



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 5, 2026 – 09:11 PM UTC

PDB ID : 7CBQ / pdb_00007cbq
Title : Crystal structure of PDE4D catalytic domain in complex with Apremilast
Authors : Zhang, X.L.; Xu, Y.C.
Deposited on : 2020-06-13
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
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
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

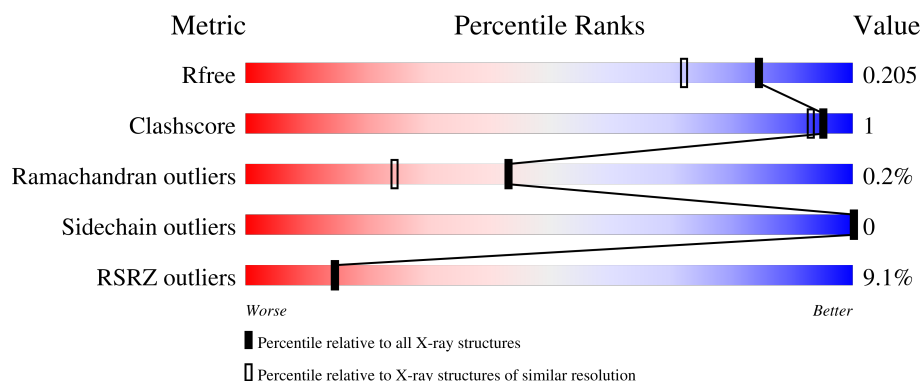
1 Overall quality at a glance

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	349	7% 90% • 7%
1	B	349	10% 89% • 7%

2 Entry composition

There are 6 unique types of molecules in this entry. The entry contains 5734 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 cAMP-specific 3',5'-cyclic phosphodiesterase 4D.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	326	Total	C	N	O	S	0	1	0
			2617	1656	443	503	15			
1	B	325	Total	C	N	O	S	0	1	0
			2597	1645	440	497	15			

There are 42 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	65	MET	-	expression tag	UNP Q08499
A	66	GLY	-	expression tag	UNP Q08499
A	67	SER	-	expression tag	UNP Q08499
A	68	SER	-	expression tag	UNP Q08499
A	69	HIS	-	expression tag	UNP Q08499
A	70	HIS	-	expression tag	UNP Q08499
A	71	HIS	-	expression tag	UNP Q08499
A	72	HIS	-	expression tag	UNP Q08499
A	73	HIS	-	expression tag	UNP Q08499
A	74	HIS	-	expression tag	UNP Q08499
A	75	SER	-	expression tag	UNP Q08499
A	76	SER	-	expression tag	UNP Q08499
A	77	GLY	-	expression tag	UNP Q08499
A	78	LEU	-	expression tag	UNP Q08499
A	79	VAL	-	expression tag	UNP Q08499
A	80	PRO	-	expression tag	UNP Q08499
A	81	ARG	-	expression tag	UNP Q08499
A	82	GLY	-	expression tag	UNP Q08499
A	83	SER	-	expression tag	UNP Q08499
A	84	HIS	-	expression tag	UNP Q08499
A	85	MET	-	expression tag	UNP Q08499
B	65	MET	-	expression tag	UNP Q08499
B	66	GLY	-	expression tag	UNP Q08499
B	67	SER	-	expression tag	UNP Q08499
B	68	SER	-	expression tag	UNP Q08499

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Chain	Residue	Modelled	Actual	Comment	Reference
B	69	HIS	-	expression tag	UNP Q08499
B	70	HIS	-	expression tag	UNP Q08499
B	71	HIS	-	expression tag	UNP Q08499
B	72	HIS	-	expression tag	UNP Q08499
B	73	HIS	-	expression tag	UNP Q08499
B	74	HIS	-	expression tag	UNP Q08499
B	75	SER	-	expression tag	UNP Q08499
B	76	SER	-	expression tag	UNP Q08499
B	77	GLY	-	expression tag	UNP Q08499
B	78	LEU	-	expression tag	UNP Q08499
B	79	VAL	-	expression tag	UNP Q08499
B	80	PRO	-	expression tag	UNP Q08499
B	81	ARG	-	expression tag	UNP Q08499
B	82	GLY	-	expression tag	UNP Q08499
B	83	SER	-	expression tag	UNP Q08499
B	84	HIS	-	expression tag	UNP Q08499
B	85	MET	-	expression tag	UNP Q08499

- Molecule 2 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	A	2	Total Mg 2 2	0	0
2	B	1	Total Mg 1 1	0	0

- Molecule 3 is ZINC ION (CCD ID: ZN) (formula: Zn).

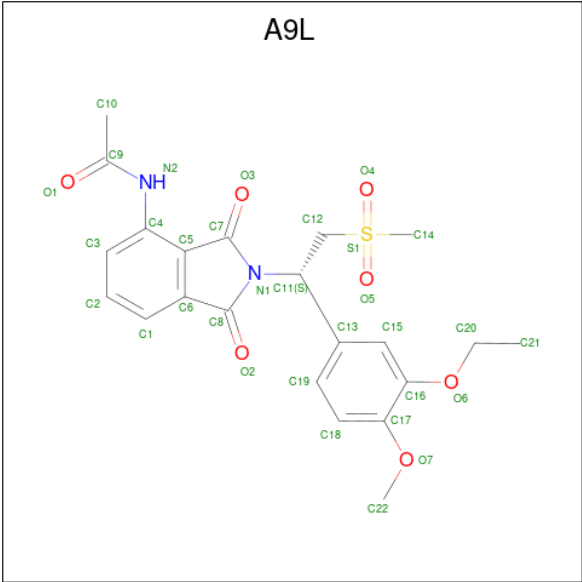
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	1	Total Zn 1 1	0	0
3	B	1	Total Zn 1 1	0	0

- Molecule 4 is 1,2-ETHANEDIOL (CCD ID: EDO) (formula: C₂H₆O₂).



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

- Molecule 5 is N-{2-[(1S)-1-(3-ethoxy-4-methoxyphenyl)-2-(methylsulfonyl)ethyl]-1,3-dioxo-2,3-dihydro-1H-isindol-4-yl}acetamide (CCD ID: A9L) (formula: C₂₂H₂₄N₂O₇S) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
5	A	1	Total	C	N	O	S	0	0
			32	22	2	7	1		
5	B	1	Total	C	N	O	S	0	0
			32	22	2	7	1		

- Molecule 6 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	A	237	Total	O	0	0
			237	237		
6	B	170	Total	O	0	0
			170	170		

4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	58.79Å 80.22Å 163.47Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	45.07 – 1.59 45.07 – 1.59	Depositor EDS
% Data completeness (in resolution range)	96.3 (45.07-1.59) 96.9 (45.07-1.59)	Depositor EDS
R_{merge}	0.09	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	4.89 (at 1.58Å)	Xtriage
Refinement program	PHENIX 1.17.1-3660	Depositor
R, R_{free}	0.176 , 0.205 0.177 , 0.205	Depositor DCC
R_{free} test set	5074 reflections (4.81%)	wwPDB-VP
Wilson B-factor (Å ²)	13.0	Xtriage
Anisotropy	0.089	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.37 , 46.3	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.95	EDS
Total number of atoms	5734	wwPDB-VP
Average B, all atoms (Å ²)	20.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.69% 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: ZN, EDO, MG, A9L

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	0.64	0/2671	0.72	0/3636
1	B	0.57	0/2651	0.69	0/3610
All	All	0.61	0/5322	0.71	0/7246

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	86	THR	Peptide

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	2617	0	2535	5	0
1	B	2597	0	2510	9	0
2	A	2	0	0	0	0
2	B	1	0	0	0	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
4	A	28	0	42	0	0
4	B	16	0	24	0	0
5	A	32	0	0	0	0
5	B	32	0	0	0	0
6	A	237	0	0	0	0
6	B	170	0	0	1	0
All	All	5734	0	5111	13	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 1.

All (13) 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:143:ILE:O	1:B:147:MET:HG3	1.97	0.65
1:B:304:SER:O	1:B:308:GLN:HG3	2.03	0.58
1:B:308:GLN:HG2	6:B:606:HOH:O	2.03	0.58
1:A:282:ASP:HB3	1:A:308:GLN:NE2	2.20	0.56
1:A:221:LEU:HD21	1:B:239:LYS:HD3	1.88	0.56
1:B:298:LEU:HD11	1:B:387:LEU:O	2.13	0.49
1:A:348:ARG:C	1:A:350:ARG:H	2.25	0.45
1:B:321:ASN:HB2	1:B:322:PRO:HD3	2.00	0.44
1:B:286:MET:HE3	1:B:286:MET:HB2	1.86	0.43
1:A:298:LEU:HD11	1:A:387:LEU:HG	2.00	0.43
1:A:179:PRO:HA	1:A:182:GLU:HG3	2.00	0.43
1:B:348:ARG:HB2	1:B:354:ILE:HD11	2.00	0.42
1:B:373:ILE:HA	1:B:377:VAL:HB	2.02	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	325/349 (93%)	319 (98%)	5 (2%)	1 (0%)	36	20
1	B	324/349 (93%)	321 (99%)	3 (1%)	0	100	100
All	All	649/698 (93%)	640 (99%)	8 (1%)	1 (0%)	43	24

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	349	GLU

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	291/318 (92%)	291 (100%)	0	100	100
1	B	287/318 (90%)	287 (100%)	0	100	100
All	All	578/636 (91%)	578 (100%)	0	100	100

There are no protein residues with a non-rotameric sidechain to report.

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (5) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	210	GLN
1	A	321	ASN
1	A	361	HIS

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Mol	Chain	Res	Type
1	B	308	GLN
1	B	369	GLN

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 oligosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 18 ligands modelled in this entry, 5 are monoatomic - leaving 13 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	EDO	B	504	-	3,3,3	0.34	0	2,2,2	0.62	0
4	EDO	A	504	-	3,3,3	0.45	0	2,2,2	0.59	0
4	EDO	A	507	-	3,3,3	0.49	0	2,2,2	0.39	0
4	EDO	B	506	-	3,3,3	0.50	0	2,2,2	0.28	0
4	EDO	A	510	-	3,3,3	0.51	0	2,2,2	0.73	0
4	EDO	B	505	-	3,3,3	0.85	0	2,2,2	0.31	0
4	EDO	A	508	-	3,3,3	0.45	0	2,2,2	0.36	0
4	EDO	A	505	-	3,3,3	0.45	0	2,2,2	0.28	0
4	EDO	A	509	-	3,3,3	0.57	0	2,2,2	0.24	0
5	A9L	A	511	-	34,34,34	0.63	0	50,50,50	2.14	5 (10%)
5	A9L	B	507	-	34,34,34	0.79	1 (2%)	50,50,50	2.04	3 (6%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
4	EDO	B	501	-	3,3,3	0.38	0	2,2,2	0.22	0
4	EDO	A	506	-	3,3,3	0.60	0	2,2,2	0.20	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
4	EDO	B	504	-	-	1/1/1/1	-
4	EDO	A	504	-	-	0/1/1/1	-
4	EDO	A	507	-	-	1/1/1/1	-
4	EDO	B	506	-	-	0/1/1/1	-
4	EDO	A	510	-	-	1/1/1/1	-
4	EDO	B	505	-	-	0/1/1/1	-
4	EDO	A	508	-	-	1/1/1/1	-
4	EDO	A	505	-	-	0/1/1/1	-
4	EDO	A	509	-	-	1/1/1/1	-
5	A9L	A	511	-	-	2/22/38/38	0/3/3/3
5	A9L	B	507	-	-	2/22/38/38	0/3/3/3
4	EDO	B	501	-	-	0/1/1/1	-
4	EDO	A	506	-	-	0/1/1/1	-

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	507	A9L	C12-S1	3.47	1.79	1.77

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	511	A9L	C11-C12-S1	-12.10	106.78	113.51
5	B	507	A9L	C11-C12-S1	-10.87	107.46	113.51
5	B	507	A9L	C12-C11-C13	7.18	115.75	111.60
5	A	511	A9L	C12-C11-C13	5.35	114.69	111.60
5	A	511	A9L	C6-C5-C4	-3.38	120.13	121.88
5	B	507	A9L	C6-C5-C4	-3.12	120.26	121.88
5	A	511	A9L	O4-S1-C14	-3.03	106.06	108.87
5	A	511	A9L	C12-C11-N1	-2.56	109.91	111.43

There are no chirality outliers.

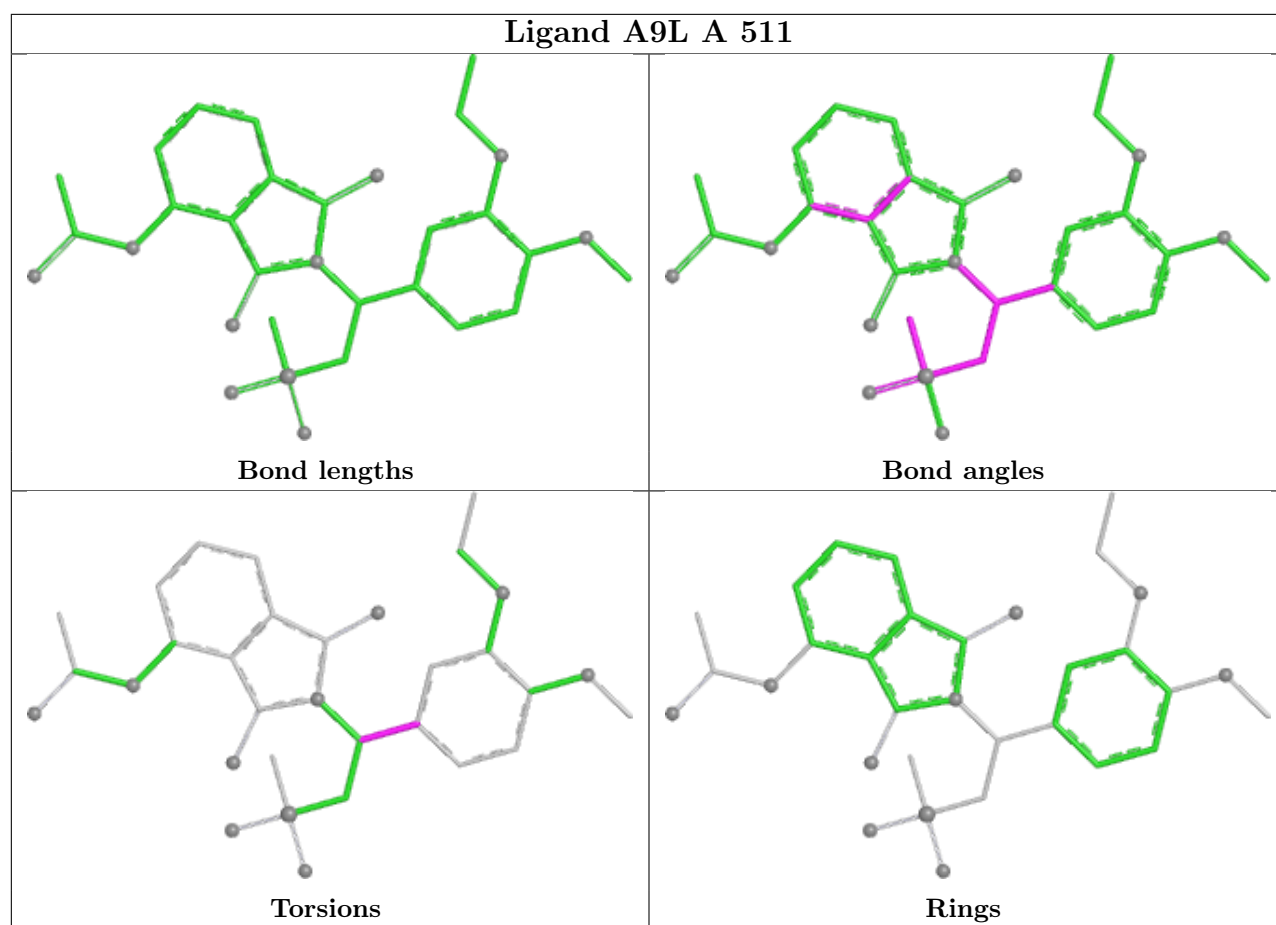
All (9) torsion outliers are listed below:

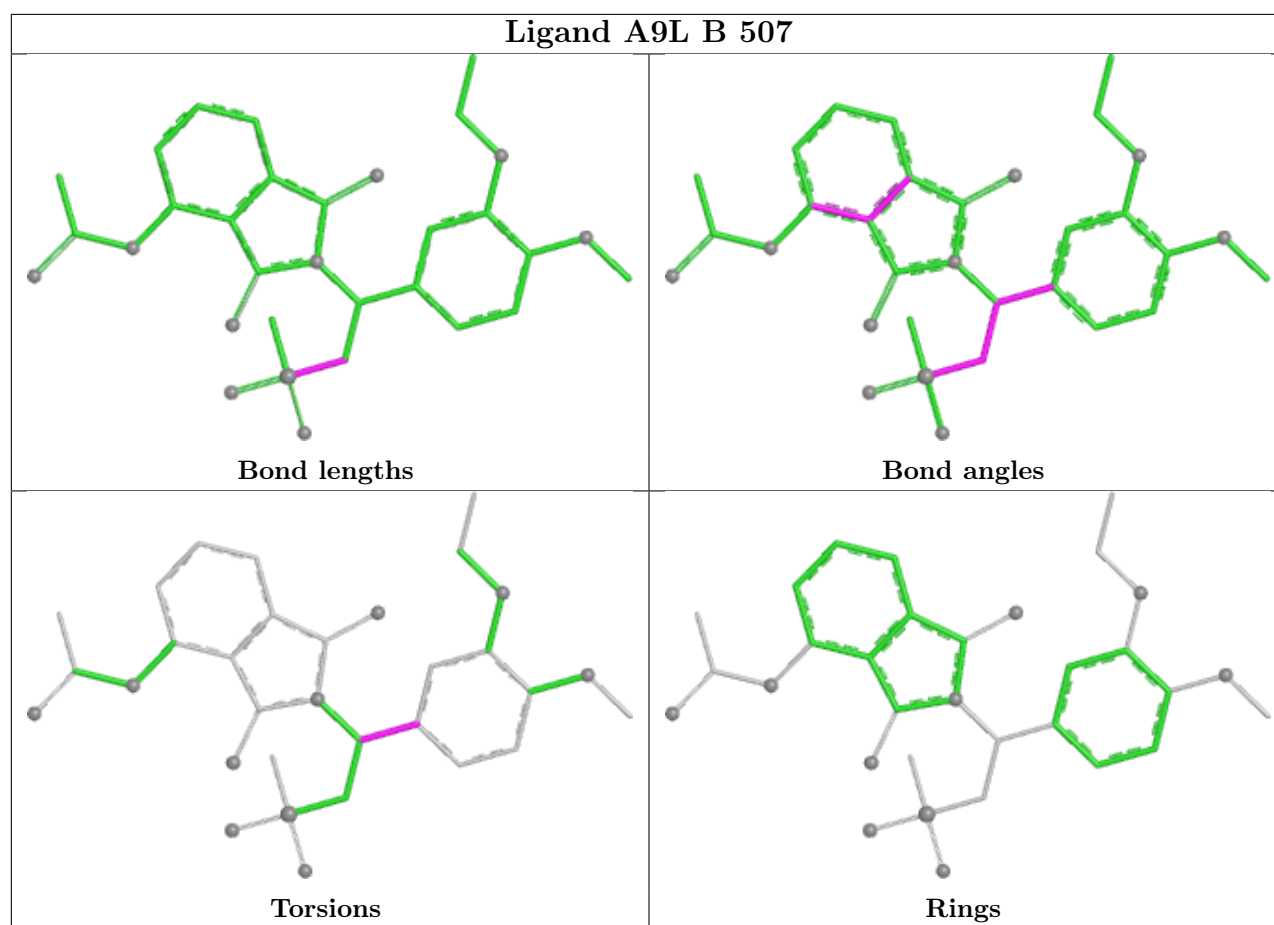
Mol	Chain	Res	Type	Atoms
4	A	509	EDO	O1-C1-C2-O2
4	B	504	EDO	O1-C1-C2-O2
5	B	507	A9L	N1-C11-C13-C15
4	A	508	EDO	O1-C1-C2-O2
5	A	511	A9L	N1-C11-C13-C19
5	B	507	A9L	N1-C11-C13-C19
5	A	511	A9L	N1-C11-C13-C15
4	A	510	EDO	O1-C1-C2-O2
4	A	507	EDO	O1-C1-C2-O2

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 than 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.





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	326/349 (93%)	0.10	24 (7%)	20	21	5, 15, 35, 50	1 (0%)
1	B	325/349 (93%)	0.56	35 (10%)	11	10	6, 20, 39, 62	1 (0%)
All	All	651/698 (93%)	0.33	59 (9%)	15	15	5, 17, 37, 62	2 (0%)

All (59) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	89	GLU	4.7
1	A	351	GLY	4.6
1	B	412	GLN	4.5
1	A	292	VAL	3.9
1	B	88	GLN	3.8
1	A	349	GLU	3.7
1	B	298	LEU	3.6
1	A	86	THR	3.6
1	B	362	ASN	3.6
1	B	390	PRO	3.5
1	A	354	ILE	3.5
1	A	294	SER	3.4
1	B	296	GLY	3.2
1	B	295	SER	3.2
1	B	90	ASP	3.2
1	A	87	GLU	3.0
1	B	294	SER	3.0
1	B	354	ILE	3.0
1	A	411	PRO	3.0
1	B	91	VAL	3.0
1	A	363	ALA	2.9
1	A	410	ILE	2.9
1	A	293	THR	2.8
1	B	351	GLY	2.8

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Mol	Chain	Res	Type	RSRZ
1	B	349	GLU	2.7
1	B	389	HIS	2.7
1	B	127	GLN	2.7
1	B	297	VAL	2.7
1	B	289	THR	2.6
1	A	295	SER	2.6
1	B	182	GLU	2.6
1	B	93	ALA	2.5
1	B	292	VAL	2.5
1	B	183	ALA	2.4
1	A	362	ASN	2.4
1	B	281	ALA	2.4
1	B	244	GLU	2.4
1	A	356	PRO	2.4
1	B	184	VAL	2.3
1	A	221	LEU	2.3
1	A	298	LEU	2.3
1	A	299	LEU	2.3
1	B	363	ALA	2.2
1	B	253	THR	2.2
1	A	296	GLY	2.2
1	A	350	ARG	2.2
1	B	391	ASP	2.2
1	A	361	HIS	2.2
1	B	303	TYR	2.1
1	B	392	ALA	2.1
1	B	178	THR	2.1
1	B	216	ASN	2.1
1	B	130	ASP	2.1
1	B	356	PRO	2.1
1	A	346	ARG	2.1
1	A	348	ARG	2.0
1	A	409	THR	2.0
1	B	181	LEU	2.0
1	A	301	ASP	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 oligosaccharides in this entry.

6.4 Ligands ⓘ

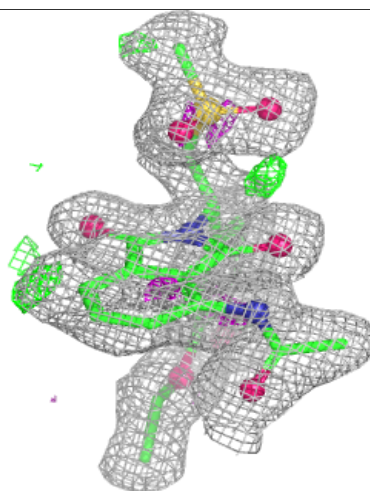
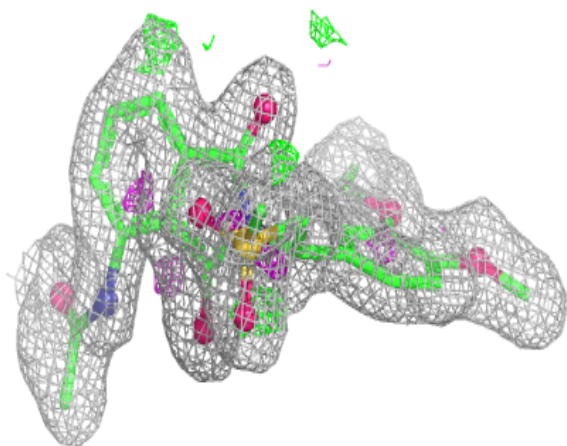
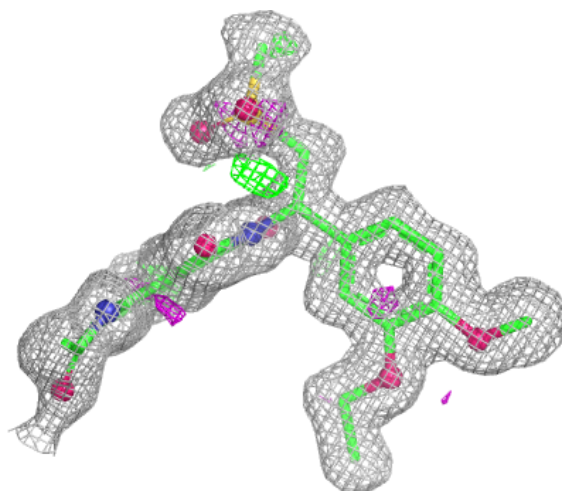
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists 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	EDO	A	509	4/4	0.72	0.26	41,42,42,45	0
4	EDO	A	507	4/4	0.77	0.19	32,34,38,46	0
4	EDO	A	508	4/4	0.78	0.22	47,48,52,55	0
4	EDO	B	504	4/4	0.79	0.18	44,45,46,47	0
4	EDO	B	505	4/4	0.80	0.17	27,33,34,40	0
4	EDO	B	506	4/4	0.83	0.17	43,46,47,47	0
4	EDO	A	510	4/4	0.84	0.21	27,32,33,38	0
4	EDO	A	505	4/4	0.91	0.14	24,29,29,40	0
4	EDO	A	504	4/4	0.92	0.11	24,27,28,29	0
4	EDO	B	501	4/4	0.95	0.12	22,28,35,35	0
4	EDO	A	506	4/4	0.96	0.12	17,22,30,32	0
5	A9L	B	507	32/32	0.96	0.09	12,17,37,44	0
5	A9L	A	511	32/32	0.97	0.08	10,14,32,40	0
2	MG	A	503	1/1	0.98	0.12	12,12,12,12	0
2	MG	B	502	1/1	0.99	0.02	7,7,7,7	0
3	ZN	A	502	1/1	1.00	0.06	11,11,11,11	0
3	ZN	B	503	1/1	1.00	0.08	14,14,14,14	0
2	MG	A	501	1/1	1.00	0.05	6,6,6,6	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.

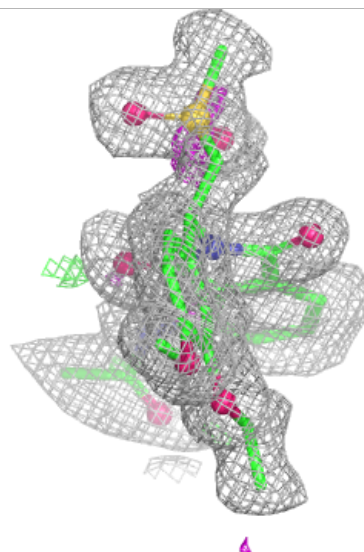
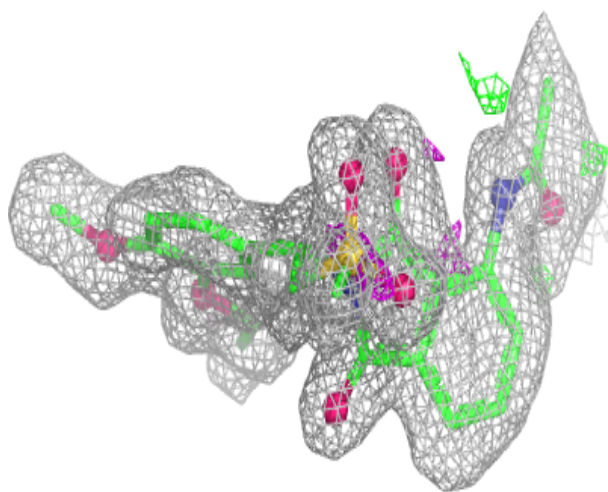
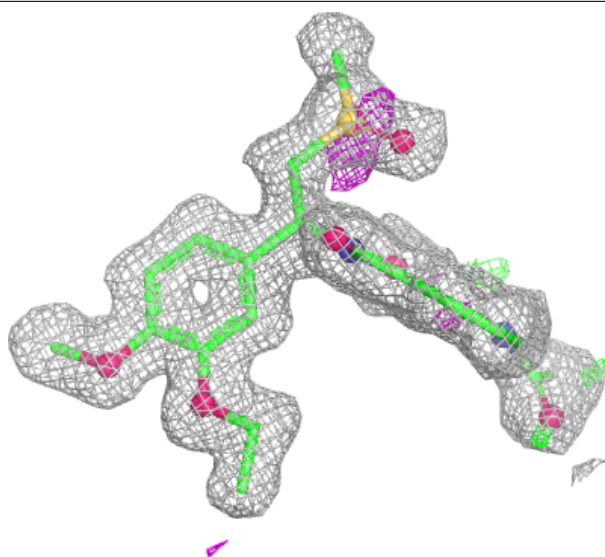
Electron density around A9L B 507:

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



Electron density around A9L A 511:

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



6.5 Other polymers [\(i\)](#)

There are no such residues in this entry.