Full wwPDB X-ray Structure Validation Report (i)

Oct 29, 2024 – 04:18 AM EDT

PDB ID	:	3KKC
Title	:	The crystal structure OF TetR transcriptional regulator from Streptococcus agalactiae 2603V
Authors	:	Tan, K.; Hatzos, C.; Morgan, T.; Clancy, S.; Joachimiak, A.; Midwest Center for Structural Genomics (MCSG)
Deposited on	:	2009-11-05
Resolution	:	2.50 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 (i) 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 (i)) were used in the production of this report:

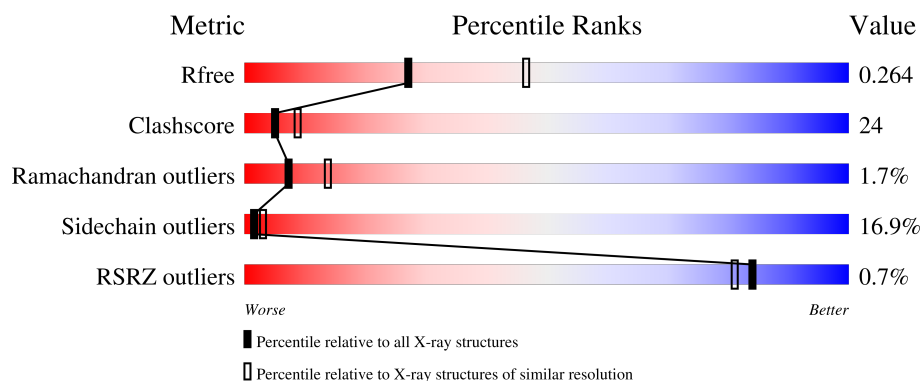|		
MolProbity	:	4.02b-467
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	1.20.1
EDS	:	3.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.003 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

1 Overall quality at a glance ⓘ

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

The reported resolution of this entry is 2.50 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	Percentile Ranks	Value
Rfree		0.264
Clashscore		24
Ramachandran outliers		1.7%
Sidechain outliers		16.9%
RSRZ outliers		0.7%

Worse *Better*

▮ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R$_{free}$	164625	5504 (2.50-2.50)
Clashscore	180529	6282 (2.50-2.50)
Ramachandran outliers	177936	6191 (2.50-2.50)
Sidechain outliers	177891	6193 (2.50-2.50)
RSRZ outliers	164620	5504 (2.50-2.50)

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

Mol	Chain	Length	Quality of chain
1	A	177	54% 38% 8%
1	B	177	53% 38% 8%
1	C	177	54% 34% 10% ••
1	D	177	53% 37% 10% •

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	IMD	A	211	-	-	X	-
3	IMD	A	212	-	-	X	-
3	IMD	A	213	-	-	X	-
3	IMD	B	211	-	-	X	-
3	IMD	B	212	-	-	X	-
3	IMD	C	211	-	-	X	-
3	IMD	C	212	-	-	X	-
3	IMD	C	213	-	-	X	-
3	IMD	D	213	-	-	X	-

2 Entry composition ⓘ

There are 4 unique types of molecules in this entry. The entry contains 6079 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 TetR family Transcriptional regulator.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	177	Total	C	N	O	S	Se	0	0	0
			1506	976	248	278	1	3			
1	B	177	Total	C	N	O	S	Se	0	0	0
			1506	976	248	278	1	3			
1	C	176	Total	C	N	O	S	Se	0	0	0
			1500	973	247	276	1	3			
1	D	176	Total	C	N	O	S	Se	0	0	0
			1500	973	247	276	1	3			

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-2	SER	-	expression tag	UNP Q8E1C6
A	-1	ASN	-	expression tag	UNP Q8E1C6
A	0	ALA	-	expression tag	UNP Q8E1C6
B	-2	SER	-	expression tag	UNP Q8E1C6
B	-1	ASN	-	expression tag	UNP Q8E1C6
B	0	ALA	-	expression tag	UNP Q8E1C6
C	-2	SER	-	expression tag	UNP Q8E1C6
C	-1	ASN	-	expression tag	UNP Q8E1C6
C	0	ALA	-	expression tag	UNP Q8E1C6
D	-2	SER	-	expression tag	UNP Q8E1C6
D	-1	ASN	-	expression tag	UNP Q8E1C6
D	0	ALA	-	expression tag	UNP Q8E1C6

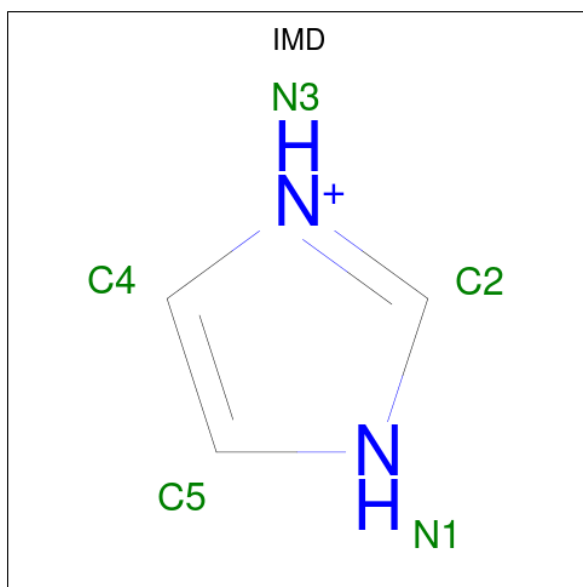- Molecule 2 is NICKEL (II) ION (three-letter code: NI) (formula: Ni).

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

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	C	1	Total 1	Ni 1	0	0
2	D	1	Total 1	Ni 1	0	0

- Molecule 3 is IMIDAZOLE (three-letter code: IMD) (formula: $C_3H_5N_2$).

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	A	1	Total 5	C 3	N 2	0	0
3	A	1	Total 5	C 3	N 2	0	0
3	A	1	Total 5	C 3	N 2	0	0
3	B	1	Total 5	C 3	N 2	0	0
3	B	1	Total 5	C 3	N 2	0	0
3	B	1	Total 5	C 3	N 2	0	0
3	C	1	Total 5	C 3	N 2	0	0
3	C	1	Total 5	C 3	N 2	0	0
3	C	1	Total 5	C 3	N 2	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	D	1	Total 5	C 3	N 2	0	0
3	D	1	Total 5	C 3	N 2	0	0
3	D	1	Total 5	C 3	N 2	0	0

- Molecule 4 is water.

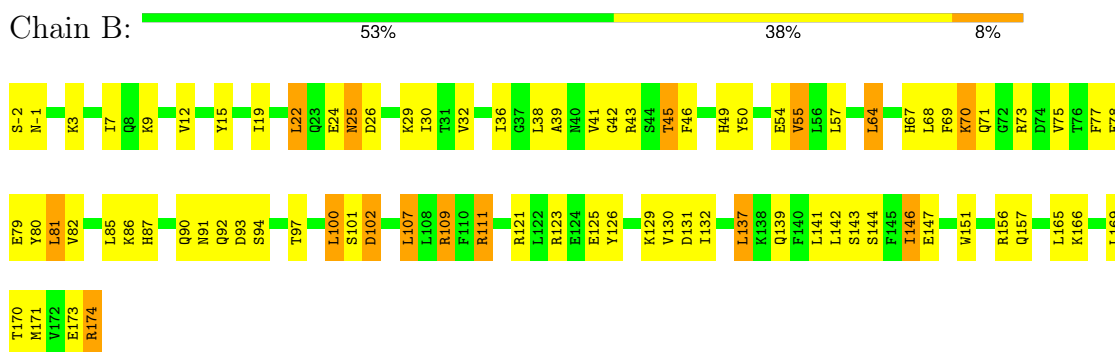| Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	1	Total 1	O 1	0	0
4	B	2	Total 2	O 2	0	0

3 Residue-property plots ⓘ

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.
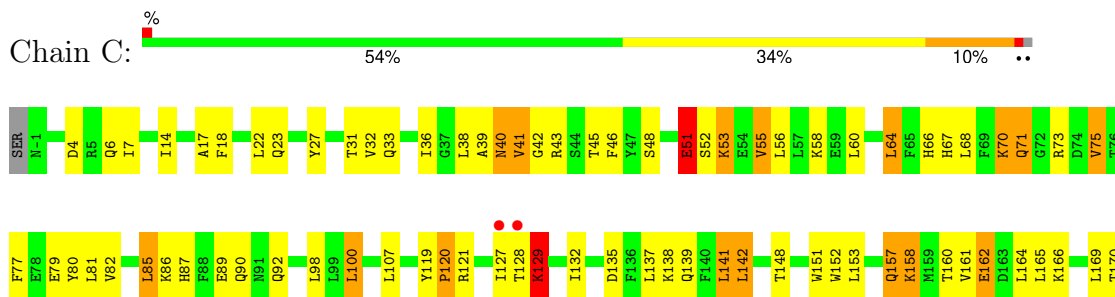
• Molecule 1: TetR family Transcriptional regulator
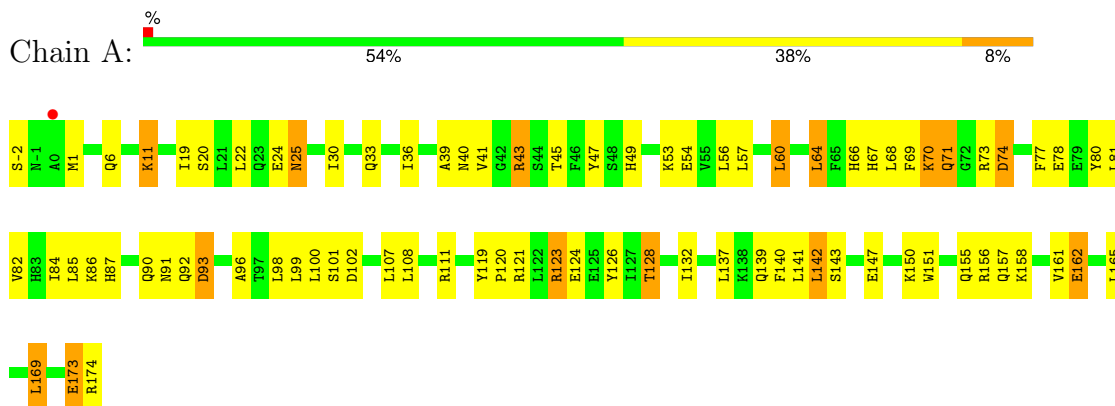
Chain A:

• Molecule 1: TetR family Transcriptional regulator

Chain B:

• Molecule 1: TetR family Transcriptional regulator

Chain C:

M171 V172 E173 R174

• Molecule 1: TetR family Transcriptional regulator

Chain D:

%

53% 37% 10% •

SER N-1 K3 I7 V12 Y15 N16 A17 F18 I21 L22 Q23 E24 N25 D26 Y27 S28 K29 I30 T31 V32 Q33 D34 V35 I36 V41 G42 R43 S44 T45 S52 K53 E54 V55 L56 L57 K58 E59 L60 C61 E62 D63 L64 F65 H66 H67 L68 F69 K70 Q71 G72 R73 D74

V75 T76 F77 Y80 L81 V82 H83 I84 L85 K86 H87 F88 E89 Q92 D93 S94 I95 I98 L99 L100 S101 D102 L107 R111 E115 R121 L122 R123 I127 T128 K129 V130 D131 E134 L137 K138 Q139 F140 L141 L142 S143 L149 K150 W151 W152 L153 K158

V161 L164 V172 E173 R174
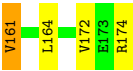
4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	44.35Å 128.68Å 74.57Å 90.00° 103.23° 90.00°	Depositor
Resolution (Å)	48.15 – 2.50 48.15 – 2.50	Depositor EDS
% Data completeness (in resolution range)	95.5 (48.15-2.50) 96.9 (48.15-2.50)	Depositor EDS
R_{merge}	0.09	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.98 (at 2.51Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.5_2)	Depositor
R, R_{free}	0.208 , 0.279 0.200 , 0.264	Depositor DCC
R_{free} test set	1376 reflections (5.04%)	wwPDB-VP
Wilson B-factor (Å^2)	68.1	Xtriage
Anisotropy	0.268	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.29 , 65.9	EDS
L-test for twinning[2]	$< |L| > = 0.50$, $< L^2 > = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.96	EDS
Total number of atoms	6079	wwPDB-VP
Average B, all atoms (Å^2)	94.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.17% of the height of the origin peak. No significant pseudotranslation is detected.*

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[1]Intensities estimated from amplitudes.
[2]Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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	0.49	0/1537	0.61	0/2070
1	B	0.48	0/1537	0.62	0/2070
1	C	0.48	0/1531	0.64	0/2062
1	D	0.44	0/1531	0.59	0/2062
All	All	0.47	0/6136	0.61	0/8264

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 ⓘ

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	1506	0	1498	62	0
1	B	1506	0	1498	65	0
1	C	1500	0	1493	73	0
1	D	1500	0	1493	75	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
3	A	15	0	15	15	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	B	15	0	15	13	0
3	C	15	0	15	16	0
3	D	15	0	15	5	0
4	A	1	0	0	0	0
4	B	2	0	0	0	0
All	All	6079	0	6042	296	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 24.

All (296) 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:174:ARG:HG2	1:B:174:ARG:HH21	1.08	1.17
1:C:36:ILE:HD11	1:C:46:PHE:HB2	1.39	1.01
1:A:126:TYR:CE2	1:A:169:LEU:HG	2.00	0.97
3:A:211:IMD:HN3	3:A:213:IMD:HN1	1.10	0.95
1:A:81:LEU:HD23	1:A:165:LEU:HD11	1.51	0.92
1:C:128:THR:HG22	1:C:129:LYS:H	1.36	0.90
3:B:211:IMD:H4	3:B:212:IMD:N1	1.88	0.88
1:B:174:ARG:HG2	1:B:174:ARG:NH2	1.86	0.88
1:A:71:GLN:HA	1:A:71:GLN:HE21	1.38	0.88
1:C:128:THR:HG22	1:C:129:LYS:N	1.90	0.87
1:C:127:ILE:HD13	1:C:137:LEU:HD11	1.56	0.87
1:C:139:GLN:HG3	1:D:151:TRP:CG	2.09	0.86
3:C:212:IMD:N3	3:C:213:IMD:H4	1.90	0.86
1:C:157:GLN:HG2	1:C:157:GLN:O	1.76	0.85
1:B:111:ARG:HB3	1:B:111:ARG:HH21	1.43	0.83
3:A:211:IMD:H4	3:A:213:IMD:H5	1.60	0.83
1:A:87:HIS:HA	1:A:92:GLN:HG3	1.60	0.82
1:D:86:LYS:HD2	1:D:161:VAL:HG21	1.62	0.80
1:C:166:LYS:O	1:C:170:THR:HG22	1.82	0.78
1:D:129:LYS:HG3	1:D:131:ASP:HB2	1.64	0.78
1:A:36:ILE:HG23	1:A:41:VAL:O	1.82	0.78
3:C:211:IMD:C4	3:C:212:IMD:HN3	1.97	0.78
1:A:151:TRP:CG	1:B:139:GLN:HG3	2.20	0.77
1:C:128:THR:CG2	1:C:129:LYS:H	1.97	0.77
1:A:111:ARG:HG2	1:A:111:ARG:HH11	1.49	0.77
1:C:36:ILE:HD11	1:C:46:PHE:CB	2.14	0.76
1:A:66:HIS:HA	1:A:70:LYS:HD2	1.66	0.76
1:D:27:TYR:OH	1:D:54:GLU:HA	1.86	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:52:SER:OG	1:D:54:GLU:HB2	1.85	0.76
1:A:139:GLN:HG3	1:B:151:TRP:CG	2.20	0.75
3:C:211:IMD:C4	3:C:213:IMD:H4	2.18	0.74
1:D:27:TYR:CE1	1:D:57:LEU:HB2	2.25	0.72
1:C:87:HIS:CE1	3:C:212:IMD:H4	2.25	0.71
1:D:41:VAL:HG22	1:D:45:THR:OG1	1.90	0.71
1:C:67:HIS:CD2	1:C:87:HIS:HE2	2.09	0.71
1:A:77:PHE:HB2	1:A:121:ARG:HH21	1.56	0.71
3:B:211:IMD:H4	3:B:212:IMD:HN1	1.56	0.70
1:A:43:ARG:HE	1:A:47:TYR:HE2	1.37	0.70
1:A:71:GLN:HA	1:A:71:GLN:NE2	2.06	0.69
3:C:211:IMD:C5	3:C:213:IMD:H4	2.22	0.69
1:D:60:LEU:HD22	1:D:64:LEU:HD22	1.73	0.69
1:C:158:LYS:NZ	1:C:158:LYS:H	1.90	0.69
1:D:127:ILE:HG21	1:D:137:LEU:HD21	1.74	0.69
1:B:111:ARG:HB3	1:B:111:ARG:NH2	2.07	0.68
1:C:27:TYR:OH	1:C:53:LYS:HD3	1.93	0.68
1:C:152:TRP:CG	1:C:164:LEU:HD22	2.30	0.67
1:D:29:LYS:HE2	1:D:29:LYS:HA	1.77	0.66
1:A:19:ILE:HD13	1:A:93:ASP:HB3	1.77	0.66
1:D:77:PHE:HB2	1:D:121:ARG:HH21	1.61	0.66
1:A:77:PHE:HB2	1:A:121:ARG:NH2	2.11	0.65
1:D:85:LEU:HD21	1:D:164:LEU:HD23	1.78	0.65
1:A:139:GLN:HG3	1:B:151:TRP:CD1	2.32	0.64
1:D:130:VAL:HG12	1:D:130:VAL:O	1.97	0.64
1:B:69:PHE:O	1:B:71:GLN:N	2.30	0.64
1:D:25:ASN:ND2	1:D:30:ILE:HG13	2.12	0.64
1:C:67:HIS:CD2	1:C:87:HIS:NE2	2.67	0.63
1:C:127:ILE:CD1	1:C:141:LEU:HD21	2.27	0.63
1:C:51:GLU:HB2	1:C:55:VAL:HG21	1.81	0.63
1:A:80:TYR:O	1:A:84:ILE:HG13	1.99	0.63
3:A:211:IMD:C4	3:A:213:IMD:H5	2.27	0.63
3:A:212:IMD:C4	3:A:213:IMD:C4	2.77	0.62
3:A:212:IMD:C2	3:A:213:IMD:N3	2.63	0.62
1:A:69:PHE:C	1:A:71:GLN:H	2.03	0.61
3:B:211:IMD:C4	3:B:212:IMD:C2	2.77	0.61
1:D:36:ILE:HD11	1:D:43:ARG:HA	1.81	0.61
3:C:212:IMD:N3	3:C:213:IMD:C4	2.61	0.61
1:B:36:ILE:HD13	1:B:43:ARG:HG3	1.83	0.60
1:C:139:GLN:HG3	1:D:151:TRP:CD1	2.34	0.60
1:C:27:TYR:CZ	1:C:53:LYS:HD3	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:77:PHE:O	1:A:80:TYR:HB3	2.01	0.60
1:D:70:LYS:HE2	1:D:70:LYS:O	2.02	0.60
1:B:-1:ASN:O	1:B:3:LYS:HD2	2.01	0.60
3:D:211:IMD:H2	3:D:213:IMD:H4	1.84	0.60
3:B:211:IMD:H4	3:B:212:IMD:C2	2.32	0.59
1:D:71:GLN:HE22	1:D:74:ASP:HA	1.68	0.59
1:D:127:ILE:HG23	1:D:174:ARG:HG2	1.83	0.59
1:C:158:LYS:H	1:C:158:LYS:HZ1	1.50	0.59
1:D:129:LYS:CG	1:D:131:ASP:HB2	2.32	0.59
1:C:68:LEU:CD2	1:C:87:HIS:CD2	2.85	0.59
1:C:68:LEU:HD23	1:C:87:HIS:CD2	2.38	0.59
1:C:160:THR:HB	1:C:162:GLU:HG2	1.84	0.59
1:D:94:SER:O	1:D:98:LEU:HD22	2.02	0.58
1:C:151:TRP:CG	1:D:139:GLN:HG3	2.39	0.58
1:B:64:LEU:HD11	1:B:93:ASP:HB2	1.86	0.58
1:D:89:GLU:HB3	1:D:152:TRP:CH2	2.39	0.57
3:C:212:IMD:HN3	3:C:213:IMD:H4	1.70	0.57
3:C:211:IMD:C5	3:C:213:IMD:C4	2.83	0.57
1:A:173:GLU:O	1:A:173:GLU:HG2	2.04	0.57
3:A:211:IMD:H4	3:A:213:IMD:C5	2.33	0.57
1:B:132:ILE:HB	1:B:137:LEU:HD22	1.87	0.56
1:D:30:ILE:O	1:D:53:LYS:HE3	2.05	0.56
1:A:71:GLN:HE21	1:A:71:GLN:CA	2.15	0.56
1:C:169:LEU:O	1:C:173:GLU:HB2	2.05	0.56
1:A:111:ARG:HG2	1:A:111:ARG:NH1	2.19	0.56
1:A:74:ASP:O	1:A:74:ASP:OD2	2.24	0.56
1:A:69:PHE:O	1:A:71:GLN:N	2.39	0.56
1:B:71:GLN:HG3	1:B:73:ARG:NH2	2.21	0.56
1:D:88:PHE:CE1	1:D:95:ILE:HG23	2.40	0.56
1:C:14:ILE:HD11	1:C:41:VAL:HG11	1.88	0.55
1:A:11:LYS:HG3	1:A:49:HIS:CG	2.41	0.55
1:C:23:GLN:HG2	1:C:23:GLN:O	2.05	0.55
1:C:171:MSE:HE2	1:D:140:PHE:CE2	2.42	0.55
1:B:7:ILE:HG23	1:B:49:HIS:HE1	1.72	0.55
1:C:152:TRP:CD2	1:C:164:LEU:HD22	2.41	0.55
1:D:18:PHE:CG	1:D:18:PHE:O	2.60	0.55
1:C:127:ILE:HD11	1:C:141:LEU:HD11	1.89	0.54
3:B:212:IMD:C4	3:B:213:IMD:C5	2.86	0.54
1:D:127:ILE:HD12	1:D:137:LEU:HD11	1.88	0.54
3:A:211:IMD:C4	3:A:213:IMD:C5	2.85	0.54
1:A:11:LYS:HG3	1:A:49:HIS:CD2	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:101:SER:O	1:A:102:ASP:HB2	2.07	0.54
1:B:29:LYS:HG2	1:B:29:LYS:O	2.07	0.54
1:B:125:GLU:HB3	1:B:126:TYR:CD1	2.42	0.54
1:D:141:LEU:HD11	1:D:172:VAL:HB	1.88	0.54
1:D:87:HIS:NE2	3:D:213:IMD:H2	2.23	0.54
1:B:78:GLU:O	1:B:82:VAL:HG23	2.08	0.53
1:C:73:ARG:HH22	3:C:211:IMD:C2	2.21	0.53
3:A:212:IMD:C4	3:A:213:IMD:H4	2.37	0.53
1:B:67:HIS:CD2	1:B:87:HIS:CE1	2.96	0.53
1:D:87:HIS:CD2	3:D:213:IMD:H2	2.43	0.53
1:D:129:LYS:HD3	1:D:174:ARG:HG3	1.89	0.53
1:D:92:GLN:O	1:D:95:ILE:HB	2.08	0.53
1:D:74:ASP:O	1:D:74:ASP:CG	2.47	0.53
3:B:211:IMD:N3	3:B:212:IMD:C2	2.72	0.52
1:A:81:LEU:CD2	1:A:165:LEU:HD11	2.32	0.52
1:C:127:ILE:HD12	1:C:141:LEU:HD21	1.91	0.52
3:C:211:IMD:C4	3:C:212:IMD:N3	2.71	0.52
1:A:53:LYS:HA	1:A:56:LEU:HD13	1.92	0.52
1:C:85:LEU:HB3	1:C:161:VAL:HG13	1.92	0.51
1:C:89:GLU:HB2	1:C:152:TRP:CH2	2.45	0.51
1:D:127:ILE:CD1	1:D:137:LEU:HD11	2.39	0.51
1:C:18:PHE:CD2	1:C:56:LEU:HG	2.45	0.51
1:D:52:SER:C	1:D:54:GLU:N	2.64	0.51
1:A:132:ILE:HD13	1:B:171:MSE:HG2	1.93	0.51
1:C:128:THR:CG2	1:C:129:LYS:N	2.57	0.51
1:B:156:ARG:HB3	1:B:157:GLN:NE2	2.24	0.51
1:D:82:VAL:HG22	1:D:161:VAL:HG12	1.92	0.51
1:A:77:PHE:CZ	1:A:81:LEU:HD11	2.44	0.51
1:D:33:GLN:HG2	1:D:43:ARG:HH22	1.76	0.51
1:C:75:VAL:HB	1:C:79:GLU:OE2	2.11	0.50
1:D:21:LEU:HB3	1:D:30:ILE:HD11	1.92	0.50
1:D:88:PHE:CD1	1:D:95:ILE:HG23	2.46	0.50
1:C:67:HIS:HE1	3:C:211:IMD:H2	1.76	0.50
1:C:81:LEU:HD23	1:C:165:LEU:HD11	1.92	0.50
1:A:39:ALA:O	1:A:40:ASN:HB2	2.11	0.50
1:B:71:GLN:HG3	1:B:73:ARG:CZ	2.41	0.50
1:A:81:LEU:HD23	1:A:165:LEU:CD1	2.33	0.50
1:B:39:ALA:O	1:B:41:VAL:HG23	2.11	0.50
1:B:75:VAL:HB	1:B:79:GLU:HB2	1.93	0.50
1:A:151:TRP:CD1	1:B:139:GLN:HG3	2.46	0.50
1:B:156:ARG:HD2	1:C:127:ILE:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:107:LEU:HD21	1:B:146:ILE:HD11	1.92	0.50
3:C:212:IMD:C4	3:C:213:IMD:C4	2.89	0.50
1:B:77:PHE:CE1	1:B:121:ARG:HB2	2.47	0.49
1:C:77:PHE:O	1:C:80:TYR:HB3	2.11	0.49
1:D:15:TYR:OH	1:D:60:LEU:HD23	2.12	0.49
1:D:18:PHE:CE2	1:D:56:LEU:HB3	2.47	0.49
1:B:87:HIS:HA	1:B:92:GLN:HG3	1.94	0.49
1:B:129:LYS:C	1:B:131:ASP:H	2.14	0.49
3:B:211:IMD:HN3	3:B:212:IMD:C2	2.25	0.49
1:A:87:HIS:CA	1:A:92:GLN:HG3	2.37	0.49
1:A:99:LEU:HD12	1:A:107:LEU:HD12	1.95	0.49
3:C:211:IMD:H4	3:C:212:IMD:HN3	1.76	0.49
1:D:3:LYS:O	1:D:7:ILE:HG12	2.13	0.49
1:C:127:ILE:HD11	1:C:141:LEU:HD21	1.94	0.49
1:A:123:ARG:HD2	1:A:123:ARG:C	2.33	0.49
3:A:211:IMD:N3	3:A:213:IMD:N1	2.52	0.49
1:B:166:LYS:O	1:B:170:THR:HG23	2.12	0.49
1:B:77:PHE:O	1:B:80:TYR:HB3	2.12	0.49
3:A:212:IMD:N3	3:A:213:IMD:C4	2.76	0.48
1:D:87:HIS:CD2	3:D:213:IMD:C2	2.96	0.48
1:A:24:GLU:HB2	1:A:25:ASN:ND2	2.28	0.48
1:B:81:LEU:HD23	1:B:165:LEU:HD11	1.95	0.48
1:D:52:SER:C	1:D:54:GLU:H	2.16	0.48
1:D:115:GLU:CG	1:D:138:LYS:HE2	2.43	0.48
1:A:119:TYR:HB3	1:A:120:PRO:HD3	1.94	0.48
1:B:75:VAL:HG12	1:B:79:GLU:OE2	2.12	0.48
1:A:151:TRP:O	1:A:155:GLN:HG2	2.14	0.48
1:A:157:GLN:NE2	1:A:157:GLN:HA	2.28	0.48
1:D:60:LEU:HD22	1:D:60:LEU:O	2.13	0.48
1:C:7:ILE:C	1:C:7:ILE:HD12	2.34	0.48
1:B:146:ILE:HG23	1:B:147:GLU:N	2.28	0.48
1:C:53:LYS:O	1:C:56:LEU:HB3	2.13	0.47
1:A:60:LEU:CD1	1:A:64:LEU:HD22	2.44	0.47
1:B:86:LYS:HZ1	3:B:212:IMD:C4	2.27	0.47
1:C:17:ALA:HA	1:C:38:LEU:HD23	1.97	0.47
1:C:36:ILE:HG23	1:C:41:VAL:O	2.14	0.47
1:D:127:ILE:HG23	1:D:174:ARG:CG	2.44	0.47
1:A:33:GLN:HA	1:A:33:GLN:NE2	2.29	0.47
1:A:86:LYS:HE3	3:A:213:IMD:H2	1.96	0.47
1:A:126:TYR:HE2	1:A:169:LEU:HG	1.70	0.47
3:B:211:IMD:N3	3:B:212:IMD:H2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:211:IMD:HN3	3:B:212:IMD:H2	1.80	0.47
1:B:67:HIS:HD2	1:B:87:HIS:CE1	2.32	0.47
1:B:101:SER:O	1:B:102:ASP:HB2	2.14	0.47
1:B:26:ASP:HB2	1:B:101:SER:HB2	1.97	0.47
1:D:102:ASP:OD2	1:D:102:ASP:C	2.53	0.46
1:B:67:HIS:CE1	3:B:213:IMD:HN3	2.32	0.46
1:D:23:GLN:HG3	1:D:24:GLU:N	2.29	0.46
1:A:1:MSE:HE3	1:A:1:MSE:HA	1.97	0.46
1:A:162:GLU:H	1:A:162:GLU:HG2	1.51	0.46
1:B:146:ILE:HG23	1:B:147:GLU:HG2	1.98	0.45
1:C:67:HIS:HD2	1:C:87:HIS:NE2	2.14	0.45
1:C:4:ASP:O	1:C:7:ILE:HG13	2.17	0.45
1:C:148:THR:CG2	1:C:164:LEU:HD11	2.46	0.45
3:A:212:IMD:C2	3:A:213:IMD:C4	2.95	0.45
1:A:128:THR:H	1:A:174:ARG:C	2.19	0.45
1:A:142:LEU:HD12	1:A:142:LEU:HA	1.68	0.45
1:D:27:TYR:HH	1:D:54:GLU:HA	1.77	0.45
1:A:69:PHE:C	1:A:71:GLN:N	2.68	0.45
1:B:50:TYR:HD1	1:B:55:VAL:CG2	2.30	0.45
1:D:101:SER:O	1:D:102:ASP:OD2	2.35	0.45
1:D:67:HIS:HE2	1:D:83:HIS:CE1	2.35	0.44
1:B:68:LEU:HD21	1:B:87:HIS:CG	2.52	0.44
1:C:127:ILE:CD1	1:C:137:LEU:HD11	2.39	0.44
1:A:33:GLN:HA	1:A:36:ILE:HD12	1.99	0.44
1:A:67:HIS:HE1	3:A:211:IMD:C5	2.31	0.44
1:D:58:LYS:O	1:D:62:GLU:HG3	2.17	0.44
1:A:77:PHE:O	1:A:81:LEU:HD13	2.18	0.44
1:C:73:ARG:HH22	3:C:211:IMD:HN3	1.66	0.44
1:D:130:VAL:O	1:D:130:VAL:CG1	2.65	0.44
1:B:86:LYS:O	1:B:90:GLN:HG2	2.18	0.44
1:C:68:LEU:CD2	1:C:87:HIS:HD2	2.27	0.44
1:D:87:HIS:CE1	1:D:92:GLN:HG2	2.53	0.44
1:C:71:GLN:HE21	1:C:71:GLN:HB3	1.62	0.43
1:B:46:PHE:CD2	1:B:46:PHE:C	2.92	0.43
1:C:41:VAL:HG13	1:C:42:GLY:N	2.33	0.43
1:D:18:PHE:CD2	1:D:56:LEU:HB3	2.53	0.43
1:C:171:MSE:HE2	1:D:140:PHE:CD2	2.53	0.43
1:A:82:VAL:HG13	1:A:161:VAL:HG21	2.01	0.43
1:B:86:LYS:NZ	3:B:212:IMD:C4	2.81	0.43
1:D:41:VAL:HG22	1:D:42:GLY:H	1.83	0.43
1:D:58:LYS:HE2	1:D:58:LYS:HB3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:57:LEU:HD12	1:A:57:LEU:HA	1.66	0.43
1:B:69:PHE:C	1:B:71:GLN:H	2.20	0.43
1:B:41:VAL:HG12	1:B:42:GLY:N	2.34	0.43
1:A:68:LEU:HD23	1:A:68:LEU:HA	1.82	0.43
1:B:24:GLU:HB2	1:B:25:ASN:H	1.66	0.43
1:B:126:TYR:CZ	1:B:169:LEU:HD13	2.53	0.43
1:B:32:VAL:O	1:B:36:ILE:HG12	2.20	0.42
1:C:36:ILE:HD11	1:C:46:PHE:CG	2.53	0.42
1:B:143:SER:O	1:B:146:ILE:HG22	2.19	0.42
1:C:52:SER:H	1:C:55:VAL:HG23	1.84	0.42
1:C:89:GLU:HB2	1:C:152:TRP:HH2	1.83	0.42
1:B:22:LEU:HB3	1:B:94:SER:HB3	2.01	0.42
1:C:119:TYR:N	1:C:120:PRO:CD	2.82	0.42
1:D:128:THR:HG23	1:D:174:ARG:O	2.19	0.42
1:D:137:LEU:HD12	1:D:137:LEU:HA	1.93	0.42
1:A:86:LYS:CE	3:A:213:IMD:H2	2.49	0.42
1:B:15:TYR:CE2	1:B:19:ILE:HD11	2.54	0.42
1:C:73:ARG:NH2	3:C:211:IMD:C2	2.82	0.42
1:C:68:LEU:HD23	1:C:87:HIS:HD2	1.84	0.42
1:C:86:LYS:HE3	1:C:86:LYS:HB2	1.74	0.42
1:D:66:HIS:O	1:D:70:LYS:HB2	2.20	0.42
1:A:11:LYS:HB3	1:A:11:LYS:HE3	1.86	0.42
1:C:39:ALA:O	1:C:40:ASN:C	2.58	0.42
1:D:149:LEU:O	1:D:153:LEU:HG	2.20	0.42
1:A:91:ASN:OD1	1:A:96:ALA:HB3	2.20	0.42
1:B:41:VAL:HG12	1:B:45:THR:HG23	2.02	0.42
1:B:97:THR:O	1:B:101:SER:HB3	2.20	0.42
1:B:64:LEU:HD12	1:B:64:LEU:HA	1.84	0.41
1:D:70:LYS:C	1:D:72:GLY:H	2.23	0.41
3:A:212:IMD:C5	3:A:213:IMD:C4	2.97	0.41
1:B:109:ARG:HA	1:B:109:ARG:NE	2.35	0.41
1:C:22:LEU:HA	1:C:22:LEU:HD23	1.86	0.41
1:C:158:LYS:H	1:C:158:LYS:HZ2	1.64	0.41
1:D:25:ASN:HD21	1:D:30:ILE:HG13	1.82	0.41
1:A:140:PHE:CE1	1:B:144:SER:HB2	2.55	0.41
1:B:174:ARG:NH2	1:B:174:ARG:CG	2.66	0.41
1:A:126:TYR:CD2	1:A:169:LEU:HG	2.51	0.41
3:D:211:IMD:C2	3:D:213:IMD:H4	2.48	0.41
1:C:31:THR:OG1	1:C:32:VAL:N	2.54	0.41
1:D:111:ARG:HH22	1:D:143:SER:HG	1.67	0.41
1:D:30:ILE:O	1:D:53:LYS:CE	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:77:PHE:O	1:D:80:TYR:HB3	2.20	0.41
1:D:100:LEU:HD12	1:D:100:LEU:HA	1.87	0.41
1:D:129:LYS:C	1:D:131:ASP:H	2.24	0.41
1:D:134:GLU:HA	1:D:134:GLU:OE1	2.20	0.41
1:B:22:LEU:HD13	1:B:30:ILE:CD1	2.51	0.41
1:B:86:LYS:HZ2	3:B:212:IMD:C5	2.34	0.41
1:C:45:THR:O	1:C:48:SER:HB3	2.20	0.41
1:C:64:LEU:HA	1:C:64:LEU:HD12	1.80	0.41
1:B:3:LYS:O	1:B:7:ILE:HG12	2.21	0.41
1:C:100:LEU:HD21	1:C:153:LEU:HB3	2.03	0.41
1:C:66:HIS:HA	1:C:70:LYS:HB2	2.03	0.40
1:A:67:HIS:CD2	1:A:87:HIS:CE1	3.10	0.40
1:A:157:GLN:HA	1:A:157:GLN:HE21	1.86	0.40
1:D:31:THR:O	1:D:35:VAL:HG23	2.22	0.40
1:C:67:HIS:CE1	3:C:211:IMD:H2	2.56	0.40
1:C:138:LYS:HG2	1:C:142:LEU:HD23	2.03	0.40
1:B:57:LEU:HD12	1:B:57:LEU:HA	1.85	0.40
1:B:100:LEU:HA	1:B:100:LEU:HD12	1.82	0.40
1:B:36:ILE:CD1	1:B:43:ARG:HG3	2.49	0.40
1:C:100:LEU:HD12	1:C:100:LEU:HA	1.84	0.40
1:D:33:GLN:OE1	1:D:43:ARG:NH2	2.52	0.40
1:D:60:LEU:HD23	1:D:60:LEU:HA	1.82	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	175/177 (99%)	160 (91%)	13 (7%)	2 (1%)	12	23
1	B	175/177 (99%)	159 (91%)	13 (7%)	3 (2%)	7	14
1	C	174/177 (98%)	160 (92%)	10 (6%)	4 (2%)	5	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	D	174/177 (98%)	151 (87%)	20 (12%)	3 (2%)	7	14
All	All	698/708 (99%)	630 (90%)	56 (8%)	12 (2%)	7	14

All (12) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	70	LYS
1	A	70	LYS
1	B	130	VAL
1	B	173	GLU
1	C	40	ASN
1	C	129	LYS
1	D	73	ARG
1	A	60	LEU
1	C	51	GLU
1	D	161	VAL
1	C	120	PRO
1	D	84	ILE

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	169/166 (102%)	134 (79%)	35 (21%)	1	1
1	B	169/166 (102%)	144 (85%)	25 (15%)	2	4
1	C	168/166 (101%)	138 (82%)	30 (18%)	1	2
1	D	168/166 (101%)	144 (86%)	24 (14%)	2	5
All	All	674/664 (102%)	560 (83%)	114 (17%)	1	3

All (114) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	-2	SER
1	A	6	GLN

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Mol	Chain	Res	Type
1	A	11	LYS
1	A	20	SER
1	A	22	LEU
1	A	25	ASN
1	A	30	ILE
1	A	43	ARG
1	A	45	THR
1	A	54	GLU
1	A	64	LEU
1	A	71	GLN
1	A	73	ARG
1	A	74	ASP
1	A	78	GLU
1	A	85	LEU
1	A	90	GLN
1	A	93	ASP
1	A	98	LEU
1	A	100	LEU
1	A	108	LEU
1	A	123	ARG
1	A	124	GLU
1	A	128	THR
1	A	137	LEU
1	A	141	LEU
1	A	142	LEU
1	A	143	SER
1	A	147	GLU
1	A	150	LYS
1	A	156	ARG
1	A	158	LYS
1	A	162	GLU
1	A	169	LEU
1	A	173	GLU
1	B	-2	SER
1	B	9	LYS
1	B	12	VAL
1	B	22	LEU
1	B	25	ASN
1	B	38	LEU
1	B	45	THR
1	B	54	GLU
1	B	55	VAL

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Mol	Chain	Res	Type
1	B	64	LEU
1	B	70	LYS
1	B	81	LEU
1	B	85	LEU
1	B	91	ASN
1	B	100	LEU
1	B	102	ASP
1	B	107	LEU
1	B	109	ARG
1	B	111	ARG
1	B	123	ARG
1	B	137	LEU
1	B	141	LEU
1	B	142	LEU
1	B	146	ILE
1	B	174	ARG
1	C	6	GLN
1	C	33	GLN
1	C	41	VAL
1	C	43	ARG
1	C	51	GLU
1	C	53	LYS
1	C	55	VAL
1	C	58	LYS
1	C	60	LEU
1	C	64	LEU
1	C	70	LYS
1	C	71	GLN
1	C	75	VAL
1	C	82	VAL
1	C	85	LEU
1	C	90	GLN
1	C	92	GLN
1	C	98	LEU
1	C	100	LEU
1	C	107	LEU
1	C	121	ARG
1	C	129	LYS
1	C	132	ILE
1	C	135	ASP
1	C	141	LEU
1	C	142	LEU

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Mol	Chain	Res	Type
1	C	157	GLN
1	C	158	LYS
1	C	162	GLU
1	C	171	MSE
1	D	12	VAL
1	D	23	GLN
1	D	30	ILE
1	D	36	ILE
1	D	53	LYS
1	D	60	LEU
1	D	64	LEU
1	D	68	LEU
1	D	70	LYS
1	D	73	ARG
1	D	76	THR
1	D	81	LEU
1	D	87	HIS
1	D	95	ILE
1	D	98	LEU
1	D	100	LEU
1	D	102	ASP
1	D	107	LEU
1	D	123	ARG
1	D	129	LYS
1	D	134	GLU
1	D	141	LEU
1	D	142	LEU
1	D	158	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (14) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	33	GLN
1	A	49	HIS
1	A	71	GLN
1	A	157	GLN
1	B	8	GLN
1	B	67	HIS
1	B	91	ASN
1	C	-1	ASN
1	C	25	ASN
1	C	33	GLN

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Mol	Chain	Res	Type
1	C	71	GLN
1	D	40	ASN
1	D	71	GLN
1	D	83	HIS

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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 oligosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 16 ligands modelled in this entry, 4 are monoatomic - leaving 12 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#|Z| > 2$	Counts	RMSZ	$\#|Z| > 2$
3	IMD	D	211	-	3,5,5	0.41	0	4,5,5	0.48	0
3	IMD	C	211	2	3,5,5	0.44	0	4,5,5	0.66	0
3	IMD	C	213	2	3,5,5	0.41	0	4,5,5	0.52	0
3	IMD	A	212	2	3,5,5	0.43	0	4,5,5	0.61	0
3	IMD	B	211	2	3,5,5	0.40	0	4,5,5	0.66	0
3	IMD	A	213	-	3,5,5	0.47	0	4,5,5	0.54	0
3	IMD	D	212	2	3,5,5	0.42	0	4,5,5	0.65	0
3	IMD	D	213	-	3,5,5	0.41	0	4,5,5	0.50	0
3	IMD	B	212	-	3,5,5	0.41	0	4,5,5	0.60	0
3	IMD	B	213	2	3,5,5	0.41	0	4,5,5	0.62	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
3	IMD	C	212	-	3,5,5	0.43	0	4,5,5	0.59	0
3	IMD	A	211	-	3,5,5	0.40	0	4,5,5	0.61	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	IMD	D	211	-	-	-	0/1/1/1
3	IMD	C	211	2	-	-	0/1/1/1
3	IMD	C	213	2	-	-	0/1/1/1
3	IMD	A	212	2	-	-	0/1/1/1
3	IMD	B	211	2	-	-	0/1/1/1
3	IMD	A	213	-	-	-	0/1/1/1
3	IMD	D	212	2	-	-	0/1/1/1
3	IMD	D	213	-	-	-	0/1/1/1
3	IMD	B	212	-	-	-	0/1/1/1
3	IMD	B	213	2	-	-	0/1/1/1
3	IMD	C	212	-	-	-	0/1/1/1
3	IMD	A	211	-	-	-	0/1/1/1

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.

11 monomers are involved in 49 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	D	211	IMD	2	0
3	C	211	IMD	11	0
3	C	213	IMD	7	0
3	A	212	IMD	6	0
3	B	211	IMD	8	0
3	A	213	IMD	14	0
3	D	213	IMD	5	0
3	B	212	IMD	12	0
3	B	213	IMD	2	0
3	C	212	IMD	8	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	211	IMD	7	0

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(Å²)	Q<0.9
1	A	174/177 (98%)	-0.17	1 (0%)	85	83	58, 88, 130, 146	0
1	B	174/177 (98%)	-0.27	0	100	100	47, 83, 124, 145	0
1	C	173/177 (97%)	-0.15	2 (1%)	76	73	67, 91, 130, 154	0
1	D	173/177 (97%)	-0.02	2 (1%)	76	73	67, 101, 145, 181	0
All	All	694/708 (98%)	-0.15	5 (0%)	84	81	47, 91, 135, 181	0

All (5) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	D	82	VAL	3.4
1	C	128	THR	2.2
1	D	17	ALA	2.2
1	A	0	ALA	2.0
1	C	127	ILE	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 ⓘ

There are no monosaccharides in this entry.

6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum,

median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($Å^2$)	Q<0.9
3	IMD	D	211	5/5	0.72	0.10	86,86,87,89	5
3	IMD	B	211	5/5	0.77	0.12	87,88,91,93	5
3	IMD	D	213	5/5	0.77	0.15	114,114,115,115	5
3	IMD	D	212	5/5	0.82	0.17	111,112,112,113	5
3	IMD	B	212	5/5	0.83	0.13	115,116,116,117	5
3	IMD	C	211	5/5	0.84	0.15	100,100,100,100	5
3	IMD	A	211	5/5	0.85	0.20	116,117,119,120	5
3	IMD	C	212	5/5	0.86	0.21	102,102,104,105	5
3	IMD	B	213	5/5	0.88	0.11	137,137,139,139	5
3	IMD	A	212	5/5	0.89	0.15	89,90,93,93	5
3	IMD	C	213	5/5	0.90	0.22	91,91,93,93	5
3	IMD	A	213	5/5	0.91	0.12	83,84,88,89	5
2	NI	D	201	1/1	0.99	0.10	87,87,87,87	1
2	NI	B	201	1/1	1.00	0.09	75,75,75,75	1
2	NI	C	201	1/1	1.00	0.06	70,70,70,70	1
2	NI	A	201	1/1	1.00	0.08	71,71,71,71	1

6.5 Other polymers ⓘ

There are no such residues in this entry.