



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 15, 2026 – 11:43 AM UTC

PDB ID : 5U7D / pdb_00005u7d
Title : PDE2 catalytic domain complexed with inhibitors
Authors : Pandit, J.; Parris, K.
Deposited on : 2016-12-12
Resolution : 1.75 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

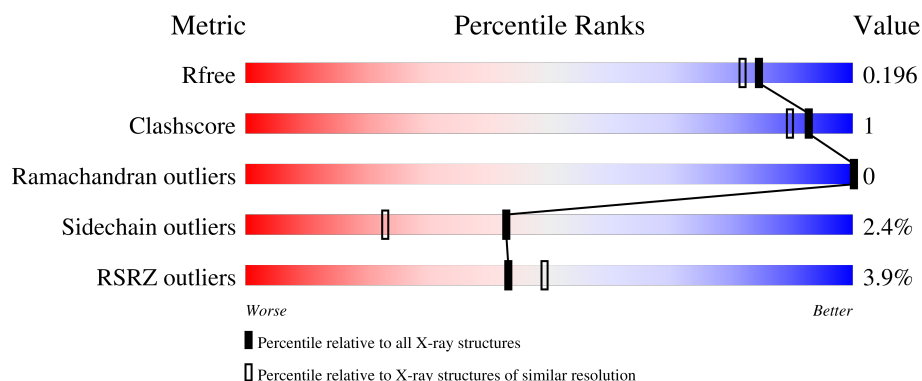
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 1.75 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	3183 (1.76-1.76)
Clashscore	190562	3299 (1.76-1.76)
Ramachandran outliers	187476	3274 (1.76-1.76)
Sidechain outliers	187428	3274 (1.76-1.76)
RSRZ outliers	180081	3183 (1.76-1.76)

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	345	2% 92% 5%
1	B	345	6% 90% 5%
1	C	345	3% 92% 6%

2 Entry composition

There are 5 unique types of molecules in this entry. The entry contains 9611 atoms, of which 96 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.

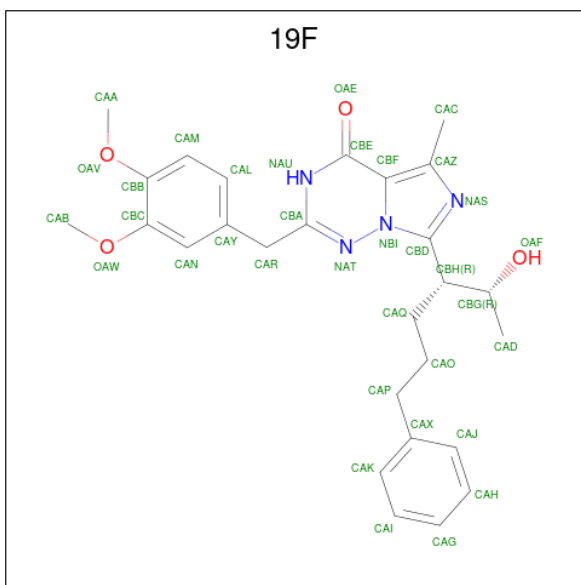
- Molecule 1 is a protein called cGMP-dependent 3',5'-cyclic phosphodiesterase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	338	Total	C	N	O	S	0	12	0
			2863	1818	495	522	28			
1	B	328	Total	C	N	O	S	0	5	0
			2736	1736	472	502	26			
1	C	338	Total	C	N	O	S	0	4	0
			2795	1779	478	510	28			

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	575	GLY	-	expression tag	UNP O00408
A	576	SER	-	expression tag	UNP O00408
A	577	ALA	-	expression tag	UNP O00408
A	578	MET	-	expression tag	UNP O00408
B	575	GLY	-	expression tag	UNP O00408
B	576	SER	-	expression tag	UNP O00408
B	577	ALA	-	expression tag	UNP O00408
B	578	MET	-	expression tag	UNP O00408
C	575	GLY	-	expression tag	UNP O00408
C	576	SER	-	expression tag	UNP O00408
C	577	ALA	-	expression tag	UNP O00408
C	578	MET	-	expression tag	UNP O00408

- Molecule 2 is 2-(3,4-dimethoxybenzyl)-7-[(2R,3R)-2-hydroxy-6-phenylhexan-3-yl]-5-methylimidazo[5,1-f][1,2,4]triazin-4(3H)-one (CCD ID: 19F) (formula: C₂₇H₃₂N₄O₄).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	H	N	O	0	0
			67	27	32	4	4		
2	B	1	Total	C	H	N	O	0	0
			67	27	32	4	4		
2	C	1	Total	C	H	N	O	0	0
			67	27	32	4	4		

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

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

- Molecule 4 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

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

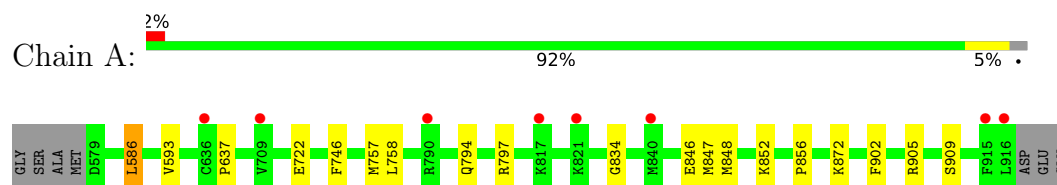
- Molecule 5 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	379	Total 379	O 379	0	0
5	B	316	Total 316	O 316	0	0
5	C	315	Total 315	O 315	0	0

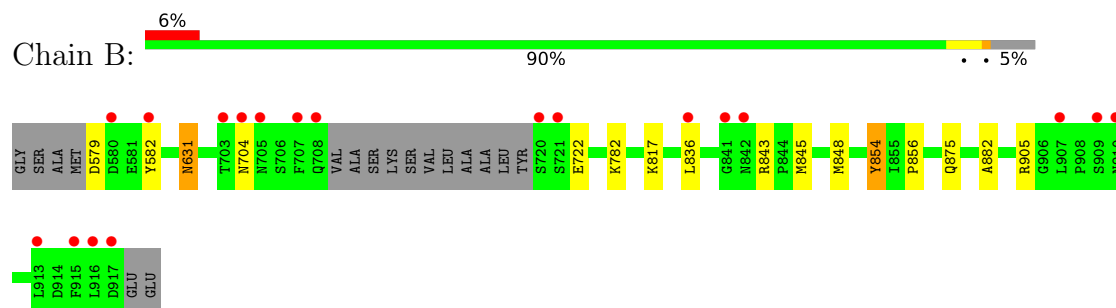
3 Residue-property plots [i](#)

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.

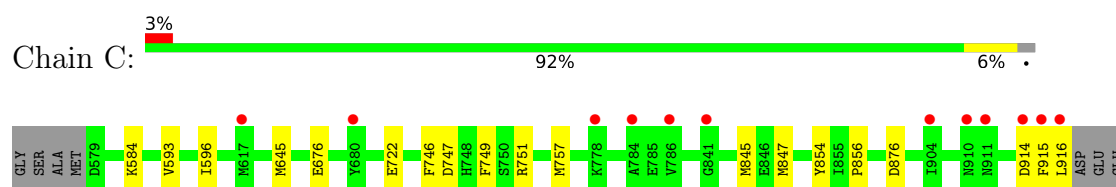
- Molecule 1: cGMP-dependent 3',5'-cyclic phosphodiesterase



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4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	167.26Å 74.37Å 91.64Å 90.00° 110.33° 90.00°	Depositor
Resolution (Å)	38.92 – 1.75 38.92 – 1.75	Depositor EDS
% Data completeness (in resolution range)	99.8 (38.92-1.75) 99.8 (38.92-1.75)	Depositor EDS
R_{merge}	0.07	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.34 (at 1.75Å)	Xtriage
Refinement program	BUSTER 2.11.5	Depositor
R, R_{free}	0.168 , 0.197 0.168 , 0.196	Depositor DCC
R_{free} test set	5295 reflections (4.99%)	wwPDB-VP
Wilson B-factor (Å ²)	23.3	Xtriage
Anisotropy	0.251	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.36 , 49.7	EDS
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.97	EDS
Total number of atoms	9611	wwPDB-VP
Average B, all atoms (Å ²)	32.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 15.40% 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

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, MG, 19F

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	0.84	1/2930 (0.0%)	1.03	0/3947
1	B	0.78	0/2801	1.07	2/3775 (0.1%)
1	C	0.83	0/2862	1.08	8/3860 (0.2%)
All	All	0.82	1/8593 (0.0%)	1.06	10/11582 (0.1%)

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	847	MET	SD-CE	-7.13	1.61	1.79

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	915	PHE	CA-CB-CG	6.64	120.44	113.80
1	B	854	TYR	CA-C-N	5.80	126.00	120.43
1	B	854	TYR	C-N-CA	5.80	126.00	120.43
1	C	596	ILE	N-CA-C	-5.65	106.20	111.45
1	C	914	ASP	CA-C-N	5.34	131.74	121.54
1	C	914	ASP	C-N-CA	5.34	131.74	121.54
1	C	914	ASP	CA-CB-CG	5.26	117.86	112.60
1	C	747	ASP	CA-CB-CG	5.13	117.73	112.60
1	C	915	PHE	CA-C-N	5.09	130.87	121.70
1	C	915	PHE	C-N-CA	5.09	130.87	121.70

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	2863	0	2802	10	0
1	B	2736	0	2658	4	0
1	C	2795	0	2733	9	0
2	A	35	32	32	0	0
2	B	35	32	32	0	0
2	C	35	32	32	5	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
3	C	1	0	0	0	0
4	A	1	0	0	0	0
4	B	1	0	0	0	0
4	C	1	0	0	0	0
5	A	379	0	0	0	0
5	B	316	0	0	0	0
5	C	315	0	0	5	0
All	All	9515	96	8289	25	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 (25) 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:722:GLU:HG2	1:C:722:GLU:HG2	1.63	0.81
1:A:586:LEU:HD21	1:A:637:PRO:HA	1.69	0.73
2:C:1001:19F:H5	5:C:1339:HOH:O	1.90	0.71
2:C:1001:19F:CAA	5:C:1339:HOH:O	2.39	0.70
1:C:845:MET:SD	1:C:847:MET:HE2	2.45	0.57
1:A:722:GLU:HG2	1:C:722:GLU:CG	2.33	0.56
1:C:847:MET:HE1	2:C:1001:19F:H3	1.88	0.56
1:A:586:LEU:CD2	1:A:637:PRO:HA	2.35	0.55
1:B:875:GLN:HE21	1:B:882:ALA:HA	1.71	0.54
2:C:1001:19F:H7	5:C:1339:HOH:O	2.08	0.50
1:A:794:GLN:HE22	1:A:797:ARG:HH21	1.59	0.48
1:C:845:MET:HG3	1:C:847:MET:HG2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:746:PHE:CZ	1:C:757[B]:MET:HE2	2.51	0.45
1:B:704:ASN:HB3	1:B:848:MET:HE1	1.99	0.45
1:A:746:PHE:CZ	1:A:757[B]:MET:HE2	2.52	0.45
1:C:645:MET:HG2	5:C:1167:HOH:O	2.17	0.44
1:B:631[A]:ASN:C	1:B:631[A]:ASN:HD22	2.25	0.44
1:C:854:TYR:CZ	1:C:856:PRO:HG2	2.52	0.44
1:C:749:PHE:HA	5:C:1310:HOH:O	2.18	0.43
2:C:1001:19F:NAT	2:C:1001:19F:H23	2.34	0.42
1:A:846:GLU:HG3	1:A:852:LYS:HB3	2.02	0.42
1:B:854:TYR:CZ	1:B:856:PRO:HG2	2.56	0.41
1:A:586:LEU:HD21	1:A:637:PRO:CA	2.44	0.41
1:A:856:PRO:HG3	1:A:902:PHE:CD1	2.56	0.40
1:A:834:GLY:HA3	1:A:848[B]:MET:O	2.21	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	348/345 (101%)	348 (100%)	0	0	100	100
1	B	329/345 (95%)	327 (99%)	2 (1%)	0	100	100
1	C	340/345 (99%)	335 (98%)	5 (2%)	0	100	100
All	All	1017/1035 (98%)	1010 (99%)	7 (1%)	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	317/310 (102%)	311 (98%)	6 (2%)	50	31
1	B	303/310 (98%)	292 (96%)	11 (4%)	31	11
1	C	309/310 (100%)	303 (98%)	6 (2%)	50	31
All	All	929/930 (100%)	906 (98%)	23 (2%)	43	22

All (23) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	586	LEU
1	A	593	VAL
1	A	758	LEU
1	A	872	LYS
1	A	905	ARG
1	A	909	SER
1	B	579	ASP
1	B	582	TYR
1	B	631[A]	ASN
1	B	631[B]	ASN
1	B	722	GLU
1	B	782	LYS
1	B	817	LYS
1	B	836	LEU
1	B	843	ARG
1	B	845	MET
1	B	905	ARG
1	C	584	LYS
1	C	593	VAL
1	C	676	GLU
1	C	751	ARG
1	C	876	ASP
1	C	916	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (16) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	599	ASN
1	A	755	GLN
1	A	794	GLN

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Mol	Chain	Res	Type
1	A	911	ASN
1	B	599	ASN
1	B	781	GLN
1	B	875	GLN
1	B	900	HIS
1	C	599	ASN
1	C	627	ASN
1	C	708	GLN
1	C	741	HIS
1	C	865	HIS
1	C	875	GLN
1	C	894	HIS
1	C	900	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 9 ligands modelled in this entry, 6 are monoatomic - leaving 3 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	$\# Z > 2$
2	19F	C	1001	-	35,38,38	1.62	3 (8%)	43,53,53	1.53	4 (9%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	19F	B	1001	-	35,38,38	0.30	0	43,53,53	0.96	4 (9%)
2	19F	A	1001	-	35,38,38	0.50	1 (2%)	43,53,53	0.77	2 (4%)

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	19F	C	1001	-	-	8/21/22/22	0/4/4/4
2	19F	B	1001	-	-	0/21/22/22	0/4/4/4
2	19F	A	1001	-	-	0/21/22/22	0/4/4/4

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	1001	19F	CBF-CAZ	-8.31	1.25	1.38
2	C	1001	19F	OAE-CBE	-2.68	1.18	1.23
2	C	1001	19F	NBI-NAT	2.29	1.44	1.38
2	A	1001	19F	NBI-NAT	2.13	1.43	1.38

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	1001	19F	CAZ-CBF-NBI	6.43	108.64	104.61
2	C	1001	19F	CBE-NAU-CBA	5.25	126.94	123.90
2	B	1001	19F	CBF-CAZ-NAS	-3.31	108.11	110.92
2	C	1001	19F	CBF-CBE-NAU	2.55	115.42	110.94
2	A	1001	19F	CBF-NBI-NAT	-2.54	124.81	127.39
2	C	1001	19F	CBH-CBD-NAS	2.41	127.11	124.39
2	B	1001	19F	CBF-NBI-NAT	-2.26	125.09	127.39
2	B	1001	19F	CAC-CAZ-CBF	2.22	132.36	129.34
2	A	1001	19F	CBH-CBD-NAS	2.16	126.83	124.39
2	B	1001	19F	CBH-CBD-NAS	2.07	126.72	124.39

There are no chirality outliers.

All (8) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	C	1001	19F	CBC-CBB-OAV-CAA

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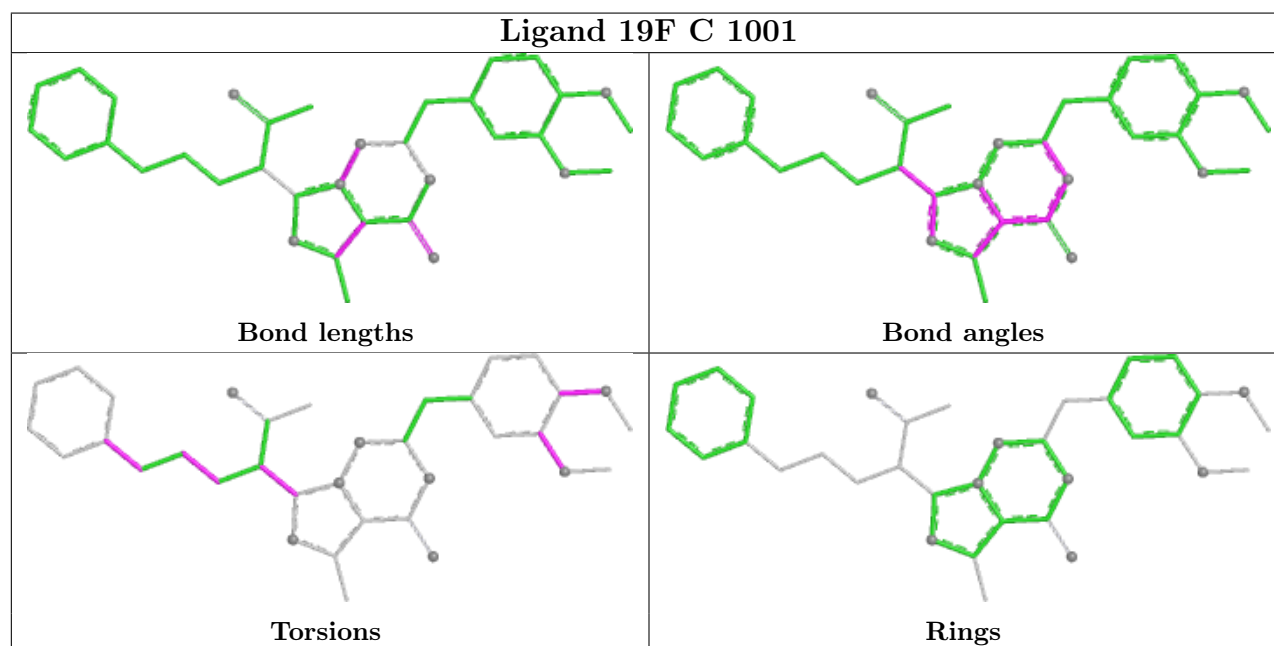
Mol	Chain	Res	Type	Atoms
2	C	1001	19F	NBI-CBD-CBH-CAQ
2	C	1001	19F	CAP-CAO-CAQ-CBH
2	C	1001	19F	CAM-CBB-OAV-CAA
2	C	1001	19F	CAO-CAP-CAX-CAK
2	C	1001	19F	NAS-CBD-CBH-CAQ
2	C	1001	19F	CBB-CBC-OAW-CAB
2	C	1001	19F	CAO-CAP-CAX-CAJ

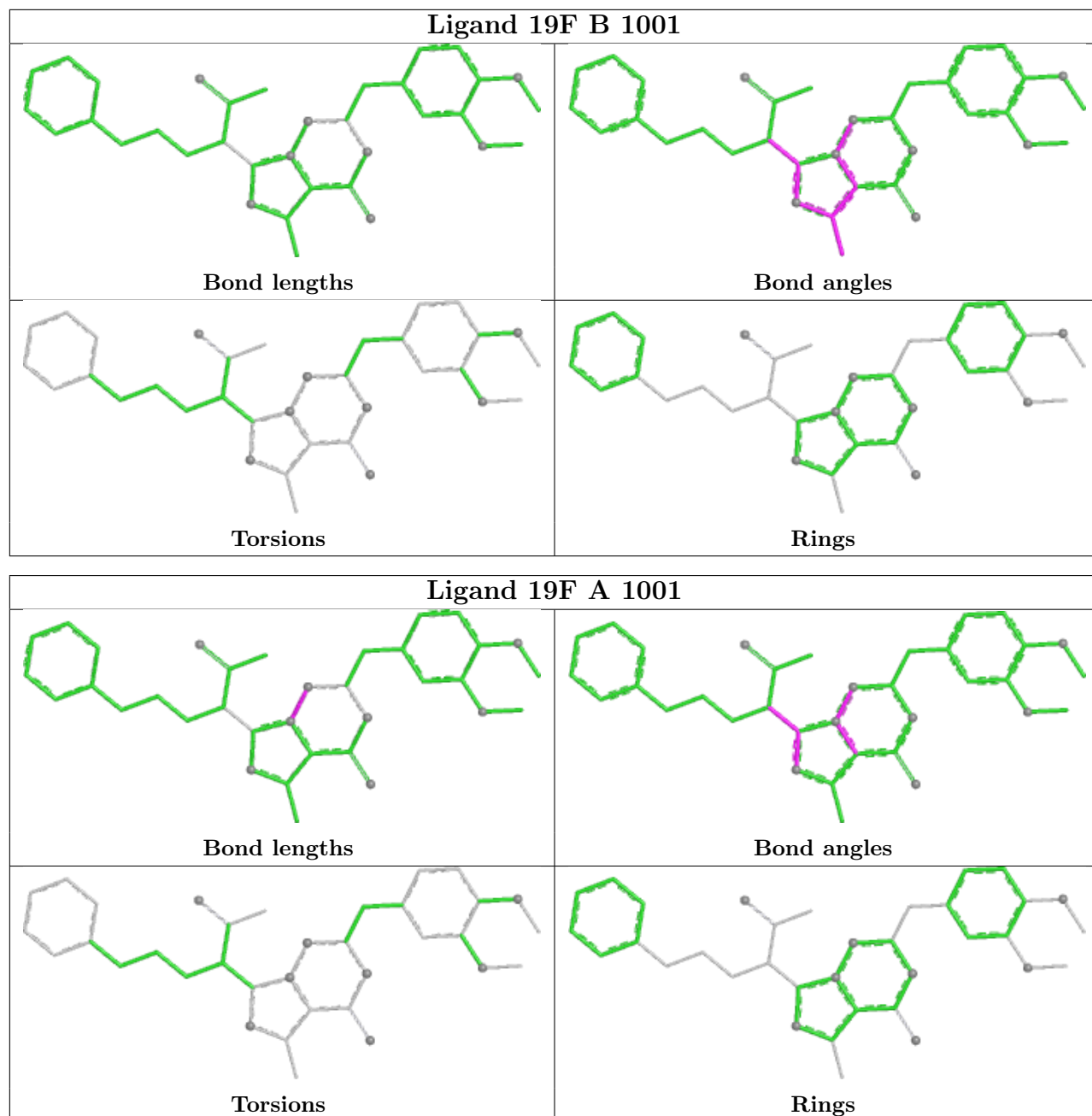
There are no ring outliers.

1 monomer is involved in 5 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	C	1001	19F	5	0

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	338/345 (97%)	-0.05	8 (2%) 59 66	9, 26, 45, 65	12 (3%)
1	B	328/345 (95%)	0.19	19 (5%) 29 33	10, 29, 57, 107	5 (1%)
1	C	338/345 (97%)	0.23	12 (3%) 46 52	11, 30, 57, 78	4 (1%)
All	All	1004/1035 (97%)	0.12	39 (3%) 43 49	9, 28, 54, 107	21 (2%)

All (39) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	916	LEU	5.3
1	C	915	PHE	3.9
1	B	917	ASP	3.8
1	C	680	TYR	3.8
1	B	915	PHE	3.5
1	B	580	ASP	3.4
1	A	916	LEU	3.3
1	C	914	ASP	3.3
1	B	720	SER	3.3
1	B	909	SER	3.2
1	C	786	VAL	3.1
1	B	916	LEU	3.0
1	B	705	ASN	2.9
1	B	836	LEU	2.8
1	B	704	ASN	2.7
1	B	841	GLY	2.7
1	C	784	ALA	2.7
1	B	913	LEU	2.6
1	A	840[A]	MET	2.6
1	B	910	ASN	2.6
1	B	707	PHE	2.5
1	B	721	SER	2.5
1	C	617	MET	2.5

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Mol	Chain	Res	Type	RSRZ
1	B	708	GLN	2.4
1	A	821[A]	LYS	2.4
1	A	817[A]	LYS	2.3
1	C	910	ASN	2.3
1	B	842	ASN	2.2
1	A	915	PHE	2.2
1	C	904	ILE	2.2
1	C	911	ASN	2.2
1	A	709	VAL	2.2
1	C	778	LYS	2.2
1	A	636	CYS	2.1
1	B	582	TYR	2.1
1	C	841	GLY	2.1
1	B	907	LEU	2.1
1	B	703	THR	2.1
1	A	790	ARG	2.0

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

There are no non-standard protein/DNA/RNA residues in this entry.

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.

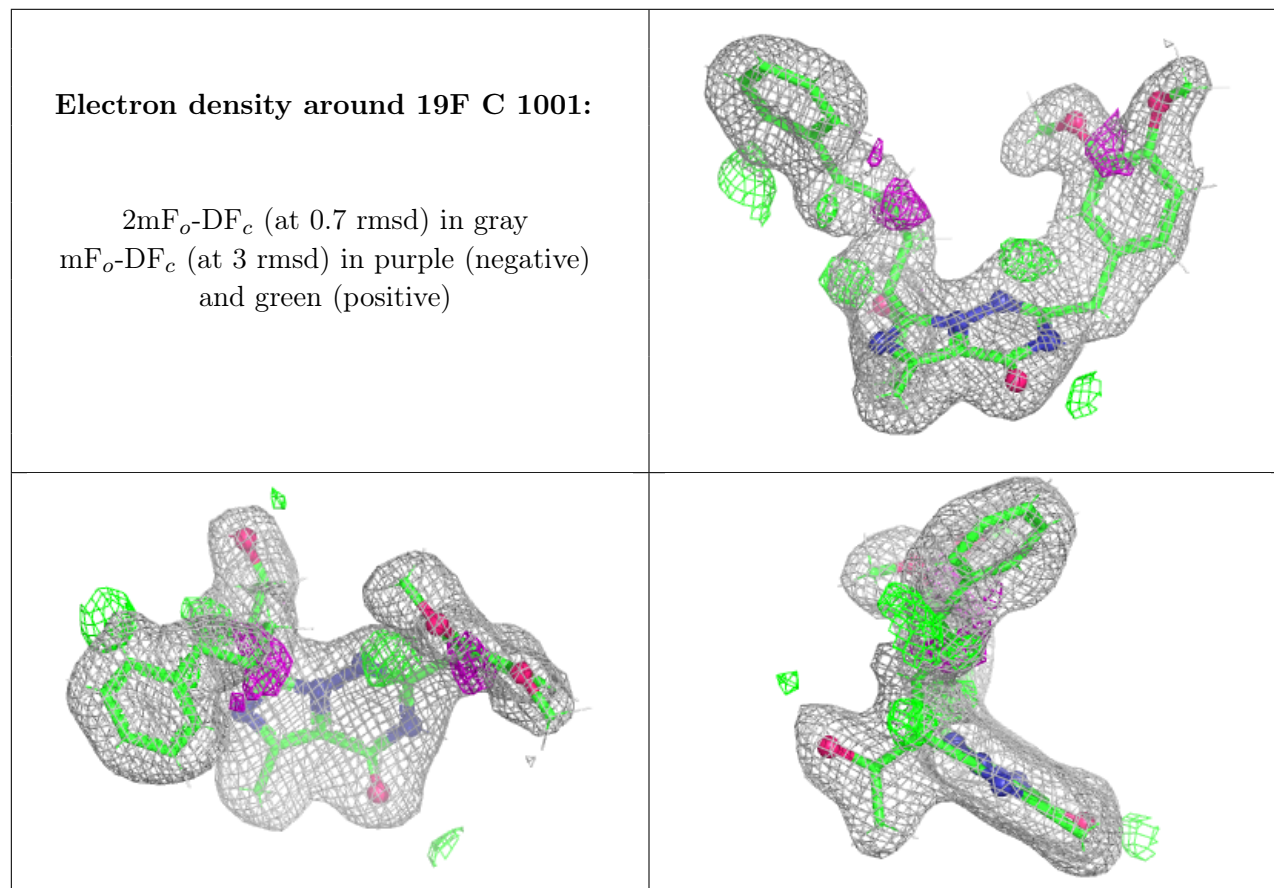
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
2	19F	C	1001	35/35	0.90	0.10	24,34,47,49	0
2	19F	B	1001	35/35	0.95	0.06	22,28,39,40	0
2	19F	A	1001	35/35	0.96	0.06	17,23,29,32	0
3	ZN	B	1002	1/1	0.99	0.02	24,24,24,24	0
3	ZN	C	1002	1/1	0.99	0.02	22,22,22,22	0
4	MG	A	1003	1/1	0.99	0.04	19,19,19,19	0
4	MG	C	1003	1/1	0.99	0.02	18,18,18,18	0

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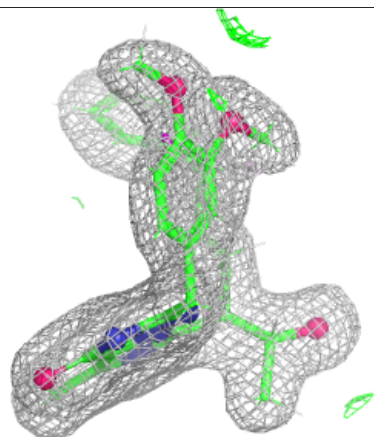
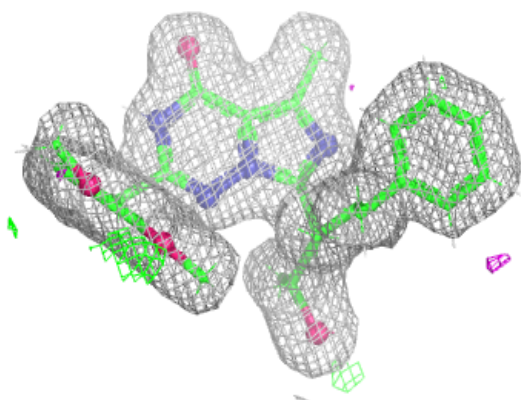
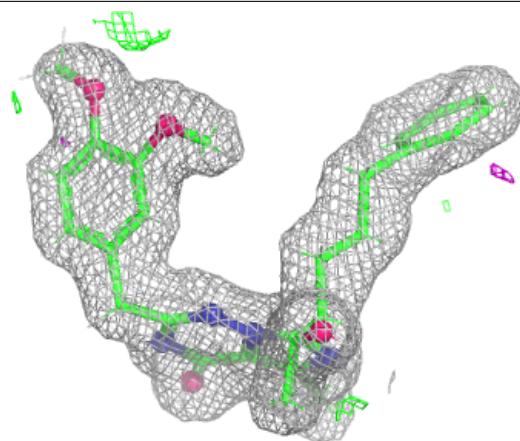
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
4	MG	B	1003	1/1	1.00	0.02	21,21,21,21	0
3	ZN	A	1002	1/1	1.00	0.01	21,21,21,21	0

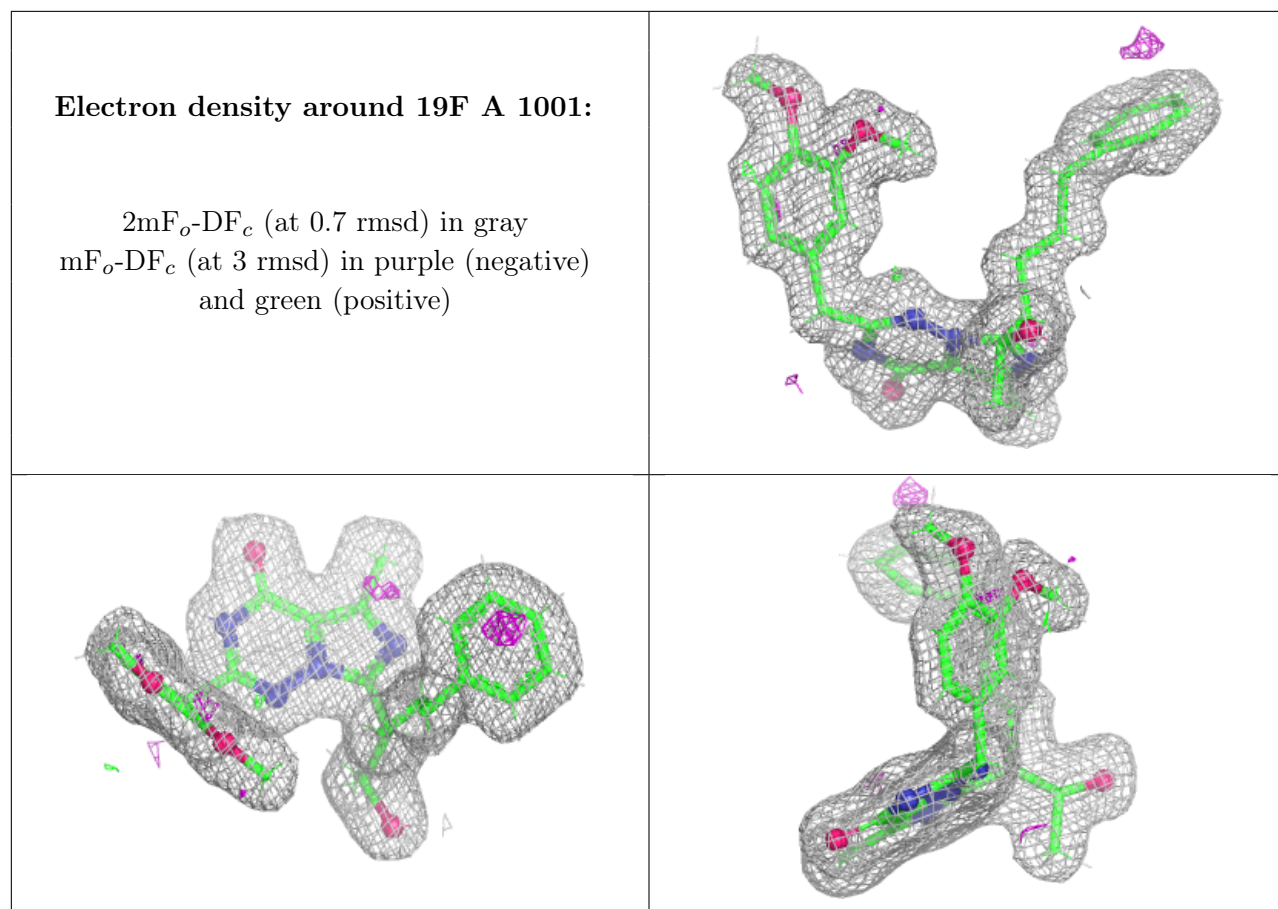
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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



Electron density around 19F B 1001:

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





6.5 Other polymers ⓘ

There are no such residues in this entry.