Full wwPDB X-ray Structure Validation Report ⓘ

Nov 17, 2025 – 06:07 pm GMT

PDB ID	:	9R1Y / pdb_00009r1y
Title	:	PLK1 SURFACE ENTROPY REDUCTION (SER) MUTANT IN COMPLEX WITH INHIBITOR GSK461364
Authors	:	Hillig, R.C.; Schulze, V.K.; Siemeister, G.; Schmitz, A.A.; Eberspaecher, U.
Deposited on	:	2025-04-28
Resolution	:	2.60 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:

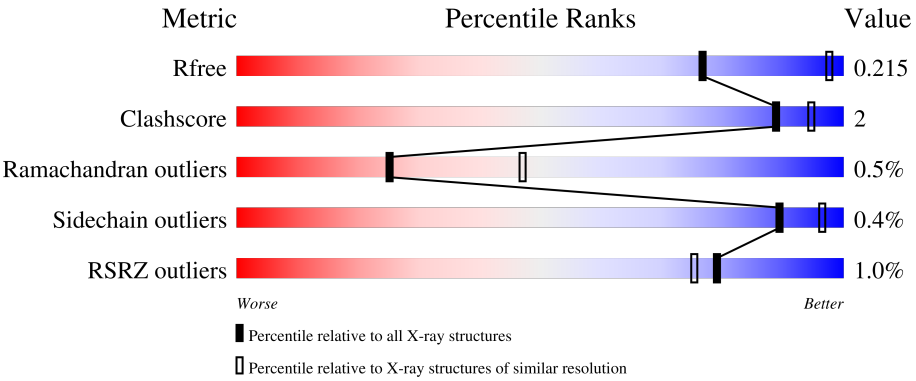
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.46

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 2.60 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}	164625	3775 (2.60-2.60)
Clashscore	180529	4181 (2.60-2.60)
Ramachandran outliers	177936	4129 (2.60-2.60)
Sidechain outliers	177891	4129 (2.60-2.60)
RSRZ outliers	164620	3775 (2.60-2.60)

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 <=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	AAA	325	% 86% 6% 9%
1	BBB	325	% 84% 5% 11%

2 Entry composition (i)

There are 6 unique types of molecules in this entry. The entry contains 5010 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.

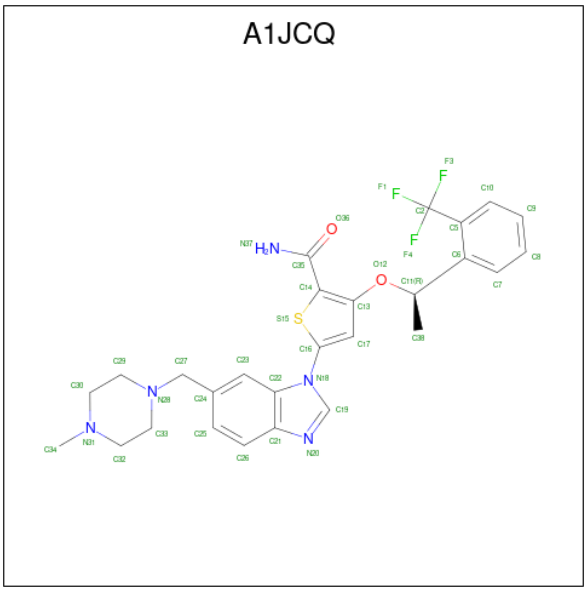
- Molecule 1 is a protein called Serine/threonine-protein kinase PLK1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AAA	297	Total	C	N	O	S	0	9	0
			2442	1570	428	430	14			
1	BBB	288	Total	C	N	O	S	0	5	0
			2365	1518	419	416	12			

There are 8 discrepancies between the modelled and reference sequences:

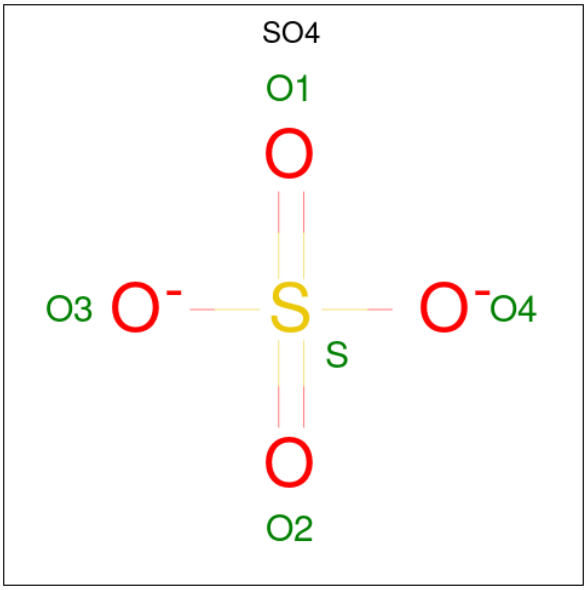
Chain	Residue	Modelled	Actual	Comment	Reference
AAA	16	GLY	-	expression tag	UNP P53350
AAA	17	SER	-	expression tag	UNP P53350
AAA	225	ASP	LYS	engineered mutation	UNP P53350
AAA	226	ALA	LYS	engineered mutation	UNP P53350
BBB	16	GLY	-	expression tag	UNP P53350
BBB	17	SER	-	expression tag	UNP P53350
BBB	225	ASP	LYS	engineered mutation	UNP P53350
BBB	226	ALA	LYS	engineered mutation	UNP P53350

- Molecule 2 is 5-[6-[(4-methylpiperazin-1-yl)methyl]benzimidazol-1-yl]-3-[(1 {R})-1-[2-(trifluoromethyl)phenyl]ethoxy]thiophene-2-carboxamide (CCD ID: A1JCQ) (formula: $C_{27}H_{28}F_3N_5O_2S$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms						ZeroOcc	AltConf
2	AAA	1	Total	C	F	N	O	S	0	0
			38	27	3	5	2	1		
2	BBB	1	Total	C	F	N	O	S	0	0
			38	27	3	5	2	1		

- Molecule 3 is SULFATE ION (CCD ID: SO4) (formula: O_4S).



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

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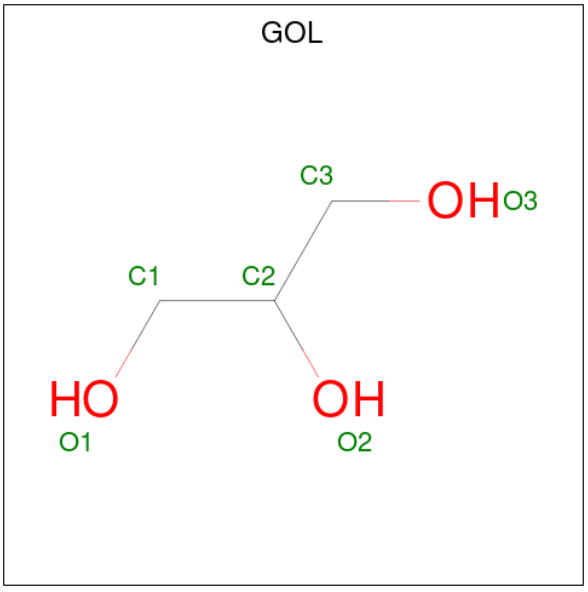
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	AAA	1	Total O S 5 4 1	0	0
3	AAA	1	Total O S 5 4 1	0	0
3	AAA	1	Total O S 5 4 1	0	0
3	AAA	1	Total O S 5 4 1	0	0
3	BBB	1	Total O S 5 4 1	0	0
3	BBB	1	Total O S 5 4 1	0	0

- Molecule 4 is CHLORIDE ION (CCD ID: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	AAA	1	Total Cl 1 1	0	0

- Molecule 5 is GLYCEROL (CCD ID: GOL) (formula: $C_3H_8O_3$).



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

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

- Molecule 6 is water.

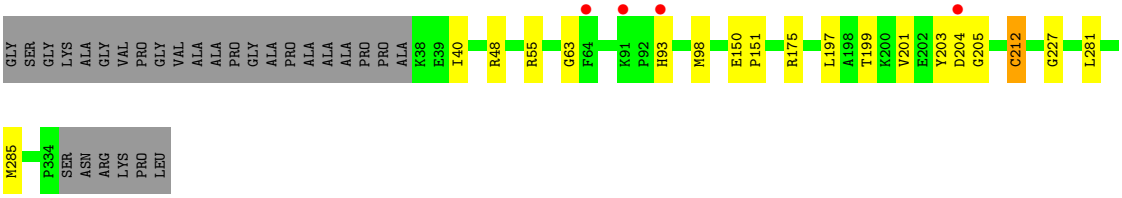
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	AAA	34	Total O 34 34	0	0
6	BBB	22	Total O 22 22	0	0

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.

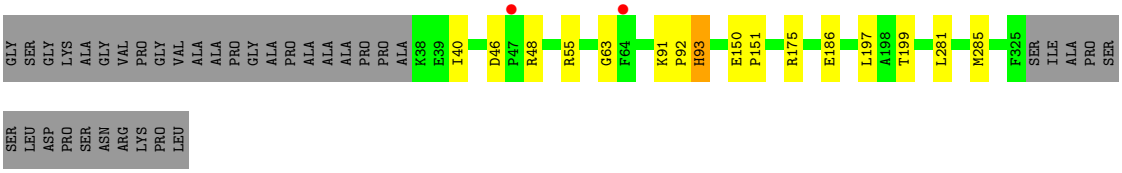
• Molecule 1: Serine/threonine-protein kinase PLK1

Chain AAA:



• Molecule 1: Serine/threonine-protein kinase PLK1

Chain BBB:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	113.77Å 104.17Å 71.29Å 90.00° 115.31° 90.00°	Depositor
Resolution (Å)	42.43 – 2.60 42.43 – 2.60	Depositor EDS
% Data completeness (in resolution range)	88.6 (42.43-2.60) 88.6 (42.43-2.60)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.07	Depositor
$< I/\sigma(I) >$ [1]	4.28 (at 2.61Å)	Xtriage
Refinement program	REFMAC 5.8.0267	Depositor
R, R_{free}	0.185 , 0.218 0.188 , 0.215	Depositor DCC
R_{free} test set	1031 reflections (4.45%)	wwPDB-VP
Wilson B-factor (Å^2)	45.5	Xtriage
Anisotropy	0.421	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.35 , 50.6	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	5010	wwPDB-VP
Average B, all atoms (Å^2)	72.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.67% 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: CL, SO4, GOL, A1JCQ

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	AAA	0.99	0/2523	1.37	1/3408 (0.0%)
1	BBB	1.00	0/2431	1.37	0/3280
All	All	0.99	0/4954	1.37	1/6688 (0.0%)

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AAA	227	GLY	CA-C-O	-5.01	117.88	122.24

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	AAA	2442	0	2510	9	0
1	BBB	2365	0	2422	9	0
2	AAA	38	0	0	0	0
2	BBB	38	0	0	0	0
3	AAA	30	0	0	0	0
3	BBB	10	0	0	0	0
4	AAA	1	0	0	0	0
5	AAA	24	0	32	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	BBB	6	0	8	0	0
6	AAA	34	0	0	0	0
6	BBB	22	0	0	0	0
All	All	5010	0	4972	18	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 (18) 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:BBB:186[B]:GLU:OE2	1:BBB:186[B]:GLU:HA	1.96	0.64
1:AAA:175:ARG:HD2	1:AAA:199:THR:HG22	1.89	0.54
1:BBB:175:ARG:HD2	1:BBB:199:THR:HG22	1.88	0.54
1:AAA:93[A]:HIS:CD2	1:AAA:212:CYS:HG	2.32	0.48
1:BBB:91:LYS:HE2	1:BBB:93:HIS:ND1	2.28	0.47
1:BBB:91:LYS:HD2	1:BBB:92:PRO:HD2	1.96	0.46
1:AAA:281:LEU:HG	1:AAA:285:MET:HE2	1.98	0.46
1:BBB:281:LEU:HG	1:BBB:285:MET:HE2	1.98	0.45
1:AAA:98:MET:HA	1:AAA:98:MET:HE3	1.99	0.43
1:AAA:150:GLU:N	1:AAA:151:PRO:CD	2.82	0.43
1:AAA:204:ASP:CG	1:AAA:205:GLY:N	2.77	0.42
1:AAA:175:ARG:HD3	1:AAA:197:LEU:O	2.20	0.41
1:AAA:201:VAL:CG1	1:AAA:203:TYR:O	2.68	0.41
1:AAA:40:ILE:O	1:AAA:55:ARG:NH2	2.54	0.41
1:BBB:175:ARG:HD3	1:BBB:197:LEU:O	2.21	0.41
1:BBB:150:GLU:N	1:BBB:151:PRO:CD	2.84	0.41
1:BBB:40:ILE:O	1:BBB:55:ARG:NH2	2.54	0.40
1:BBB:46:ASP:CG	1:BBB:48:ARG:O	2.65	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	AAA	304/325 (94%)	288 (95%)	14 (5%)	2 (1%)	19 38
1	BBB	291/325 (90%)	277 (95%)	13 (4%)	1 (0%)	37 59
All	All	595/650 (92%)	565 (95%)	27 (4%)	3 (0%)	25 47

All (3) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	AAA	48	ARG
1	BBB	63	GLY
1	AAA	63	GLY

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	AAA	275/281 (98%)	274 (100%)	1 (0%)	89 96
1	BBB	263/281 (94%)	262 (100%)	1 (0%)	89 96
All	All	538/562 (96%)	536 (100%)	2 (0%)	89 96

All (2) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	AAA	212	CYS
1	BBB	93	HIS

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

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 16 ligands modelled in this entry, 1 is monoatomic - leaving 15 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	AAA	402	-	4,4,4	0.39	0	6,6,6	0.05	0
3	SO4	AAA	407	-	4,4,4	0.39	0	6,6,6	0.05	0
3	SO4	AAA	404	-	4,4,4	0.39	0	6,6,6	0.05	0
3	SO4	BBB	403	-	4,4,4	0.39	0	6,6,6	0.05	0
3	SO4	AAA	405	-	4,4,4	0.39	0	6,6,6	0.05	0
5	GOL	AAA	411	-	5,5,5	0.10	0	5,5,5	0.28	0
3	SO4	AAA	403	-	4,4,4	0.38	0	6,6,6	0.05	0
2	A1JCQ	BBB	401	-	36,42,42	2.22	9 (25%)	46,62,62	1.17	4 (8%)
5	GOL	AAA	409	-	5,5,5	0.09	0	5,5,5	0.30	0
2	A1JCQ	AAA	401	-	36,42,42	2.23	9 (25%)	46,62,62	1.12	3 (6%)
5	GOL	AAA	410	-	5,5,5	0.12	0	5,5,5	0.32	0
5	GOL	AAA	412	-	5,5,5	0.10	0	5,5,5	0.27	0
5	GOL	BBB	404	-	5,5,5	0.11	0	5,5,5	0.29	0
3	SO4	BBB	402	-	4,4,4	0.39	0	6,6,6	0.05	0
3	SO4	AAA	406	-	4,4,4	0.39	0	6,6,6	0.05	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
5	GOL	AAA	411	-	-	1/4/4/4	-
5	GOL	BBB	404	-	-	2/4/4/4	-
5	GOL	AAA	412	-	-	0/4/4/4	-
2	A1JCQ	BBB	401	-	-	0/16/36/36	0/5/5/5
5	GOL	AAA	409	-	-	0/4/4/4	-
2	A1JCQ	AAA	401	-	-	0/16/36/36	0/5/5/5
5	GOL	AAA	410	-	-	2/4/4/4	-

All (18) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	BBB	401	A1JCQ	C6-C11	-6.17	1.42	1.52
2	BBB	401	A1JCQ	C27-C24	-6.00	1.40	1.51
2	AAA	401	A1JCQ	C6-C11	-5.90	1.42	1.52
2	AAA	401	A1JCQ	C27-C24	-5.76	1.41	1.51
2	AAA	401	A1JCQ	C16-S15	-5.11	1.64	1.74
2	AAA	401	A1JCQ	C26-C21	-4.75	1.33	1.41
2	BBB	401	A1JCQ	C26-C21	-4.66	1.33	1.41
2	BBB	401	A1JCQ	C16-S15	-4.43	1.65	1.74
2	BBB	401	A1JCQ	C2-C5	-3.78	1.42	1.50
2	AAA	401	A1JCQ	C2-C5	-3.67	1.42	1.50
2	BBB	401	A1JCQ	C22-N18	-3.26	1.34	1.39
2	AAA	401	A1JCQ	C22-N18	-3.14	1.34	1.39
2	AAA	401	A1JCQ	C19-N18	-3.02	1.33	1.36
2	BBB	401	A1JCQ	C23-C22	-2.87	1.35	1.40
2	AAA	401	A1JCQ	C23-C22	-2.80	1.35	1.40
2	BBB	401	A1JCQ	C19-N18	-2.72	1.33	1.36
2	AAA	401	A1JCQ	C22-C21	-2.62	1.34	1.40
2	BBB	401	A1JCQ	C22-C21	-2.61	1.34	1.40

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AAA	401	A1JCQ	C19-N18-C16	-3.62	118.92	126.02
2	BBB	401	A1JCQ	O12-C11-C6	3.22	113.61	108.00
2	BBB	401	A1JCQ	C19-N18-C16	-2.99	120.15	126.02
2	BBB	401	A1JCQ	C38-C11-C6	-2.74	107.92	112.68
2	AAA	401	A1JCQ	O12-C11-C6	2.73	112.76	108.00
2	BBB	401	A1JCQ	C13-O12-C11	2.67	122.87	118.17
2	AAA	401	A1JCQ	C38-C11-C6	-2.05	109.11	112.68

There are no chirality outliers.

All (5) torsion outliers are listed below:

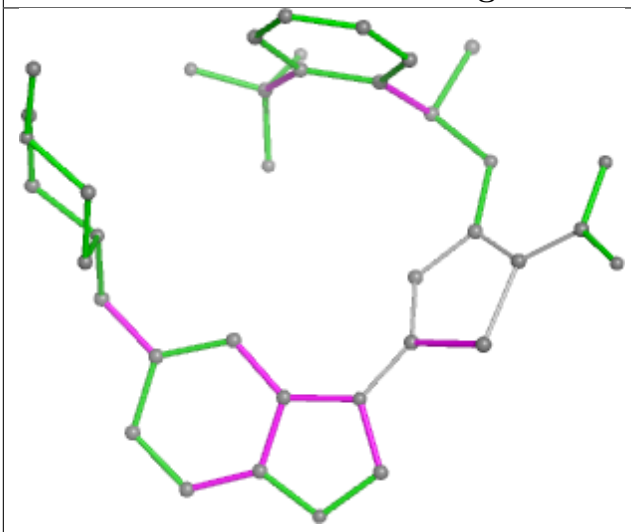
Mol	Chain	Res	Type	Atoms
5	AAA	410	GOL	C1-C2-C3-O3
5	AAA	411	GOL	O1-C1-C2-C3
5	AAA	410	GOL	O2-C2-C3-O3
5	BBB	404	GOL	O1-C1-C2-O2
5	BBB	404	GOL	O1-C1-C2-C3

There are no ring outliers.

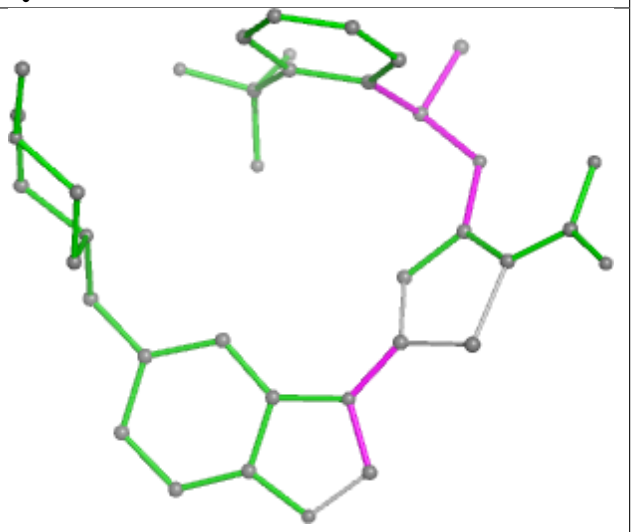
No monomer is involved in short contacts.

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.

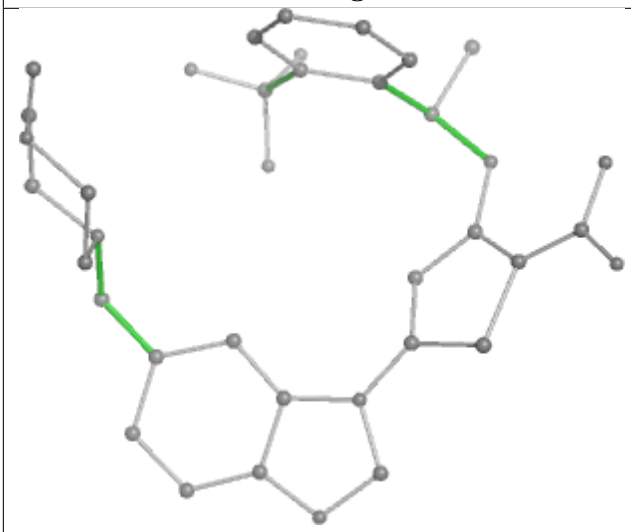
Ligand A1JCQ BBB 401



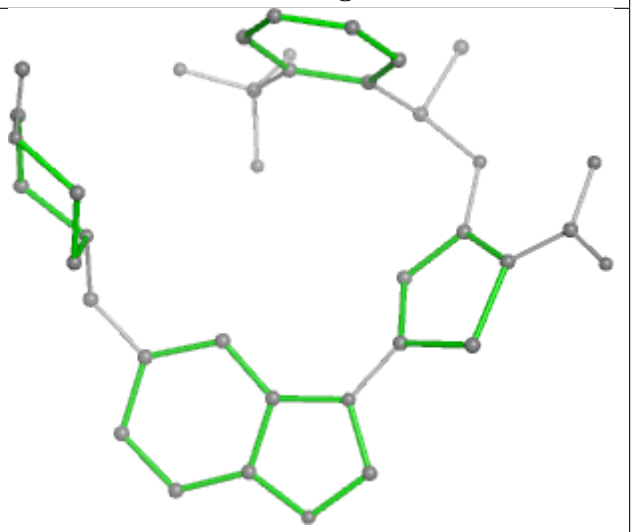
Bond lengths



Bond angles

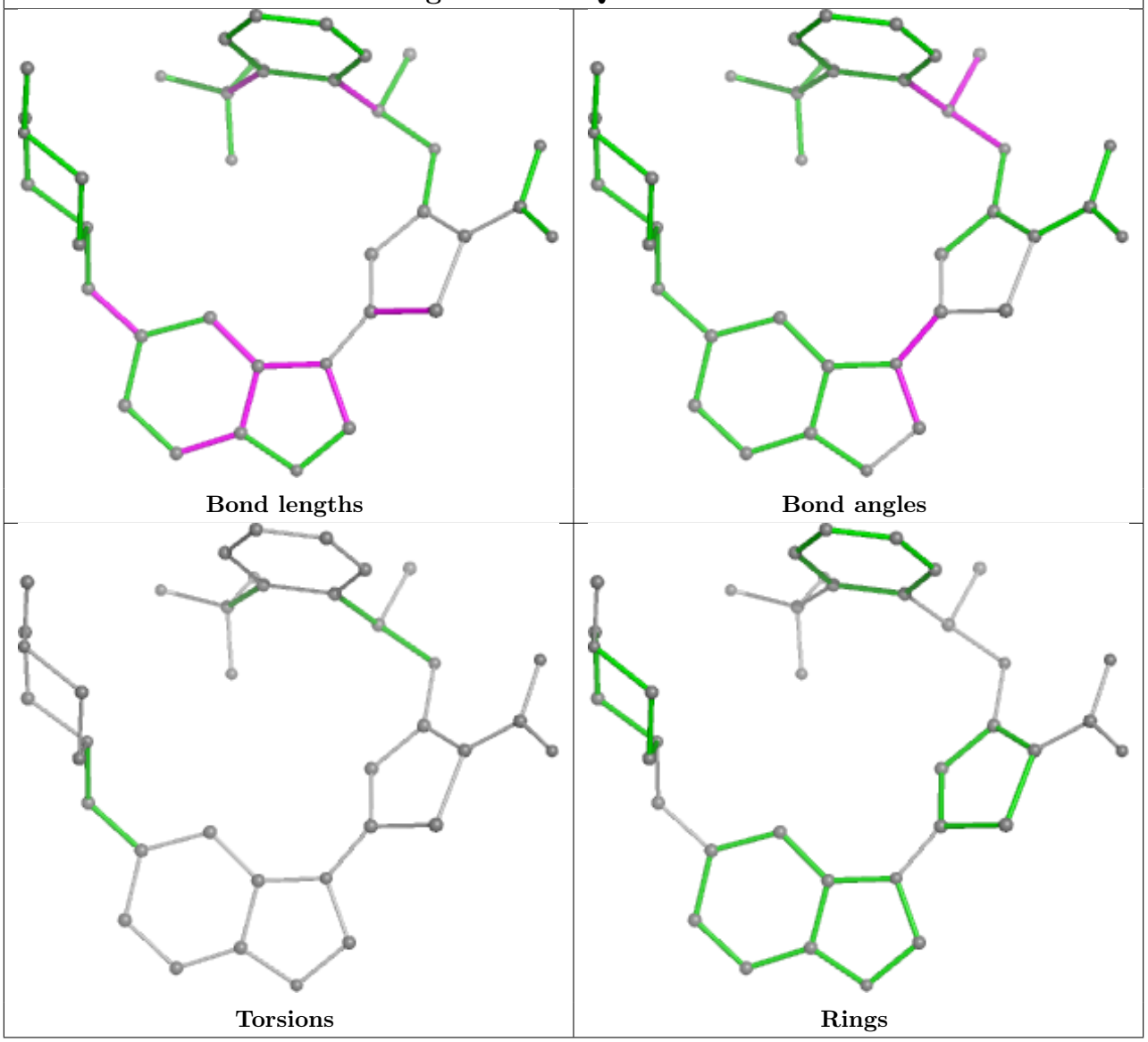


Torsions



Rings

Ligand A1JCQ AAA 401



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, 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	AAA	297/325 (91%)	-0.29	4 (1%)	74	70	27, 59, 120, 142	9 (3%)
1	BBB	288/325 (88%)	-0.13	2 (0%)	84	81	29, 69, 129, 154	5 (1%)
All	All	585/650 (90%)	-0.22	6 (1%)	79	75	27, 64, 122, 154	14 (2%)

All (6) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	BBB	47	PRO	2.8
1	AAA	64	PHE	2.7
1	AAA	91[A]	LYS	2.6
1	BBB	64	PHE	2.6
1	AAA	93[A]	HIS	2.1
1	AAA	204	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

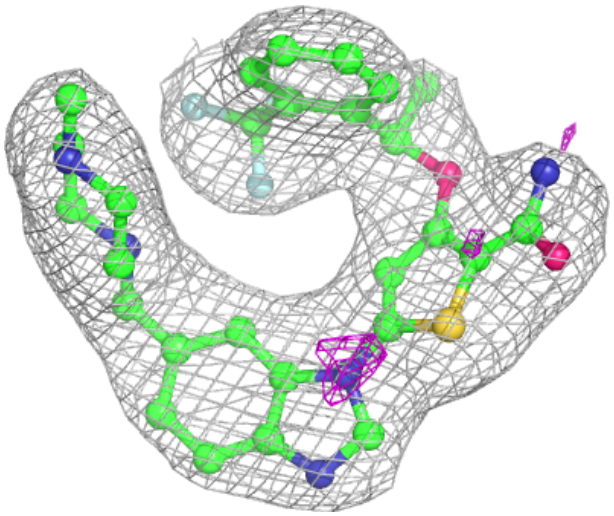
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9'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

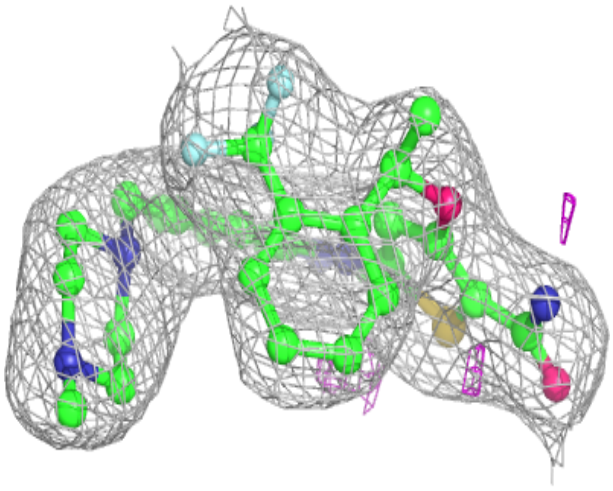
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	SO4	AAA	406	5/5	0.56	0.10	131,136,139,148	0
3	SO4	AAA	403	5/5	0.66	0.13	119,131,134,151	0
3	SO4	AAA	404	5/5	0.69	0.08	95,103,108,109	0
3	SO4	BBB	403	5/5	0.75	0.07	98,101,105,116	0
3	SO4	AAA	405	5/5	0.79	0.18	91,93,96,104	0
5	GOL	AAA	412	6/6	0.80	0.13	86,102,103,105	0
5	GOL	AAA	409	6/6	0.81	0.15	62,84,85,87	0
5	GOL	AAA	410	6/6	0.81	0.16	63,71,83,85	0
3	SO4	AAA	407	5/5	0.81	0.06	131,131,134,145	0
5	GOL	BBB	404	6/6	0.86	0.17	73,81,81,85	0
3	SO4	BBB	402	5/5	0.91	0.10	81,89,93,98	0
3	SO4	AAA	402	5/5	0.92	0.10	66,73,79,87	0
5	GOL	AAA	411	6/6	0.93	0.09	88,99,99,100	0
4	CL	AAA	408	1/1	0.96	0.05	51,51,51,51	0
2	A1JCQ	AAA	401	38/38	0.96	0.07	42,51,60,62	0
2	A1JCQ	BBB	401	38/38	0.96	0.06	46,54,67,81	0

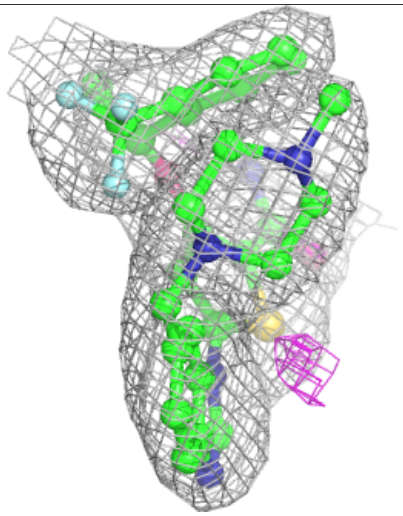
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around A1JCQ AAA 401:

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

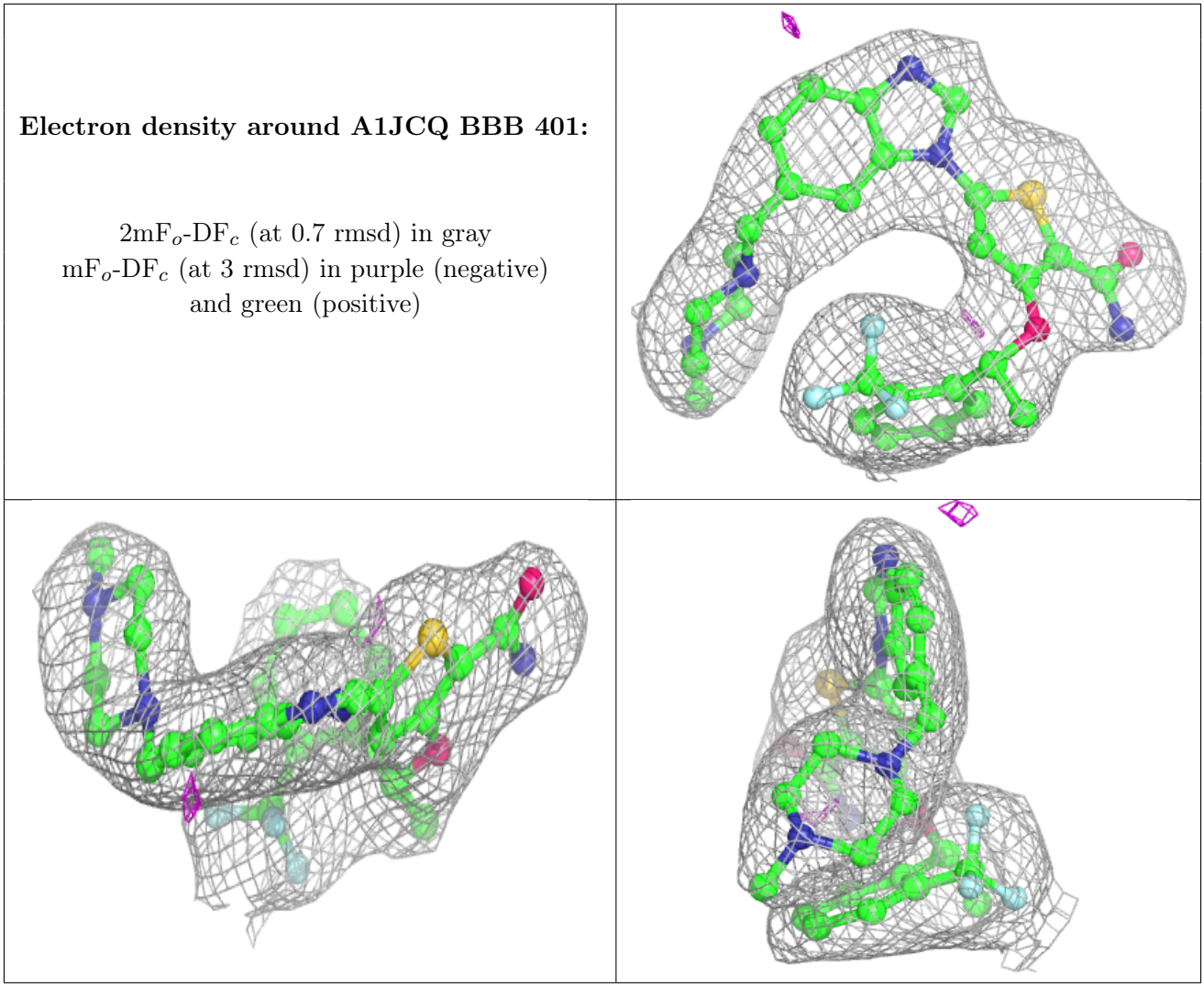






Electron density around A1JCQ BBB 401:

$2mF_o$-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.