 (at 1.78Å)	Xtriage
Refinement program	REFMAC 5.6.0117	Depositor
R, R_{free}	0.159 , 0.194 0.160 , 0.159	Depositor DCC
R_{free} test set	11455 reflections (5.01%)	wwPDB-VP
Wilson B-factor (Å ²)	25.9	Xtriage
Anisotropy	0.107	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 27.4	EDS
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.31$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.97	EDS
Total number of atoms	18131	wwPDB-VP
Average B, all atoms (Å ²)	29.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.57% 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 ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: FE, NA

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	1.25	2/1407 (0.1%)	1.02	0/1917
1	B	1.26	1/1434 (0.1%)	1.06	5/1952 (0.3%)
1	C	1.28	2/1408 (0.1%)	1.04	1/1919 (0.1%)
1	D	1.31	8/1412 (0.6%)	1.00	1/1924 (0.1%)
1	E	1.22	1/1399 (0.1%)	1.03	1/1906 (0.1%)
1	F	1.27	5/1409 (0.4%)	1.05	1/1921 (0.1%)
1	G	1.28	3/1419 (0.2%)	1.07	2/1932 (0.1%)
1	H	1.20	4/1410 (0.3%)	1.08	2/1921 (0.1%)
1	I	1.21	2/1446 (0.1%)	1.03	2/1968 (0.1%)
1	J	1.25	4/1409 (0.3%)	1.02	1/1920 (0.1%)
1	K	1.31	4/1434 (0.3%)	1.07	0/1954
1	L	1.31	4/1431 (0.3%)	1.06	1/1951 (0.1%)
All	All	1.26	40/17018 (0.2%)	1.04	17/23185 (0.1%)

All (40) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	115	GLY	N-CA	7.21	1.50	1.45
1	D	115	GLY	N-CA	7.17	1.50	1.45
1	B	136	VAL	CA-CB	7.08	1.57	1.54
1	K	191	HIS	ND1-CE1	6.87	1.39	1.32
1	K	66	HIS	ND1-CE1	6.83	1.39	1.32
1	L	66	HIS	ND1-CE1	6.58	1.39	1.32
1	J	85	HIS	ND1-CE1	6.54	1.39	1.32
1	D	73	HIS	CE1-NE2	6.32	1.38	1.32
1	D	85	HIS	CG-CD2	6.26	1.42	1.35
1	G	191	HIS	ND1-CE1	6.15	1.38	1.32
1	D	191	HIS	ND1-CE1	6.08	1.38	1.32
1	H	115	GLY	N-CA	6.06	1.49	1.45
1	J	191	HIS	ND1-CE1	5.90	1.38	1.32
1	G	91	HIS	CG-CD2	5.86	1.42	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	115	GLY	N-CA	5.83	1.49	1.45
1	D	119	HIS	CE1-NE2	5.82	1.38	1.32
1	A	119	HIS	CG-CD2	5.76	1.42	1.35
1	I	199	HIS	CG-CD2	5.75	1.42	1.35
1	D	85	HIS	ND1-CE1	5.66	1.38	1.32
1	H	199	HIS	CG-CD2	5.62	1.42	1.35
1	J	73	HIS	ND1-CE1	5.58	1.38	1.32
1	J	66	HIS	ND1-CE1	5.57	1.38	1.32
1	L	68	LEU	N-CA	5.55	1.53	1.46
1	F	155	HIS	CG-CD2	5.54	1.42	1.35
1	A	185	ALA	N-CA	5.53	1.53	1.46
1	I	73	HIS	CG-CD2	5.52	1.42	1.35
1	C	91	HIS	ND1-CE1	5.50	1.38	1.32
1	G	91	HIS	CE1-NE2	5.45	1.38	1.32
1	L	73	HIS	CG-CD2	5.36	1.41	1.35
1	F	74	TRP	CD2-CE2	5.35	1.50	1.41
1	H	191	HIS	ND1-CE1	5.34	1.37	1.32
1	F	73	HIS	CG-CD2	5.26	1.41	1.35
1	F	199	HIS	CG-CD2	5.23	1.41	1.35
1	K	119	HIS	CG-CD2	5.22	1.41	1.35
1	E	73	HIS	CG-CD2	5.20	1.41	1.35
1	H	91	HIS	ND1-CE1	5.20	1.37	1.32
1	K	73	HIS	CG-CD2	5.17	1.41	1.35
1	D	64	ILE	CA-CB	5.15	1.61	1.54
1	D	73	HIS	CG-CD2	5.04	1.41	1.35
1	L	105	ARG	N-CA	5.02	1.52	1.46

All (17) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	115	GLY	N-CA-C	7.63	117.16	110.21
1	F	115	GLY	N-CA-C	7.55	117.08	110.21
1	G	195	THR	CA-C-N	-6.37	113.42	119.85
1	G	195	THR	C-N-CA	-6.37	113.42	119.85
1	E	115	GLY	N-CA-C	5.85	115.53	110.21
1	I	136	VAL	CA-C-N	-5.59	113.86	119.56
1	I	136	VAL	C-N-CA	-5.59	113.86	119.56
1	L	154	CYS	CB-CA-C	-5.43	101.77	110.79
1	H	85	HIS	N-CA-C	-5.42	105.27	111.07
1	B	136	VAL	CA-C-N	-5.36	114.15	119.56
1	B	136	VAL	C-N-CA	-5.36	114.15	119.56
1	B	195	THR	CB-CA-C	5.34	117.72	108.91

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	115	GLY	N-CA-C	5.31	115.04	110.21
1	B	195	THR	CA-C-N	-5.27	114.33	119.76
1	B	195	THR	C-N-CA	-5.27	114.33	119.76
1	C	160	ARG	N-CA-C	5.18	116.62	111.07
1	J	90	LYS	N-CA-C	-5.12	105.59	111.07

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	1373	0	1361	30	0
1	B	1394	0	1397	30	0
1	C	1374	0	1365	21	0
1	D	1375	0	1369	18	0
1	E	1368	0	1357	27	0
1	F	1375	0	1369	20	0
1	G	1385	0	1376	27	0
1	H	1376	0	1364	32	0
1	I	1400	0	1406	29	0
1	J	1378	0	1364	20	0
1	K	1388	0	1391	33	0
1	L	1388	0	1389	31	0
2	A	1	0	0	0	0
2	B	1	0	0	0	0
2	C	1	0	0	0	0
2	D	1	0	0	0	0
2	E	1	0	0	0	0
2	F	1	0	0	0	0
2	G	1	0	0	0	0
2	H	1	0	0	0	0
2	I	1	0	0	0	0
2	J	1	0	0	0	0
2	K	1	0	0	0	0
2	L	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	C	1	0	0	0	0
3	J	1	0	0	0	0
3	K	1	0	0	0	0
3	L	1	0	0	0	0
4	A	145	0	0	1	0
4	B	130	0	0	4	0
4	C	166	0	0	3	0
4	D	126	0	0	1	0
4	E	136	0	0	3	0
4	F	89	0	0	1	0
4	G	136	0	0	3	0
4	H	101	0	0	2	0
4	I	157	0	0	3	0
4	J	113	0	0	2	0
4	K	140	0	0	5	0
4	L	102	0	0	4	0
All	All	18131	0	16508	231	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 7.

All (231) 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:I:36:VAL:HG23	1:I:45[A]:MET:SD	1.93	1.08
1:C:194:ASP:HB2	1:K:198:VAL:HG11	1.45	0.94
1:I:36:VAL:CG2	1:I:45[A]:MET:SD	2.68	0.81
4:B:2117:HOH:O	1:K:41:VAL:HG11	1.80	0.81
1:K:31:GLN:HB3	1:L:133[A]:VAL:HG12	1.69	0.74
1:E:69:TYR:OH	1:E:147:HIS:HE1	1.71	0.74
1:E:31:GLN:HB3	1:F:133[A]:VAL:CG1	2.18	0.74
1:B:160[B]:ARG:HD2	4:B:2100:HOH:O	1.87	0.73
1:D:69:TYR:OH	1:D:147:HIS:HE1	1.74	0.71
1:I:69:TYR:OH	1:I:147:HIS:HE1	1.76	0.68
1:K:133[A]:VAL:HG12	1:L:31:GLN:HB3	1.76	0.68
1:A:69:TYR:OH	1:A:147:HIS:HE1	1.77	0.68
1:E:45:MET:HE3	4:E:2007:HOH:O	1.93	0.67
1:J:97:GLU:HG3	4:J:2055:HOH:O	1.94	0.67
1:K:31:GLN:HB3	1:L:133[A]:VAL:CG1	2.24	0.67
1:L:69:TYR:OH	1:L:147:HIS:HE1	1.77	0.67
1:J:69:TYR:OH	1:J:147:HIS:HE1	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:83[A]:GLN:CB	1:H:83[A]:GLN:HE21	2.07	0.67
4:H:2096:HOH:O	1:J:198:VAL:HG13	1.94	0.66
1:K:69:TYR:OH	1:K:147:HIS:HE1	1.78	0.66
1:A:83:GLN:H	1:D:83:GLN:HE21	1.43	0.66
1:C:194:ASP:HB2	1:K:198:VAL:CG1	2.21	0.66
1:K:133[A]:VAL:CG1	1:L:31:GLN:HB3	2.27	0.64
1:C:194:ASP:CB	1:K:198:VAL:HG11	2.26	0.64
1:H:147:HIS:HD2	1:H:181:ASN:OD1	1.80	0.64
1:A:147:HIS:HD2	1:A:181:ASN:OD1	1.80	0.64
1:L:62[A]:THR:HG22	4:L:2027:HOH:O	1.98	0.64
1:G:97[A]:GLU:HG3	4:G:2072:HOH:O	1.97	0.63
1:B:147:HIS:HD2	1:B:181:ASN:OD1	1.82	0.63
1:F:69:TYR:OH	1:F:147:HIS:HE1	1.82	0.63
1:C:69:TYR:OH	1:C:147:HIS:HE1	1.80	0.63
1:F:147:HIS:HD2	1:F:181:ASN:OD1	1.82	0.63
1:H:107:GLN:NE2	1:H:113:ALA:H	1.97	0.62
1:B:69:TYR:OH	1:B:147:HIS:HE1	1.81	0.62
1:I:147:HIS:HD2	1:I:181:ASN:OD1	1.83	0.62
1:L:107:GLN:NE2	1:L:113:ALA:H	1.98	0.61
1:G:69:TYR:OH	1:G:147:HIS:HE1	1.84	0.61
1:A:31:GLN:HB3	1:B:133[A]:VAL:HG12	1.81	0.61
1:E:31:GLN:HB3	1:F:133[A]:VAL:HG12	1.83	0.60
1:G:83:GLN:HE22	1:K:80:THR:HA	1.66	0.60
1:I:153:GLU:HG3	4:I:2043:HOH:O	2.01	0.60
1:B:28:ARG:N	4:B:2001:HOH:O	2.35	0.59
1:G:147:HIS:HD2	1:G:181:ASN:OD1	1.85	0.59
1:H:69:TYR:OH	1:H:147:HIS:HE1	1.85	0.59
1:E:147:HIS:HD2	1:E:181:ASN:OD1	1.85	0.59
1:J:160:ARG:NH2	1:J:163:GLU:OE2	2.29	0.59
1:A:73:HIS:CE1	1:A:85:HIS:CE1	2.91	0.59
1:C:147:HIS:HD2	1:C:181:ASN:OD1	1.86	0.58
1:A:83:GLN:H	1:D:83:GLN:NE2	2.01	0.58
1:D:147:HIS:HD2	1:D:181:ASN:OD1	1.86	0.58
1:A:191:HIS:CE1	1:F:82:TYR:H	2.22	0.58
1:G:77:ARG:HH12	1:H:31:GLN:HE21	1.50	0.57
1:E:83[A]:GLN:HB2	1:H:83[A]:GLN:HE21	1.69	0.57
1:J:147:HIS:HD2	1:J:181:ASN:OD1	1.87	0.57
1:I:83[A]:GLN:H	1:L:83[A]:GLN:HE21	1.52	0.57
1:L:147:HIS:HD2	1:L:181:ASN:OD1	1.87	0.57
1:L:187:PHE:O	1:L:191:HIS:HD2	1.88	0.57
1:E:83[B]:GLN:H	1:H:83[B]:GLN:NE2	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:72:TYR:OH	1:K:142:ARG:HD2	2.05	0.57
1:C:83:GLN:HE22	1:G:80:THR:HA	1.69	0.56
1:E:83[B]:GLN:HE21	1:E:191:HIS:HE1	1.54	0.55
1:A:30:ILE:HG13	1:B:133[A]:VAL:HG13	1.88	0.55
1:G:36:VAL:HG13	1:G:49:LEU:HD23	1.89	0.55
1:H:80:THR:HA	1:J:83[A]:GLN:HE22	1.71	0.55
1:K:187:PHE:O	1:K:191:HIS:HD2	1.90	0.55
1:B:187:PHE:O	1:B:191:HIS:HD2	1.89	0.55
1:F:73:HIS:CE1	1:F:85:HIS:CE1	2.94	0.55
1:L:75:LEU:HD13	1:L:133[B]:VAL:HG22	1.89	0.54
1:A:84:LEU:O	1:A:88:LEU:HG	2.07	0.54
1:B:83[B]:GLN:OE1	1:L:83[B]:GLN:OE1	2.26	0.54
1:D:75:LEU:HD13	1:D:133:VAL:HG22	1.89	0.54
1:E:83[A]:GLN:H	1:H:83[A]:GLN:NE2	2.05	0.54
1:A:31:GLN:HB3	1:B:133[A]:VAL:CG1	2.38	0.54
1:E:31:GLN:HB3	1:F:133[A]:VAL:HG11	1.86	0.54
1:B:80:THR:HA	1:I:83[A]:GLN:HE22	1.72	0.54
1:I:160:ARG:NH1	4:I:2143:HOH:O	2.24	0.53
1:K:147:HIS:HD2	1:K:181:ASN:OD1	1.91	0.53
1:B:191:HIS:CE1	1:L:82:TYR:H	2.26	0.53
1:E:191:HIS:CE1	1:J:82:TYR:H	2.26	0.53
1:G:77:ARG:HH12	1:H:31:GLN:NE2	2.06	0.53
1:H:107:GLN:HE22	1:H:113:ALA:H	1.55	0.53
1:J:187:PHE:O	1:J:191:HIS:HD2	1.92	0.53
1:A:66:HIS:HE1	4:A:2020:HOH:O	1.91	0.53
1:E:83[A]:GLN:H	1:H:83[A]:GLN:HE21	1.57	0.53
1:H:194:ASP:HB2	1:J:198:VAL:HG11	1.89	0.53
1:C:56:ASN:OD1	1:C:114[A]:VAL:HG23	2.08	0.53
1:C:97:GLU:O	1:C:101:THR:HG23	2.09	0.53
1:K:38:GLN:CG	4:K:2008:HOH:O	2.56	0.53
1:D:73:HIS:CE1	1:D:85:HIS:CE1	2.97	0.52
1:F:66:HIS:HE1	4:F:2015:HOH:O	1.92	0.52
1:G:187:PHE:O	1:G:191:HIS:HD2	1.92	0.52
1:H:66:HIS:HE1	4:H:2016:HOH:O	1.92	0.52
1:H:187:PHE:O	1:H:191:HIS:HD2	1.92	0.52
1:A:72:TYR:OH	1:A:142:ARG:HD2	2.09	0.52
1:K:66:HIS:HE1	4:K:2022:HOH:O	1.92	0.52
1:I:83[A]:GLN:H	1:L:83[A]:GLN:NE2	2.07	0.52
1:A:82:TYR:H	1:D:191:HIS:CE1	2.29	0.51
1:D:187:PHE:O	1:D:191:HIS:HD2	1.92	0.51
1:H:83[B]:GLN:H	1:J:83[B]:GLN:NE2	2.08	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:80:THR:HA	1:D:83:GLN:HE22	1.74	0.51
1:C:66:HIS:HE1	4:C:2017:HOH:O	1.92	0.51
1:I:80:THR:HA	1:L:83[A]:GLN:HE22	1.76	0.51
1:K:149:LEU:C	1:K:149:LEU:HD23	2.35	0.51
1:L:66:HIS:HE1	4:L:2020:HOH:O	1.93	0.51
1:A:62:THR:HG23	1:A:95:GLN:NE2	2.26	0.51
1:F:187:PHE:O	1:F:191:HIS:HD2	1.94	0.51
1:G:73:HIS:CE1	1:G:85:HIS:CE1	2.99	0.51
1:L:58:VAL:O	1:L:62[A]:THR:HG23	2.11	0.51
1:G:66:HIS:HE1	4:G:2019:HOH:O	1.94	0.51
1:A:83:GLN:HE22	1:F:80:THR:HA	1.76	0.51
1:E:80:THR:C	1:H:83[B]:GLN:HE22	2.18	0.51
1:I:187:PHE:O	1:I:191:HIS:HD2	1.93	0.51
1:C:137:PRO:HB2	1:K:199:HIS:CE1	2.46	0.51
1:F:56:ASN:OD1	1:F:114[A]:VAL:HG23	2.11	0.51
1:E:66:HIS:HE1	4:E:2017:HOH:O	1.94	0.50
1:C:73:HIS:CE1	1:C:85:HIS:CE1	2.99	0.50
1:G:84:LEU:O	1:G:88:LEU:HG	2.10	0.50
1:H:66:HIS:HD2	1:H:67:ASP:OD1	1.94	0.50
1:B:116:ASP:CG	1:B:117:PRO:HD2	2.37	0.50
1:F:72:TYR:OH	1:F:142:ARG:HD2	2.12	0.50
1:G:191:HIS:CE1	1:K:82:TYR:H	2.30	0.49
1:A:62:THR:HG23	1:A:95:GLN:HE21	1.77	0.49
1:I:66:HIS:HE1	4:I:2028:HOH:O	1.95	0.49
1:L:73:HIS:CE1	1:L:85:HIS:CE1	3.00	0.49
1:C:187:PHE:O	1:C:191:HIS:HD2	1.96	0.49
1:K:73:HIS:CE1	1:K:85:HIS:CE1	3.01	0.49
1:B:80:THR:HA	1:I:83[B]:GLN:HE22	1.76	0.49
1:D:82:TYR:H	1:F:191:HIS:CE1	2.31	0.49
1:I:82:TYR:H	1:L:191:HIS:CE1	2.30	0.49
1:E:83[B]:GLN:HE22	1:J:80:THR:HA	1.78	0.48
1:K:30:ILE:HG12	1:L:133[A]:VAL:HG13	1.94	0.48
1:B:72:TYR:OH	1:B:142:ARG:HD2	2.13	0.48
1:G:28:ARG:NH1	1:H:135:GLU:OE2	2.46	0.48
1:E:187:PHE:O	1:E:191:HIS:HD2	1.97	0.48
1:B:160[B]:ARG:NH2	1:B:163:GLU:OE2	2.47	0.48
1:H:80:THR:C	1:J:83[B]:GLN:HE22	2.22	0.47
1:I:73:HIS:CE1	1:I:85:HIS:CE1	3.02	0.47
1:H:82:TYR:H	1:J:191:HIS:CE1	2.33	0.47
1:K:38:GLN:HG3	4:K:2008:HOH:O	2.13	0.47
1:B:73:HIS:CE1	1:B:85:HIS:CE1	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:72:TYR:OH	1:E:142:ARG:HD2	2.14	0.47
1:E:80:THR:HA	1:H:83[A]:GLN:HE22	1.80	0.47
1:A:83:GLN:HB3	1:D:83:GLN:HE21	1.79	0.47
1:B:83[B]:GLN:HE22	1:L:80:THR:HA	1.78	0.47
1:B:80:THR:C	1:I:83[B]:GLN:HE22	2.22	0.47
1:A:69:TYR:OH	1:A:147:HIS:CE1	2.65	0.47
1:C:101:THR:HG22	4:C:2085:HOH:O	2.14	0.47
1:F:49:LEU:HD13	1:F:49:LEU:O	2.15	0.47
1:K:198:VAL:HG12	4:K:2138:HOH:O	2.15	0.46
1:I:83[A]:GLN:HB3	1:L:83[A]:GLN:HE21	1.79	0.46
1:K:62:THR:HG22	1:K:99:ILE:HG13	1.98	0.46
1:C:83:GLN:HE21	1:G:83:GLN:HB2	1.79	0.46
1:J:66:HIS:HE1	4:J:2019:HOH:O	1.97	0.46
1:B:83[B]:GLN:H	1:I:83[B]:GLN:NE2	2.14	0.46
1:F:75:LEU:HD13	1:F:133[B]:VAL:HG22	1.98	0.46
1:J:69:TYR:OH	1:J:147:HIS:CE1	2.64	0.46
1:J:84:LEU:O	1:J:88:LEU:HG	2.16	0.46
1:A:83:GLN:NE2	1:F:83:GLN:H	2.14	0.46
1:I:75:LEU:HD13	1:I:133:VAL:HG22	1.98	0.46
1:C:83:GLN:HE21	1:G:83:GLN:H	1.64	0.45
1:A:83:GLN:HE21	1:F:83:GLN:H	1.65	0.45
1:K:30:ILE:CG1	1:L:133[A]:VAL:HG13	2.47	0.45
1:A:83:GLN:CB	1:D:83:GLN:HE21	2.30	0.45
1:G:72:TYR:CE1	1:G:139:MET:HG2	2.52	0.45
1:L:160:ARG:NH1	1:L:160:ARG:HB3	2.32	0.45
1:E:82:TYR:H	1:H:191:HIS:CE1	2.35	0.45
1:D:66:HIS:HE1	4:D:2031:HOH:O	2.00	0.44
1:K:29:THR:HB	4:K:2001:HOH:O	2.17	0.44
1:B:62:THR:HG23	1:B:95:GLN:OE1	2.17	0.44
1:C:191:HIS:CE1	1:G:82:TYR:H	2.34	0.44
1:E:84:LEU:O	1:E:88:LEU:HG	2.18	0.44
1:A:77:ARG:HH12	1:B:31:GLN:HE21	1.66	0.44
1:G:199:HIS:C	4:G:2135:HOH:O	2.60	0.44
1:D:72:TYR:OH	1:D:142:ARG:HD2	2.18	0.44
1:I:49:LEU:HD13	1:I:53[A]:GLN:OE1	2.17	0.44
1:E:73:HIS:CE1	1:E:85:HIS:CE1	3.05	0.44
1:J:72:TYR:OH	1:J:142:ARG:HD2	2.17	0.44
1:E:38:GLN:HE21	1:E:39:PHE:H	1.66	0.44
4:C:2161:HOH:O	1:K:198:VAL:HG13	2.17	0.44
1:B:66:HIS:HE1	4:B:2019:HOH:O	2.00	0.43
1:C:66:HIS:HD2	1:C:67:ASP:OD1	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:45:MET:HE3	1:A:45:MET:HB2	1.92	0.43
1:B:82:TYR:HB3	1:I:83[A]:GLN:HG3	2.01	0.43
1:B:83[A]:GLN:H	1:I:83[A]:GLN:NE2	2.15	0.43
1:A:187:PHE:O	1:A:191:HIS:HD2	2.00	0.43
1:F:84:LEU:O	1:F:88:LEU:HG	2.19	0.43
1:C:117:PRO:HB2	1:D:117:PRO:HB2	1.99	0.43
1:A:30:ILE:CG1	1:B:133[A]:VAL:HG13	2.49	0.43
1:D:149:LEU:O	1:D:153[A]:GLU:HG2	2.18	0.43
1:A:83:GLN:HE21	1:F:83:GLN:CB	2.32	0.43
1:C:82:TYR:H	1:K:191:HIS:CE1	2.37	0.43
1:I:69:TYR:OH	1:I:147:HIS:CE1	2.64	0.43
1:E:83[A]:GLN:CB	1:H:83[A]:GLN:NE2	2.80	0.43
1:K:133[A]:VAL:HG12	1:L:31:GLN:CB	2.47	0.43
1:A:72:TYR:CE1	1:A:139:MET:HG2	2.54	0.42
1:D:190:GLU:HA	1:D:190:GLU:OE1	2.19	0.42
1:E:147:HIS:CD2	1:E:181:ASN:OD1	2.69	0.42
1:H:83[A]:GLN:HB3	1:J:83[A]:GLN:HE21	1.83	0.42
1:H:190:GLU:OE1	1:H:190:GLU:HA	2.19	0.42
1:I:56:ASN:OD1	1:I:114[A]:VAL:HG23	2.20	0.42
1:B:83[A]:GLN:H	1:I:83[A]:GLN:HE21	1.66	0.42
1:H:73:HIS:CE1	1:H:85:HIS:CE1	3.07	0.42
1:B:82:TYR:H	1:I:191:HIS:CE1	2.38	0.42
1:L:107:GLN:HE22	1:L:113:ALA:H	1.65	0.42
1:G:66:HIS:HD2	1:G:67:ASP:OD1	2.02	0.42
1:H:82:TYR:H	1:J:83[B]:GLN:HE21	1.67	0.42
1:E:45:MET:HB2	4:E:2007:HOH:O	2.19	0.42
1:H:83[A]:GLN:H	1:J:83[A]:GLN:HE21	1.68	0.42
1:B:154[B]:CYS:HB3	1:B:178:LEU:HD13	2.00	0.41
1:B:83[A]:GLN:CB	1:I:83[A]:GLN:HE21	2.32	0.41
1:H:75:LEU:HD13	1:H:133:VAL:HG22	2.02	0.41
1:A:82:TYR:H	1:D:191:HIS:HE1	1.66	0.41
1:G:31:GLN:NE2	1:H:77:ARG:HH12	2.17	0.41
1:G:83:GLN:HE21	1:K:83:GLN:CB	2.34	0.41
1:G:83:GLN:NE2	1:K:83:GLN:H	2.19	0.41
1:B:80:THR:CA	1:I:83[B]:GLN:HE22	2.34	0.41
1:L:62[A]:THR:CG2	4:L:2027:HOH:O	2.63	0.41
1:C:75:LEU:HD13	1:C:133:VAL:HG22	2.03	0.41
1:K:31:GLN:CB	1:L:133[A]:VAL:HG12	2.47	0.41
1:K:133[A]:VAL:HG13	1:L:30:ILE:HG13	2.03	0.41
1:L:38:GLN:CD	4:L:2009:HOH:O	2.63	0.41
1:E:69:TYR:OH	1:E:147:HIS:CE1	2.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:62:THR:HG22	1:G:99:ILE:HG13	2.03	0.41
1:A:70:LYS:HD2	1:A:70:LYS:HA	1.94	0.41
1:I:62:THR:HG23	1:I:95:GLN:OE1	2.21	0.41
1:G:72:TYR:OH	1:G:142:ARG:HD2	2.21	0.40
1:F:147:HIS:CD2	1:F:181:ASN:OD1	2.68	0.40
1:C:83:GLN:HE21	1:G:83:GLN:CB	2.33	0.40
1:G:31:GLN:HE21	1:H:77:ARG:HH12	1.67	0.40
1:K:66:HIS:HD2	1:K:67:ASP:OD1	2.04	0.40
1:L:69:TYR:OH	1:L:147:HIS:CE1	2.66	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	172/173 (99%)	170 (99%)	2 (1%)	0	100	100
1	B	174/173 (101%)	171 (98%)	3 (2%)	0	100	100
1	C	172/173 (99%)	171 (99%)	1 (1%)	0	100	100
1	D	172/173 (99%)	171 (99%)	1 (1%)	0	100	100
1	E	170/173 (98%)	167 (98%)	3 (2%)	0	100	100
1	F	172/173 (99%)	167 (97%)	5 (3%)	0	100	100
1	G	172/173 (99%)	169 (98%)	3 (2%)	0	100	100
1	H	172/173 (99%)	170 (99%)	2 (1%)	0	100	100
1	I	176/173 (102%)	175 (99%)	1 (1%)	0	100	100
1	J	172/173 (99%)	171 (99%)	1 (1%)	0	100	100
1	K	175/173 (101%)	171 (98%)	4 (2%)	0	100	100
1	L	175/173 (101%)	171 (98%)	4 (2%)	0	100	100
All	All	2074/2076 (100%)	2044 (99%)	30 (1%)	0	100	100

There are no Ramachandran outliers to report.

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	151/150 (101%)	149 (99%)	2 (1%)	61	46
1	B	154/150 (103%)	152 (99%)	2 (1%)	61	46
1	C	151/150 (101%)	149 (99%)	2 (1%)	61	46
1	D	152/150 (101%)	151 (99%)	1 (1%)	76	66
1	E	150/150 (100%)	148 (99%)	2 (1%)	61	46
1	F	151/150 (101%)	149 (99%)	2 (1%)	61	46
1	G	152/150 (101%)	149 (98%)	3 (2%)	48	29
1	H	151/150 (101%)	149 (99%)	2 (1%)	61	46
1	I	156/150 (104%)	153 (98%)	3 (2%)	50	32
1	J	150/150 (100%)	148 (99%)	2 (1%)	61	46
1	K	155/150 (103%)	153 (99%)	2 (1%)	61	46
1	L	154/150 (103%)	149 (97%)	5 (3%)	34	13
All	All	1827/1800 (102%)	1799 (98%)	28 (2%)	57	41

All (28) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	39	PHE
1	A	49	LEU
1	B	39	PHE
1	B	49	LEU
1	C	39	PHE
1	C	101	THR
1	D	29	THR
1	E	38	GLN
1	E	39	PHE
1	F	29	THR
1	F	49	LEU

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Mol	Chain	Res	Type
1	G	39	PHE
1	G	49	LEU
1	G	160	ARG
1	H	39	PHE
1	H	49	LEU
1	I	49	LEU
1	I	175[A]	SER
1	I	175[B]	SER
1	J	39	PHE
1	J	49	LEU
1	K	37	LYS
1	K	39	PHE
1	L	29	THR
1	L	39	PHE
1	L	45	MET
1	L	49	LEU
1	L	148	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (76) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	66	HIS
1	A	83	GLN
1	A	95	GLN
1	A	147	HIS
1	A	170	ASN
1	A	191	HIS
1	B	31	GLN
1	B	53	GLN
1	B	66	HIS
1	B	147	HIS
1	B	170	ASN
1	B	191	HIS
1	C	53	GLN
1	C	66	HIS
1	C	83	GLN
1	C	147	HIS
1	C	162	GLN
1	C	170	ASN
1	C	191	HIS
1	D	53	GLN
1	D	66	HIS

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Mol	Chain	Res	Type
1	D	83	GLN
1	D	147	HIS
1	D	170	ASN
1	D	191	HIS
1	E	38	GLN
1	E	53	GLN
1	E	66	HIS
1	E	147	HIS
1	E	191	HIS
1	F	38	GLN
1	F	66	HIS
1	F	73	HIS
1	F	147	HIS
1	F	162	GLN
1	F	170	ASN
1	F	191	HIS
1	G	31	GLN
1	G	66	HIS
1	G	83	GLN
1	G	147	HIS
1	G	170	ASN
1	G	191	HIS
1	H	31	GLN
1	H	66	HIS
1	H	85	HIS
1	H	107	GLN
1	H	147	HIS
1	H	170	ASN
1	H	191	HIS
1	I	66	HIS
1	I	73	HIS
1	I	147	HIS
1	I	170	ASN
1	I	191	HIS
1	J	38	GLN
1	J	53	GLN
1	J	66	HIS
1	J	147	HIS
1	J	162	GLN
1	J	170	ASN
1	J	191	HIS
1	K	38	GLN

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Mol	Chain	Res	Type
1	K	66	HIS
1	K	147	HIS
1	K	170	ASN
1	K	181	ASN
1	K	191	HIS
1	L	53	GLN
1	L	66	HIS
1	L	85	HIS
1	L	107	GLN
1	L	147	HIS
1	L	162	GLN
1	L	170	ASN
1	L	191	HIS

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 oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 16 ligands modelled in this entry, 16 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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	172/173 (99%)	-0.18	4 (2%) 61 69	17, 27, 45, 65	2 (1%)
1	B	172/173 (99%)	-0.28	2 (1%) 76 82	12, 25, 41, 68	4 (2%)
1	C	172/173 (99%)	-0.11	6 (3%) 47 53	17, 26, 48, 70	2 (1%)
1	D	171/173 (98%)	-0.40	1 (0%) 85 89	15, 25, 39, 55	3 (1%)
1	E	171/173 (98%)	-0.22	4 (2%) 61 69	14, 27, 45, 65	1 (0%)
1	F	172/173 (99%)	0.07	4 (2%) 61 69	18, 30, 50, 81	2 (1%)
1	G	172/173 (99%)	-0.17	3 (1%) 69 77	17, 26, 45, 70	2 (1%)
1	H	172/173 (99%)	-0.09	3 (1%) 69 77	14, 27, 44, 60	2 (1%)
1	I	172/173 (99%)	-0.46	0 100 100	12, 24, 37, 67	6 (3%)
1	J	173/173 (100%)	-0.31	5 (2%) 53 61	13, 24, 42, 60	1 (0%)
1	K	171/173 (98%)	-0.37	3 (1%) 67 75	15, 23, 39, 78	6 (3%)
1	L	172/173 (99%)	-0.30	2 (1%) 76 82	12, 25, 42, 67	5 (2%)
All	All	2062/2076 (99%)	-0.23	37 (1%) 67 75	12, 26, 45, 81	36 (1%)

All (37) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	K	40	PRO	7.2
1	G	40	PRO	4.8
1	J	40	PRO	4.3
1	B	40	PRO	3.9
1	J	200	ALA	3.8
1	C	40	PRO	3.7
1	B	199	HIS	3.3
1	A	28	ARG	3.3
1	H	28	ARG	3.3
1	F	28	ARG	3.3
1	H	40	PRO	3.2

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Mol	Chain	Res	Type	RSRZ
1	L	28	ARG	3.2
1	E	40	PRO	3.1
1	H	164	TYR	3.0
1	C	39	PHE	2.9
1	K	29	THR	2.9
1	C	41	VAL	2.9
1	A	40	PRO	2.8
1	C	28	ARG	2.8
1	A	39	PHE	2.7
1	J	164	TYR	2.6
1	E	30	ILE	2.6
1	L	40	PRO	2.5
1	J	28	ARG	2.5
1	D	29	THR	2.5
1	J	39	PHE	2.4
1	F	164	TYR	2.4
1	C	164	TYR	2.3
1	G	164	TYR	2.3
1	F	38	GLN	2.2
1	C	30	ILE	2.2
1	E	29	THR	2.2
1	F	29	THR	2.2
1	G	39	PHE	2.1
1	A	199	HIS	2.1
1	K	38	GLN	2.1
1	E	39	PHE	2.1

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 oligosaccharides in this entry.

6.4 Ligands [\(i\)](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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	B-factors($\text{\AA}^2$)	Q<0.9
3	NA	J	1300	1/1	0.98	0.08	28,28,28,28	0
3	NA	K	1300	1/1	0.98	0.06	23,23,23,23	0
2	FE	D	1200	1/1	0.99	0.06	13,13,13,13	1
2	FE	H	1200	1/1	0.99	0.07	15,15,15,15	1
3	NA	C	1300	1/1	0.99	0.05	27,27,27,27	0
2	FE	B	1200	1/1	0.99	0.06	17,17,17,17	1
2	FE	C	1200	1/1	0.99	0.06	18,18,18,18	1
3	NA	L	1300	1/1	0.99	0.04	27,27,27,27	0
2	FE	I	1200	1/1	1.00	0.06	14,14,14,14	1
2	FE	J	1201	1/1	1.00	0.07	14,14,14,14	1
2	FE	K	1200	1/1	1.00	0.04	14,14,14,14	1
2	FE	L	1200	1/1	1.00	0.07	13,13,13,13	1
2	FE	E	1200	1/1	1.00	0.04	18,18,18,18	1
2	FE	F	1200	1/1	1.00	0.05	17,17,17,17	1
2	FE	G	1200	1/1	1.00	0.05	16,16,16,16	1
2	FE	A	1200	1/1	1.00	0.07	15,15,15,15	1

6.5 Other polymers [i](#)

There are no such residues in this entry.