Full wwPDB X-ray Structure Validation Report (i)

Jun 16, 2025 – 12:32 PM EDT

PDB ID	:	9N48 / pdb_00009n48
Title	:	Crystal structure of PAK1 bound to compound C1
Authors	:	Wang, W.; Oh, A.; Kiefer, J.R.; Hsu, P.L.
Deposited on	:	2025-02-02
Resolution	:	1.85 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:

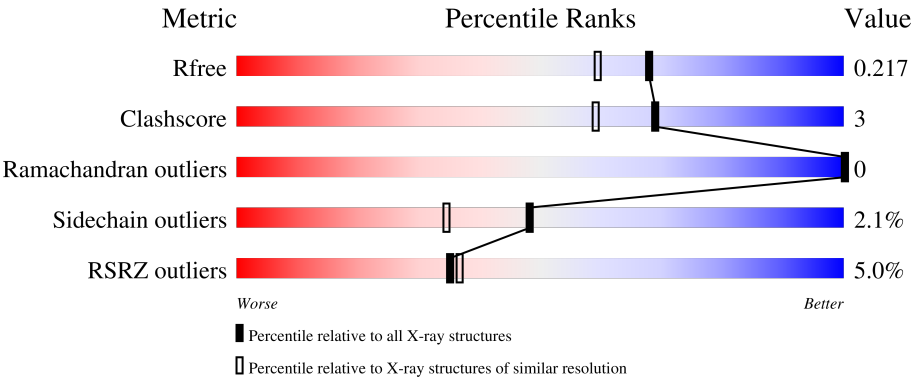
MolProbity	:	4-5-2 with Phenix2.0rc1
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0rc1
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.006 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.44

1 Overall quality at a glance (i)

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

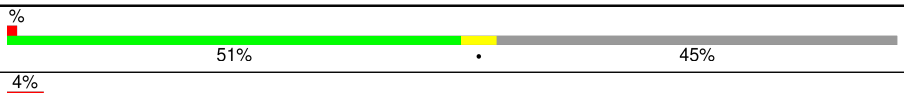
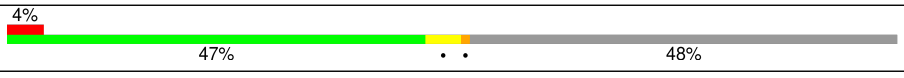
The reported resolution of this entry is 1.85 Å.

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	3097 (1.86-1.86)
Clashscore	180529	3359 (1.86-1.86)
Ramachandran outliers	177936	3335 (1.86-1.86)
Sidechain outliers	177891	3335 (1.86-1.86)
RSRZ outliers	164620	3097 (1.86-1.86)

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	537	
1	B	537	

2 Entry composition (i)

There are 3 unique types of molecules in this entry. The entry contains 4976 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 Glutathione S-transferase class-mu 26 kDa isozyme,Serine/threonine-protein kinase PAK 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	297	Total	C	N	O	S	0	3	0
			2331	1478	392	445	16			
1	B	280	Total	C	N	O	S	0	3	0
			2189	1389	367	418	15			

There are 52 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	12	MET	-	expression tag	UNP P08515
A	13	HIS	-	expression tag	UNP P08515
A	14	HIS	-	expression tag	UNP P08515
A	15	HIS	-	expression tag	UNP P08515
A	16	HIS	-	expression tag	UNP P08515
A	17	HIS	-	expression tag	UNP P08515
A	18	HIS	-	expression tag	UNP P08515
A	19	HIS	-	expression tag	UNP P08515
A	20	HIS	-	expression tag	UNP P08515
A	21	GLY	-	expression tag	UNP P08515
A	154	LYS	GLU	conflict	UNP P08515
A	239	SER	-	linker	UNP P08515
A	240	ASP	-	linker	UNP P08515
A	241	GLY	-	linker	UNP P08515
A	242	GLU	-	linker	UNP P08515
A	243	ASN	-	linker	UNP P08515
A	244	LEU	-	linker	UNP P08515
A	245	TYR	-	linker	UNP P08515
A	246	PHE	-	linker	UNP P08515
A	247	GLN	-	linker	UNP P08515
A	248	GLY	-	linker	UNP P08515
A	389	ASN	ASP	conflict	UNP Q13153
A	423	GLU	THR	conflict	UNP Q13153
A	546	GLY	-	expression tag	UNP Q13153

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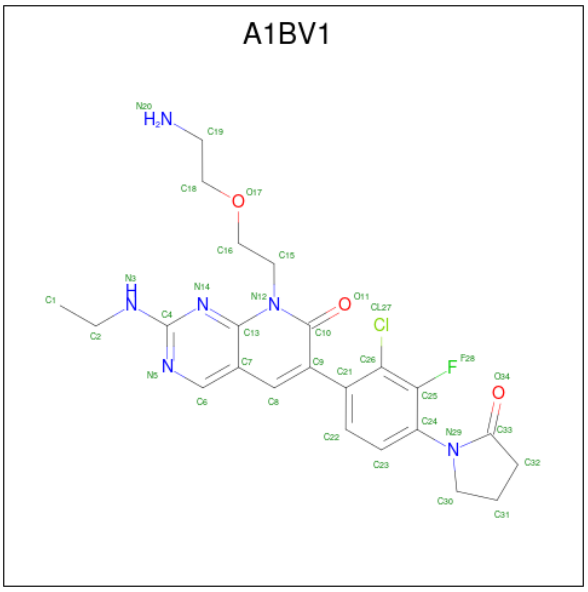
Chain	Residue	Modelled	Actual	Comment	Reference
A	547	ASN	-	expression tag	UNP Q13153
A	548	SER	-	expression tag	UNP Q13153
B	12	MET	-	expression tag	UNP P08515
B	13	HIS	-	expression tag	UNP P08515
B	14	HIS	-	expression tag	UNP P08515
B	15	HIS	-	expression tag	UNP P08515
B	16	HIS	-	expression tag	UNP P08515
B	17	HIS	-	expression tag	UNP P08515
B	18	HIS	-	expression tag	UNP P08515
B	19	HIS	-	expression tag	UNP P08515
B	20	HIS	-	expression tag	UNP P08515
B	21	GLY	-	expression tag	UNP P08515
B	154	LYS	GLU	conflict	UNP P08515
B	239	SER	-	linker	UNP P08515
B	240	ASP	-	linker	UNP P08515
B	241	GLY	-	linker	UNP P08515
B	242	GLU	-	linker	UNP P08515
B	243	ASN	-	linker	UNP P08515
B	244	LEU	-	linker	UNP P08515
B	245	TYR	-	linker	UNP P08515
B	246	PHE	-	linker	UNP P08515
B	247	GLN	-	linker	UNP P08515
B	248	GLY	-	linker	UNP P08515
B	389	ASN	ASP	conflict	UNP Q13153
B	423	GLU	THR	conflict	UNP Q13153
B	546	GLY	-	expression tag	UNP Q13153
B	547	ASN	-	expression tag	UNP Q13153
B	548	SER	-	expression tag	UNP Q13153

- Molecule 2 is (6M)-8-[2-(2-aminoethoxy)ethyl]-6-[2-chloro-3-fluoro-4-(2-oxopyrrolidin-1-yl)phenyl]-2-(ethylamino)pyrido[2,3-d]pyrimidin-7(8H)-one (CCD ID: A1BV1) (formula: $C_{23}H_{26}ClFN_6O_3$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms						ZeroOcc	AltConf
2	A	1	Total	C	Cl	F	N	O	0	0
			34	23	1	1	6	3		
2	B	1	Total	C	Cl	F	N	O	0	0
			34	23	1	1	6	3		

- Molecule 3 is water.

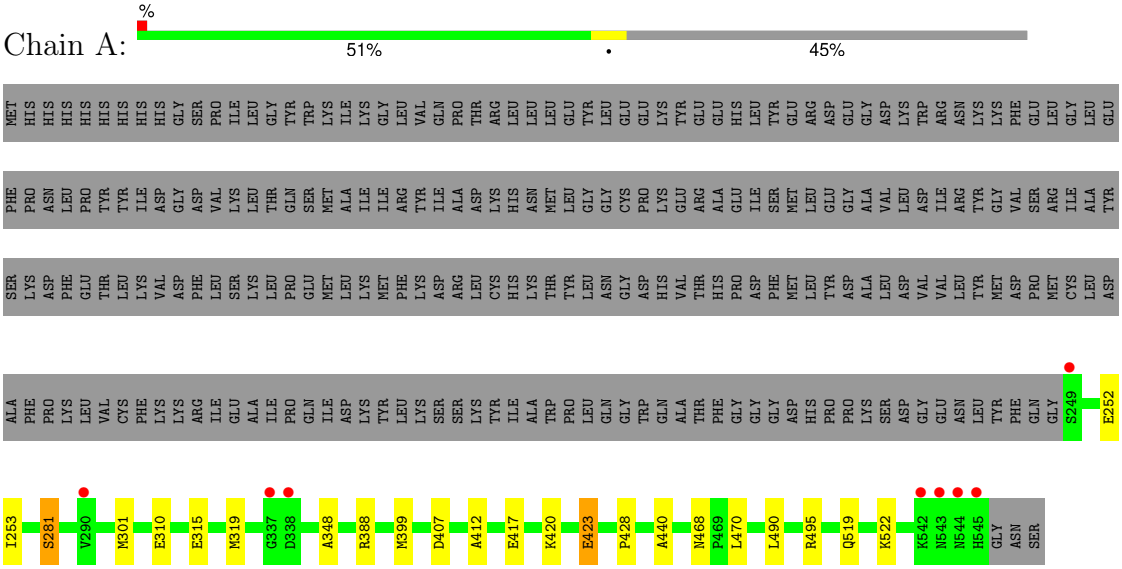
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	202	Total	O	0	0
			202	202		
3	B	186	Total	O	0	0
			186	186		

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.

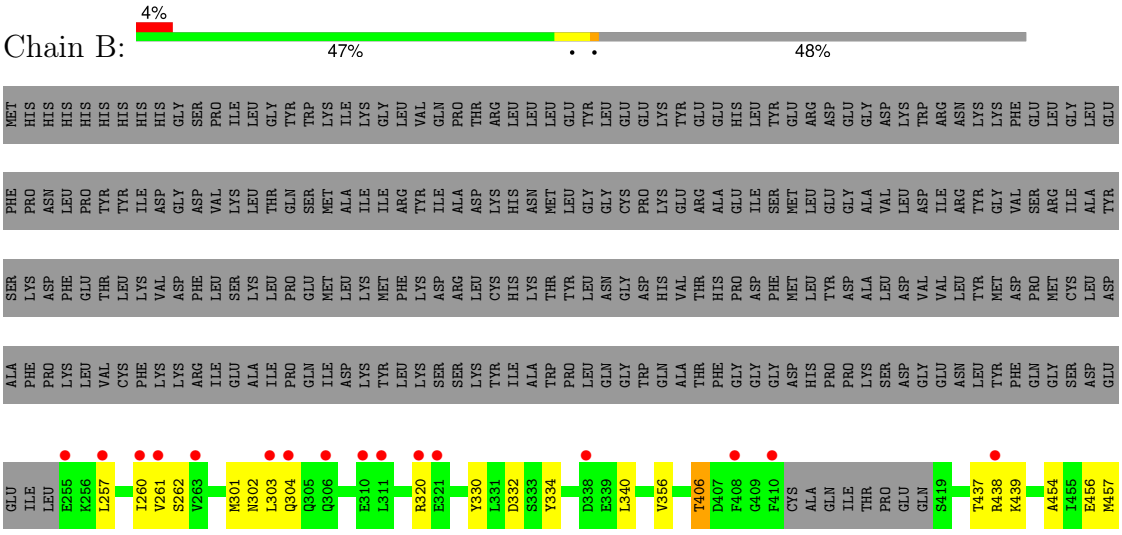
• Molecule 1: Glutathione S-transferase class-mu 26 kDa isozyme,Serine/threonine-protein kinase PAK 1

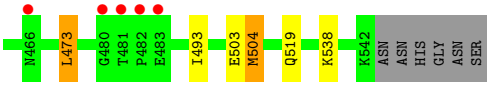
Chain A:



• Molecule 1: Glutathione S-transferase class-mu 26 kDa isozyme,Serine/threonine-protein kinase PAK 1

Chain B:




N466
L473
G480
T481
P482
E483
I493
E503
M504
Q519
K538
K542
ASN
ASN
HIS
GLY
ASN
SER

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	62.22Å 80.96Å 65.95Å 90.00° 106.23° 90.00°	Depositor
Resolution (Å)	34.11 – 1.85 34.11 – 1.85	Depositor EDS
% Data completeness (in resolution range)	98.2 (34.11-1.85) 98.3 (34.11-1.85)	Depositor EDS
R_{merge}	0.06	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.27 (at 1.85Å)	Xtriage
Refinement program	PHENIX (1.20.1_4487: ???)	Depositor
R, R_{free}	0.176 , 0.216 0.176 , 0.217	Depositor DCC
R_{free} test set	2728 reflections (5.10%)	wwPDB-VP
Wilson B-factor (Å^2)	29.1	Xtriage
Anisotropy	0.292	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.35 , 45.9	EDS
L-test for twinning[2]	$< \|L\| > = 0.50$, $< L^2 > = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.97	EDS
Total number of atoms	4976	wwPDB-VP
Average B, all atoms (Å^2)	41.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.88% 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: A1BV1

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	0.29	0/2370	0.54	1/3207 (0.0%)
1	B	0.29	0/2225	0.64	4/3011 (0.1%)
All	All	0.29	0/4595	0.59	5/6218 (0.1%)

There are no bond length outliers.

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	303	LEU	CB-CA-C	-9.73	96.85	112.03
1	B	303	LEU	N-CA-C	-9.01	92.88	108.56
1	B	304	GLN	N-CA-C	-7.68	89.89	107.48
1	B	304	GLN	N-CA-CB	7.25	124.23	110.82
1	A	407	ASP	N-CA-C	6.97	120.69	111.28

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	2331	0	2349	17	0
1	B	2189	0	2196	19	0
2	A	34	0	0	0	0
2	B	34	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	A	202	0	0	1	1
3	B	186	0	0	3	1
All	All	4976	0	4545	31	1

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 3.

All (31) 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:320:ARG:HE	1:B:330:TYR:HE2	1.18	0.92
1:B:503:GLU:OE1	3:B:701:HOH:O	2.07	0.72
1:B:538:LYS:NZ	3:B:702:HOH:O	2.23	0.70
1:A:468:ASN:CB	1:B:438:ARG:HE	2.06	0.68
1:A:253:ILE:HG12	1:A:310:GLU:HG3	1.82	0.61
1:B:301:MET:HE3	1:B:340:LEU:HD23	1.83	0.59
1:A:423:GLU:H	1:A:423:GLU:CD	2.15	0.55
1:A:348:ALA:HB3	1:A:399:MET:HG2	1.89	0.54
1:A:470:LEU:HD21	1:B:473:LEU:HB3	1.87	0.54
1:A:490:LEU:O	1:A:495:ARG:NH1	2.41	0.53
1:A:468:ASN:HB2	1:B:438:ARG:HE	1.75	0.52
1:A:315:GLU:OE1	3:A:701:HOH:O	2.18	0.51
1:A:468:ASN:HB3	1:B:438:ARG:HH21	1.78	0.48
1:A:310:GLU:H	1:A:310:GLU:CD	2.22	0.47
1:A:315:GLU:O	1:A:319:MET:HG2	2.14	0.47
1:B:257:LEU:O	1:B:261:VAL:HG23	2.16	0.46
1:A:468:ASN:HB3	1:B:438:ARG:HE	1.77	0.45
1:B:493:ILE:HD11	1:B:519:GLN:HB2	1.97	0.45
1:B:504:MET:HE2	1:B:504:MET:HB2	1.79	0.45
1:A:281:SER:O	1:A:301:MET:HE3	2.17	0.45
1:B:406:THR:HG23	3:B:733:HOH:O	2.18	0.44
1:B:261:VAL:HG12	1:B:262:SER:O	2.19	0.42
1:B:261:VAL:HG13	1:B:334:TYR:HA	2.01	0.42
1:A:519:GLN:OE1	1:A:522:LYS:HE2	2.20	0.42
1:A:420:LYS:HD3	1:A:440:ALA:HB1	2.02	0.41
1:B:454:ALA:HA	1:B:457:MET:HE3	2.03	0.41
1:A:388:ARG:CZ	1:A:412:ALA:HB2	2.51	0.40
1:B:356:VAL:HG11	1:B:456:GLU:HG2	2.03	0.40
1:B:437:THR:OG1	1:B:439:LYS:HE3	2.21	0.40
1:B:301:MET:CE	1:B:340:LEU:HD23	2.50	0.40
1:A:417:GLU:CD	1:A:417:GLU:H	2.29	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:826:HOH:O	3:B:826:HOH:O[2_545]	2.13	0.07

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	298/537 (56%)	288 (97%)	10 (3%)	0	100	100
1	B	279/537 (52%)	272 (98%)	7 (2%)	0	100	100
All	All	577/1074 (54%)	560 (97%)	17 (3%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	255/470 (54%)	251 (98%)	4 (2%)	58	46
1	B	238/470 (51%)	232 (98%)	6 (2%)	42	28
All	All	493/940 (52%)	483 (98%)	10 (2%)	48	37

All (10) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	252	GLU
1	A	281	SER
1	A	423	GLU
1	A	428	PRO
1	B	260	ILE
1	B	302	ASN
1	B	332	ASP
1	B	406	THR
1	B	473	LEU
1	B	504	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (4) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	326	ASN
1	A	389	ASN
1	B	326	ASN
1	B	389	ASN

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

2 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	$\#\|Z\| > 2$
2	A1BV1	B	601	-	37,37,37	0.95	2 (5%)	41,52,52	1.89	10 (24%)
2	A1BV1	A	601	-	37,37,37	0.90	2 (5%)	41,52,52	2.03	12 (29%)

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	A1BV1	B	601	-	-	0/17/27/27	0/4/4/4
2	A1BV1	A	601	-	-	4/17/27/27	0/4/4/4

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	601	A1BV1	C4-N3	2.65	1.38	1.34
2	B	601	A1BV1	C24-N29	-2.64	1.40	1.44
2	B	601	A1BV1	C4-N3	2.34	1.38	1.34
2	A	601	A1BV1	C24-N29	-2.20	1.41	1.44

All (22) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	A	601	A1BV1	C2-N3-C4	-5.20	116.69	124.35
2	B	601	A1BV1	O11-C10-C9	-4.98	118.85	125.37
2	B	601	A1BV1	N5-C4-N14	-4.41	122.16	126.42
2	A	601	A1BV1	C6-C7-C13	4.40	118.44	114.55
2	A	601	A1BV1	O11-C10-C9	-4.19	119.89	125.37
2	A	601	A1BV1	C7-C8-C9	-4.03	118.03	122.47
2	B	601	A1BV1	C2-N3-C4	-3.88	118.64	124.35
2	A	601	A1BV1	N5-C4-N14	-3.87	122.68	126.42
2	B	601	A1BV1	C6-N5-C4	3.85	121.09	115.81
2	B	601	A1BV1	C6-C7-C13	3.71	117.83	114.55
2	A	601	A1BV1	C6-N5-C4	3.70	120.88	115.81
2	A	601	A1BV1	C32-C33-N29	3.58	110.60	108.17
2	B	601	A1BV1	C7-C8-C9	-3.53	118.58	122.47
2	B	601	A1BV1	C32-C33-N29	2.93	110.16	108.17
2	B	601	A1BV1	C31-C30-N29	2.90	106.55	103.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	A	601	A1BV1	C7-C13-N14	-2.50	118.68	122.95
2	B	601	A1BV1	C7-C13-N14	-2.34	118.96	122.95
2	A	601	A1BV1	C16-C15-N12	-2.25	109.20	112.63
2	A	601	A1BV1	N3-C4-N5	2.18	120.14	117.21
2	B	601	A1BV1	C4-N14-C13	2.09	120.70	113.99
2	A	601	A1BV1	C15-N12-C10	2.07	119.48	116.60
2	A	601	A1BV1	C4-N14-C13	2.05	120.56	113.99

There are no chirality outliers.

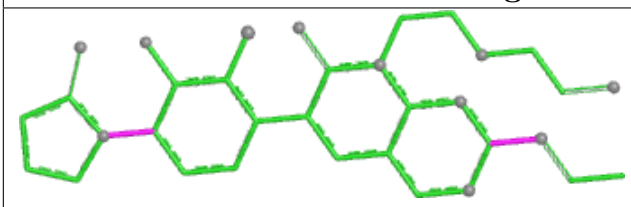
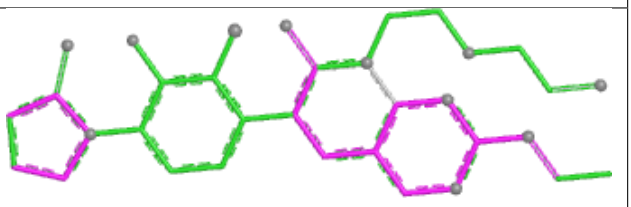
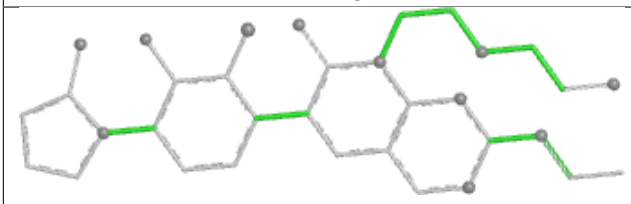
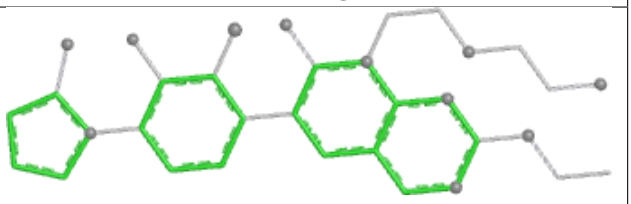
All (4) torsion outliers are listed below:

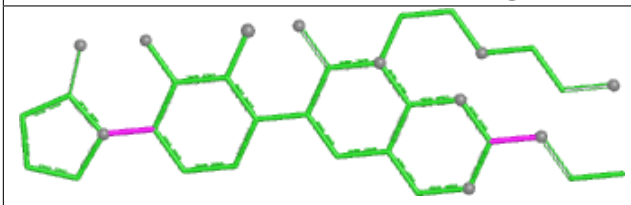
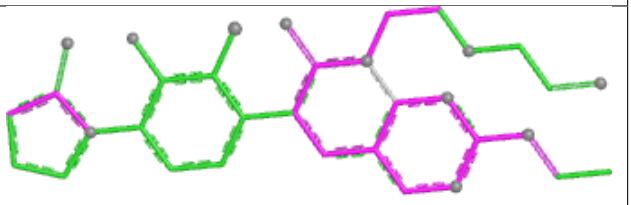
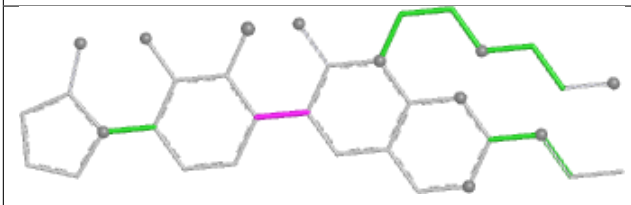
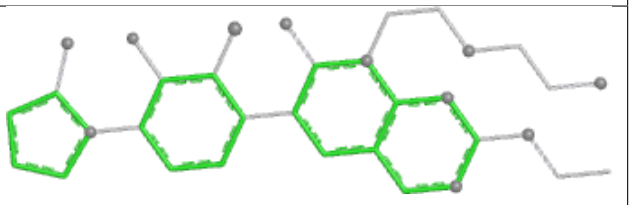
Mol	Chain	Res	Type	Atoms
2	A	601	A1BV1	C22-C21-C9-C8
2	A	601	A1BV1	C22-C21-C9-C10
2	A	601	A1BV1	C26-C21-C9-C10
2	A	601	A1BV1	C26-C21-C9-C8

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 A1BV1 B 601	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand A1BV1 A 601	
 Bond lengths	 Bond angles
 Torsions	 Rings

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	A	297/537 (55%)	-0.09	8 (2%)	56	59	18, 34, 73, 96	3 (1%)
1	B	280/537 (52%)	0.16	21 (7%)	22	22	14, 35, 93, 146	3 (1%)
All	All	577/1074 (53%)	0.03	29 (5%)	35	37	14, 35, 85, 146	6 (1%)

All (29) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	260	ILE	5.3
1	B	303	LEU	4.9
1	A	337	GLY	3.6
1	A	290[A]	VAL	3.4
1	B	306	GLN	3.4
1	B	482	PRO	3.2
1	B	304	GLN	3.2
1	B	257	LEU	3.2
1	B	263	VAL	3.1
1	B	481	THR	3.1
1	B	410	PHE	3.0
1	B	483	GLU	3.0
1	B	480	GLY	2.9
1	B	261	VAL	2.9
1	B	311	LEU	2.9
1	A	543	ASN	2.7
1	B	408	PHE	2.7
1	B	438	ARG	2.4
1	A	545	HIS	2.4
1	B	466	ASN	2.3
1	B	320	ARG	2.3
1	B	321	GLU	2.3
1	A	249	SER	2.2
1	A	544	ASN	2.1

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Mol	Chain	Res	Type	RSRZ
1	B	310	GLU	2.1
1	A	542	LYS	2.1
1	A	338	ASP	2.0
1	B	338	ASP	2.0
1	B	255	GLU	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)

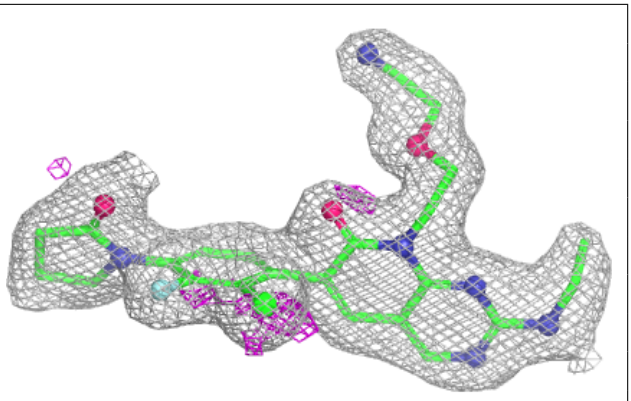
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9'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

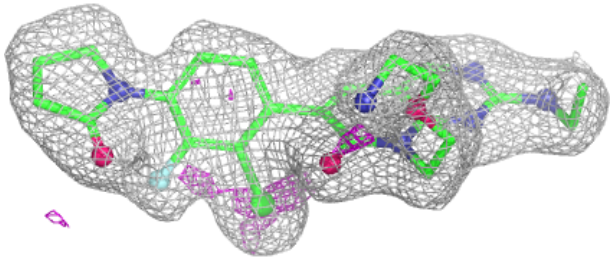
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
2	A1BV1	B	601	34/34	0.93	0.08	26,35,43,47	0
2	A1BV1	A	601	34/34	0.94	0.07	21,28,34,38	0

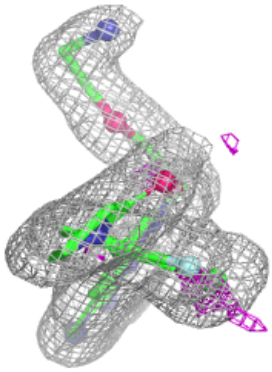
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around A1BV1 B 601:

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

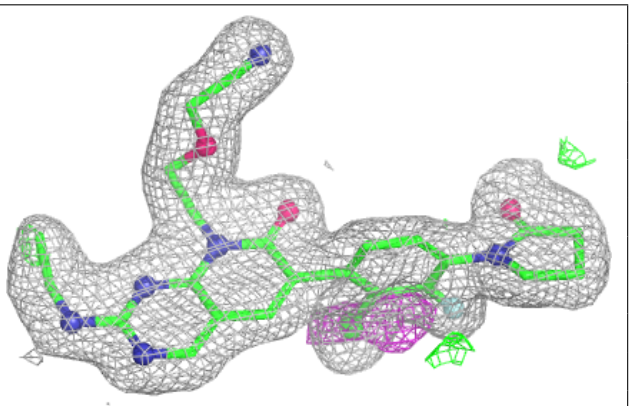


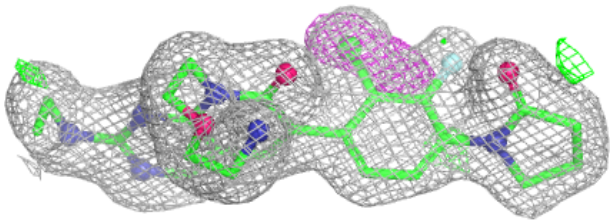


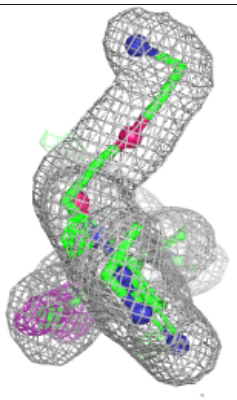


Electron density around A1BV1 A 601:

$2mF_o$-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.