



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 6, 2026 – 03:46 PM UTC

PDB ID : 6WE9 / pdb_00006we9
Title : YTH domain of human YTHDC1 with 11mer ssDNA Containing N6mA
Authors : Horton, J.R.; Cheng, X.
Deposited on : 2020-04-01
Resolution : 1.59 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4-5-2 with Phenix2.0
Mogul : 2022.3.0, CSD as543be (2022)
Xtriage (Phenix) : 2.0
EDS : 3.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4 : 9.0.010 (Gargrove)
Density-Fitness : 1.0.12
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

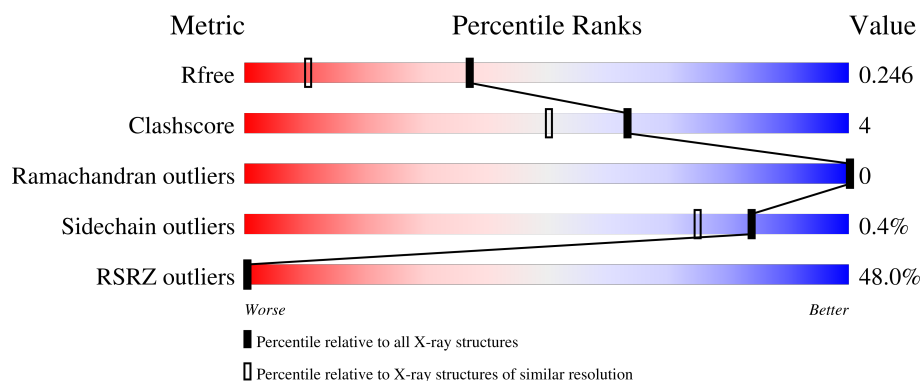
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 1.59 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	4673 (1.60-1.60)
Clashscore	190562	4931 (1.60-1.60)
Ramachandran outliers	187476	4831 (1.60-1.60)
Sidechain outliers	187428	4830 (1.60-1.60)
RSRZ outliers	180081	4672 (1.60-1.60)

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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	166	7% 94% 5%
1	C	166	88% 86% 13%
2	B	11	45% 64% 36%
2	F	11	27% 55% 18% 9% 18%

2 Entry composition

There are 6 unique types of molecules in this entry. The entry contains 3141 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 YTH domain-containing protein 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	C	164	Total	C	N	O	S	0	2	0
			1226	793	209	218	6			
1	A	164	Total	C	N	O	S	0	2	0
			1297	835	231	225	6			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	344	GLY	-	expression tag	UNP Q96MU7
A	344	GLY	-	expression tag	UNP Q96MU7

- Molecule 2 is a DNA chain called DNA (5'-D(*CP*GP*CP*GP*GP*(6MA)P*CP*TP*CP*TP*G)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	11	Total	C	N	O	P	0	0	0
			223	107	41	65	10			
2	F	9	Total	C	N	O	P	0	0	0
			167	79	31	49	8			

- Molecule 3 is 1,2-ETHANEDIOL (CCD ID: EDO) (formula: C₂H₆O₂).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	A	1	Total	C	O	0	0
			4	2	2		
3	A	1	Total	C	O	0	0
			4	2	2		
3	A	1	Total	C	O	0	0
			4	2	2		
3	A	1	Total	C	O	0	0
			4	2	2		
3	A	1	Total	C	O	0	0
			4	2	2		
3	A	1	Total	C	O	0	0
			4	2	2		

- Molecule 4 is SULFATE ION (CCD ID: SO4) (formula: O₄S).



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

- Molecule 5 is GLYCEROL (CCD ID: GOL) (formula: C₃H₈O₃).



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

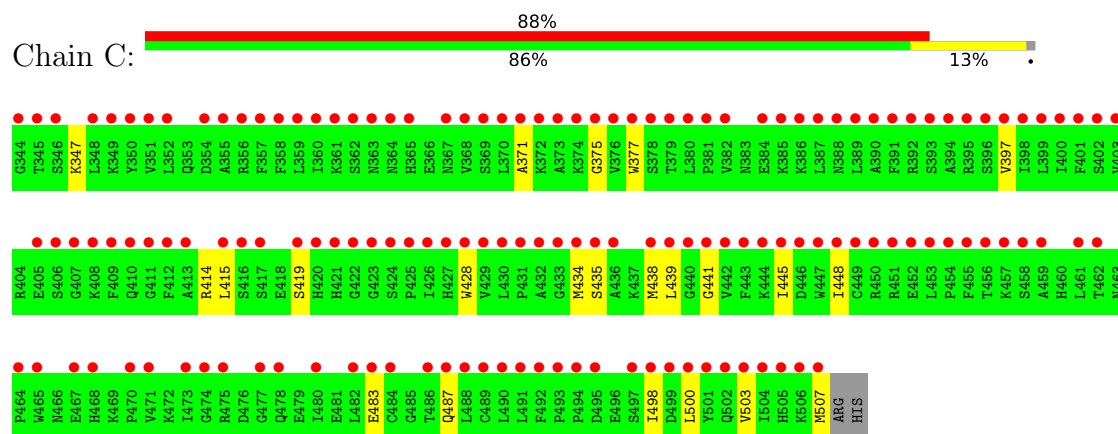
- Molecule 6 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	C	1	Total 1	O 1	0	0
6	A	151	Total 152	O 152	0	1
6	B	25	Total 25	O 25	0	0
6	F	5	Total 5	O 5	0	0

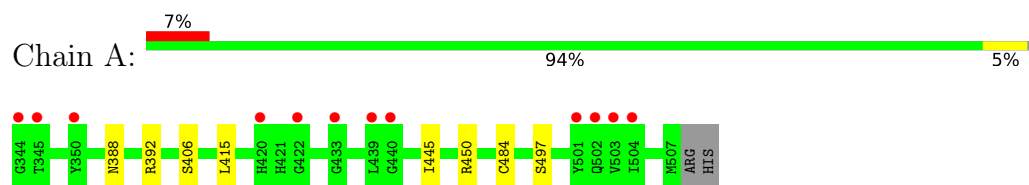
3 Residue-property plots [i](#)

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.

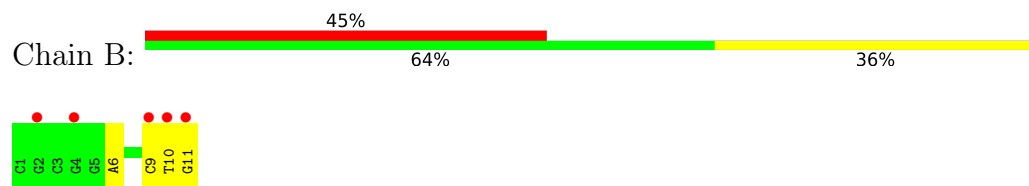
- Molecule 1: YTH domain-containing protein 1



- Molecule 1: YTH domain-containing protein 1



- Molecule 2: DNA (5'-D(*CP*GP*CP*GP*GP*(6MA)P*CP*TP*CP*TP*G)-3')



- Molecule 2: DNA (5'-D(*CP*GP*CP*GP*GP*(6MA)P*CP*TP*CP*TP*G)-3')



4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	119.97Å 42.53Å 90.02Å 90.00° 103.46° 90.00°	Depositor
Resolution (Å)	35.31 – 1.59 35.31 – 1.59	Depositor EDS
% Data completeness (in resolution range)	91.3 (35.31-1.59) 91.3 (35.31-1.59)	Depositor EDS
R_{merge}	0.20	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.57 (at 1.59Å)	Xtriage
Refinement program	PHENIX 1.17.1_3660	Depositor
R, R_{free}	0.222 , 0.246 0.223 , 0.246	Depositor DCC
R_{free} test set	2000 reflections (3.36%)	wwPDB-VP
Wilson B-factor (Å ²)	15.3	Xtriage
Anisotropy	1.177	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.34 , 56.5	EDS
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	3141	wwPDB-VP
Average B, all atoms (Å ²)	64.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.06% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: SO4, EDO, GOL, 6MA

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	0.10	0/1335	0.28	0/1802
1	C	0.11	0/1260	0.25	0/1713
2	B	0.21	0/223	0.46	0/340
2	F	0.28	0/160	0.38	0/243
All	All	0.13	0/2978	0.30	0/4098

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 [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	1297	0	1311	5	0
1	C	1226	0	1174	14	0
2	B	223	0	127	2	0
2	F	167	0	91	5	0
3	A	28	0	42	1	0
4	A	5	0	0	0	0
5	A	12	0	16	1	0
6	A	152	0	0	0	0
6	B	25	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
6	C	1	0	0	0	0
6	F	5	0	0	0	0
All	All	3141	0	2761	23	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 4.

All (23) 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:C:419:SER:HB2	1:C:441:GLY:HA3	1.77	0.66
1:A:450:ARG:NH2	1:A:497:SER:OG	2.30	0.64
2:B:9:DC:H4'	2:B:10:DT:H5'	1.81	0.61
1:A:406:SER:HB2	3:A:604:EDO:H21	1.86	0.57
1:C:428:TRP:CD1	1:C:439:LEU:HD13	2.44	0.53
1:C:415:LEU:HD23	1:C:445:ILE:HG22	1.91	0.52
1:C:448:ILE:HA	1:C:498:ILE:HG21	1.92	0.52
1:C:371:ALA:O	1:C:375:GLY:N	2.46	0.48
2:F:4:DG:H2''	2:F:5:DG:C4	2.48	0.47
1:C:438:MET:SD	2:F:5:DG:H8	2.38	0.47
1:C:414:ARG:HH22	1:C:507:MET:HG2	1.80	0.46
1:A:415:LEU:HD23	1:A:445:ILE:HG22	1.97	0.46
1:C:347:LYS:HB2	1:C:500:LEU:HD13	1.98	0.46
1:A:388:ASN:O	1:A:392:ARG:HD3	2.16	0.45
2:B:11:DG:H2'	2:B:11:DG:N3	2.31	0.45
2:F:4:DG:H2'	2:F:4:DG:N3	2.32	0.44
1:C:435:SER:OG	1:C:438:MET:HG3	2.18	0.44
1:C:397:VAL:HB	1:C:415:LEU:HB2	2.01	0.42
1:A:484:CYS:HB2	5:A:609:GOL:H32	2.03	0.41
1:C:483:GLU:O	1:C:487:GLN:HG2	2.21	0.41
1:C:377:TRP:CE2	2:F:6:6MA:H13	2.56	0.41
1:C:434:MET:HE3	1:C:434:MET:HB2	1.99	0.41
1:C:438:MET:SD	2:F:5:DG:C8	3.13	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	164/166 (99%)	163 (99%)	1 (1%)	0	100	100
1	C	164/166 (99%)	161 (98%)	3 (2%)	0	100	100
All	All	328/332 (99%)	324 (99%)	4 (1%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	140/145 (97%)	140 (100%)	0	100	100
1	C	124/145 (86%)	123 (99%)	1 (1%)	73	59
All	All	264/290 (91%)	263 (100%)	1 (0%)	84	75

All (1) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	C	503	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

2 non-standard protein/DNA/RNA residues 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	6MA	F	6	2	21,24,25	3.80	8 (38%)	27,34,37	2.59	10 (37%)
2	6MA	B	6	2	21,24,25	3.67	7 (33%)	27,34,37	2.46	10 (37%)

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	6MA	F	6	2	-	1/9/23/24	0/3/3/3
2	6MA	B	6	2	-	1/9/23/24	0/3/3/3

All (15) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	6	6MA	C6-N6	9.93	1.45	1.34
2	F	6	6MA	C6-N6	9.65	1.45	1.34
2	B	6	6MA	O4'-C1'	7.95	1.60	1.42
2	F	6	6MA	O4'-C1'	7.93	1.60	1.42
2	F	6	6MA	O4'-C4'	-7.26	1.28	1.45
2	B	6	6MA	O4'-C4'	-7.01	1.29	1.45
2	F	6	6MA	C2'-C1'	-6.45	1.34	1.52
2	B	6	6MA	C2'-C1'	-6.08	1.35	1.52
2	F	6	6MA	O3'-C3'	-3.19	1.36	1.43
2	F	6	6MA	C8-N9	-3.04	1.32	1.37
2	F	6	6MA	C1'-N9	-2.96	1.40	1.46
2	B	6	6MA	C8-N9	-2.79	1.32	1.37
2	F	6	6MA	C5-N7	-2.72	1.34	1.39
2	B	6	6MA	O3'-C3'	-2.71	1.37	1.43
2	B	6	6MA	C5-N7	-2.34	1.34	1.39

All (20) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	6	6MA	C5-C4-N3	-5.73	118.82	126.72
2	F	6	6MA	N3-C4-N9	5.09	135.82	127.17
2	F	6	6MA	C4-N9-C8	4.90	110.89	105.74
2	F	6	6MA	C5-C4-N3	-4.89	119.99	126.72
2	B	6	6MA	N3-C2-N1	-4.61	121.61	128.58
2	B	6	6MA	N3-C4-N9	4.52	134.86	127.17
2	F	6	6MA	N3-C2-N1	-4.24	122.16	128.58
2	F	6	6MA	C2'-C1'-N9	-4.06	105.10	114.63
2	F	6	6MA	N9-C8-N7	-4.04	108.20	113.94
2	F	6	6MA	C1-N6-C6	3.85	126.42	122.85
2	B	6	6MA	C2-N3-C4	3.82	121.16	111.83
2	B	6	6MA	N9-C8-N7	-3.66	108.75	113.94
2	B	6	6MA	C5-N7-C8	3.50	108.94	103.45
2	B	6	6MA	C4-C5-N7	-3.21	106.92	110.58
2	B	6	6MA	C4-N9-C8	3.17	109.07	105.74
2	F	6	6MA	C2-N3-C4	3.17	119.57	111.83
2	F	6	6MA	C5-N7-C8	2.80	107.86	103.45
2	B	6	6MA	C1-N6-C6	-2.64	120.40	122.85
2	B	6	6MA	C6-C5-N7	2.21	134.84	132.43
2	F	6	6MA	C4-C5-C6	2.16	118.58	116.78

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	F	6	6MA	C4'-C5'-O5'-P
2	B	6	6MA	C4'-C5'-O5'-P

There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	F	6	6MA	1	0

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

10 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	$\# Z > 2$
3	EDO	A	602	-	3,3,3	0.42	0	2,2,2	0.38	0
3	EDO	A	604	-	3,3,3	0.41	0	2,2,2	0.37	0
5	GOL	A	608	-	5,5,5	0.93	0	5,5,5	1.09	0
4	SO4	A	603	-	4,4,4	0.23	0	6,6,6	0.07	0
3	EDO	A	607	-	3,3,3	0.42	0	2,2,2	0.38	0
5	GOL	A	609	-	5,5,5	0.95	0	5,5,5	1.05	0
3	EDO	A	610	-	3,3,3	0.42	0	2,2,2	0.39	0
3	EDO	A	606	-	3,3,3	0.42	0	2,2,2	0.39	0
3	EDO	A	601	-	3,3,3	0.44	0	2,2,2	0.39	0
3	EDO	A	605	-	3,3,3	0.42	0	2,2,2	0.38	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	EDO	A	602	-	-	0/1/1/1	-
3	EDO	A	604	-	-	0/1/1/1	-
5	GOL	A	608	-	-	0/4/4/4	-
3	EDO	A	607	-	-	1/1/1/1	-
5	GOL	A	609	-	-	2/4/4/4	-
3	EDO	A	610	-	-	0/1/1/1	-
3	EDO	A	606	-	-	0/1/1/1	-
3	EDO	A	601	-	-	0/1/1/1	-
3	EDO	A	605	-	-	0/1/1/1	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (3) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	A	609	GOL	O1-C1-C2-C3
5	A	609	GOL	O1-C1-C2-O2
3	A	607	EDO	O1-C1-C2-O2

There are no ring outliers.

2 monomers are involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	604	EDO	1	0
5	A	609	GOL	1	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, 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	164/166 (98%)	0.57	12 (7%) 21 21	9, 23, 50, 65	2 (1%)
1	C	164/166 (98%)	3.52	146 (89%) 0 0	66, 110, 151, 161	2 (1%)
2	B	10/11 (90%)	1.97	5 (50%) 0 0	26, 47, 81, 87	0
2	F	8/11 (72%)	1.86	3 (37%) 1 0	45, 78, 139, 157	0
All	All	346/354 (97%)	2.03	166 (47%) 0 0	9, 62, 141, 161	4 (1%)

All (166) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	351	VAL	9.0
1	C	503	VAL	7.7
1	C	439	LEU	6.7
1	C	501	TYR	6.6
1	C	377	TRP	6.5
1	C	447	TRP	6.3
1	C	488	LEU	6.3
1	C	412	PHE	6.2
1	C	376	VAL	6.1
1	C	428	TRP	5.9
1	C	371	ALA	5.8
1	C	465	TRP	5.7
1	C	445	ILE	5.6
1	C	448	ILE	5.6
1	C	504	ILE	5.6
1	C	352	LEU	5.6
1	C	491	LEU	5.6
1	C	413	ALA	5.4
1	C	490	LEU	5.3
1	C	399	LEU	5.3
1	C	442	VAL	5.1

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Mol	Chain	Res	Type	RSRZ
1	A	344	GLY	5.1
1	C	433	GLY	5.0
1	C	431	PRO	5.0
1	C	480	ILE	5.0
1	C	492	PHE	5.0
1	C	443	PHE	4.9
1	C	370	LEU	4.9
1	C	422	GLY	4.9
1	C	415	LEU	4.8
1	C	453	LEU	4.8
1	C	350	TYR	4.8
1	C	426	ILE	4.8
1	C	394	ALA	4.7
1	C	395	ARG	4.7
1	C	507	MET	4.6
1	C	373	ALA	4.6
2	B	11	DG	4.6
1	C	391	PHE	4.5
1	C	455	PHE	4.5
1	C	427	HIS	4.5
1	C	489	CYS	4.5
1	C	397	VAL	4.5
1	C	498	ILE	4.4
1	C	429	VAL	4.4
1	C	500	LEU	4.4
1	C	344	GLY	4.4
1	C	434	MET	4.3
1	C	505	HIS	4.3
1	C	389	LEU	4.3
1	C	359	LEU	4.3
1	C	398	ILE	4.3
1	C	403	VAL	4.2
1	C	449	CYS	4.2
1	C	345	THR	4.2
1	C	348	LEU	4.1
1	C	459	ALA	4.1
1	C	368	VAL	4.0
1	C	441	GLY	3.9
1	C	432	ALA	3.9
1	C	446	ASP	3.9
1	C	444	LYS	3.8
1	C	493	PRO	3.8

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Mol	Chain	Res	Type	RSRZ
1	C	471	VAL	3.8
1	C	387	LEU	3.8
1	C	400	ILE	3.7
1	C	430	LEU	3.7
1	C	375	GLY	3.7
1	C	454	PRO	3.7
1	C	360	ILE	3.7
1	C	436	ALA	3.7
1	C	409	PHE	3.7
2	B	10	DT	3.6
1	C	372	LYS	3.5
1	C	396	SER	3.5
1	C	416	SER	3.5
1	C	506	LYS	3.5
1	C	452	GLU	3.4
1	C	382	VAL	3.4
1	C	494	PRO	3.4
1	C	401	PHE	3.4
1	C	423	GLY	3.4
2	F	5	DG	3.3
2	B	9	DC	3.3
1	C	421	HIS	3.2
1	C	440	GLY	3.2
1	C	425	PRO	3.2
1	C	390	ALA	3.2
1	C	393	SER	3.2
1	C	410	GLN	3.2
1	C	487	GLN	3.1
1	C	470	PRO	3.1
1	C	407	GLY	3.1
1	C	502	GLN	3.1
1	C	402	SER	3.0
1	C	424	SER	3.0
1	C	456	THR	3.0
1	C	482	LEU	3.0
1	C	420	HIS	3.0
1	A	420	HIS	2.9
1	C	473	ILE	2.9
1	C	388	ASN	2.9
1	C	408	LYS	2.9
1	C	392	ARG	2.9
1	A	350	TYR	2.9

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Mol	Chain	Res	Type	RSRZ
1	C	365	HIS	2.9
1	C	450	ARG	2.8
1	C	457	LYS	2.8
1	C	486	THR	2.8
1	A	501	TYR	2.8
1	C	405	GLU	2.8
1	C	381	PRO	2.8
1	C	497	SER	2.7
1	C	484	CYS	2.7
1	C	406	SER	2.7
1	C	346	SER	2.7
1	C	380	LEU	2.7
1	A	503	VAL	2.7
1	C	419	SER	2.7
1	C	477	GLY	2.6
1	C	349	LYS	2.6
1	C	468	HIS	2.6
1	C	354	ASP	2.6
1	C	475	ARG	2.6
1	C	374	LYS	2.5
1	C	386	LYS	2.5
1	A	422	GLY	2.5
1	C	378[A]	SER	2.5
1	C	364	ASN	2.5
2	F	8	DT	2.5
1	C	362	SER	2.5
1	C	478	GLN	2.5
1	C	474	GLY	2.4
1	C	385	LYS	2.4
1	C	358	PHE	2.4
1	C	495	ASP	2.4
1	A	504	ILE	2.4
1	C	355	ALA	2.3
1	C	451	ARG	2.3
1	C	461	LEU	2.3
1	C	357	PHE	2.3
1	C	438	MET	2.3
1	C	384	GLU	2.3
1	A	440	GLY	2.3
1	A	439	LEU	2.3
1	C	417	SER	2.3
1	C	467	GLU	2.3

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Mol	Chain	Res	Type	RSRZ
1	C	367	ASN	2.2
2	F	7	DC	2.2
1	A	345	THR	2.2
2	B	4	DG	2.2
1	C	499	ASP	2.2
1	C	483	GLU	2.2
1	C	361	LYS	2.2
1	C	379	THR	2.1
1	C	356	ARG	2.1
2	B	2	DG	2.1
1	C	411	GLY	2.1
1	C	458	SER	2.1
1	A	502	GLN	2.1
1	A	433	GLY	2.1
1	C	464	PRO	2.1
1	C	369[A]	SER	2.0
1	C	435	SER	2.0
1	C	462	THR	2.0
1	C	363	ASN	2.0

6.2 Non-standard residues in protein, DNA, RNA chains [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
2	6MA	F	6	22/23	0.80	0.15	107,122,126,129	0
2	6MA	B	6	22/23	0.94	0.08	13,15,28,35	0

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
3	EDO	A	604	4/4	0.54	0.26	43,46,51,56	0
5	GOL	A	608	6/6	0.68	0.20	53,58,62,65	0
3	EDO	A	610	4/4	0.74	0.18	46,53,58,60	0
3	EDO	A	607	4/4	0.77	0.15	62,63,63,63	0
3	EDO	A	605	4/4	0.77	0.18	59,60,62,62	0
3	EDO	A	606	4/4	0.77	0.17	43,43,43,43	4
5	GOL	A	609	6/6	0.78	0.17	42,46,49,50	0
3	EDO	A	602	4/4	0.85	0.12	45,47,50,52	0
4	SO4	A	603	5/5	0.87	0.11	65,69,71,74	0
3	EDO	A	601	4/4	0.95	0.07	15,16,17,18	0

6.5 Other polymers [i](#)

There are no such residues in this entry.