Full wwPDB X-ray Structure Validation Report (i)

Nov 11, 2025 – 12:11 pm GMT

PDB ID	:	9HXO / pdb_00009hxo
Title	:	A01 mAbs bound to cobratoxin at pH 6.0
Authors	:	Wade, J.W.; Bohn, M.F.; Laustsen, A.H.; Morth, J.P.
Deposited on	:	2025-01-07
Resolution	:	1.49 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 (1)) were used in the production of this report:

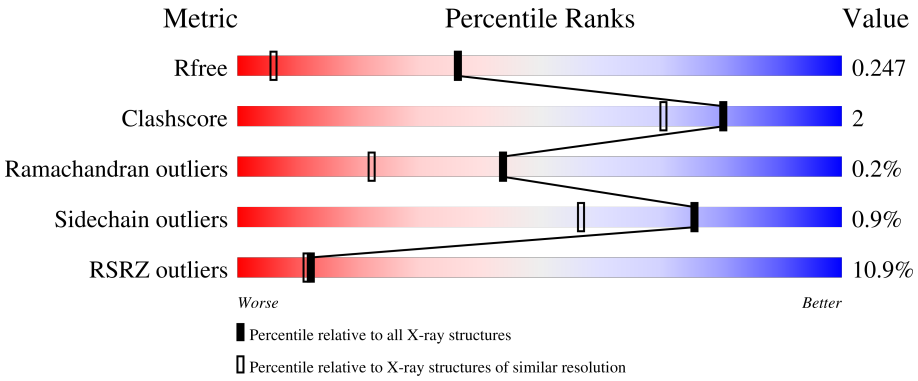
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.46

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 1.49 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	164625	3717 (1.50-1.50)
Clashscore	180529	4048 (1.50-1.50)
Ramachandran outliers	177936	3970 (1.50-1.50)
Sidechain outliers	177891	3967 (1.50-1.50)
RSRZ outliers	164620	3718 (1.50-1.50)

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	71	18% 93% 6% ·
1	B	71	7% 89% 11%
2	C	144	17% 83% 7% · 9%
2	I	144	9% 86% 5% 9%
3	D	117	9% 94% · ·

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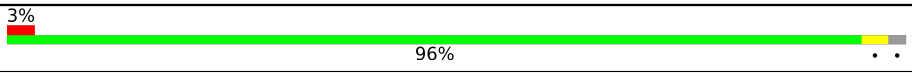
Mol	Chain	Length	Quality of chain
3	M	117	

2 Entry composition (i)

There are 9 unique types of molecules in this entry. The entry contains 10261 atoms, of which 4660 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 Alpha-cobratoxin.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	71	Total	C	H	N	O	S	0	1	0
			1082	338	531	101	102	10			
1	B	71	Total	C	H	N	O	S	0	0	0
			1041	332	500	98	101	10			

- Molecule 2 is a protein called light chain.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
2	I	131	Total	C	H	N	O	S	0	7	0
			2035	654	995	173	205	8			
2	C	131	Total	C	H	N	O	S	0	4	0
			1996	645	971	167	204	9			

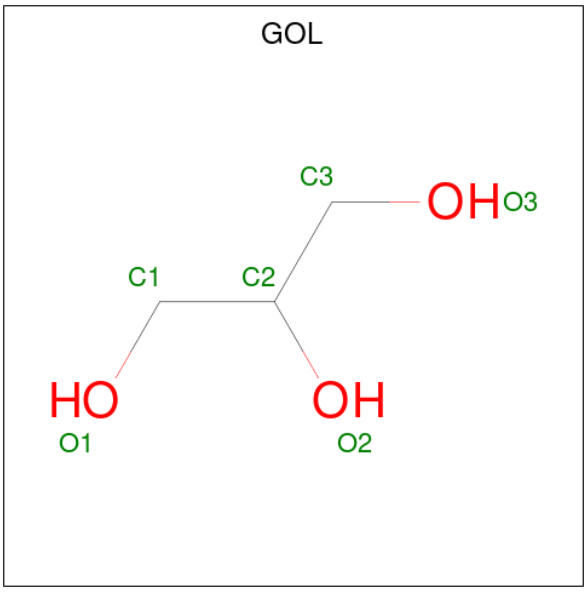
- Molecule 3 is a protein called heavy chain.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
3	M	115	Total	C	H	N	O	S	0	3	0
			1679	539	806	148	184	2			
3	D	115	Total	C	H	N	O	S	0	5	0
			1710	551	815	153	189	2			

- Molecule 4 is CHLORIDE ION (CCD ID: CL) (formula: Cl).

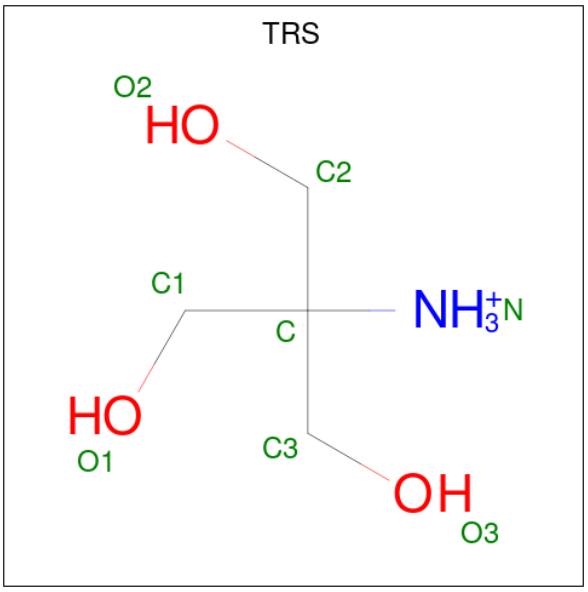
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	1	Total	Cl	0	0
			1	1		

- Molecule 5 is GLYCEROL (CCD ID: GOL) (formula: $C_3H_8O_3$).



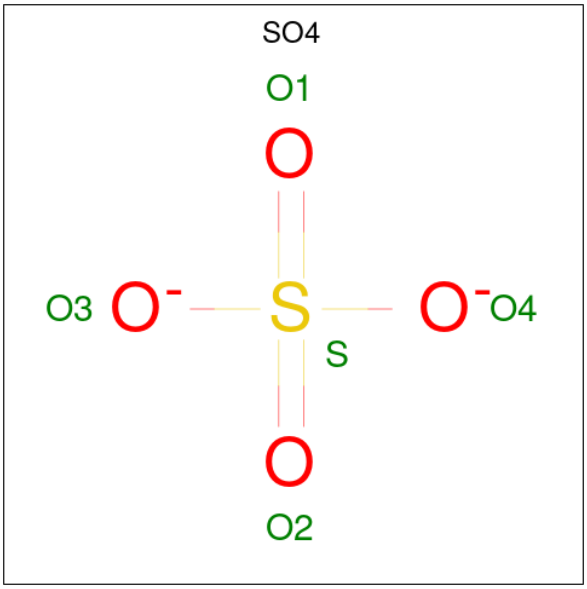
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	B	1	Total C H O 14 3 8 3	0	0
5	M	1	Total C H O 14 3 8 3	0	0
5	D	1	Total C H O 13 3 7 3	0	0
5	D	1	Total C H O 13 3 7 3	0	0

- Molecule 6 is 2-AMINO-2-HYDROXYMETHYL-PROPANE-1,3-DIOL (CCD ID: TRS) (formula: $C_4H_{12}NO_3$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
6	B	1	Total	C	H	N	O	0	0
			20	4	12	1	3		

- Molecule 7 is SULFATE ION (CCD ID: SO4) (formula: O_4S).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
7	I	1	Total	O	S	0	0
			5	4	1		

- Molecule 8 is SODIUM ION (CCD ID: NA) (formula: Na).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
8	M	1	Total	Na	0	0
			1	1		

- Molecule 9 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
9	A	74	Total	O	0	0
			74	74		
9	B	77	Total	O	0	0
			77	77		
9	I	108	Total	O	0	0
			108	108		
9	M	134	Total	O	0	1
			135	135		

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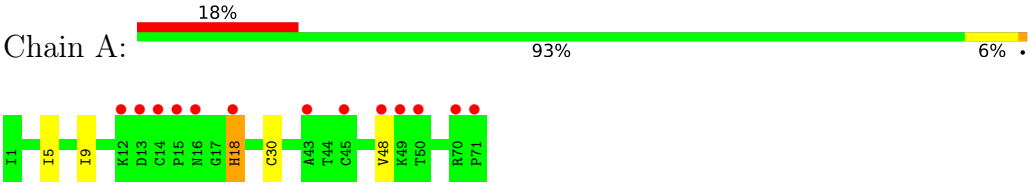
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
9	C	108	Total O 108 108	0	0
9	D	135	Total O 135 135	0	0

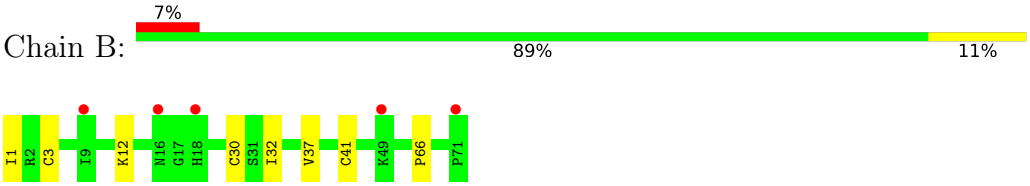
3 Residue-property plots (i)

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.

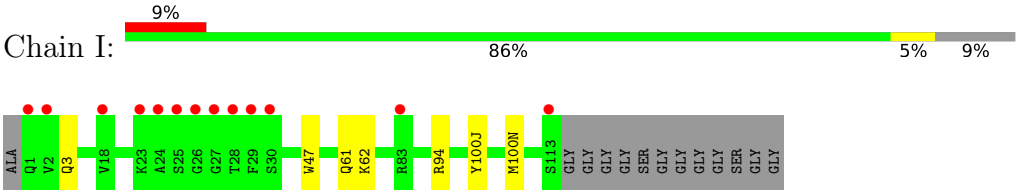
• Molecule 1: Alpha-cobratoxin



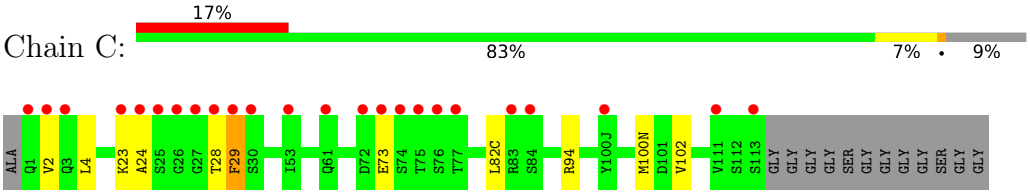
• Molecule 1: Alpha-cobratoxin



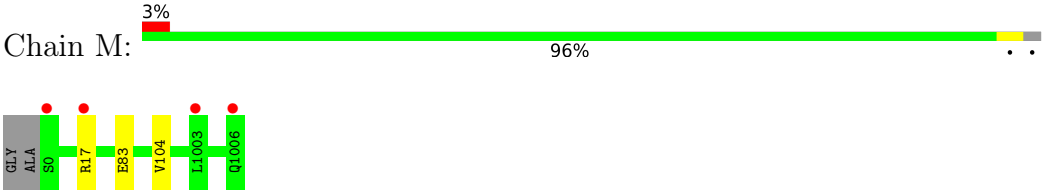
• Molecule 2: light chain



• Molecule 2: light chain

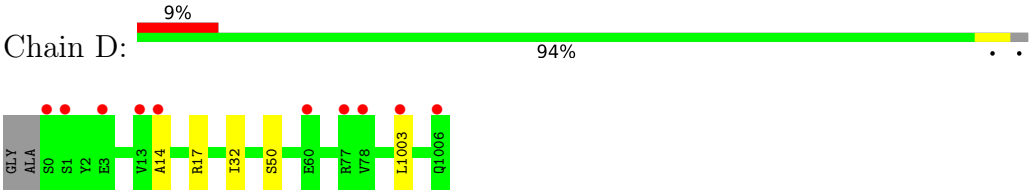


• Molecule 3: heavy chain



• Molecule 3: heavy chain

Chain D:


9%
94%
GLY
ALA
S0
S1
Y2
E3
V13
A14
R17
I32
S50
E60
R77
V78
L1003
Q1006

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	76.95Å 82.65Å 98.19Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	60.57 – 1.49 60.57 – 1.49	Depositor EDS
% Data completeness (in resolution range)	52.0 (60.57-1.49) 47.7 (60.57-1.49)	Depositor EDS
R_{merge}	0.17	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.13 (at 1.49Å)	Xtriage
Refinement program	PHENIX 1.21rc1_5156	Depositor
R, R_{free}	0.203 , 0.248 0.203 , 0.247	Depositor DCC
R_{free} test set	2612 reflections (2.54%)	wwPDB-VP
Wilson B-factor (Å^2)	12.6	Xtriage
Anisotropy	0.384	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.37 , 31.9	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	10261	wwPDB-VP
Average B, all atoms (Å^2)	24.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 44.77 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 1.4552e-04. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

[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: CL, GOL, SO4, NA, TRS

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	0.22	0/564	0.37	0/765
1	B	0.22	0/553	0.42	0/750
2	C	0.23	0/1052	0.42	0/1424
2	I	0.23	0/1083	0.42	0/1466
3	D	0.21	0/926	0.37	0/1265
3	M	0.25	0/908	0.39	0/1241
All	All	0.23	0/5086	0.40	0/6911

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	551	531	530	4	0
1	B	541	500	524	7	0
2	C	1025	971	967	6	0
2	I	1040	995	982	4	0
3	D	895	815	827	3	0
3	M	873	806	797	2	0
4	A	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	B	6	8	8	0	0
5	D	12	14	16	0	0
5	M	6	8	8	0	0
6	B	8	12	12	2	0
7	I	5	0	0	0	0
8	M	1	0	0	0	0
9	A	74	0	0	1	1
9	B	77	0	0	1	2
9	C	108	0	0	1	1
9	D	135	0	0	0	1
9	I	108	0	0	1	2
9	M	135	0	0	1	3
All	All	5601	4660	4671	24	5

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 2.

All (24) 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)
2:I:3:GLN:NE2	9:I:301:HOH:O	2.08	0.85
1:A:48:VAL:O	9:A:201:HOH:O	2.16	0.62
3:M:17:ARG:NH1	9:M:1205:HOH:O	2.34	0.61
1:A:18[A]:HIS:O	1:A:18[A]:HIS:ND1	2.39	0.55
2:C:23:LYS:HD2	2:C:24:ALA:N	2.24	0.53
2:C:29:PHE:C	2:C:29:PHE:CD1	2.86	0.53
3:D:14:ALA:HB3	3:D:17:ARG:HG3	1.93	0.50
1:B:1:ILE:HA	6:B:202:TRS:H12	1.94	0.49
1:B:12:LYS:NZ	9:B:306:HOH:O	2.45	0.47
2:C:82(C):LEU:O	9:C:201:HOH:O	2.20	0.47
3:D:14:ALA:HB1	3:D:1003:LEU:HD23	1.96	0.46
2:C:2:VAL:CG1	2:C:102:VAL:HG21	2.46	0.45
3:M:83:GLU:HG3	3:M:104:VAL:O	2.17	0.44
1:B:32:ILE:HB	2:I:100(J):TYR:CD2	2.53	0.43
1:B:1:ILE:HB	6:B:202:TRS:HN1	1.84	0.42
2:C:4:LEU:HD23	2:C:24:ALA:HA	2.01	0.42
1:A:30:CYS:HB3	1:B:30:CYS:HB3	2.02	0.42
1:B:37:VAL:HG11	1:B:66:PRO:HD2	2.01	0.42
1:B:3:CYS:SG	1:B:41:CYS:HB3	2.59	0.41
2:I:94:ARG:O	2:I:100(N):MET:HA	2.20	0.41
2:C:94:ARG:O	2:C:100(N):MET:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:32:ILE:HG23	3:D:50:SER:HA	2.03	0.41
1:A:5:ILE:O	1:A:9:ILE:N	2.54	0.40

All (5) 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)
9:B:370:HOH:O	9:M:1301:HOH:O[2_454]	2.01	0.19
9:I:401:HOH:O	9:C:303:HOH:O[4_445]	2.02	0.18
9:A:227:HOH:O	9:D:1292:HOH:O[2_555]	2.03	0.17
9:B:364:HOH:O	9:M:1306:HOH:O[4_555]	2.04	0.16
9:I:344:HOH:O	9:M:1319:HOH:O[2_454]	2.10	0.10

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	70/71 (99%)	66 (94%)	4 (6%)	0	100 100
1	B	69/71 (97%)	66 (96%)	3 (4%)	0	100 100
2	C	133/144 (92%)	127 (96%)	5 (4%)	1 (1%)	16 4
2	I	136/144 (94%)	130 (96%)	6 (4%)	0	100 100
3	D	118/117 (101%)	113 (96%)	5 (4%)	0	100 100
3	M	116/117 (99%)	111 (96%)	5 (4%)	0	100 100
All	All	642/664 (97%)	613 (96%)	28 (4%)	1 (0%)	44 22

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	C	28	THR

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	65/64 (102%)	63 (97%)	2 (3%)	35 9
1	B	64/64 (100%)	64 (100%)	0	100 100
2	C	109/108 (101%)	106 (97%)	3 (3%)	38 12
2	I	112/108 (104%)	109 (97%)	3 (3%)	40 13
3	D	101/96 (105%)	101 (100%)	0	100 100
3	M	99/96 (103%)	99 (100%)	0	100 100
All	All	550/536 (103%)	542 (98%)	8 (2%)	75 35

All (8) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	18[A]	HIS
1	A	18[B]	HIS
2	I	61	GLN
2	I	62[A]	LYS
2	I	62[C]	LYS
2	C	29	PHE
2	C	73[A]	GLU
2	C	73[B]	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (9) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	18	HIS
2	I	3	GLN
2	I	96	ASN
2	C	3	GLN
2	C	39	GLN
2	C	43	GLN
2	C	61	GLN
3	D	38	GLN
3	D	1002	ASN

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 8 ligands modelled in this entry, 2 are monoatomic - leaving 6 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	$\#\|Z\| > 2$
5	GOL	B	201	-	5,5,5	0.30	0	5,5,5	0.32	0
6	TRS	B	202	-	7,7,7	0.36	0	9,9,9	0.84	0
7	SO4	I	201	-	4,4,4	0.69	0	6,6,6	0.12	0
5	GOL	D	1102	-	5,5,5	0.21	0	5,5,5	0.68	0
5	GOL	D	1101	-	5,5,5	0.29	0	5,5,5	0.40	0
5	GOL	M	1101	-	5,5,5	0.34	0	5,5,5	0.39	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
5	GOL	B	201	-	-	1/4/4/4	-
6	TRS	B	202	-	-	6/9/9/9	-
5	GOL	D	1102	-	-	2/4/4/4	-
5	GOL	D	1101	-	-	2/4/4/4	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	GOL	M	1101	-	-	0/4/4/4	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (11) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	D	1102	GOL	C1-C2-C3-O3
6	B	202	TRS	C2-C-C1-O1
6	B	202	TRS	C3-C-C1-O1
6	B	202	TRS	N-C-C1-O1
6	B	202	TRS	C3-C-C2-O2
5	B	201	GOL	C1-C2-C3-O3
5	D	1101	GOL	O1-C1-C2-C3
5	D	1102	GOL	O2-C2-C3-O3
6	B	202	TRS	C1-C-C2-O2
6	B	202	TRS	N-C-C2-O2
5	D	1101	GOL	O1-C1-C2-O2

There are no ring outliers.

1 monomer is involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
6	B	202	TRS	2	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A	71/71 (100%)	1.03	13 (18%) 4 3	13, 24, 47, 62	1 (1%)
1	B	71/71 (100%)	0.53	5 (7%) 24 24	12, 21, 39, 52	0
2	C	131/144 (90%)	1.04	24 (18%) 4 3	9, 22, 55, 98	3 (2%)
2	I	131/144 (90%)	0.80	13 (9%) 14 14	8, 20, 43, 92	5 (3%)
3	D	115/117 (98%)	0.57	10 (8%) 17 17	11, 21, 36, 75	4 (3%)
3	M	115/117 (98%)	0.29	4 (3%) 47 51	11, 19, 29, 78	1 (0%)
All	All	634/664 (95%)	0.71	69 (10%) 12 11	8, 21, 46, 98	14 (2%)

All (69) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	I	26	GLY	8.4
2	C	26	GLY	8.1
2	C	29	PHE	7.5
2	I	27	GLY	6.0
2	C	28	THR	5.9
1	A	18[A]	HIS	5.8
2	I	2	VAL	5.7
2	C	2	VAL	5.4
2	C	25	SER	5.2
2	C	27	GLY	5.1
1	A	71	PRO	5.0
2	C	76	SER	5.0
2	I	25	SER	4.9
2	I	24	ALA	4.6
2	I	29	PHE	4.5
3	M	0	SER	4.3
2	C	24	ALA	4.1
3	D	0	SER	3.7
1	A	15	PRO	3.5

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Mol	Chain	Res	Type	RSRZ
2	C	30	SER	3.5
2	I	28	THR	3.4
2	C	1	GLN	3.2
2	C	113	SER	3.1
3	M	1006	GLN	3.0
2	I	113	SER	3.0
1	A	13	ASP	3.0
2	I	30	SER	3.0
1	B	71	PRO	2.9
2	C	3	GLN	2.9
2	C	100(J)	TYR	2.9
2	C	74	SER	2.8
2	I	1	GLN	2.8
2	I	18	VAL	2.8
3	D	13	VAL	2.8
3	D	14	ALA	2.7
2	C	73[A]	GLU	2.6
3	D	1006	GLN	2.6
2	C	61	GLN	2.5
3	D	77	ARG	2.5
1	B	18	HIS	2.5
1	B	16	ASN	2.4
3	M	1003	LEU	2.4
3	D	1	SER	2.3
1	A	12	LYS	2.3
1	A	45	CYS	2.3
2	C	75	THR	2.3
2	I	83[A]	ARG	2.3
2	C	53	ILE	2.3
1	A	49	LYS	2.3
2	C	23	LYS	2.3
1	A	50	THR	2.2
3	D	1003	LEU	2.2
2	I	23	LYS	2.2
2	C	84	SER	2.2
1	A	14	CYS	2.2
3	D	3	GLU	2.2
1	A	43	ALA	2.2
3	M	17	ARG	2.2
1	A	16	ASN	2.2
3	D	60	GLU	2.1
2	C	72	ASP	2.1

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Mol	Chain	Res	Type	RSRZ
2	C	111	VAL	2.1
1	A	70	ARG	2.1
2	C	77	THR	2.1
1	A	48	VAL	2.1
1	B	49	LYS	2.1
1	B	9	ILE	2.1
3	D	78	VAL	2.0
2	C	83	ARG	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 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, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
5	GOL	D	1102	6/6	0.64	0.16	23,31,38,38	0
6	TRS	B	202	8/8	0.67	0.17	26,33,37,39	0
5	GOL	D	1101	6/6	0.72	0.15	31,38,42,48	0
5	GOL	B	201	6/6	0.77	0.18	27,37,91,91	0
4	CL	A	101	1/1	0.81	0.21	56,56,56,56	0
5	GOL	M	1101	6/6	0.85	0.12	23,32,40,41	0
7	SO4	I	201	5/5	0.91	0.11	28,29,31,33	0
8	NA	M	1102	1/1	0.96	0.10	23,23,23,23	0

6.5 Other polymers (i)

There are no such residues in this entry.