WORLDWIDE PDB

PROTEIN DATA BANK

Full wwPDB X-ray Structure Validation Report (i)

Dec 10, 2022 – 09:45 PM EST

PDB ID	:	2BC3
Title	:	T7-tagged full-length streptavidin
Authors	:	Stenkamp, R.E.; Le Trong, I.; Ward, T.R.; Humbert, N.
Deposited on	:	2005-10-18
Resolution	:	1.54 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.

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 1.54 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
Clashscore		17
Ramachandran outliers		1.4%
Sidechain outliers		11.1%
RSRZ outliers		19.6%

Worse   *Better*

■ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution
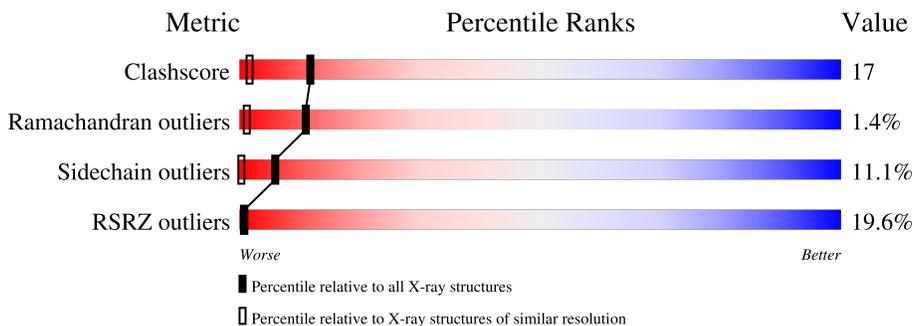
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	141614	2634 (1.56-1.52)
Ramachandran outliers	138981	2580 (1.56-1.52)
Sidechain outliers	138945	2577 (1.56-1.52)
RSRZ outliers	127900	2524 (1.56-1.52)

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	159	16% / 73% 17% •• 9%
1	B	159	19% / 62% 18% 7% • 11%

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
2	GOL	B	4002	-	X	X	-
3	SO4	B	5001	-	-	X	-

2 Entry composition ⓘ

There are 4 unique types of molecules in this entry. The entry contains 2434 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 Streptavidin.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
1	A	145	Total 1095	C 677	N 190	O 228	0	6	0
1	B	141	Total 1045	C 650	N 182	O 213	21	2	0

There are 26 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1	MET	-	expression tag	UNP P22629
A	2	ALA	-	expression tag	UNP P22629
A	3	SER	-	expression tag	UNP P22629
A	4	MET	-	expression tag	UNP P22629
A	5	THR	-	expression tag	UNP P22629
A	6	GLY	-	expression tag	UNP P22629
A	7	GLY	-	expression tag	UNP P22629
A	8	GLN	-	expression tag	UNP P22629
A	9	GLN	-	expression tag	UNP P22629
A	10	MET	-	expression tag	UNP P22629
A	11	GLY	-	expression tag	UNP P22629
A	12	ARG	-	expression tag	UNP P22629
A	13	ASP	-	expression tag	UNP P22629
B	1	MET	-	expression tag	UNP P22629
B	2	ALA	-	expression tag	UNP P22629
B	3	SER	-	expression tag	UNP P22629
B	4	MET	-	expression tag	UNP P22629
B	5	THR	-	expression tag	UNP P22629
B	6	GLY	-	expression tag	UNP P22629
B	7	GLY	-	expression tag	UNP P22629
B	8	GLN	-	expression tag	UNP P22629
B	9	GLN	-	expression tag	UNP P22629
B	10	MET	-	expression tag	UNP P22629
B	11	GLY	-	expression tag	UNP P22629
B	12	ARG	-	expression tag	UNP P22629

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Chain	Residue	Modelled	Actual	Comment	Reference
B	13	ASP	-	expression tag	UNP P22629

- Molecule 2 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).
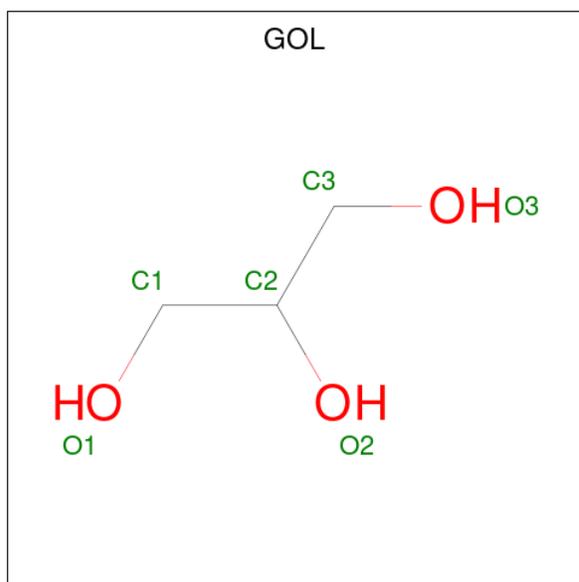
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
2	A	1	Total 6	C 3	O 3	0	0
2	B	1	Total 6	C 3	O 3	0	0

- Molecule 3 is SULFATE ION (three-letter code: SO4) (formula: O_4S).
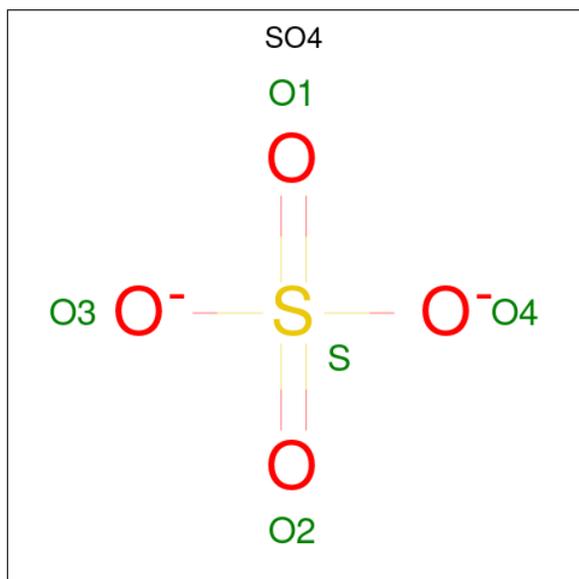
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	B	1	Total O S 3 2 1			0	0

- Molecule 4 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	155	Total O 155 155		0	0
4	B	124	Total O 124 124		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: Streptavidin

Chain A:

• Molecule 1: Streptavidin

Chain B:
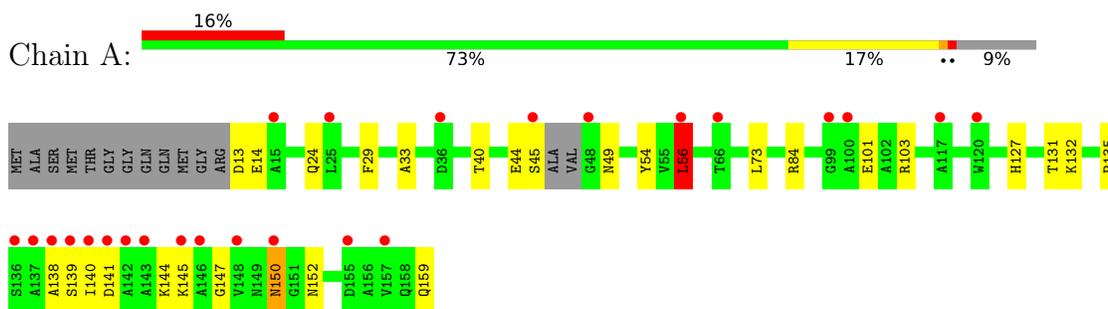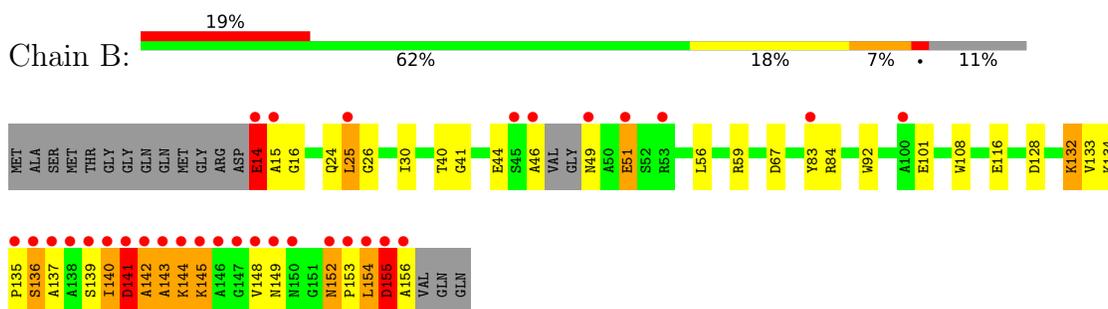
4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	81.70Å 82.39Å 46.71Å 90.00° 103.48° 90.00°	Depositor
Resolution (Å)	10.00 – 1.54 10.00 – 1.54	Depositor EDS
% Data completeness (in resolution range)	79.7 (10.00-1.54) 78.9 (10.00-1.54)	Depositor EDS
R_{merge}	0.06	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	3.44 (at 1.54Å)	Xtriage
Refinement program	SHELXL-97	Depositor
R, R_{free}	0.175 , 0.243 0.183 , (Not available)	Depositor DCC
R_{free} test set	No test flags present.	wwPDB-VP
Wilson B-factor (Å^2)	21.8	Xtriage
Anisotropy	0.212	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.34 , 74.0	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	2434	wwPDB-VP
Average B, all atoms (Å^2)	43.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 7.54% 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 (i)

5.1   Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: SO4, GOL

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	0.47	0/1142	1.21	4/1555 (0.3%)
1	B	0.52	1/1077 (0.1%)	1.20	3/1472 (0.2%)
All	All	0.49	1/2219 (0.0%)	1.20	7/3027 (0.2%)

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	14	GLU	CD-OE2	7.03	1.33	1.25

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	141	ASP	CB-CG-OD1	-7.86	111.22	118.30
1	B	59	ARG	NE-CZ-NH2	-6.96	116.82	120.30
1	A	56	LEU	CB-CA-C	5.71	121.05	110.20
1	A	84	ARG	NE-CZ-NH2	5.61	123.11	120.30
1	A	29	PHE	CB-CG-CD2	-5.56	116.91	120.80
1	A	54	TYR	CB-CG-CD1	5.48	124.29	121.00
1	B	92	TRP	CA-CB-CG	5.25	123.67	113.70

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	1095	0	1025	17	0
1	B	1045	0	987	53	3
2	A	6	0	8	2	0
2	B	6	0	6	6	0
3	B	3	0	0	0	3
4	A	155	0	0	8	0
4	B	124	0	0	9	3
All	All	2434	0	2026	72	6

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 17.

All (72) 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:140:ILE:HG22	1:B:141:ASP:OD2	1.37	1.23
1:B:136:SER:O	1:B:140:ILE:HB	1.39	1.19
1:B:137:ALA:HA	1:B:140:ILE:CG2	1.76	1.15
1:B:137:ALA:O	1:B:141:ASP:OD2	1.66	1.14
1:B:137:ALA:O	1:B:141:ASP:CG	1.89	1.11
1:B:137:ALA:HA	1:B:140:ILE:HG22	1.33	1.06
1:B:142:ALA:O	1:B:145:LYS:N	1.89	1.03
1:B:142:ALA:O	1:B:144:LYS:N	2.11	0.84
1:B:40[B]:THR:HG23	2:B:4002:GOL:H12	1.64	0.79
1:B:140:ILE:CG2	1:B:141:ASP:OD2	2.26	0.78
1:A:40[A]:THR:HG22	4:A:6173:HOH:O	1.84	0.75
1:B:141:ASP:O	1:B:145:LYS:HG3	1.86	0.74
1:B:137:ALA:CA	1:B:140:ILE:HG22	2.17	0.73
1:B:16:GLY:HA2	4:B:6150:HOH:O	1.90	0.71
1:B:136:SER:C	1:B:140:ILE:HB	2.10	0.71
1:A:127:HIS:NE2	2:A:4001:GOL:H11	2.07	0.70
1:A:44:GLU:HG2	4:A:6042:HOH:O	1.93	0.69
1:B:142:ALA:C	1:B:144:LYS:N	2.45	0.68
1:A:13:ASP:HB2	4:A:6052:HOH:O	1.93	0.68
1:B:136:SER:O	1:B:140:ILE:CB	2.31	0.66
1:B:149:ASN:HB3	4:B:6036:HOH:O	1.96	0.65
1:B:41:GLY:O	2:B:4002:GOL:H31	1.98	0.64
1:B:141:ASP:OD2	1:B:141:ASP:N	2.33	0.61
1:A:45:SER:HB2	4:A:6250:HOH:O	2.00	0.60
1:B:139:SER:O	1:B:143:ALA:HB3	2.01	0.60
1:A:140:ILE:O	1:A:144:LYS:HG3	2.01	0.60
1:B:56:LEU:O	2:B:4002:GOL:H11	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:135:PRO:HB2	1:A:139:SER:OG	2.02	0.60
1:B:137:ALA:HA	1:B:140:ILE:CB	2.33	0.59
1:B:51:GLU:HA	1:B:83:TYR:CD2	2.38	0.58
1:B:136:SER:O	1:B:140:ILE:N	2.37	0.58
1:B:142:ALA:O	1:B:143:ALA:C	2.43	0.57
1:B:137:ALA:C	1:B:141:ASP:OD2	2.41	0.56
1:A:132:LYS:HE2	4:A:6083:HOH:O	2.07	0.55
1:B:141:ASP:O	1:B:145:LYS:N	2.40	0.55
1:B:140:ILE:HG23	1:B:140:ILE:O	2.05	0.55
1:A:40[A]:THR:HG23	4:A:6017:HOH:O	2.07	0.54
1:A:14:GLU:HG3	1:A:33:ALA:O	2.08	0.54
1:B:137:ALA:HA	1:B:140:ILE:HG21	1.79	0.53
1:B:142:ALA:C	1:B:144:LYS:H	2.10	0.53
1:A:56:LEU:HD12	1:A:56:LEU:C	2.29	0.53
1:B:25:LEU:H	1:B:25:LEU:HD22	1.74	0.52
2:B:4002:GOL:H32	4:B:6260:HOH:O	2.09	0.52
1:B:141:ASP:O	1:B:142:ALA:O	2.29	0.50
1:B:132:LYS:HD2	4:B:6075:HOH:O	2.11	0.50
2:A:4001:GOL:H32	4:A:6098:HOH:O	2.11	0.49
1:B:49:ASN:OD1	1:B:51:GLU:OE1	2.30	0.49
1:B:30:ILE:O	1:B:41:GLY:HA3	2.13	0.48
1:B:40[B]:THR:HG22	2:B:4002:GOL:H32	1.94	0.48
1:B:152:ASN:OD1	1:B:156:ALA:O	2.32	0.48
1:B:14:GLU:CD	1:B:15:ALA:H	2.17	0.48
1:B:132:LYS:HE3	4:B:6029:HOH:O	2.13	0.47
1:B:108:TRP:NE1	1:B:128:ASP:OD1	2.48	0.47
1:B:26:GLY:O	1:B:46:ALA:HA	2.15	0.47
1:B:153:PRO:HB3	4:B:6252:HOH:O	2.15	0.46
1:B:140:ILE:C	1:B:141:ASP:OD2	2.54	0.46
1:B:154:LEU:O	1:B:156:ALA:N	2.50	0.45
1:A:103:ARG:HG2	1:A:131:THR:HG22	1.98	0.45
1:A:138:ALA:O	1:A:141:ASP:N	2.50	0.44
1:B:25:LEU:HD22	1:B:25:LEU:N	2.32	0.44
1:B:137:ALA:CA	1:B:141:ASP:OD2	2.66	0.43
1:A:150:ASN:OD1	1:A:150:ASN:N	2.50	0.43
1:B:40[B]:THR:HG23	2:B:4002:GOL:C1	2.42	0.43
1:B:133:VAL:O	1:B:133:VAL:HG13	2.19	0.43
1:B:135:PRO:HG2	1:B:140:ILE:HG13	2.00	0.43
1:B:116:GLU:OE2	1:B:116:GLU:HA	2.20	0.42
1:B:67:ASP:HB3	4:B:6207:HOH:O	2.18	0.42
1:B:44:GLU:HG2	4:B:6053:HOH:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:152:ASN:ND2	4:A:6116:HOH:O	2.53	0.41
1:B:101:GLU:HB3	4:B:6176:HOH:O	2.19	0.41

All (6) 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)
3:B:5001:SO4:S	3:B:5001:SO4:O4[2_656]	1.44	0.76
3:B:5001:SO4:S	3:B:5001:SO4:O1[2_656]	1.45	0.75
1:B:155:ASP:OD1	4:B:6200:HOH:O[1_556]	1.85	0.35
1:B:155:ASP:CG	4:B:6200:HOH:O[1_556]	2.05	0.15
1:B:155:ASP:CB	4:B:6200:HOH:O[1_556]	2.12	0.08
3:B:5001:SO4:O4	3:B:5001:SO4:O4[2_656]	2.16	0.04

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	146/159 (92%)	138 (94%)	7 (5%)	1 (1%)	22	5
1	B	139/159 (87%)	131 (94%)	5 (4%)	3 (2%)	6	0
All	All	285/318 (90%)	269 (94%)	12 (4%)	4 (1%)	11	1

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	142	ALA
1	B	143	ALA
1	A	147	GLY
1	B	155	ASP

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	112/115 (97%)	104 (93%)	8 (7%)	14	1
1	B	104/115 (90%)	88 (85%)	16 (15%)	2	0
All	All	216/230 (94%)	192 (89%)	24 (11%)	6	0

All (24) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	24	GLN
1	A	49	ASN
1	A	56	LEU
1	A	73	LEU
1	A	101[A]	GLU
1	A	101[B]	GLU
1	A	145	LYS
1	A	150	ASN
1	B	14	GLU
1	B	24	GLN
1	B	25	LEU
1	B	51	GLU
1	B	84	ARG
1	B	132	LYS
1	B	134	LYS
1	B	136	SER
1	B	140	ILE
1	B	141	ASP
1	B	144	LYS
1	B	145	LYS
1	B	148	VAL
1	B	152	ASN
1	B	154	LEU
1	B	155	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (3) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	49	ASN
1	A	149	ASN
1	B	149	ASN

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 monosaccharides in this entry.

5.6 Ligand geometry ⓘ

3 ligands are modelled in this entry.

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	$\#|Z| > 2$
2	GOL	B	4002	-	5,5,5	1.97	3 (60%)	5,5,5	2.39	3 (60%)
3	SO4	B	5001	-	1,2,4	1.67	0	0,1,6	-	-
2	GOL	A	4001	-	5,5,5	1.32	0	5,5,5	0.85	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
2	GOL	B	4002	-	-	3/4/4/4	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	GOL	A	4001	-	-	0/4/4/4	-

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	4002	GOL	O2-C2	-2.68	1.35	1.43
2	B	4002	GOL	C1-C2	-2.33	1.42	1.51
2	B	4002	GOL	C3-C2	-2.02	1.43	1.51

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	4002	GOL	O1-C1-C2	3.33	126.17	110.20
2	B	4002	GOL	O2-C2-C1	2.90	121.89	109.12
2	B	4002	GOL	C3-C2-C1	2.75	122.39	111.70

There are no chirality outliers.

All (3) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	B	4002	GOL	C1-C2-C3-O3
2	B	4002	GOL	O1-C1-C2-O2
2	B	4002	GOL	O2-C2-C3-O3

There are no ring outliers.

3 monomers are involved in 11 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	4002	GOL	6	0
3	B	5001	SO4	0	3
2	A	4001	GOL	2	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(Å^2)	Q<0.9
1	A	145/159 (91%)	0.88	25 (17%)	1	1	17, 33, 73, 96	0
1	B	141/159 (88%)	1.62	31 (21%)	0	0	24, 34, 93, 122	16 (11%)
All	All	286/318 (89%)	1.24	56 (19%)	1	1	17, 34, 89, 122	16 (5%)

All (56) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	143	ALA	14.8
1	B	138	ALA	12.0
1	B	144	LYS	11.9
1	B	137	ALA	10.9
1	B	45	SER	9.0
1	B	46	ALA	8.8
1	B	142	ALA	8.6
1	B	148	VAL	8.3
1	B	147	GLY	8.0
1	B	140	ILE	7.5
1	B	141	ASP	7.2
1	A	138	ALA	7.1
1	B	15	ALA	6.2
1	B	156	ALA	6.1
1	B	154	LEU	5.9
1	B	145	LYS	5.4
1	A	143	ALA	5.1
1	A	140	ILE	5.1
1	B	25	LEU	4.9
1	B	149	ASN	4.3
1	A	148	VAL	4.3
1	A	66	THR	4.1
1	B	150	ASN	3.9
1	A	56	LEU	3.7

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Mol	Chain	Res	Type	RSRZ
1	B	139	SER	3.7
1	B	136	SER	3.7
1	B	83	TYR	3.6
1	A	137	ALA	3.4
1	A	145	LYS	3.4
1	A	48	GLY	3.4
1	A	45	SER	3.3
1	B	152	ASN	3.2
1	A	139	SER	3.1
1	A	141	ASP	2.9
1	A	142	ALA	2.9
1	B	100	ALA	2.9
1	A	136	SER	2.7
1	B	153	PRO	2.7
1	A	157	VAL	2.7
1	A	15	ALA	2.6
1	A	117	ALA	2.6
1	B	155	ASP	2.6
1	A	146	ALA	2.6
1	B	49	ASN	2.6
1	B	51	GLU	2.5
1	A	36	ASP	2.5
1	A	100	ALA	2.5
1	B	146	ALA	2.5
1	A	155	ASP	2.2
1	A	99	GLY	2.2
1	B	14	GLU	2.2
1	A	120	TRP	2.1
1	A	150	ASN	2.1
1	B	53	ARG	2.1
1	B	135	PRO	2.1
1	A	25	LEU	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
2	GOL	A	4001	6/6	0.74	0.20	42,63,133,157	0
2	GOL	B	4002	6/6	0.81	0.17	40,47,62,157	0
3	SO4	B	5001	3/5	0.97	0.07	38,38,40,54	1

6.5 Other polymers ⓘ

There are no such residues in this entry.