WORLDWIDE wwPDB PROTEIN DATA BANK

Full wwPDB X-ray Structure Validation Report ⓘ

Feb 4, 2026 – 06:18 PM EST

PDB ID	:	9OOA / pdb_00009ooa
Title	:	Crystal structure of MYST acetyltransferase domain in complex with inhibitor 7
Authors	:	Hermans, S.J.; Suwandi, A.; Parker, M.W.; Baell, J.B.
Deposited on	:	2025-05-15
Resolution	:	1.39 Å(reported)

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
buster-report	:	1.1.7 (2018)
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)	:	2.47

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 1.39 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		0.204
Clashscore		2
Ramachandran outliers		0
Sidechain outliers		0.4%
RSRZ outliers		19.7%

Worse   *Better*

▌ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution
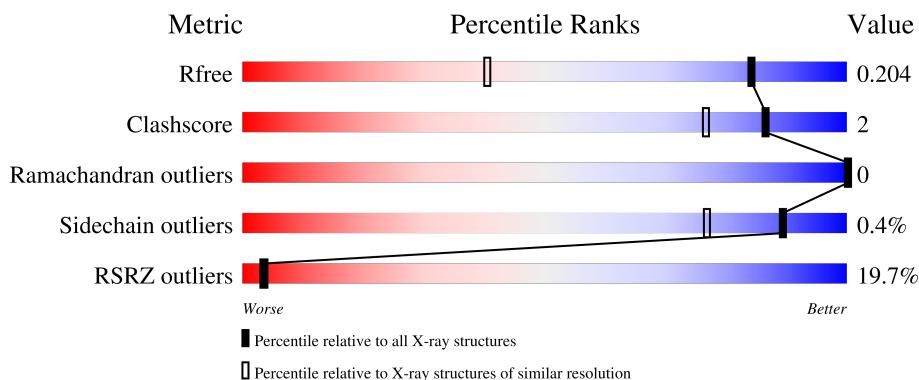
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	164625	3869 (1.40-1.36)
Clashscore	180529	4183 (1.40-1.36)
Ramachandran outliers	177936	4116 (1.40-1.36)
Sidechain outliers	177891	4115 (1.40-1.36)
RSRZ outliers	164620	3867 (1.40-1.36)

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	295	18% 85% · 10%
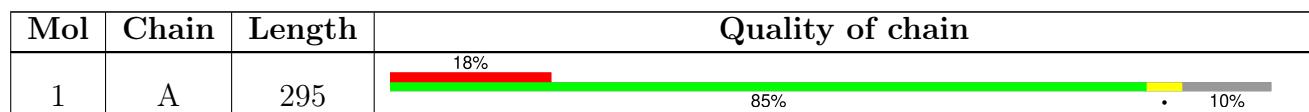
2 Entry composition ⓘ

There are 9 unique types of molecules in this entry. The entry contains 2549 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 Histone acetyltransferase KAT8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	265	2185	1424	354	395	12	0	1	0

There are 26 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	485	MET	-	initiating methionine	UNP Q9H7Z6
A	486	GLY	-	expression tag	UNP Q9H7Z6
A	487	SER	-	expression tag	UNP Q9H7Z6
A	488	SER	-	expression tag	UNP Q9H7Z6
A	489	HIS	-	expression tag	UNP Q9H7Z6
A	490	HIS	-	expression tag	UNP Q9H7Z6
A	491	HIS	-	expression tag	UNP Q9H7Z6
A	492	HIS	-	expression tag	UNP Q9H7Z6
A	493	HIS	-	expression tag	UNP Q9H7Z6
A	494	HIS	-	expression tag	UNP Q9H7Z6
A	495	SER	-	expression tag	UNP Q9H7Z6
A	496	SER	-	expression tag	UNP Q9H7Z6
A	497	GLY	-	expression tag	UNP Q9H7Z6
A	498	LEU	-	expression tag	UNP Q9H7Z6
A	499	VAL	-	expression tag	UNP Q9H7Z6
A	500	PRO	-	expression tag	UNP Q9H7Z6
A	501	ARG	-	expression tag	UNP Q9H7Z6
A	502	GLY	-	expression tag	UNP Q9H7Z6
A	503	SER	-	expression tag	UNP Q9H7Z6
A	579	HIS	TYR	conflict	UNP Q9H7Z6
A	645	SER	ALA	engineered mutation	UNP Q9H7Z6
A	648	MET	LEU	engineered mutation	UNP Q9H7Z6
A	649	ILE	THR	engineered mutation	UNP Q9H7Z6
A	660	ARG	LYS	engineered mutation	UNP Q9H7Z6
A	697	SER	TRP	engineered mutation	UNP Q9H7Z6
A	702	ASN	ILE	conflict	UNP Q9H7Z6

- Molecule 2 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	1	Total 1	Zn 1	0	0

- Molecule 3 is SULFATE ION (CCD ID: SO4) (formula: O_4S).
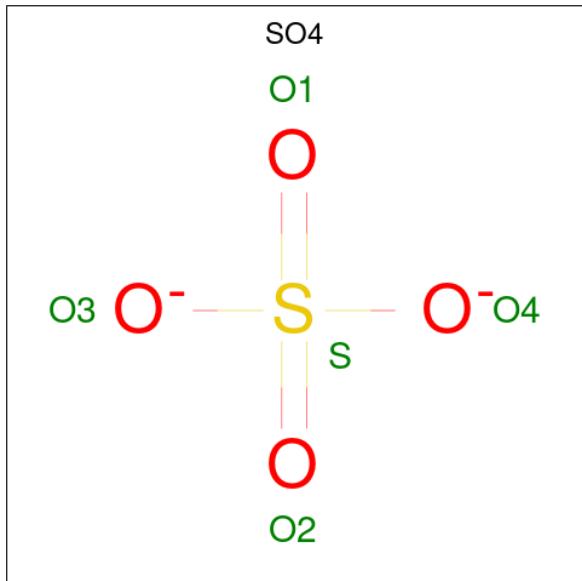
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	A	1	Total 5	O 4	S 1	0	0

- Molecule 4 is SODIUM ION (CCD ID: NA) (formula: Na).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	2	Total 2	Na 2	0	0

- Molecule 5 is CHLORIDE ION (CCD ID: CL) (formula: Cl).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	2	Total 2	Cl 2	0	0

- Molecule 6 is GLYCEROL (CCD ID: GOL) (formula: $C_3H_8O_3$).

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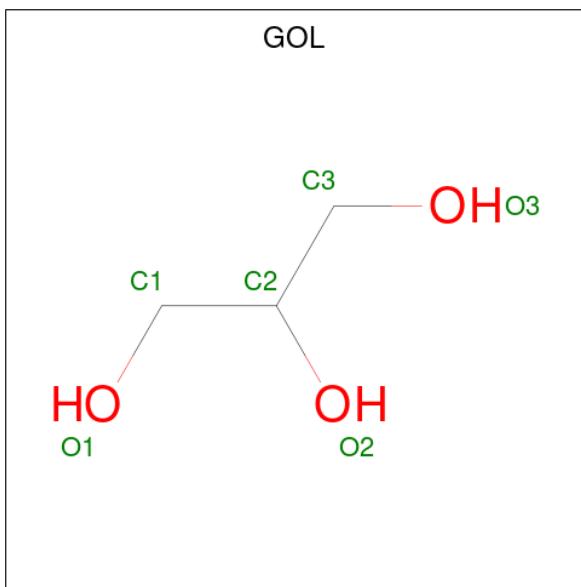
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
6	A	1	Total 6	C 3	O 3	0	0
6	A	1	Total 6	C 3	O 3	0	0

- Molecule 7 is N-(cyclohexylsulfamoyl)-2-hydroxy-6-methoxy-4-[(1H-pyrazol-1-yl)methyl]be nzene-1-carboximidamide (CCD ID: A1CD4) (formula: $C_{18}H_{25}N_5O_4S$) (labeled as "Ligand of Interest" by depositor).

A1CD4
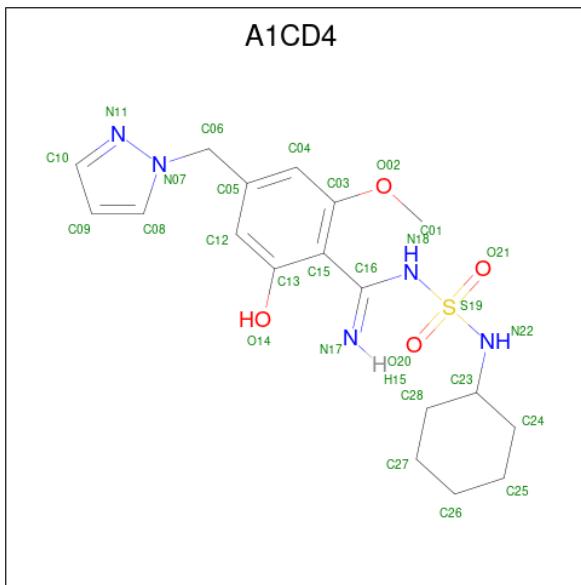
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
7	A	1	Total 28	C 18	N 5	O 4	S 1	0	1

- Molecule 8 is N-cyclohexyl-N'-{4-methoxy-6-[(1H-pyrazol-1-yl)methyl]-1,2-benzoxazol -3-yl}sulfuric diamide (CCD ID: A1CD3) (formula: $C_{18}H_{23}N_5O_4S$) (labeled as "Ligand of Interest" by depositor).
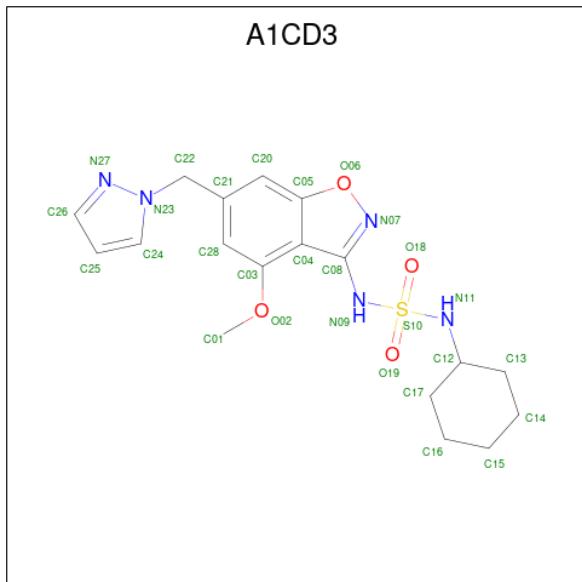
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	N	O	S		
8	A	1	28	18	5	4	1	0	1

- Molecule 9 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	O		
9	A	286	286	286	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: Histone acetyltransferase KAT8
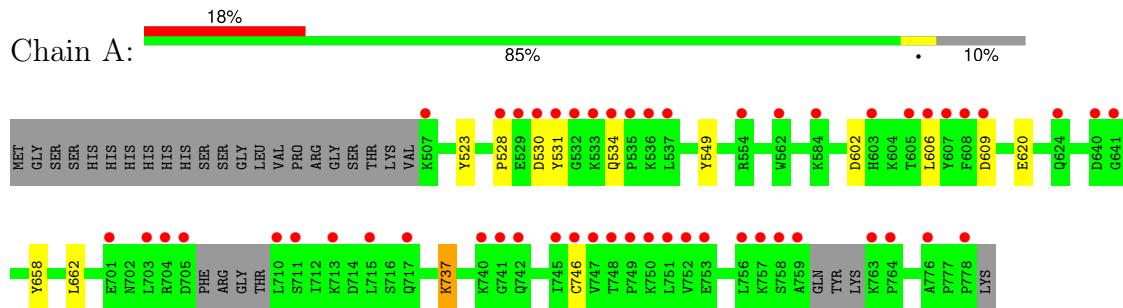
4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	46.50Å 57.45Å 121.55Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	36.93 – 1.39 36.93 – 1.39	Depositor EDS
% Data completeness (in resolution range)	99.4 (36.93-1.39) 99.4 (36.93-1.39)	Depositor EDS
R_{merge}	0.05	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.37 (at 1.39Å)	Xtriage
Refinement program	PHENIX 1.8.4_1496	Depositor
R, R_{free}	0.185 , 0.204 0.187 , 0.204	Depositor DCC
R_{free} test set	3317 reflections (4.99%)	wwPDB-VP
Wilson B-factor (Å^2)	17.3	Xtriage
Anisotropy	0.290	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.37 , 33.0	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	0.97	EDS
Total number of atoms	2549	wwPDB-VP
Average B, all atoms (Å^2)	26.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.53% 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:
A1CD3, A1CD4, NA, GOL, CL, ZN, ALY, SO4

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	0.41	0/2239	0.67	2/3034 (0.1%)

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	534	GLN	CA-C-N	5.17	124.35	118.97
1	A	534	GLN	C-N-CA	5.17	124.35	118.97

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	2185	0	2146	9	0
2	A	1	0	0	0	0
3	A	5	0	0	0	0
4	A	2	0	0	0	0
5	A	2	0	0	0	0
6	A	12	0	16	0	0
7	A	28	0	0	0	0
8	A	28	0	0	0	0
9	A	286	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	2549	0	2162	9	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 2.

All (9) 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:A:609:ASP:OD1	9:A:901:HOH:O	2.18	0.56
1:A:530:ASP:OD1	1:A:530:ASP:N	2.46	0.47
1:A:549:TYR:OH	9:A:902:HOH:O	2.20	0.47
1:A:606:LEU:HD21	1:A:609:ASP:O	2.16	0.46
1:A:737:LYS:HE3	1:A:746:CYS:SG	2.57	0.44
1:A:523:TYR:CZ	1:A:602:ASP:HB2	2.53	0.44
1:A:528:PRO:HB2	1:A:531:TYR:HD2	1.85	0.41
1:A:620:GLU:OE2	1:A:658:TYR:OH	2.30	0.41
1:A:662:LEU:HD23	1:A:662:LEU:HA	1.98	0.40

There are no symmetry-related clashes.

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	259/295 (88%)	252 (97%)	7 (3%)	0	100 100

There are no Ramachandran outliers to report.

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	243/271 (90%)	242 (100%)	1 (0%)	89 77

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

Mol	Chain	Res	Type
1	A	737	LYS

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	534	GLN
1	A	603	HIS
1	A	742	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

1 non-standard protein/DNA/RNA residue is 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	$\#|Z| > 2$
1	ALY	A	604	1	10,11,12	0.80	0	7,12,14	1.01	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
1	ALY	A	604	1	-	1/9/10/12	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (1) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	A	604	ALY	CG-CD-CE-NZ

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 10 ligands modelled in this entry, 5 are monoatomic - leaving 5 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	SO4	A	802	-	4,4,4	0.25	0	6,6,6	0.11	0
8	A1CD3	A	810[A]	-	27,31,31	2.23	10 (37%)	36,44,44	2.25	7 (19%)
6	GOL	A	808	-	5,5,5	0.34	0	5,5,5	0.31	0
6	GOL	A	807	-	5,5,5	0.41	0	5,5,5	0.49	0
7	A1CD4	A	809[B]	-	29,30,30	2.03	9 (31%)	38,42,42	2.76	9 (23%)

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
6	GOL	A	808	-	-	3/4/4/4	-
7	A1CD4	A	809[B]	-	-	2/16/28/28	0/3/3/3
6	GOL	A	807	-	-	2/4/4/4	-
8	A1CD3	A	810[A]	-	-	1/14/24/24	0/4/4/4

All (19) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	A	809[B]	A1CD4	S19-N22	6.90	1.70	1.62
7	A	809[B]	A1CD4	C23-N22	-4.36	1.40	1.47
8	A	810[A]	A1CD3	O02-C03	3.92	1.43	1.36
8	A	810[A]	A1CD3	C24-N23	-3.86	1.28	1.35
8	A	810[A]	A1CD3	N27-N23	3.80	1.40	1.35
8	A	810[A]	A1CD3	O19-S10	3.70	1.48	1.43
8	A	810[A]	A1CD3	C20-C21	3.70	1.45	1.37
8	A	810[A]	A1CD3	C20-C05	3.49	1.44	1.38
7	A	809[B]	A1CD4	C15-C13	-3.42	1.36	1.41
8	A	810[A]	A1CD3	O18-S10	3.27	1.47	1.43
7	A	809[B]	A1CD4	C15-C16	3.17	1.54	1.48
8	A	810[A]	A1CD3	C04-C05	-3.01	1.37	1.43
7	A	809[B]	A1CD4	C15-C03	2.41	1.45	1.40
8	A	810[A]	A1CD3	C28-C03	2.16	1.44	1.37
8	A	810[A]	A1CD3	S10-N11	2.14	1.65	1.62
7	A	809[B]	A1CD4	C04-C05	2.09	1.42	1.39
7	A	809[B]	A1CD4	C16-N17	2.08	1.36	1.27
7	A	809[B]	A1CD4	C12-C13	2.07	1.41	1.38
7	A	809[B]	A1CD4	O14-C13	2.01	1.40	1.36

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	A	809[B]	A1CD4	O21-S19-O20	-12.96	101.26	120.34
8	A	810[A]	A1CD3	O19-S10-O18	-10.49	104.89	120.34
7	A	809[B]	A1CD4	O21-S19-N22	5.35	116.21	106.49
7	A	809[B]	A1CD4	C10-N11-N07	4.93	109.36	104.23
7	A	809[B]	A1CD4	C08-N07-N11	-3.40	108.60	111.56
7	A	809[B]	A1CD4	C13-C15-C03	3.20	120.46	117.41
8	A	810[A]	A1CD3	C26-N27-N23	2.82	107.16	104.23
8	A	810[A]	A1CD3	C13-C12-N11	-2.80	105.44	110.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	A	809[B]	A1CD4	C23-N22-S19	-2.66	117.08	121.81
7	A	809[B]	A1CD4	C06-N07-N11	2.61	124.97	120.87
8	A	810[A]	A1CD3	C20-C21-C28	2.52	121.38	118.84
8	A	810[A]	A1CD3	O19-S10-N11	2.50	111.03	106.49
8	A	810[A]	A1CD3	C21-C20-C05	-2.40	118.36	122.46
7	A	809[B]	A1CD4	O21-S19-N18	2.34	113.93	106.80
7	A	809[B]	A1CD4	C13-C15-C16	2.16	121.36	118.88
8	A	810[A]	A1CD3	C22-N23-C24	-2.03	125.74	129.15

There are no chirality outliers.

All (8) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
6	A	807	GOL	O1-C1-C2-C3
7	A	809[B]	A1CD4	C03-C15-C16-N18
7	A	809[B]	A1CD4	C13-C15-C16-N18
8	A	810[A]	A1CD3	C08-N09-S10-O19
6	A	808	GOL	C1-C2-C3-O3
6	A	807	GOL	O1-C1-C2-O2
6	A	808	GOL	O1-C1-C2-O2
6	A	808	GOL	O2-C2-C3-O3

There are no ring outliers.

No monomer is involved in short contacts.

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

Ligand A1CD3 A 810 (A)

Bond lengths

Bond angles

Torsions

Rings

Ligand A1CD4 A 809 (B)

Bond lengths

Bond angles

Torsions

Rings
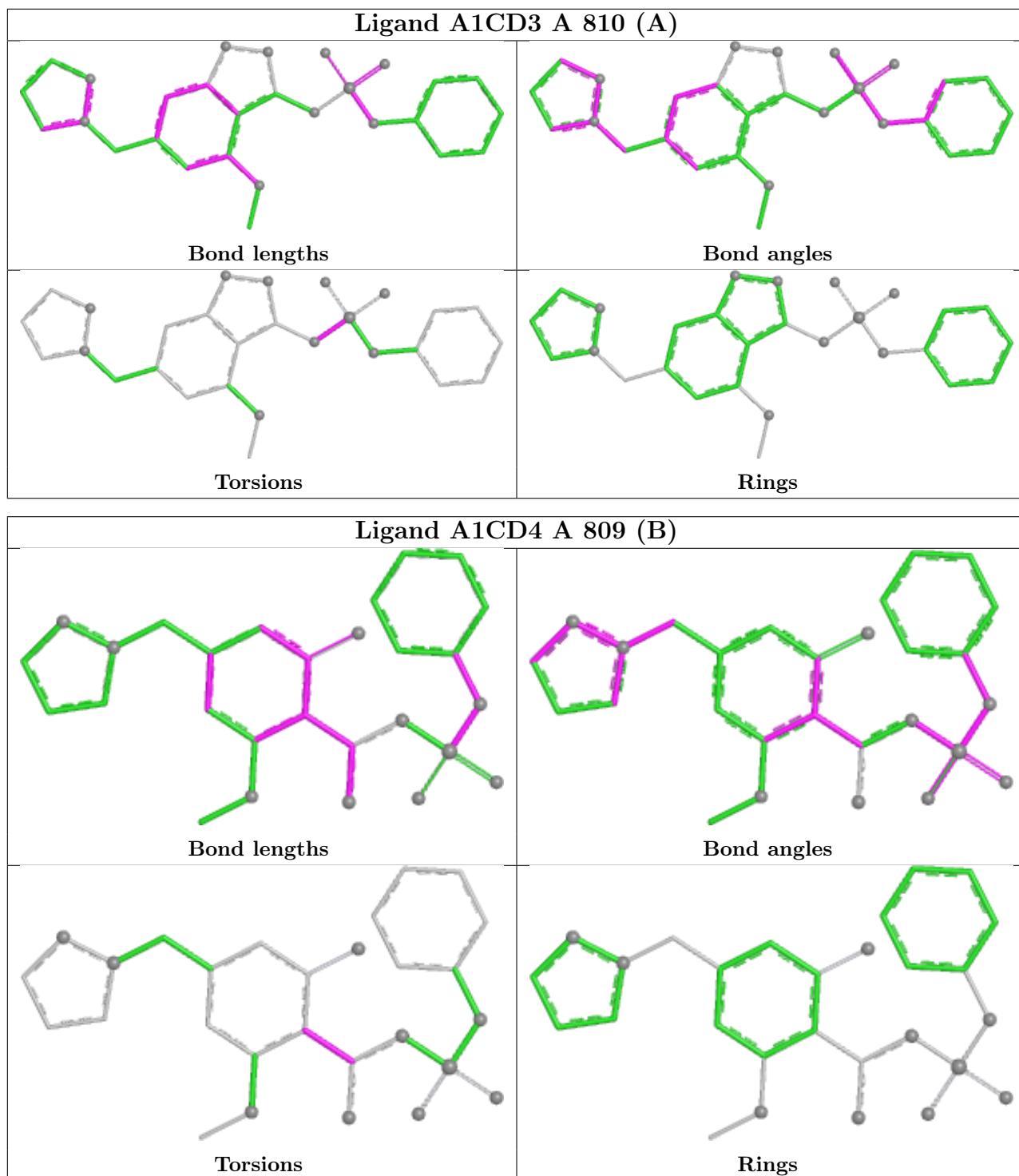
5.7 Other polymers ⓘ

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	264/295 (89%)	1.01	52 (19%)	3	3	12, 22, 46, 68	1 (0%)

All (52) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	759	ALA	7.5
1	A	778	PRO	6.8
1	A	607	TYR	5.6
1	A	608	PHE	5.4
1	A	532	GLY	5.3
1	A	530	ASP	4.7
1	A	533	LYS	4.7
1	A	529	GLU	4.6
1	A	528	PRO	4.3
1	A	606	LEU	4.3
1	A	535	PRO	4.2
1	A	752	VAL	4.2
1	A	776	ALA	4.1
1	A	764	PRO	4.0
1	A	751	LEU	4.0
1	A	531	TYR	3.9
1	A	705	ASP	3.9
1	A	710	LEU	3.8
1	A	756	LEU	3.7
1	A	507	LYS	3.7
1	A	749	PRO	3.6
1	A	763	LYS	3.5
1	A	562[A]	TRP	3.4
1	A	758	SER	3.4
1	A	609	ASP	3.3
1	A	641	GLY	3.2
1	A	704	ARG	3.1

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Mol	Chain	Res	Type	RSRZ
1	A	703	LEU	2.9
1	A	753	GLU	2.8
1	A	748	THR	2.8
1	A	605	THR	2.7
1	A	747	VAL	2.7
1	A	741	GLY	2.6
1	A	750	LYS	2.6
1	A	713	LYS	2.5
1	A	746	CYS	2.5
1	A	711	SER	2.4
1	A	536	LYS	2.4
1	A	603	HIS	2.4
1	A	701	GLU	2.3
1	A	717	GLN	2.3
1	A	584	LYS	2.3
1	A	534	GLN	2.3
1	A	624	GLN	2.2
1	A	757	LYS	2.2
1	A	640	ASP	2.2
1	A	537	LEU	2.2
1	A	745	ILE	2.2
1	A	554	ARG	2.1
1	A	740	LYS	2.1
1	A	742	GLN	2.0
1	A	715	LEU	2.0

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

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
1	ALY	A	604	12/13	0.95	0.07	18,22,27,30	0

6.3 Carbohydrates ⓘ

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(Å^2)	Q<0.9
3	SO4	A	802	5/5	0.87	0.12	42,49,51,78	0
6	GOL	A	808	6/6	0.88	0.14	23,35,40,51	0
6	GOL	A	807	6/6	0.93	0.10	20,26,29,32	0
8	A1CD3	A	810[A]	28/28	0.96	0.08	13,17,21,21	28
7	A1CD4	A	809[B]	28/28	0.97	0.07	13,17,21,21	28
4	NA	A	804	1/1	0.99	0.04	21,21,21,21	0
5	CL	A	805	1/1	0.99	0.06	23,23,23,23	0
4	NA	A	803	1/1	0.99	0.06	24,24,24,24	0
2	ZN	A	801	1/1	1.00	0.02	15,15,15,15	0
5	CL	A	806	1/1	1.00	0.08	23,23,23,23	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around A1CD3 A 810 (A):

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

Electron density around A1CD4 A 809 (B):

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)

6.5 Other polymers ⓘ

There are no such residues in this entry.