Full wwPDB X-ray Structure Validation Report (i)

Mar 10, 2026 – 08:47 AM UTC

PDB ID	:	9EYV / pdb_00009eyv
Title	:	Human PRMT5 in complex with AZ compound 12
Authors	:	Debreczeni, J.
Deposited on	:	2024-04-09
Resolution	:	2.15 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 (i) 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 (i)) were used in the production of this report:

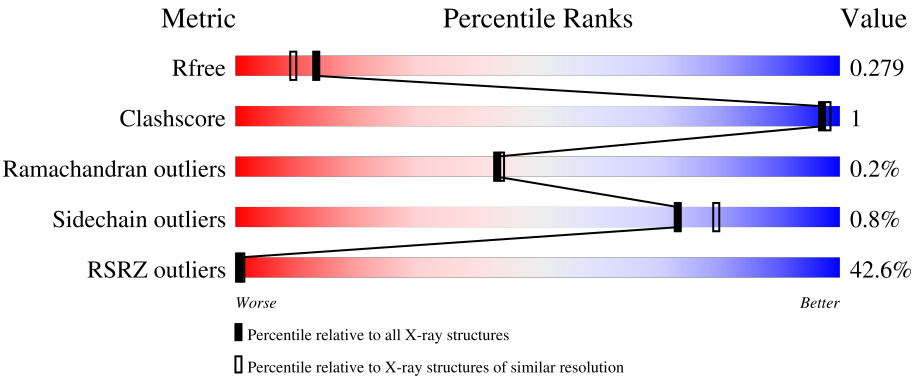
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal 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 (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 2.15 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	2057 (2.16-2.16)
Clashscore	190562	2159 (2.16-2.16)
Ramachandran outliers	187476	2134 (2.16-2.16)
Sidechain outliers	187428	2133 (2.16-2.16)
RSRZ outliers	180081	2059 (2.16-2.16)

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	637	29% 95%
2	B	342	61% 87% 11%

2 Entry composition

There are 6 unique types of molecules in this entry. The entry contains 7373 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.

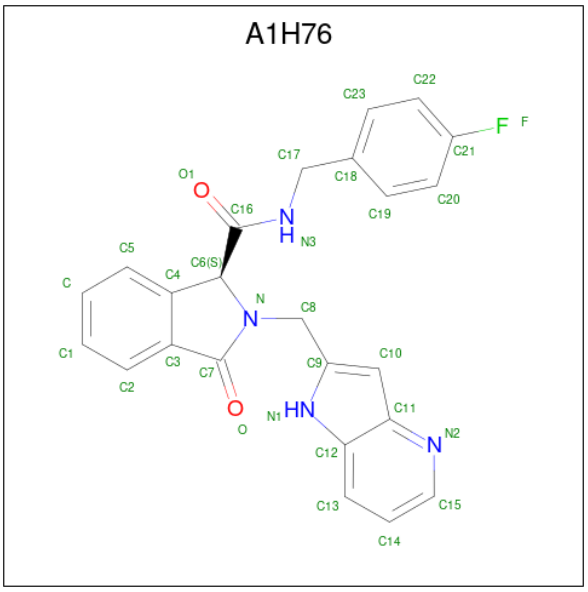
- Molecule 1 is a protein called Protein arginine N-methyltransferase 5, N-terminally processed.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	625	4978	3180	849	926	23	0	1	0

- Molecule 2 is a protein called Methylosome protein WDR77.

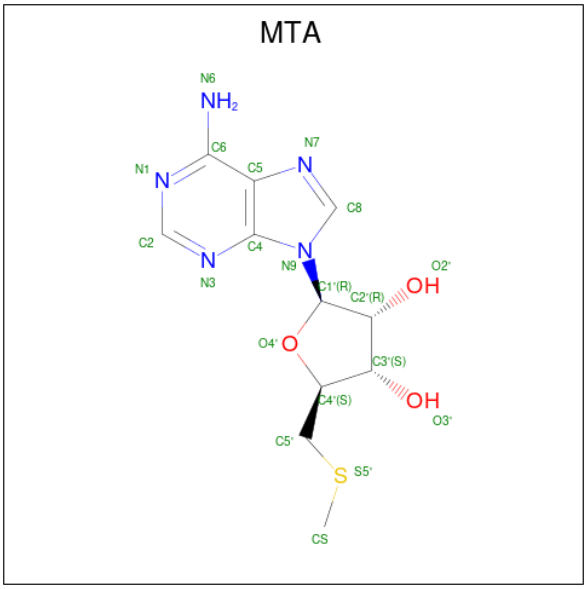
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	303	2269	1427	387	443	12	0	0	0

- Molecule 3 is (1 {S})- {N}-[(4-fluorophenyl)methyl]-3-oxidanylidene-2-(1 {H}-pyrrolo [3,2-b]pyridin-2-ylmethyl)-1 {H}-isoindole-1-carboxamide (CCD ID: A1H76) (formula: $C_{24}H_{19}FN_4O_2$) (labeled as "Ligand of Interest" by depositor).



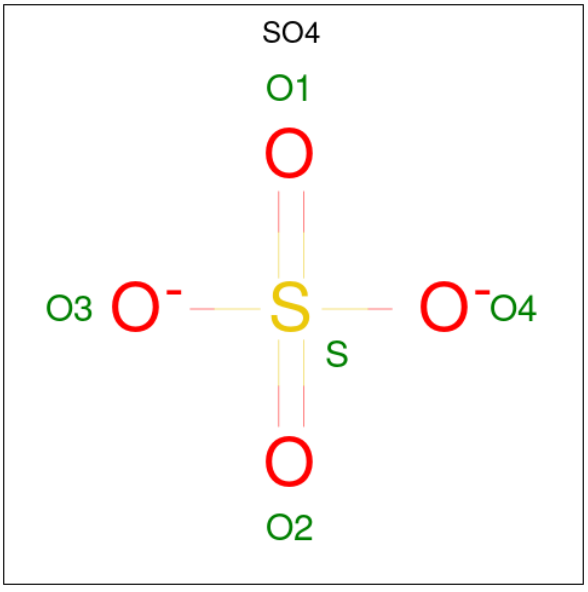
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	F	N	O		
3	A	1	31	24	1	4	2	0	0

- Molecule 4 is 5'-DEOXY-5'-METHYLTHIOADENOSINE (CCD ID: MTA) (formula: $C_{11}H_{15}N_5O_3S$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	A	1	Total	C	N	O	S	0	0
			20	11	5	3	1		

- Molecule 5 is SULFATE ION (CCD ID: SO4) (formula: O_4S).



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

- Molecule 6 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	A	58	Total O 58 58	0	0
6	B	12	Total O 12 12	0	0

3 Residue-property plots (i)

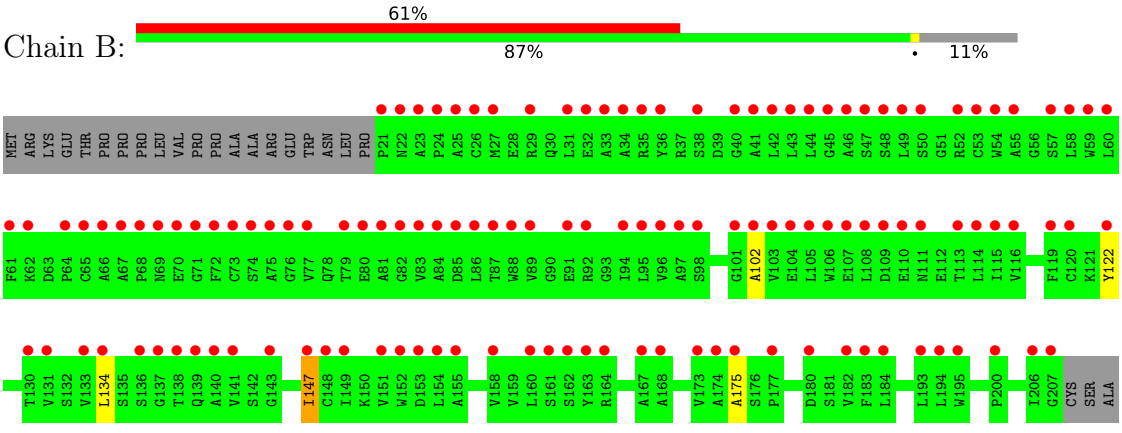
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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.

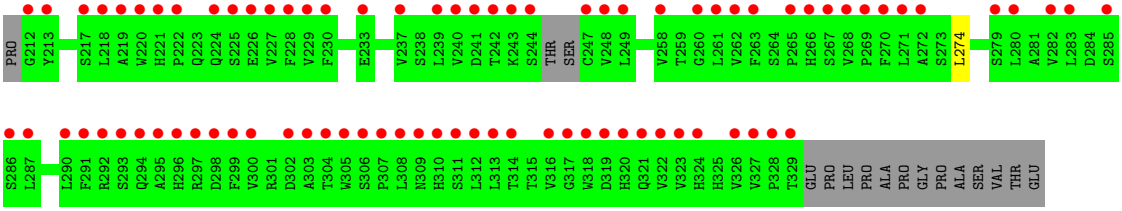
• Molecule 1: Protein arginine N-methyltransferase 5, N-terminally processed

Chain A:

• Molecule 2: Methylosome protein WDR77

Chain B:




PRO G212 Y213 S217 L218 A219 W220 H221 P222 Q223 Q224 S225 E226 V227 F228 V229 F230 E233 V237 S238 L239 V240 D241 T242 K243 S244 THR SER C247 V248 L249 V258 T259 G260 L261 V262 F263 S264 P265 H266 S267 V268 P269 F270 L271 A272 S273 L274 S279 L280 A281 V282 L283 D284 S285
S286 L287 L290 F291 R292 S293 Q294 A295 H296 R297 D298 F299 V300 R301 D302 A303 T304 W305 S306 P307 L308 N309 H310 S311 L312 L313 T314 T315 V316 G317 W318 D319 H320 Q321 V322 V323 H324 H325 V326 V327 P328 T329 GLU PRO LEU PRO ALA PRO GLY PRO ALA SER VAL THR GLU

4 Data and refinement statistics (i)

Property	Value	Source
Space group	I 2 2 2	Depositor
Cell constants a, b, c, α, β, γ	101.25Å 138.65Å 177.73Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	109.32 – 2.15 109.32 – 2.15	Depositor EDS
% Data completeness (in resolution range)	43.9 (109.32-2.15) 44.0 (109.32-2.15)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.69 (at 2.14Å)	Xtriage
Refinement program	REFMAC 5.8.0419	Depositor
R, R_{free}	0.269 , 0.279 0.268 , 0.279	Depositor DCC
R_{free} test set	1534 reflections (2.24%)	wwPDB-VP
Wilson B-factor (Å^2)	42.7	Xtriage
Anisotropy	0.193	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 28.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.88	EDS
Total number of atoms	7373	wwPDB-VP
Average B, all atoms (Å^2)	54.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.68% of the height of the origin peak. No significant pseudotranslation is detected.*

[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: MTA, SO4, A1H76

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	0.46	0/5116	0.81	0/6977
2	B	0.48	0/2322	0.76	0/3173
All	All	0.46	0/7438	0.80	0/10150

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

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	4978	0	4781	10	0
2	B	2269	0	2157	3	0
3	A	31	0	0	0	0
4	A	20	0	15	0	0
5	A	5	0	0	0	0
6	A	58	0	0	0	0
6	B	12	0	0	0	0
All	All	7373	0	6953	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:A:187[B]:MET:HE2	1:A:187[B]:MET:C	2.37	0.50
1:A:187[B]:MET:HE3	1:A:191:ASN:ND2	2.28	0.48
2:B:102:ALA:HB2	2:B:122:TYR:CD1	2.50	0.47
1:A:627:ASN:N	1:A:628:PRO:CD	2.78	0.46
1:A:446:SER:N	1:A:447:PRO:CD	2.79	0.45
1:A:47:HIS:HB3	1:A:50:PHE:HB2	1.98	0.45
1:A:187[B]:MET:HE2	1:A:188:TRP:HA	1.99	0.45
2:B:147:ILE:O	2:B:147:ILE:HG22	2.17	0.45
1:A:67:THR:OG1	1:A:68:ARG:N	2.50	0.44
1:A:371:LEU:HD13	1:A:433:VAL:HG12	1.99	0.44
2:B:134:LEU:HD23	2:B:175:ALA:HB1	2.01	0.43
1:A:442:ASP:OD2	1:A:604:ARG:NE	2.52	0.42
1:A:501:PRO:HA	1:A:583:LEU:O	2.21	0.41

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	624/637 (98%)	603 (97%)	20 (3%)	1 (0%)	43	44
2	B	297/342 (87%)	277 (93%)	19 (6%)	1 (0%)	36	34
All	All	921/979 (94%)	880 (96%)	39 (4%)	2 (0%)	43	44

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	B	147	ILE
1	A	441	ALA

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	537/562 (96%)	532 (99%)	5 (1%)	70 77
2	B	248/290 (86%)	247 (100%)	1 (0%)	84 89
All	All	785/852 (92%)	779 (99%)	6 (1%)	73 79

All (6) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	215	ASN
1	A	278	CYS
1	A	404	TRP
1	A	577	PHE
1	A	594	GLU
2	B	274	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (11) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	79	ASN
1	A	128	GLN
1	A	131	ASN
1	A	175	HIS
1	A	191	ASN
1	A	282	GLN
1	A	588	GLN
2	B	78	GLN
2	B	221	HIS
2	B	224	GLN
2	B	234	ASN

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)

3 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	$\#\|Z\| > 2$
4	MTA	A	702	-	22,22,22	0.23	0	32,32,32	0.29	0
3	A1H76	A	701	-	33,35,35	0.18	0	45,50,50	0.53	1 (2%)
5	SO4	A	703	-	4,4,4	0.34	0	6,6,6	0.08	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	MTA	A	702	-	-	0/7/23/23	0/3/3/3
3	A1H76	A	701	-	-	3/13/29/29	0/5/5/5

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A	701	A1H76	C12-C11-C10	2.57	108.99	107.35

There are no chirality outliers.

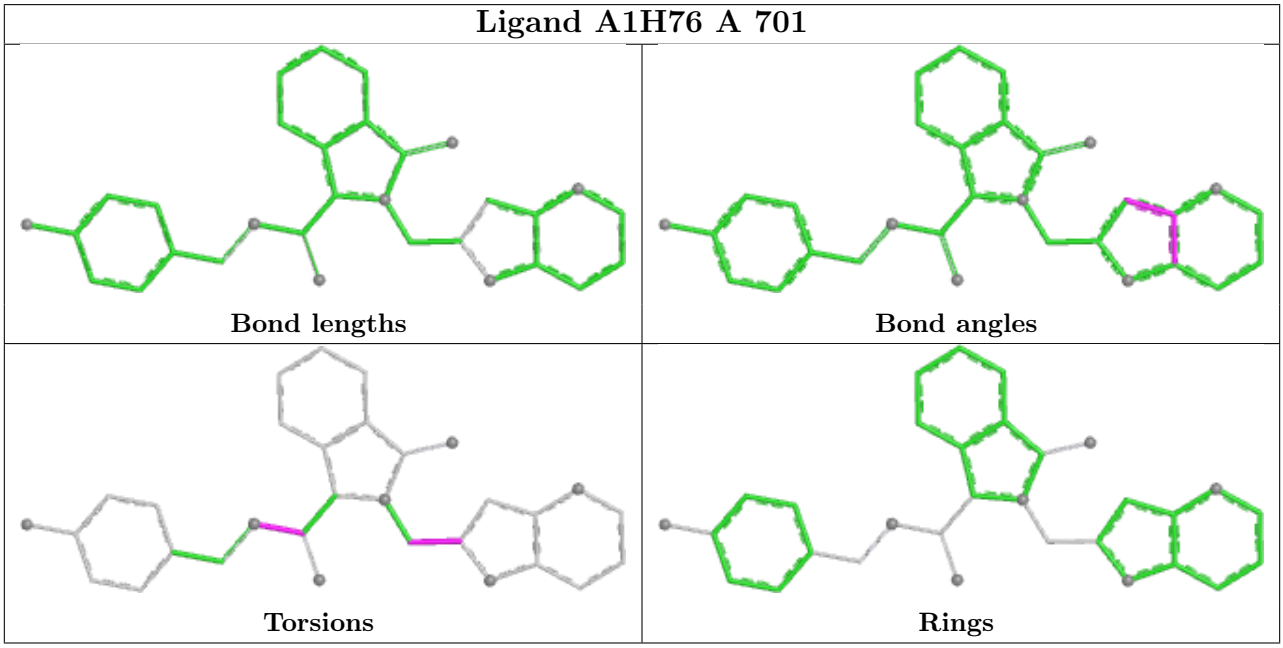
All (3) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	701	A1H76	N-C8-C9-N1
3	A	701	A1H76	N-C8-C9-C10
3	A	701	A1H76	O1-C16-N3-C17

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.



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, 95^{th} 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	625/637 (98%)	1.62	185 (29%)	1	1	17, 47, 80, 96	1 (0%)
2	B	303/342 (88%)	2.73	210 (69%)	0	0	45, 67, 92, 109	0
All	All	928/979 (94%)	1.99	395 (42%)	0	1	17, 55, 86, 109	1 (0%)

All (395) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	530	ILE	9.4
2	B	247	CYS	8.8
2	B	72	PHE	6.6
2	B	114	LEU	6.0
2	B	34	ALA	5.9
2	B	103	VAL	5.9
2	B	25	ALA	5.8
1	A	293	PRO	5.7
1	A	294	PRO	5.7
2	B	308	LEU	5.7
2	B	329	THR	5.6
1	A	296	ALA	5.6
2	B	22	ASN	5.6
2	B	21	PRO	5.6
2	B	326	VAL	5.5
1	A	529	MET	5.5
2	B	249	LEU	5.4
2	B	133	VAL	5.3
2	B	86	LEU	5.3
2	B	106	TRP	5.2
2	B	322	VAL	5.1
1	A	300	PHE	5.1
2	B	66	ALA	5.1
1	A	372	VAL	5.1

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Mol	Chain	Res	Type	RSRZ
2	B	244	SER	5.1
2	B	31	LEU	5.0
1	A	356	THR	5.0
2	B	59	TRP	5.0
1	A	299	LEU	5.0
2	B	137	GLY	4.9
2	B	272	ALA	4.8
2	B	49	LEU	4.7
2	B	225	SER	4.6
2	B	227	VAL	4.6
1	A	22	CYS	4.6
2	B	219	ALA	4.6
2	B	42	LEU	4.6
1	A	409	TRP	4.6
2	B	77	VAL	4.6
1	A	179	TYR	4.5
2	B	36	TYR	4.5
2	B	134	LEU	4.5
2	B	60	LEU	4.5
2	B	115	ILE	4.5
2	B	116	VAL	4.5
1	A	174	THR	4.5
2	B	64	PRO	4.5
2	B	61	PHE	4.4
1	A	26	ILE	4.4
2	B	206	ILE	4.4
2	B	44	LEU	4.4
1	A	243	PHE	4.3
2	B	160	LEU	4.3
2	B	151	VAL	4.3
2	B	23	ALA	4.2
2	B	241	ASP	4.2
2	B	68	PRO	4.2
2	B	163	TYR	4.2
1	A	297	TYR	4.1
2	B	230	PHE	4.1
2	B	50	SER	4.1
1	A	302	LYS	4.1
2	B	148	CYS	4.1
2	B	328	PRO	4.1
1	A	301	ALA	4.1
1	A	169	GLU	4.1

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Mol	Chain	Res	Type	RSRZ
2	B	282	VAL	4.0
2	B	53	CYS	4.0
1	A	231	LEU	4.0
2	B	102	ALA	3.9
1	A	176	THR	3.9
1	A	345	LEU	3.9
2	B	242	THR	3.9
2	B	212	GLY	3.9
2	B	314	THR	3.9
2	B	291	PHE	3.9
1	A	240	LYS	3.9
2	B	92	ARG	3.9
2	B	40	GLY	3.8
2	B	175	ALA	3.8
1	A	21	ASN	3.8
1	A	20	LEU	3.8
2	B	87	THR	3.8
2	B	283	LEU	3.8
1	A	292	PRO	3.8
2	B	265	PRO	3.8
2	B	136	SER	3.8
2	B	73	CYS	3.8
1	A	349	VAL	3.8
1	A	358	VAL	3.8
1	A	406	PHE	3.7
2	B	33	ALA	3.7
2	B	67	ALA	3.7
2	B	269	PRO	3.7
1	A	222	LEU	3.7
2	B	58	LEU	3.7
2	B	45	GLY	3.7
1	A	33	VAL	3.7
1	A	274	GLU	3.7
2	B	303	ALA	3.7
2	B	173	VAL	3.6
2	B	229	VAL	3.6
1	A	65	PRO	3.6
2	B	312	LEU	3.6
1	A	146	HIS	3.6
2	B	262	VAL	3.6
2	B	41	ALA	3.6
1	A	593	ARG	3.6

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Mol	Chain	Res	Type	RSRZ
2	B	140	ALA	3.6
2	B	95	LEU	3.6
2	B	180	ASP	3.5
1	A	217	VAL	3.5
2	B	327	VAL	3.5
1	A	422	GLU	3.5
1	A	284	LEU	3.5
2	B	43	LEU	3.5
2	B	154	LEU	3.5
2	B	271	LEU	3.5
1	A	528	PRO	3.5
1	A	98	LYS	3.5
1	A	148	SER	3.5
2	B	141	VAL	3.5
1	A	376	LEU	3.4
2	B	239	LEU	3.4
2	B	280	LEU	3.4
1	A	526	ARG	3.4
1	A	468	TYR	3.4
1	A	462	VAL	3.4
2	B	304	THR	3.4
2	B	307	PRO	3.4
1	A	212	LEU	3.4
1	A	307	TYR	3.4
2	B	268	VAL	3.4
1	A	55	ILE	3.4
1	A	30	LEU	3.4
1	A	78	TRP	3.4
2	B	26	CYS	3.4
2	B	97	ALA	3.4
2	B	147	ILE	3.4
2	B	174	ALA	3.4
2	B	184	LEU	3.4
2	B	290	LEU	3.4
2	B	305	TRP	3.3
2	B	243	LYS	3.3
1	A	304	TYR	3.3
2	B	323	VAL	3.3
2	B	119	PHE	3.3
2	B	113	THR	3.3
1	A	390	ALA	3.3
2	B	183	PHE	3.3

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Mol	Chain	Res	Type	RSRZ
1	A	275	LYS	3.3
2	B	152	TRP	3.2
1	A	382	ALA	3.2
1	A	354	LYS	3.2
1	A	209	GLY	3.2
2	B	164	ARG	3.2
2	B	139	GLN	3.2
1	A	327	PHE	3.2
2	B	75	ALA	3.2
1	A	218	ILE	3.2
1	A	386	ILE	3.2
2	B	105	LEU	3.2
2	B	98	SER	3.2
1	A	357	ASN	3.2
2	B	300	VAL	3.1
1	A	13	ARG	3.1
1	A	23	VAL	3.1
2	B	285	SER	3.1
2	B	65	CYS	3.1
1	A	82	ILE	3.1
2	B	88	TRP	3.1
1	A	242	GLY	3.1
1	A	565	LEU	3.1
2	B	94	ILE	3.1
2	B	54	TRP	3.0
1	A	410	GLY	3.0
2	B	310	HIS	3.0
2	B	89	VAL	3.0
1	A	167	ILE	3.0
1	A	24	PRO	3.0
1	A	38	PHE	3.0
1	A	371	LEU	3.0
2	B	218	LEU	3.0
1	A	50	PHE	3.0
2	B	27	MET	3.0
2	B	29	ARG	3.0
2	B	248	VAL	3.0
2	B	258	VAL	3.0
1	A	350	PRO	3.0
1	A	280	TYR	3.0
2	B	220	TRP	3.0
2	B	228	PHE	3.0

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Mol	Chain	Res	Type	RSRZ
2	B	69	ASN	2.9
2	B	287	LEU	2.9
1	A	416	VAL	2.9
2	B	62	LYS	2.9
2	B	24	PRO	2.9
1	A	187[A]	MET	2.9
1	A	577	PHE	2.9
2	B	195	TRP	2.9
2	B	108	LEU	2.9
1	A	145	GLY	2.9
2	B	109	ASP	2.9
2	B	177	PRO	2.9
2	B	311	SER	2.9
2	B	107	GLU	2.9
1	A	277	PHE	2.9
2	B	161	SER	2.9
1	A	272	HIS	2.9
2	B	318	TRP	2.9
1	A	527	ASP	2.8
2	B	83	VAL	2.8
1	A	32	ALA	2.8
2	B	71	GLY	2.8
2	B	224	GLN	2.8
2	B	263	PHE	2.8
1	A	31	GLY	2.8
1	A	286	TYR	2.8
1	A	369	GLY	2.8
1	A	346	LEU	2.8
2	B	316	VAL	2.8
1	A	271	HIS	2.8
1	A	181	GLY	2.8
2	B	306	SER	2.7
1	A	53	GLU	2.7
1	A	210	ALA	2.7
1	A	241	LYS	2.7
2	B	295	ALA	2.7
1	A	249	MET	2.7
1	A	165	ASP	2.7
1	A	238	THR	2.7
2	B	79	THR	2.7
2	B	96	VAL	2.7
1	A	219	ASP	2.7

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Mol	Chain	Res	Type	RSRZ
2	B	321	GLN	2.7
2	B	110	GLU	2.6
1	A	113	PHE	2.6
1	A	163	LEU	2.6
2	B	261	LEU	2.6
2	B	48	SER	2.6
2	B	153	ASP	2.6
1	A	45	VAL	2.6
2	B	237	VAL	2.6
2	B	240	VAL	2.6
1	A	73	LEU	2.6
1	A	388	LEU	2.6
2	B	85	ASP	2.6
2	B	267	SER	2.6
2	B	270	PHE	2.6
1	A	283	TYR	2.6
1	A	295	ASN	2.6
1	A	579	TRP	2.6
1	A	608	SER	2.6
2	B	74	SER	2.6
2	B	233	GLU	2.5
1	A	326	VAL	2.5
1	A	563	ILE	2.5
1	A	51	LYS	2.5
1	A	36	GLN	2.5
1	A	41	LEU	2.5
1	A	287	LEU	2.5
1	A	457	LEU	2.5
1	A	118	GLY	2.5
1	A	168	ILE	2.5
1	A	452	GLY	2.5
2	B	131	VAL	2.5
2	B	320	HIS	2.5
2	B	55	ALA	2.5
2	B	57	SER	2.5
2	B	222	PRO	2.5
2	B	299	PHE	2.5
2	B	324	HIS	2.5
1	A	464	ILE	2.5
1	A	542	VAL	2.5
1	A	560	TYR	2.5
2	B	162	SER	2.5

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Mol	Chain	Res	Type	RSRZ
1	A	260	LEU	2.5
1	A	361	LEU	2.5
2	B	221	HIS	2.5
1	A	235	ILE	2.5
1	A	341	ILE	2.5
1	A	544	VAL	2.4
2	B	158	VAL	2.4
1	A	178	GLU	2.4
1	A	347	ASP	2.4
1	A	467	GLU	2.4
1	A	337	TYR	2.4
1	A	273	SER	2.4
2	B	167	ALA	2.4
1	A	637	LEU	2.4
1	A	54	PHE	2.4
2	B	200	PRO	2.4
1	A	458	LYS	2.4
2	B	155	ALA	2.4
2	B	297	ARG	2.4
1	A	175	HIS	2.4
1	A	246	LEU	2.4
1	A	367	GLY	2.4
1	A	412	GLN	2.4
2	B	91	GLU	2.4
1	A	266	ILE	2.4
2	B	182	VAL	2.4
2	B	286	SER	2.4
1	A	536	CYS	2.4
2	B	52	ARG	2.4
2	B	138	THR	2.4
1	A	147	HIS	2.4
2	B	143	GLY	2.4
1	A	269	THR	2.4
1	A	278	CYS	2.4
1	A	404	TRP	2.4
2	B	111	ASN	2.3
2	B	313	LEU	2.3
1	A	575	GLY	2.3
2	B	38	SER	2.3
2	B	120	CYS	2.3
1	A	237	LEU	2.3
2	B	149	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
2	B	32	GLU	2.3
1	A	414	THR	2.3
2	B	130	THR	2.3
1	A	171	ALA	2.3
2	B	46	ALA	2.3
1	A	389	TYR	2.3
2	B	302	ASP	2.3
2	B	319	ASP	2.3
1	A	25	GLU	2.3
1	A	122	PHE	2.3
1	A	208	ILE	2.3
1	A	254	ILE	2.3
1	A	173	THR	2.3
2	B	168	ALA	2.3
1	A	64	GLY	2.3
2	B	82	GLY	2.3
1	A	342	TYR	2.3
2	B	122	TYR	2.3
2	B	266	HIS	2.2
1	A	513	SER	2.2
2	B	279	SER	2.2
2	B	309	ASN	2.2
2	B	76	GLY	2.2
1	A	352	GLU	2.2
1	A	234	SER	2.2
2	B	47	SER	2.2
1	A	68	ARG	2.2
1	A	377	ARG	2.2
1	A	127	ASN	2.2
2	B	207	GLY	2.2
1	A	27	ALA	2.2
1	A	454	GLN	2.2
1	A	28	ASP	2.2
1	A	413	VAL	2.2
2	B	70	GLU	2.2
2	B	104	GLU	2.2
2	B	81	ALA	2.2
1	A	81	LEU	2.2
1	A	622	CYS	2.2
2	B	35	ARG	2.2
2	B	226	GLU	2.1
1	A	56	GLN	2.1

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Mol	Chain	Res	Type	RSRZ
1	A	289	GLN	2.1
2	B	260	GLY	2.1
1	A	248	LYS	2.1
1	A	177	GLU	2.1
1	A	355	ASP	2.1
2	B	80	GLU	2.1
1	A	29	THR	2.1
1	A	236	PHE	2.1
1	A	431	ILE	2.1
2	B	101	GLY	2.1
1	A	281	LEU	2.1
2	B	217	SER	2.1
1	A	290	ASN	2.1
1	A	298	GLU	2.1
1	A	489	GLU	2.1
1	A	95	LYS	2.1
2	B	293	SER	2.1
2	B	296	HIS	2.1
1	A	96	VAL	2.1
1	A	374	ALA	2.1
2	B	193	LEU	2.0
2	B	294	GLN	2.0
2	B	298	ASP	2.0
1	A	220	ARG	2.0
1	A	385	ARG	2.0
2	B	292	ARG	2.0
1	A	58	PRO	2.0
1	A	17	GLY	2.0
1	A	37	GLY	2.0
2	B	213	TYR	2.0
2	B	317	GLY	2.0
1	A	46	PHE	2.0
1	A	415	VAL	2.0
2	B	84	ALA	2.0
2	B	194	LEU	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)

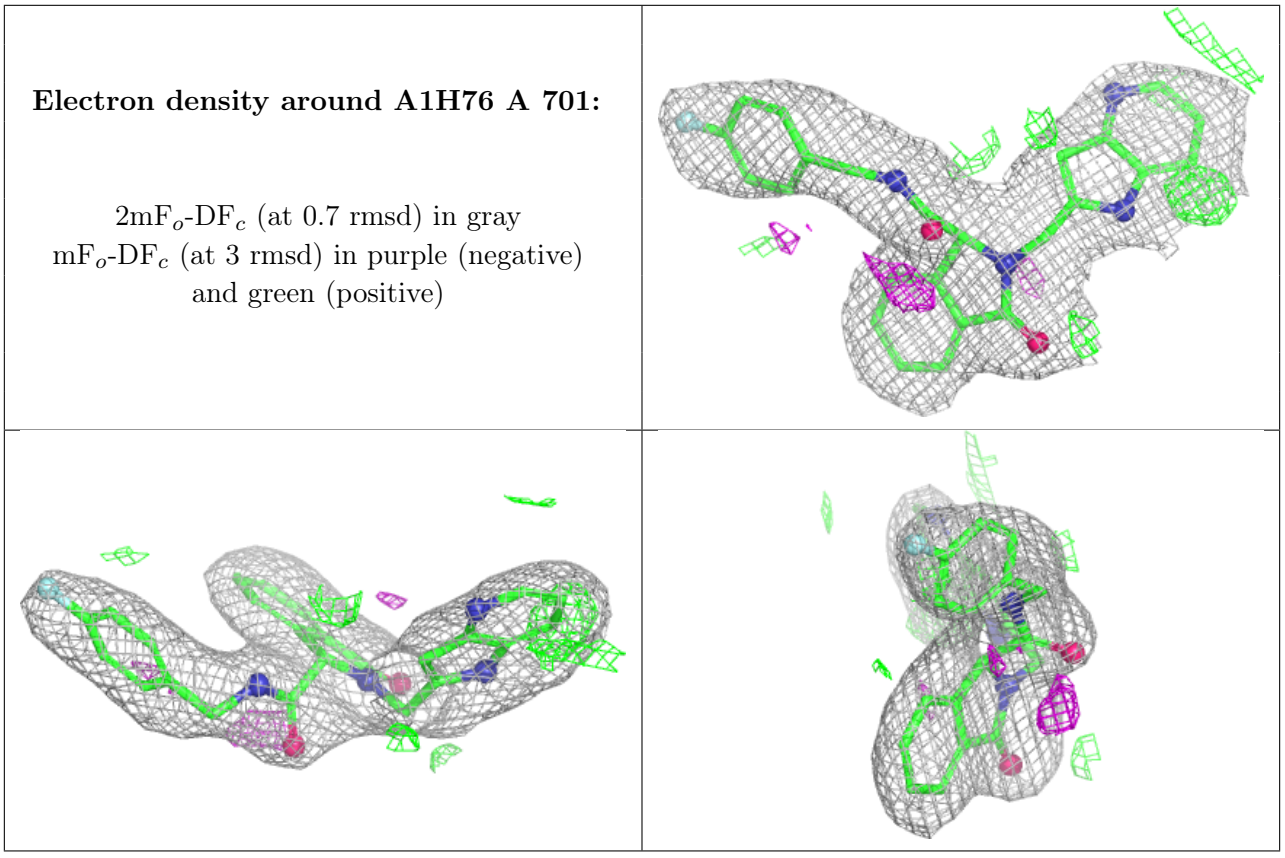
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' 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
5	SO4	A	703	5/5	0.81	0.13	70,70,70,71	0
3	A1H76	A	701	31/31	0.88	0.11	34,38,44,45	0
4	MTA	A	702	20/20	0.92	0.10	27,28,33,33	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 A1H76 A 701:

$2mF_o$-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.