Full wwPDB X-ray Structure Validation Report (i)

Aug 14, 2023 – 10:14 am BST

PDB ID	:	8BAO
Title	:	Dysgonamonadaceae bacterium CRISPR ancillary nuclease 2
Authors	:	Li, A.W.H.; Doherty, A.J.
Deposited on	:	2022-10-11
Resolution	:	2.06 Å(reported)

The following versions of software and data (see references (i)) were used in the production of this report:

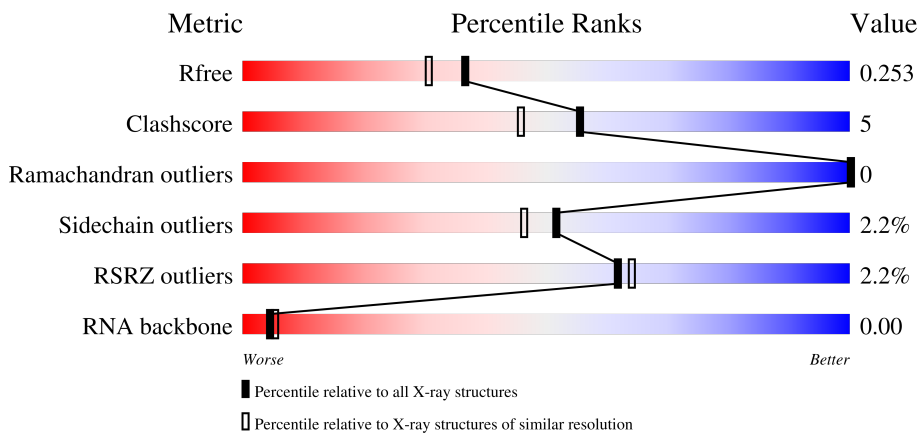|		
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.35
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.35

1 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 2.06 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		0.253
Clashscore		5
Ramachandran outliers		0
Sidechain outliers		2.2%
RSRZ outliers		2.2%
RNA backbone		0.00

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}	130704	2684 (2.08-2.04)
Clashscore	141614	2801 (2.08-2.04)
Ramachandran outliers	138981	2768 (2.08-2.04)
Sidechain outliers	138945	2768 (2.08-2.04)
RSRZ outliers	127900	2646 (2.08-2.04)
RNA backbone	3102	1015 (2.52-1.60)

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	387	2% / 82% / 11% / • 5%
1	B	387	2% / 84% / 10% / • 5%
2	C	4	25% / 25% / 50%

W O R L D W I D E
wwPDB
PROTEIN DATA BANK

2 Entry composition ⓘ

There are 5 unique types of molecules in this entry. The entry contains 6429 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 DUF1887 family protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	368	Total 3005	C 1909	N 516	O 569	S 11	0	0	0
1	B	367	Total 2995	C 1903	N 513	O 568	S 11	0	0	0

There are 40 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-19	MET	-	initiating methionine	UNP A0A2N4S908
A	-18	GLY	-	expression tag	UNP A0A2N4S908
A	-17	SER	-	expression tag	UNP A0A2N4S908
A	-16	SER	-	expression tag	UNP A0A2N4S908
A	-15	HIS	-	expression tag	UNP A0A2N4S908
A	-14	HIS	-	expression tag	UNP A0A2N4S908
A	-13	HIS	-	expression tag	UNP A0A2N4S908
A	-12	HIS	-	expression tag	UNP A0A2N4S908
A	-11	HIS	-	expression tag	UNP A0A2N4S908
A	-10	HIS	-	expression tag	UNP A0A2N4S908
A	-9	SER	-	expression tag	UNP A0A2N4S908
A	-8	SER	-	expression tag	UNP A0A2N4S908
A	-7	GLY	-	expression tag	UNP A0A2N4S908
A	-6	LEU	-	expression tag	UNP A0A2N4S908
A	-5	VAL	-	expression tag	UNP A0A2N4S908
A	-4	PRO	-	expression tag	UNP A0A2N4S908
A	-3	ARG	-	expression tag	UNP A0A2N4S908
A	-2	GLY	-	expression tag	UNP A0A2N4S908
A	-1	SER	-	expression tag	UNP A0A2N4S908
A	0	HIS	-	expression tag	UNP A0A2N4S908
B	-19	MET	-	initiating methionine	UNP A0A2N4S908
B	-18	GLY	-	expression tag	UNP A0A2N4S908
B	-17	SER	-	expression tag	UNP A0A2N4S908
B	-16	SER	-	expression tag	UNP A0A2N4S908
B	-15	HIS	-	expression tag	UNP A0A2N4S908

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Chain	Residue	Modelled	Actual	Comment	Reference
B	-14	HIS	-	expression tag	UNP A0A2N4S908
B	-13	HIS	-	expression tag	UNP A0A2N4S908
B	-12	HIS	-	expression tag	UNP A0A2N4S908
B	-11	HIS	-	expression tag	UNP A0A2N4S908
B	-10	HIS	-	expression tag	UNP A0A2N4S908
B	-9	SER	-	expression tag	UNP A0A2N4S908
B	-8	SER	-	expression tag	UNP A0A2N4S908
B	-7	GLY	-	expression tag	UNP A0A2N4S908
B	-6	LEU	-	expression tag	UNP A0A2N4S908
B	-5	VAL	-	expression tag	UNP A0A2N4S908
B	-4	PRO	-	expression tag	UNP A0A2N4S908
B	-3	ARG	-	expression tag	UNP A0A2N4S908
B	-2	GLY	-	expression tag	UNP A0A2N4S908
B	-1	SER	-	expression tag	UNP A0A2N4S908
B	0	HIS	-	expression tag	UNP A0A2N4S908

- Molecule 2 is a RNA chain called Cyclic tetra-adenylate (cA4).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
2	C	4	88	40	20	24	4	0	0	0

- Molecule 3 is BROMIDE ION (three-letter code: BR) (formula: Br).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Br		
3	A	2	2	2	0	0

- Molecule 4 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).

GOL

C3

OH O3

C1   C2

HO

O1

OH

O2

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	A	1	Total 6	C 3	O 3	0	0
4	B	1	Total 6	C 3	O 3	0	0

- Molecule 5 is water.

| Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	161	Total 161	O 161	0	0
5	B	157	Total 157	O 157	0	0
5	C	9	Total 9	O 9	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.
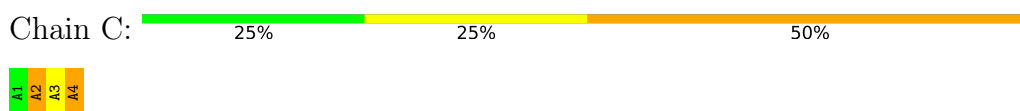
- Molecule 1: DUF1887 family protein
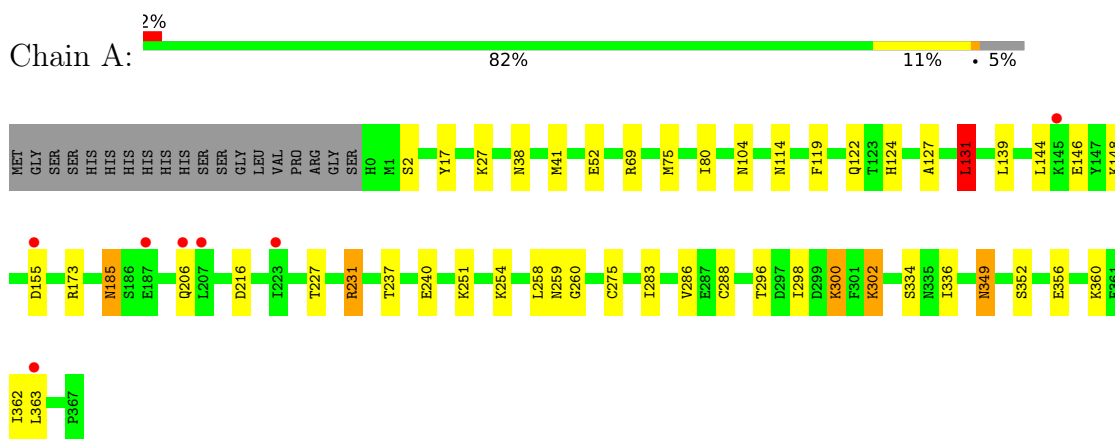
- Molecule 1: DUF1887 family protein
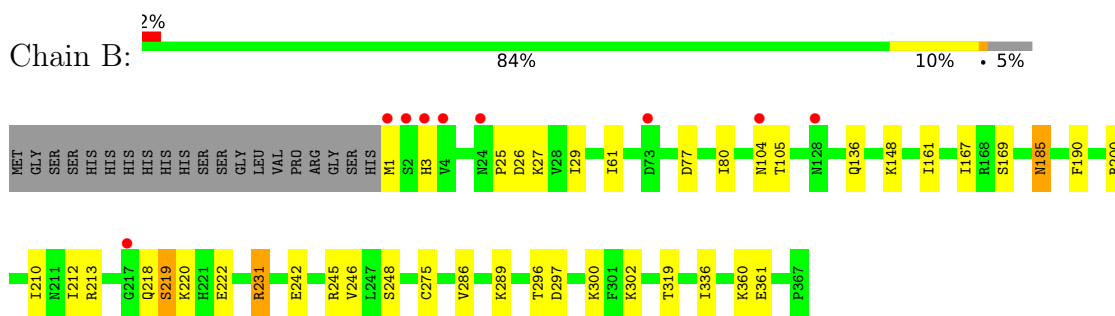
- Molecule 2: Cyclic tetra-adenylate (cA4)

4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants	155.13Å 109.43Å 63.04Å	Depositor
a, b, c, α, β, γ	90.00° 101.88° 90.00°	
Resolution (Å)	54.71 – 2.06	Depositor
	54.71 – 2.06	EDS
% Data completeness	99.7 (54.71-2.06)	Depositor
(in resolution range)	99.7 (54.71-2.06)	EDS
R_{merge}	0.24	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.27 (at 2.07Å)	Xtriage
Refinement program	PHENIX 1.20.1_4487	Depositor
R, R_{free}	0.220 , 0.254	Depositor
	0.218 , 0.253	DCC
R_{free} test set	3126 reflections (4.91%)	wwPDB-VP
Wilson B-factor (Å^2)	36.1	Xtriage
Anisotropy	0.348	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.38 , 45.7	EDS
L-test for twinning[2]	$< |L| > = 0.51, < L^2 > = 0.34$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	6429	wwPDB-VP
Average B, all atoms (Å^2)	39.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 13.56% 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: GOL, BR

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	0.43	0/3065	0.61	2/4138 (0.0%)
1	B	0.40	0/3054	0.59	0/4123
2	C	0.73	0/99	2.02	5/152 (3.3%)
All	All	0.42	0/6218	0.65	7/8413 (0.1%)

There are no bond length outliers.

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	4	A	O5'-P-OP1	-10.18	96.54	105.70
2	C	2	A	O5'-P-OP1	-9.40	97.24	105.70
2	C	4	A	O5'-P-OP2	9.24	121.78	110.70
2	C	2	A	O5'-P-OP2	9.19	121.73	110.70
1	A	131	LEU	CA-CB-CG	8.60	135.07	115.30
1	A	300	LYS	CD-CE-NZ	5.61	124.59	111.70
2	C	2	A	OP1-P-O3'	5.08	116.38	105.20

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	3005	0	2966	35	1

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	B	2995	0	2959	34	1
2	C	88	0	44	0	0
3	A	2	0	0	0	0
4	A	6	0	7	0	0
4	B	6	0	7	0	0
5	A	161	0	0	8	0
5	B	157	0	0	5	0
5	C	9	0	0	0	0
All	All	6429	0	5983	61	1

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 5.

All (61) 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:167:ILE:HD11	1:B:222:GLU:HG3	1.42	1.01
1:B:1:MET:N	5:B:501:HOH:O	1.92	1.00
1:A:185:ASN:ND2	5:A:504:HOH:O	2.08	0.87
1:A:288:CYS:O	5:A:501:HOH:O	1.96	0.83
1:A:206:GLN:NE2	5:A:502:HOH:O	1.97	0.82
1:A:300:LYS:HE2	1:B:300:LYS:HE3	1.64	0.79
1:A:362:ILE:HG23	1:A:363:LEU:HD13	1.64	0.77
1:B:136:GLN:OE1	5:B:502:HOH:O	2.01	0.77
1:A:349:ASN:O	1:A:349:ASN:ND2	2.15	0.77
1:A:300:LYS:HG2	1:B:300:LYS:HG2	1.73	0.71
1:B:275:CYS:HB3	1:B:286:VAL:HB	1.76	0.68
1:B:148:LYS:HD2	1:B:231:ARG:HH21	1.61	0.66
1:A:275:CYS:HB3	1:A:286:VAL:HB	1.78	0.64
1:A:104:ASN:O	5:A:505:HOH:O	2.14	0.64
1:B:190:PHE:HD2	1:B:200:ARG:HG3	1.64	0.61
1:B:167:ILE:HD13	1:B:220:LYS:HD3	1.82	0.60
1:B:27:LYS:HE2	1:B:29:ILE:HD11	1.85	0.57
1:A:302:LYS:HG2	1:A:334:SER:HB3	1.86	0.56
1:B:104:ASN:O	5:B:503:HOH:O	2.17	0.56
1:B:302:LYS:HB2	1:B:336:ILE:HD11	1.87	0.56
1:B:77:ASP:OD1	5:B:505:HOH:O	2.18	0.56
1:B:26:ASP:OD1	5:B:504:HOH:O	2.18	0.55
1:A:146:GLU:OE2	5:A:503:HOH:O	2.18	0.53
1:A:300:LYS:HE2	1:B:300:LYS:CE	2.38	0.53
1:B:213:ARG:HD2	1:B:219:SER:HB2	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:300:LYS:HD3	1:B:296:THR:HB	1.90	0.53
1:B:167:ILE:HD11	1:B:222:GLU:CG	2.28	0.53
1:B:289:LYS:O	1:B:319:THR:HA	2.09	0.52
1:A:227:THR:O	5:A:507:HOH:O	2.19	0.52
1:A:258:LEU:HG	1:A:259:ASN:HD22	1.73	0.51
1:A:258:LEU:HG	1:A:259:ASN:ND2	2.26	0.50
1:A:75:MET:HE1	1:A:80:ILE:HD12	1.92	0.50
1:A:237:THR:HA	1:A:240:GLU:OE1	2.12	0.49
1:A:124:HIS:ND1	5:A:513:HOH:O	2.35	0.49
1:A:296:THR:OG1	1:B:300:LYS:HE2	2.15	0.47
1:A:17:TYR:CG	1:A:139:LEU:HD11	2.52	0.45
1:A:131:LEU:HD11	1:A:283:ILE:HG13	1.98	0.45
1:A:114:ASN:HB3	1:A:127:ALA:HB3	1.99	0.45
1:B:161:ILE:HD13	1:B:242:GLU:HB2	1.99	0.45
1:A:144:LEU:HD11	1:A:260:GLY:HA3	1.97	0.45
1:A:148:LYS:HE3	1:A:231:ARG:NH1	2.32	0.45
1:B:245:ARG:O	1:B:248:SER:HB2	2.17	0.45
1:B:185:ASN:OD1	1:B:185:ASN:N	2.48	0.44
1:A:119:PHE:HD1	1:B:61:ILE:HD11	1.82	0.44
1:B:210:ILE:HD11	1:B:212:ILE:HD11	2.00	0.44
1:A:298:ILE:HG23	1:A:336:ILE:HD12	2.00	0.43
1:A:173:ARG:HA	1:A:173:ARG:HD3	1.83	0.43
1:A:240:GLU:H	1:A:240:GLU:HG3	1.54	0.43
1:A:38:ASN:HA	1:A:41:MET:HE3	2.00	0.42
1:B:297:ASP:HA	1:B:300:LYS:HG3	2.00	0.42
1:A:69:ARG:NH1	5:A:506:HOH:O	2.17	0.42
1:A:27:LYS:HE3	1:A:52:GLU:OE2	2.20	0.41
1:A:296:THR:CB	1:B:300:LYS:HE2	2.51	0.41
1:A:122:GLN:HG2	1:B:61:ILE:HG21	2.01	0.41
1:A:356:GLU:O	1:A:360:LYS:HG3	2.20	0.41
1:B:167:ILE:HD13	1:B:167:ILE:HA	1.80	0.41
1:B:167:ILE:HG23	1:B:167:ILE:HD12	1.75	0.41
1:B:360:LYS:HE2	1:B:360:LYS:HB2	1.81	0.41
1:B:3:HIS:CE1	1:B:25:PRO:HB3	2.56	0.40
1:B:80:ILE:O	1:B:105:THR:HA	2.21	0.40
1:B:245:ARG:NH2	1:B:246:VAL:HG12	2.36	0.40

All (1) 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)
1:A:216:ASP:O	1:B:218:GLN:NE2[1_554]	2.15	0.05

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	366/387 (95%)	355 (97%)	11 (3%)	0	100	100
1	B	365/387 (94%)	353 (97%)	12 (3%)	0	100	100
All	All	731/774 (94%)	708 (97%)	23 (3%)	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	334/350 (95%)	324 (97%)	10 (3%)	41	35
1	B	333/350 (95%)	328 (98%)	5 (2%)	65	62
All	All	667/700 (95%)	652 (98%)	15 (2%)	52	46

All (15) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	2	SER
1	A	131	LEU
1	A	155	ASP

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Mol	Chain	Res	Type
1	A	185	ASN
1	A	231	ARG
1	A	251	LYS
1	A	254	LYS
1	A	302	LYS
1	A	349	ASN
1	A	352	SER
1	B	169	SER
1	B	185	ASN
1	B	219	SER
1	B	231	ARG
1	B	361	GLU

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	259	ASN
1	A	294	ASN
1	B	136	GLN

5.3.3   RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
2	C	3/4 (75%)	3 (100%)	0

All (3) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
2	C	2	A
2	C	3	A
2	C	4	A

There are no RNA pucker outliers to report.

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 ⓘ

Of 4 ligands modelled in this entry, 2 are monoatomic - leaving 2 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	#$|Z| > 2$
4	GOL	A	403	-	5,5,5	1.36	1 (20%)	5,5,5	1.12	0
4	GOL	B	401	-	5,5,5	1.18	0	5,5,5	1.50	1 (20%)

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
4	GOL	A	403	-	-	4/4/4/4	-
4	GOL	B	401	-	-	0/4/4/4	-

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	403	GOL	O2-C2	-2.60	1.35	1.43

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	401	GOL	C3-C2-C1	-2.71	101.16	111.70

There are no chirality outliers.

All (4) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	403	GOL	C1-C2-C3-O3
4	A	403	GOL	O2-C2-C3-O3
4	A	403	GOL	O1-C1-C2-C3
4	A	403	GOL	O1-C1-C2-O2

There are no ring outliers.

No monomer is involved in short contacts.

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	368/387 (95%)	0.12	7 (1%)	66	68	26, 37, 51, 65	0
1	B	367/387 (94%)	0.17	9 (2%)	57	60	27, 37, 54, 79	0
2	C	4/4 (100%)	-0.76	0	100	100	28, 28, 29, 30	0
All	All	739/778 (94%)	0.14	16 (2%)	62	64	26, 37, 54, 79	0

All (16) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	2	SER	4.4
1	A	207	LEU	3.8
1	B	104	ASN	3.6
1	B	3	HIS	3.4
1	A	187	GLU	2.6
1	A	223	ILE	2.6
1	A	155	ASP	2.3
1	B	1	MET	2.3
1	A	206	GLN	2.2
1	B	128	ASN	2.2
1	A	363	LEU	2.1
1	B	4	VAL	2.1
1	B	24	ASN	2.1
1	B	73	ASP	2.1
1	A	145	LYS	2.1
1	B	217	GLY	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
4	GOL	A	403	6/6	0.87	0.17	31,32,34,38	0
4	GOL	B	401	6/6	0.93	0.16	28,32,33,44	0
3	BR	A	402	1/1	0.98	0.20	34,34,34,34	0
3	BR	A	401	1/1	0.99	0.11	55,55,55,55	0

6.5 Other polymers ⓘ

There are no such residues in this entry.