Full wwPDB X-ray Structure Validation Report (i)

Aug 4, 2025 – 02:13 PM EDT

PDB ID	:	9N6G / pdb_00009n6g
Title	:	EGFR(T790M/V948R) in complex with LN2827
Authors	:	Chitnis, S.P.; Hartman, T.J.; Heppner, D.E.
Deposited on	:	2025-02-05
Resolution	:	2.59 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the (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:

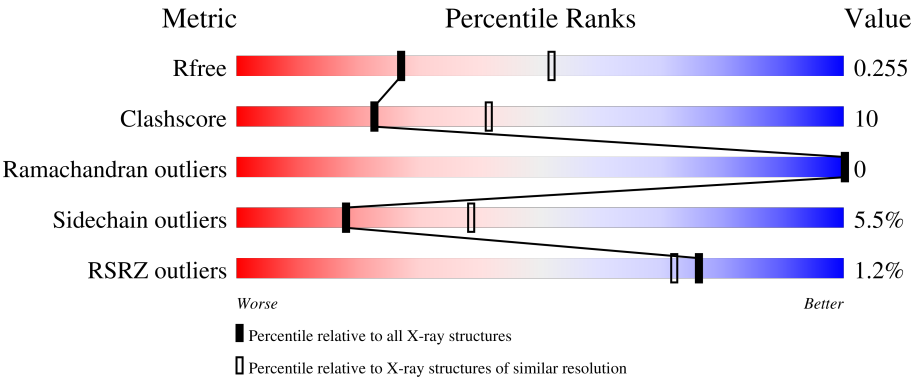
MolProbity	:	4-5-2 with Phenix2.0rc1
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0rc1
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.006 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.45.1

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 2.59 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	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	A	327	% 70% 15% • 13%
1	B	327	2% 61% 23% • 15%
1	C	327	% 65% 19% • 14%
1	D	327	% 60% 24% • 14%

2 Entry composition

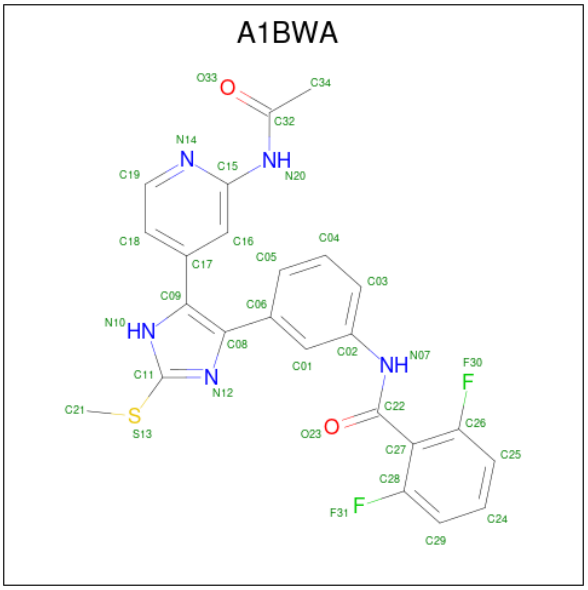
There are 3 unique types of molecules in this entry. The entry contains 8986 atoms, of which 38 are hydrogens and 0 are deuteriums.

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 Epidermal growth factor receptor.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	D	282	Total	C	N	O	S	0	0	0
			2208	1425	374	392	17			
1	A	283	Total	C	N	O	S	0	0	0
			2188	1421	365	386	16			
1	B	278	Total	C	N	O	S	0	0	0
			2172	1400	370	386	16			
1	C	281	Total	C	N	O	S	0	0	0
			2229	1446	378	388	17			

- Molecule 2 is N-{(3P)-3-[(4P)-5-(2-acetamidopyridin-4-yl)-2-(methylsulfanyl)-1H-imidazol-4-yl]phenyl}-2,6-difluorobenzamide (CCD ID: A1BWA) (formula: $C_{24}H_{19}F_2N_5O_2S$).



Mol	Chain	Residues	Atoms							ZeroOcc	AltConf
2	D	1	Total	C	F	H	N	O	S	0	0
			53	24	2	19	5	2	1		
2	A	1	Total	C	F	N	O	S		0	0
			34	24	2	5	2	1			

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	B	1	Total C F H N O S 53 24 2 19 5 2 1	0	0
2	C	1	Total C F N O S 34 24 2 5 2 1	0	0

- Molecule 3 is water.

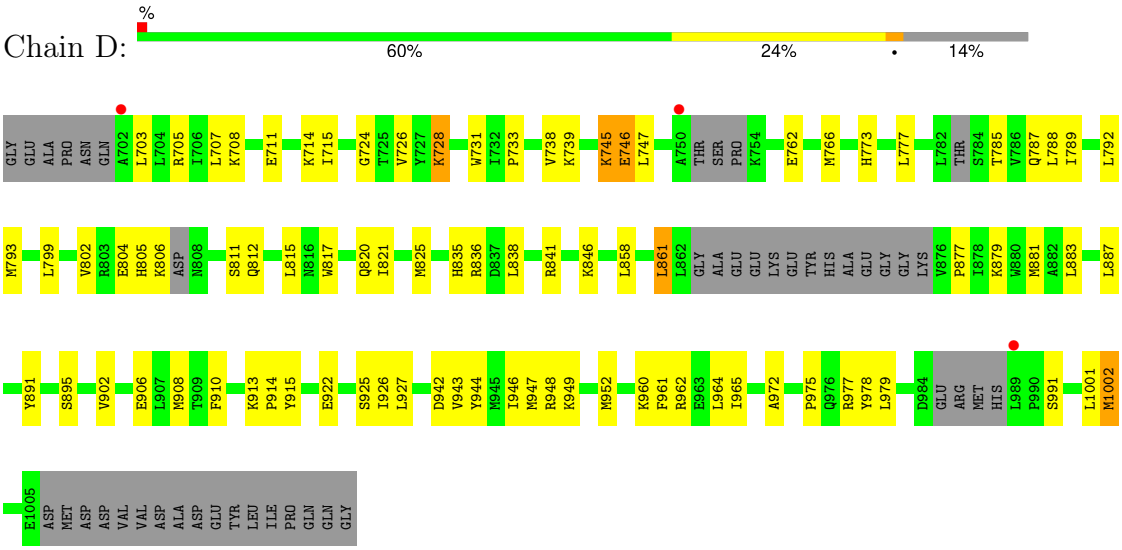
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	D	4	Total O 4 4	0	0
3	A	4	Total O 4 4	0	0
3	C	7	Total O 7 7	0	0

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.

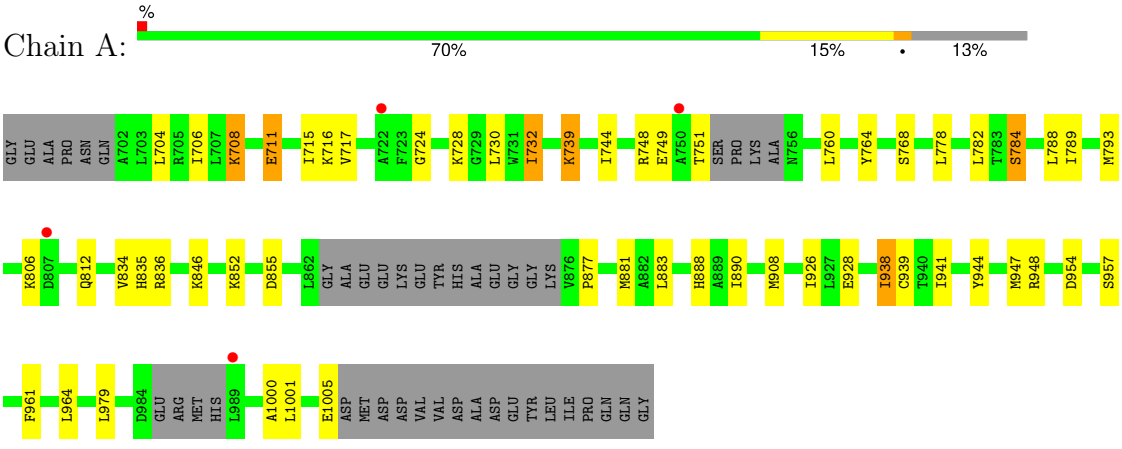
• Molecule 1: Epidermal growth factor receptor

Chain D:



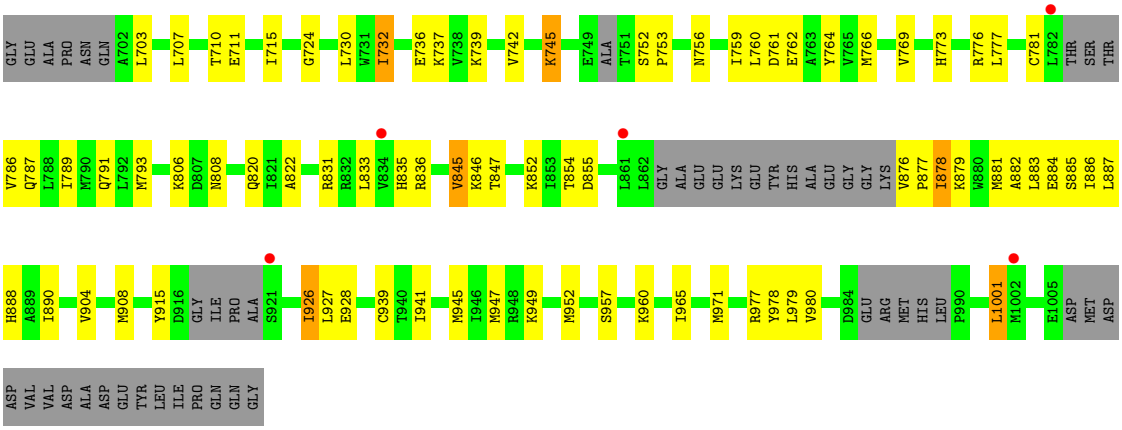
• Molecule 1: Epidermal growth factor receptor

Chain A:

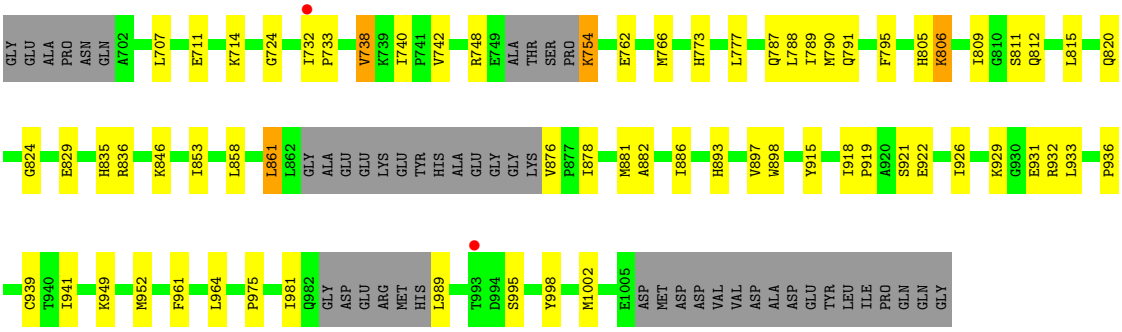


• Molecule 1: Epidermal growth factor receptor

Chain B:



• Molecule 1: Epidermal growth factor receptor



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	71.47Å 101.88Å 87.73Å 90.00° 102.55° 90.00°	Depositor
Resolution (Å)	85.63 – 2.59 85.63 – 2.59	Depositor EDS
% Data completeness (in resolution range)	98.1 (85.63-2.59) 98.1 (85.63-2.59)	Depositor EDS
R_{merge}	0.14	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.32 (at 2.58Å)	Xtriage
Refinement program	PHENIX 1.21.2_5419	Depositor
R, R_{free}	0.203 , 0.253 0.210 , 0.255	Depositor DCC
R_{free} test set	2000 reflections (5.22%)	wwPDB-VP
Wilson B-factor (Å^2)	45.9	Xtriage
Anisotropy	0.400	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.35 , 54.2	EDS
L-test for twinning[2]	$< \|L\| > = 0.48$, $< L^2 > = 0.31$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	8986	wwPDB-VP
Average B, all atoms (Å^2)	46.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 23.61 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 4.5076e-03.*

[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: A1BWA

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	0.67	0/2236	0.61	2/3038 (0.1%)
1	B	0.75	0/2216	0.70	4/2999 (0.1%)
1	C	0.55	0/2277	0.58	1/3082 (0.0%)
1	D	0.67	0/2253	0.63	2/3051 (0.1%)
All	All	0.66	0/8982	0.63	9/12170 (0.1%)

There are no bond length outliers.

All (9) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	724	GLY	N-CA-C	8.21	120.89	110.38
1	D	724	GLY	N-CA-C	7.27	120.70	110.74
1	A	784	SER	N-CA-C	-6.62	105.06	113.01
1	B	724	GLY	N-CA-C	5.96	118.90	110.74
1	B	846	LYS	N-CA-C	-5.88	103.65	111.24
1	B	808	ASN	N-CA-C	5.69	118.44	109.39
1	A	749	GLU	N-CA-C	5.62	118.47	110.10
1	B	878	ILE	N-CA-C	5.44	116.17	110.62
1	D	728	LYS	N-CA-C	-5.19	101.25	109.76

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	2188	0	2196	32	0
1	B	2172	0	2179	56	0
1	C	2229	0	2286	44	0
1	D	2208	0	2222	58	0
2	A	34	0	0	3	0
2	B	34	19	0	2	0
2	C	34	0	0	2	0
2	D	34	19	0	1	0
3	A	4	0	0	0	0
3	C	7	0	0	0	0
3	D	4	0	0	0	0
All	All	8948	38	8883	184	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 10.

All (184) 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:715:ILE:HD11	1:B:730:LEU:HG	1.34	1.06
1:A:888:HIS:HB2	1:A:890:ILE:HD12	1.45	0.97
1:B:730:LEU:HD13	1:B:739:LYS:HE2	1.52	0.88
1:B:879:LYS:HD3	1:B:915:TYR:HB2	1.60	0.83
1:C:732:ILE:HG13	1:C:732:ILE:O	1.79	0.81
1:C:762:GLU:O	1:C:766:MET:HG3	1.80	0.81
1:A:715:ILE:HG22	1:A:728:LYS:O	1.82	0.80
1:C:811:SER:OG	1:C:975:PRO:HB2	1.84	0.78
1:B:945:MET:O	1:B:949:LYS:HG3	1.84	0.77
1:B:941:ILE:O	1:B:945:MET:HG2	1.85	0.77
1:A:888:HIS:HB2	1:A:890:ILE:CD1	2.17	0.74
1:D:773:HIS:NE2	1:D:820:GLN:HG2	2.04	0.73
1:C:961:PHE:HA	1:C:964:LEU:HD12	1.71	0.71
1:A:834:VAL:HG12	1:A:836:ARG:HG3	1.71	0.71
1:A:883:LEU:HD21	1:A:928:GLU:HG3	1.71	0.70
1:C:919:PRO:HG2	1:C:922:GLU:CG	2.22	0.70
1:C:714:LYS:HE3	1:C:787:GLN:OE1	1.92	0.69
1:A:938:ILE:HD12	1:A:979:LEU:HD22	1.75	0.69
1:D:949:LYS:O	1:D:952:MET:HG3	1.93	0.69
1:B:884:GLU:HG2	1:B:885:SER:N	2.09	0.67
1:D:841:ARG:HH22	1:D:877:PRO:HB3	1.59	0.66
1:B:715:ILE:HD11	1:B:730:LEU:CG	2.20	0.66
1:B:766:MET:CE	1:B:777:LEU:HD22	2.25	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:908:MET:CE	1:D:979:LEU:HD21	2.25	0.66
1:B:715:ILE:CD1	1:B:730:LEU:HG	2.21	0.66
1:B:766:MET:HE2	1:B:777:LEU:HD22	1.76	0.66
1:B:730:LEU:CD1	1:B:739:LYS:HE2	2.23	0.65
1:B:877:PRO:O	1:B:881:MET:HG3	1.96	0.65
1:D:747:LEU:HD11	1:D:788:LEU:HD11	1.77	0.65
1:C:926:ILE:HG23	1:C:931:GLU:HB2	1.78	0.65
1:A:724:GLY:HA2	1:A:748:ARG:HG3	1.79	0.65
1:C:919:PRO:HG2	1:C:922:GLU:HG2	1.76	0.65
1:D:811:SER:OG	1:D:975:PRO:HB2	1.98	0.63
1:C:790:MET:HG2	2:C:1101:A1BWA:C03	2.29	0.63
1:A:908:MET:HG3	1:A:939:CYS:SG	2.39	0.62
1:B:793:MET:HE1	1:B:852:LYS:HD3	1.81	0.62
1:C:835:HIS:O	1:C:836:ARG:HB2	2.00	0.62
1:D:806:LYS:C	1:D:806:LYS:HD2	2.24	0.62
1:B:736:GLU:C	1:B:737:LYS:HD3	2.24	0.61
1:D:922:GLU:HA	1:D:922:GLU:OE1	1.99	0.61
1:C:815:LEU:HD12	1:C:975:PRO:HB3	1.84	0.60
1:C:893:HIS:O	1:C:897:VAL:HG23	2.01	0.60
1:B:878:ILE:HG23	1:B:886:ILE:HD13	1.82	0.60
1:D:908:MET:HE3	1:D:979:LEU:HD21	1.84	0.59
1:D:883:LEU:O	1:D:887:LEU:HG	2.03	0.59
1:B:756:ASN:HA	1:B:759:ILE:HD12	1.84	0.59
1:B:835:HIS:O	1:B:836:ARG:HB2	2.03	0.59
1:C:929:LYS:HE3	1:C:931:GLU:OE2	2.02	0.59
1:D:726:VAL:HG22	1:D:745:LYS:HG3	1.84	0.58
1:D:977:ARG:HD3	1:D:978:TYR:CZ	2.38	0.58
1:D:738:VAL:HG21	1:C:795:PHE:CZ	2.39	0.58
1:D:977:ARG:HG2	1:D:977:ARG:O	2.02	0.58
1:A:877:PRO:O	1:A:881:MET:HG3	2.03	0.58
1:B:766:MET:HE3	2:B:1101:A1BWA:C29	2.34	0.58
1:A:1000:ALA:HB2	1:B:776:ARG:HH12	1.68	0.58
1:B:737:LYS:HD3	1:B:737:LYS:N	2.19	0.58
1:A:944:TYR:HA	1:A:947:MET:HE3	1.87	0.57
1:D:793:MET:HE3	1:D:846:LYS:HB2	1.87	0.56
1:B:888:HIS:HB2	1:B:890:ILE:HG13	1.87	0.56
1:B:980:VAL:HG23	1:B:980:VAL:O	2.04	0.56
1:A:778:LEU:HD12	1:B:1001:LEU:HD22	1.88	0.56
1:B:854:THR:O	1:B:855:ASP:HB2	2.04	0.56
1:C:919:PRO:HG2	1:C:922:GLU:HG3	1.87	0.56
1:B:883:LEU:HG	1:B:887:LEU:HD11	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:769:VAL:O	1:B:776:ARG:HG3	2.06	0.56
1:D:942:ASP:O	1:D:946:ILE:HG12	2.06	0.55
1:C:949:LYS:O	1:C:952:MET:HG3	2.07	0.55
1:B:730:LEU:HD22	1:B:739:LYS:HB3	1.89	0.55
1:B:883:LEU:HD21	1:B:928:GLU:HG3	1.89	0.54
1:B:908:MET:HE3	1:B:979:LEU:HD21	1.88	0.54
1:B:908:MET:CE	1:B:979:LEU:HD21	2.38	0.54
1:C:998:TYR:O	1:C:1002:MET:HG2	2.07	0.54
1:B:949:LYS:O	1:B:952:MET:HG3	2.08	0.54
1:C:733:PRO:HD2	1:C:738:VAL:HG23	1.90	0.54
1:A:708:LYS:O	1:A:711:GLU:HG3	2.09	0.53
1:C:915:TYR:CE2	1:C:933:LEU:HD21	2.43	0.53
1:D:962:ARG:HA	1:D:965:ILE:HD12	1.91	0.53
1:D:793:MET:HE3	1:D:846:LYS:CB	2.39	0.53
1:D:908:MET:HE3	1:D:943:VAL:HG11	1.90	0.53
1:B:884:GLU:HG2	1:B:885:SER:H	1.73	0.52
1:D:943:VAL:HG12	1:D:947:MET:HE2	1.91	0.52
1:C:936:PRO:HB2	1:C:939:CYS:SG	2.49	0.52
1:C:777:LEU:CD1	1:C:788:LEU:HB3	2.40	0.52
1:B:926:ILE:HG13	1:B:927:LEU:N	2.25	0.51
1:D:908:MET:HE1	1:D:979:LEU:HD11	1.93	0.51
1:D:746:GLU:OE2	1:D:785:THR:HG21	2.11	0.51
1:D:745:LYS:NZ	2:D:1101:A1BWA:N12	2.59	0.51
1:D:877:PRO:O	1:D:881:MET:HG3	2.11	0.51
1:D:926:ILE:HG13	1:D:927:LEU:N	2.25	0.50
1:B:773:HIS:NE2	1:B:820:GLN:HG2	2.27	0.50
1:A:793:MET:HE2	1:A:846:LYS:HD2	1.94	0.50
1:B:845:VAL:HG12	1:B:847:THR:O	2.12	0.50
1:B:977:ARG:O	1:B:977:ARG:HG2	2.10	0.50
1:A:732:ILE:HD11	1:A:739:LYS:HE2	1.95	0.49
1:D:858:LEU:HD12	1:D:861:LEU:CD2	2.43	0.49
1:D:746:GLU:HG3	1:D:787:GLN:CG	2.43	0.48
1:B:711:GLU:O	1:B:732:ILE:HG12	2.13	0.48
1:C:773:HIS:CD2	1:C:820:GLN:HB3	2.48	0.48
1:A:835:HIS:O	1:A:836:ARG:HB2	2.14	0.48
1:B:888:HIS:HB2	1:B:890:ILE:CD1	2.43	0.48
1:B:939:CYS:SG	1:B:947:MET:HE1	2.54	0.48
1:D:817:TRP:O	1:D:821:ILE:HG13	2.14	0.48
1:C:829:GLU:HG3	1:C:893:HIS:CG	2.48	0.48
1:D:836:ARG:HG2	1:D:891:TYR:CD1	2.49	0.48
1:A:852:LYS:NZ	1:A:1005:GLU:OE2	2.41	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:879:LYS:HD2	1:D:915:TYR:HB2	1.95	0.48
1:A:730:LEU:HD22	1:A:739:LYS:HB3	1.96	0.48
1:B:745:LYS:NZ	2:B:1101:A1BWA:N12	2.62	0.47
1:D:835:HIS:O	1:D:836:ARG:HB2	2.12	0.47
1:D:908:MET:CE	1:D:943:VAL:HG11	2.45	0.47
1:B:760:LEU:HG	1:B:764:TYR:CE2	2.49	0.47
1:A:788:LEU:C	1:A:789:ILE:HD12	2.39	0.47
1:D:789:ILE:HD12	1:D:789:ILE:N	2.30	0.47
1:D:1002:MET:SD	1:C:740:ILE:HD13	2.54	0.47
1:D:799:LEU:O	1:D:802:VAL:HG12	2.14	0.47
1:D:708:LYS:O	1:D:711:GLU:HG3	2.15	0.47
1:D:858:LEU:HD12	1:D:861:LEU:HD23	1.95	0.47
1:A:961:PHE:HA	1:A:964:LEU:HD12	1.97	0.47
1:D:731:TRP:O	1:D:733:PRO:HD3	2.15	0.46
1:A:812:GLN:HA	1:A:812:GLN:OE1	2.16	0.46
1:B:878:ILE:HD13	1:B:881:MET:SD	2.55	0.46
1:A:704:LEU:HD23	1:A:764:TYR:CE1	2.50	0.46
1:D:841:ARG:NH2	1:D:877:PRO:HB3	2.29	0.46
1:B:882:ALA:O	1:B:886:ILE:HG13	2.17	0.45
1:B:971:MET:HA	1:B:978:TYR:CE2	2.52	0.45
1:B:759:ILE:HD13	1:B:786:VAL:HG21	1.99	0.45
1:B:822:ALA:HB1	1:B:965:ILE:HG13	1.99	0.45
1:D:902:VAL:O	1:D:906:GLU:HG3	2.17	0.45
1:D:908:MET:HE1	1:D:979:LEU:HD21	1.98	0.45
1:B:707:LEU:HD12	1:B:789:ILE:HD13	1.99	0.45
1:D:802:VAL:HG22	1:D:910:PHE:HA	1.98	0.45
1:C:806:LYS:HB2	1:C:806:LYS:HE2	1.38	0.44
1:D:812:GLN:OE1	1:D:975:PRO:HG3	2.17	0.44
1:A:1000:ALA:O	1:B:791:GLN:NE2	2.50	0.44
1:C:777:LEU:HD13	1:C:788:LEU:HB3	2.00	0.44
1:D:792:LEU:HD12	1:D:793:MET:N	2.31	0.44
1:B:904:VAL:O	1:B:908:MET:HG2	2.17	0.44
1:C:790:MET:HG2	2:C:1101:A1BWA:C04	2.47	0.44
1:C:824:GLY:HA3	1:C:853:ILE:HD12	1.99	0.44
1:D:961:PHE:HA	1:D:964:LEU:HD12	2.00	0.44
1:D:815:LEU:HD12	1:D:972:ALA:HA	1.98	0.44
1:C:754:LYS:HD3	1:C:861:LEU:HD12	2.00	0.44
1:A:855:ASP:HA	2:A:1101:A1BWA:C25	2.48	0.44
1:C:812:GLN:HG3	1:C:975:PRO:HG3	1.99	0.44
1:D:762:GLU:O	1:D:766:MET:HG3	2.18	0.44
1:C:791:GLN:OE1	1:C:846:LYS:HE3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:918:ILE:HD12	1:C:918:ILE:N	2.33	0.43
1:D:792:LEU:HD12	1:D:793:MET:H	1.83	0.43
1:A:1001:LEU:HD21	1:B:742:VAL:HG12	1.99	0.43
1:A:716:LYS:HG3	1:A:717:VAL:N	2.33	0.43
1:B:752:SER:O	1:B:753:PRO:C	2.62	0.43
1:C:878:ILE:HD13	1:C:886:ILE:HG12	2.00	0.43
1:D:805:HIS:O	1:D:806:LYS:C	2.60	0.43
1:B:908:MET:HE1	1:B:979:LEU:HD11	2.01	0.43
1:A:954:ASP:OD2	1:A:957:SER:HB2	2.19	0.43
1:D:1001:LEU:HD22	1:C:742:VAL:HG12	2.01	0.43
1:B:883:LEU:HD21	1:B:928:GLU:CG	2.48	0.43
1:D:777:LEU:HD13	1:D:788:LEU:HB3	2.02	0.42
1:D:913:LYS:HA	1:D:914:PRO:HD2	1.87	0.42
1:D:944:TYR:CZ	1:D:948:ARG:HD3	2.55	0.42
1:A:793:MET:O	2:A:1101:A1BWA:N20	2.53	0.42
1:C:805:HIS:HB3	1:C:809:ILE:HG12	2.02	0.42
1:C:941:ILE:HD12	1:C:941:ILE:HA	1.87	0.42
1:C:882:ALA:HA	1:C:898:TRP:CD2	2.54	0.42
2:A:1101:A1BWA:O33	2:A:1101:A1BWA:C16	2.68	0.42
1:C:790:MET:HE2	1:C:791:GLN:O	2.20	0.41
1:D:960:LYS:HB3	1:D:960:LYS:HE3	1.62	0.41
1:A:941:ILE:HD12	1:A:941:ILE:HA	1.89	0.41
1:D:944:TYR:O	1:D:948:ARG:HG2	2.19	0.41
1:A:715:ILE:CG2	1:A:716:LYS:N	2.84	0.41
1:C:929:LYS:HE3	1:C:931:GLU:CD	2.46	0.41
1:D:825:MET:HE2	1:D:838:LEU:HD22	2.02	0.41
1:B:888:HIS:HB2	1:B:890:ILE:CG1	2.51	0.41
1:C:766:MET:HE1	1:C:858:LEU:HD23	2.03	0.41
1:C:989:LEU:HD23	1:C:989:LEU:HA	1.86	0.41
1:D:745:LYS:HD3	1:D:747:LEU:HD23	2.02	0.40
1:B:941:ILE:HD12	1:B:941:ILE:HA	1.86	0.40
1:D:746:GLU:HG3	1:D:787:GLN:HG2	2.04	0.40
1:B:781:CYS:HB3	1:B:787:GLN:HB2	2.03	0.40
1:C:876:VAL:HG13	1:C:881:MET:SD	2.61	0.40
1:A:744:ILE:HG12	1:A:789:ILE:HG13	2.04	0.40
1:A:944:TYR:CZ	1:A:948:ARG:HD3	2.56	0.40
1:C:707:LEU:HD12	1:C:789:ILE:HD13	2.03	0.40
1:C:931:GLU:O	1:C:932:ARG:HD3	2.22	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	275/327 (84%)	268 (98%)	7 (2%)	0	100	100
1	B	266/327 (81%)	258 (97%)	8 (3%)	0	100	100
1	C	273/327 (84%)	265 (97%)	8 (3%)	0	100	100
1	D	270/327 (83%)	265 (98%)	5 (2%)	0	100	100
All	All	1084/1308 (83%)	1056 (97%)	28 (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	231/282 (82%)	218 (94%)	13 (6%)	17	38
1	B	230/282 (82%)	215 (94%)	15 (6%)	14	31
1	C	241/282 (86%)	232 (96%)	9 (4%)	29	55
1	D	235/282 (83%)	220 (94%)	15 (6%)	14	32
All	All	937/1128 (83%)	885 (94%)	52 (6%)	18	38

All (52) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	D	703	LEU
1	D	705	ARG

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Mol	Chain	Res	Type
1	D	707	LEU
1	D	714	LYS
1	D	715	ILE
1	D	728	LYS
1	D	739	LYS
1	D	745	LYS
1	D	746	GLU
1	D	804	GLU
1	D	861	LEU
1	D	895	SER
1	D	925	SER
1	D	991	SER
1	D	1002	MET
1	A	706	ILE
1	A	708	LYS
1	A	711	GLU
1	A	732	ILE
1	A	739	LYS
1	A	751	THR
1	A	760	LEU
1	A	768	SER
1	A	782	LEU
1	A	784	SER
1	A	806	LYS
1	A	926	ILE
1	A	938	ILE
1	B	703	LEU
1	B	710	THR
1	B	732	ILE
1	B	745	LYS
1	B	761	ASP
1	B	762	GLU
1	B	806	LYS
1	B	831	ARG
1	B	833	LEU
1	B	845	VAL
1	B	876	VAL
1	B	926	ILE
1	B	957	SER
1	B	960	LYS
1	B	1001	LEU
1	C	711	GLU

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Mol	Chain	Res	Type
1	C	738	VAL
1	C	748	ARG
1	C	754	LYS
1	C	806	LYS
1	C	861	LEU
1	C	921	SER
1	C	981	ILE
1	C	995	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (9) such sidechains are listed below:

Mol	Chain	Res	Type
1	D	805	HIS
1	D	816	ASN
1	D	894	GLN
1	A	756	ASN
1	A	816	ASN
1	A	894	GLN
1	B	812	GLN
1	C	773	HIS
1	C	893	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)

4 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	A1BWA	A	1101	-	35,37,37	5.52	27 (77%)	43,52,52	1.94	14 (32%)
2	A1BWA	B	1101	-	35,37,37	5.49	26 (74%)	43,52,52	2.12	14 (32%)
2	A1BWA	C	1101	-	35,37,37	5.47	26 (74%)	43,52,52	2.20	15 (34%)
2	A1BWA	D	1101	-	35,37,37	5.57	27 (77%)	43,52,52	2.40	12 (27%)

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	A1BWA	A	1101	-	-	2/20/22/22	0/4/4/4
2	A1BWA	B	1101	-	-	2/20/22/22	0/4/4/4
2	A1BWA	C	1101	-	-	2/20/22/22	0/4/4/4
2	A1BWA	D	1101	-	-	2/20/22/22	0/4/4/4

All (106) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	1101	A1BWA	C04-C03	8.68	1.53	1.38
2	B	1101	A1BWA	C04-C05	8.66	1.53	1.38
2	A	1101	A1BWA	C04-C05	8.62	1.53	1.38
2	B	1101	A1BWA	C04-C03	8.53	1.53	1.38
2	D	1101	A1BWA	C04-C03	8.50	1.53	1.38
2	B	1101	A1BWA	C24-C29	8.49	1.53	1.38
2	A	1101	A1BWA	C04-C03	8.44	1.53	1.38
2	D	1101	A1BWA	C24-C29	8.40	1.53	1.38
2	D	1101	A1BWA	C24-C25	8.40	1.53	1.38
2	B	1101	A1BWA	C24-C25	8.36	1.53	1.38
2	A	1101	A1BWA	C24-C25	8.31	1.53	1.38
2	D	1101	A1BWA	C04-C05	8.30	1.53	1.38
2	B	1101	A1BWA	C03-C02	8.27	1.53	1.39
2	A	1101	A1BWA	C24-C29	8.26	1.53	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	1101	A1BWA	C03-C02	8.20	1.53	1.39
2	A	1101	A1BWA	C03-C02	8.17	1.53	1.39
2	C	1101	A1BWA	C24-C29	8.16	1.52	1.38
2	C	1101	A1BWA	C24-C25	8.15	1.52	1.38
2	C	1101	A1BWA	C04-C05	8.07	1.52	1.38
2	D	1101	A1BWA	C03-C02	8.02	1.52	1.39
2	B	1101	A1BWA	C15-N14	7.93	1.48	1.34
2	C	1101	A1BWA	C15-N14	7.89	1.48	1.34
2	D	1101	A1BWA	C27-C28	7.87	1.52	1.39
2	D	1101	A1BWA	C11-S13	7.82	1.82	1.75
2	D	1101	A1BWA	C15-N14	7.76	1.48	1.34
2	A	1101	A1BWA	C15-N14	7.74	1.48	1.34
2	C	1101	A1BWA	C27-C28	7.64	1.52	1.39
2	A	1101	A1BWA	C27-C28	7.50	1.51	1.39
2	B	1101	A1BWA	C27-C26	7.42	1.51	1.39
2	A	1101	A1BWA	C27-C26	7.41	1.51	1.39
2	A	1101	A1BWA	C29-C28	7.39	1.53	1.37
2	A	1101	A1BWA	C25-C26	7.33	1.52	1.37
2	C	1101	A1BWA	C27-C26	7.31	1.51	1.39
2	D	1101	A1BWA	C27-C26	7.26	1.51	1.39
2	A	1101	A1BWA	C18-C19	7.24	1.52	1.38
2	A	1101	A1BWA	C01-C02	7.24	1.51	1.39
2	B	1101	A1BWA	C27-C28	7.24	1.51	1.39
2	D	1101	A1BWA	C25-C26	7.23	1.52	1.37
2	C	1101	A1BWA	C18-C19	7.22	1.52	1.38
2	B	1101	A1BWA	C25-C26	7.20	1.52	1.37
2	D	1101	A1BWA	C29-C28	7.19	1.52	1.37
2	B	1101	A1BWA	C29-C28	7.15	1.52	1.37
2	C	1101	A1BWA	C25-C26	7.12	1.52	1.37
2	D	1101	A1BWA	C18-C19	7.10	1.52	1.38
2	C	1101	A1BWA	C01-C02	7.10	1.51	1.39
2	C	1101	A1BWA	C29-C28	7.09	1.52	1.37
2	B	1101	A1BWA	C01-C02	6.99	1.50	1.39
2	B	1101	A1BWA	C18-C19	6.83	1.51	1.38
2	A	1101	A1BWA	C05-C06	6.79	1.52	1.39
2	D	1101	A1BWA	C01-C02	6.77	1.50	1.39
2	C	1101	A1BWA	C01-C06	6.76	1.51	1.39
2	D	1101	A1BWA	C19-N14	6.76	1.48	1.34
2	D	1101	A1BWA	C01-C06	6.74	1.51	1.39
2	B	1101	A1BWA	C05-C06	6.70	1.52	1.39
2	A	1101	A1BWA	C01-C06	6.68	1.51	1.39
2	C	1101	A1BWA	C05-C06	6.68	1.52	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	1101	A1BWA	C05-C06	6.58	1.52	1.39
2	B	1101	A1BWA	C19-N14	6.57	1.48	1.34
2	A	1101	A1BWA	C19-N14	6.56	1.48	1.34
2	C	1101	A1BWA	C19-N14	6.53	1.48	1.34
2	B	1101	A1BWA	C01-C06	6.50	1.51	1.39
2	A	1101	A1BWA	C11-S13	6.30	1.80	1.75
2	B	1101	A1BWA	C11-S13	5.95	1.80	1.75
2	C	1101	A1BWA	C16-C17	5.59	1.49	1.39
2	B	1101	A1BWA	C16-C17	5.45	1.49	1.39
2	D	1101	A1BWA	C16-C17	5.40	1.49	1.39
2	C	1101	A1BWA	C16-C15	5.27	1.52	1.39
2	C	1101	A1BWA	C11-S13	5.22	1.80	1.75
2	A	1101	A1BWA	C16-C15	5.05	1.52	1.39
2	A	1101	A1BWA	C16-C17	5.04	1.48	1.39
2	B	1101	A1BWA	C16-C15	5.04	1.52	1.39
2	D	1101	A1BWA	C16-C15	5.03	1.52	1.39
2	C	1101	A1BWA	C18-C17	4.99	1.49	1.39
2	D	1101	A1BWA	C32-N20	4.91	1.45	1.36
2	C	1101	A1BWA	C32-N20	4.89	1.45	1.36
2	D	1101	A1BWA	C18-C17	4.85	1.49	1.39
2	B	1101	A1BWA	C18-C17	4.76	1.48	1.39
2	A	1101	A1BWA	C18-C17	4.74	1.48	1.39
2	A	1101	A1BWA	C32-N20	4.69	1.44	1.36
2	B	1101	A1BWA	C32-N20	4.50	1.44	1.36
2	D	1101	A1BWA	C09-C08	-3.77	1.35	1.44
2	A	1101	A1BWA	C09-C08	-3.49	1.36	1.44
2	C	1101	A1BWA	C09-C08	-3.42	1.36	1.44
2	B	1101	A1BWA	C09-C08	-3.35	1.36	1.44
2	B	1101	A1BWA	C06-C08	3.11	1.52	1.49
2	D	1101	A1BWA	C22-N07	3.05	1.44	1.35
2	D	1101	A1BWA	C06-C08	2.99	1.52	1.49
2	C	1101	A1BWA	C22-N07	2.92	1.44	1.35
2	C	1101	A1BWA	C08-N12	-2.88	1.30	1.37
2	B	1101	A1BWA	C08-N12	-2.86	1.30	1.37
2	D	1101	A1BWA	C17-C09	2.81	1.52	1.49
2	A	1101	A1BWA	C22-N07	2.79	1.43	1.35
2	A	1101	A1BWA	C06-C08	2.76	1.52	1.49
2	C	1101	A1BWA	C17-C09	2.75	1.52	1.49
2	A	1101	A1BWA	C08-N12	-2.73	1.30	1.37
2	B	1101	A1BWA	C17-C09	2.70	1.52	1.49
2	B	1101	A1BWA	C22-N07	2.62	1.43	1.35
2	A	1101	A1BWA	C09-N10	-2.51	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	1101	A1BWA	C17-C09	2.44	1.51	1.49
2	C	1101	A1BWA	C09-N10	-2.39	1.31	1.37
2	B	1101	A1BWA	C09-N10	-2.31	1.31	1.37
2	A	1101	A1BWA	O23-C22	-2.29	1.18	1.23
2	D	1101	A1BWA	C09-N10	-2.29	1.31	1.37
2	D	1101	A1BWA	C08-N12	-2.28	1.31	1.37
2	D	1101	A1BWA	C15-N20	2.15	1.45	1.40
2	C	1101	A1BWA	C15-N20	2.08	1.45	1.40

All (55) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	D	1101	A1BWA	C21-S13-C11	9.26	109.19	102.25
2	B	1101	A1BWA	C21-S13-C11	7.48	107.86	102.25
2	C	1101	A1BWA	C21-S13-C11	6.60	107.20	102.25
2	A	1101	A1BWA	C15-N20-C32	-5.35	122.69	128.16
2	D	1101	A1BWA	C15-N20-C32	-5.06	122.98	128.16
2	C	1101	A1BWA	C15-N20-C32	-4.79	123.26	128.16
2	D	1101	A1BWA	C01-C06-C08	-4.56	111.84	120.09
2	C	1101	A1BWA	C01-C06-C08	-4.33	112.25	120.09
2	D	1101	A1BWA	C05-C06-C08	4.29	127.58	120.62
2	A	1101	A1BWA	C01-C06-C08	-4.04	112.77	120.09
2	B	1101	A1BWA	C18-C19-N14	-3.97	119.11	123.97
2	A	1101	A1BWA	C05-C06-C08	3.92	126.98	120.62
2	A	1101	A1BWA	C18-C19-N14	-3.87	119.23	123.97
2	C	1101	A1BWA	C28-C27-C26	3.74	121.37	114.93
2	C	1101	A1BWA	C18-C19-N14	-3.73	119.40	123.97
2	B	1101	A1BWA	C28-C27-C26	3.70	121.31	114.93
2	D	1101	A1BWA	C28-C27-C26	3.69	121.28	114.93
2	C	1101	A1BWA	C28-C27-C22	-3.59	116.77	122.21
2	B	1101	A1BWA	C15-N20-C32	-3.55	124.53	128.16
2	A	1101	A1BWA	C28-C27-C26	3.51	120.98	114.93
2	D	1101	A1BWA	C18-C19-N14	-3.41	119.80	123.97
2	D	1101	A1BWA	C28-C27-C22	-3.29	117.22	122.21
2	B	1101	A1BWA	C26-C27-C22	-3.27	117.26	122.21
2	B	1101	A1BWA	C01-C06-C08	-3.25	114.20	120.09
2	B	1101	A1BWA	C05-C06-C08	3.19	125.79	120.62
2	C	1101	A1BWA	C05-C06-C08	3.14	125.71	120.62
2	C	1101	A1BWA	C04-C05-C06	-2.86	117.28	120.54
2	B	1101	A1BWA	C19-N14-C15	2.82	121.23	117.21
2	C	1101	A1BWA	C05-C06-C01	2.76	122.03	118.23
2	C	1101	A1BWA	C19-N14-C15	2.70	121.07	117.21

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	A	1101	A1BWA	C28-C27-C22	-2.47	118.48	122.21
2	D	1101	A1BWA	C19-N14-C15	2.40	120.65	117.21
2	A	1101	A1BWA	C19-N14-C15	2.39	120.62	117.21
2	D	1101	A1BWA	C16-C15-N14	-2.35	119.83	122.92
2	D	1101	A1BWA	C25-C26-C27	-2.34	119.18	123.48
2	C	1101	A1BWA	C34-C32-N20	2.33	118.46	114.95
2	C	1101	A1BWA	C08-C09-N10	-2.33	107.47	113.76
2	D	1101	A1BWA	C08-C09-N10	-2.32	107.50	113.76
2	C	1101	A1BWA	C25-C26-C27	-2.30	119.27	123.48
2	A	1101	A1BWA	C25-C26-C27	-2.22	119.41	123.48
2	B	1101	A1BWA	C16-C15-N14	-2.22	120.01	122.92
2	A	1101	A1BWA	C08-C09-N10	-2.22	107.78	113.76
2	B	1101	A1BWA	C29-C28-C27	-2.20	119.45	123.48
2	A	1101	A1BWA	C09-C08-N12	-2.19	107.84	113.76
2	B	1101	A1BWA	C01-C02-N07	-2.18	113.05	120.13
2	B	1101	A1BWA	C18-C17-C16	2.14	121.18	118.23
2	B	1101	A1BWA	C09-C08-N12	-2.12	108.03	113.76
2	C	1101	A1BWA	C16-C15-N14	-2.11	120.15	122.92
2	B	1101	A1BWA	C08-C09-N10	-2.09	108.11	113.76
2	A	1101	A1BWA	C21-S13-C11	2.06	103.80	102.25
2	C	1101	A1BWA	C29-C28-C27	-2.05	119.72	123.48
2	A	1101	A1BWA	C34-C32-N20	2.04	118.01	114.95
2	A	1101	A1BWA	C18-C17-C16	2.02	121.02	118.23
2	D	1101	A1BWA	C09-C08-N12	-2.02	108.30	113.76
2	A	1101	A1BWA	C01-C02-N07	-2.02	113.58	120.13

There are no chirality outliers.

All (8) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	1101	A1BWA	C05-C06-C08-N12
2	D	1101	A1BWA	C05-C06-C08-N12
2	B	1101	A1BWA	C05-C06-C08-N12
2	D	1101	A1BWA	C01-C06-C08-N12
2	A	1101	A1BWA	C01-C06-C08-N12
2	B	1101	A1BWA	C01-C06-C08-N12
2	C	1101	A1BWA	C05-C06-C08-N12
2	C	1101	A1BWA	C01-C06-C08-N12

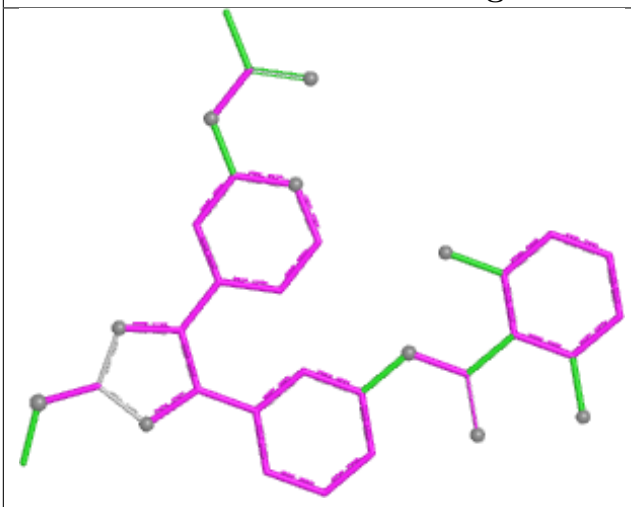
There are no ring outliers.

4 monomers are involved in 8 short contacts:

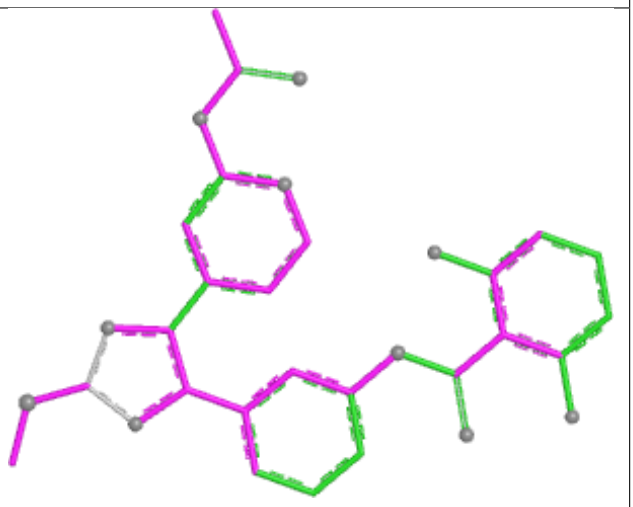
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	1101	A1BWA	3	0
2	B	1101	A1BWA	2	0
2	C	1101	A1BWA	2	0
2	D	1101	A1BWA	1	0

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 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.

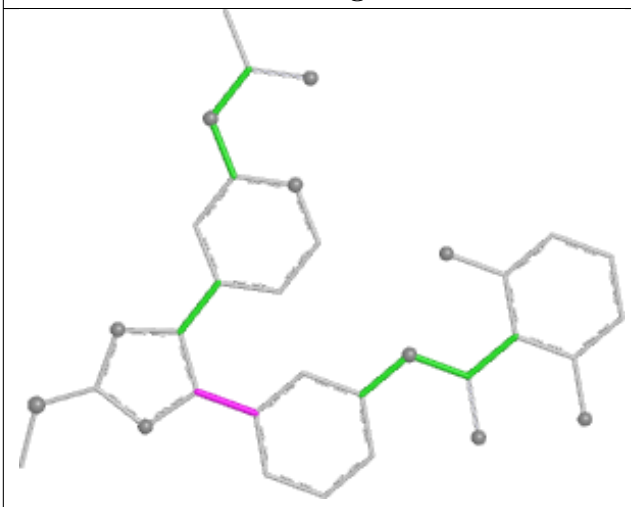
Ligand A1BWA A 1101



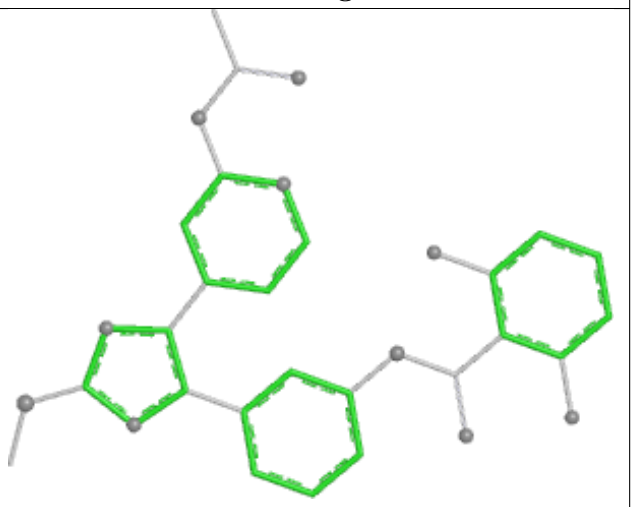
Bond lengths



Bond angles

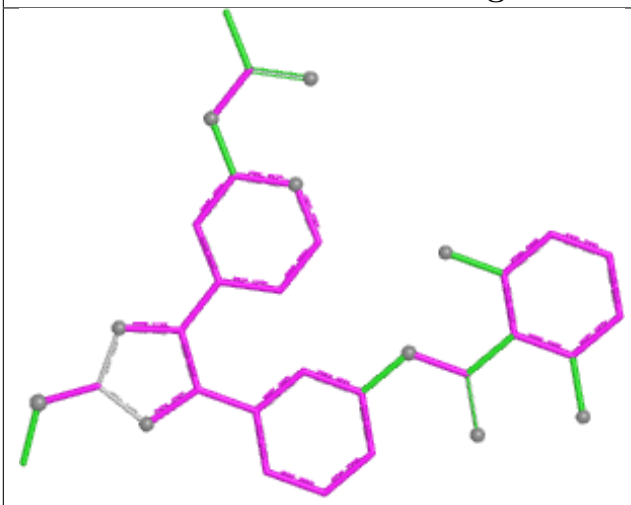


Torsions

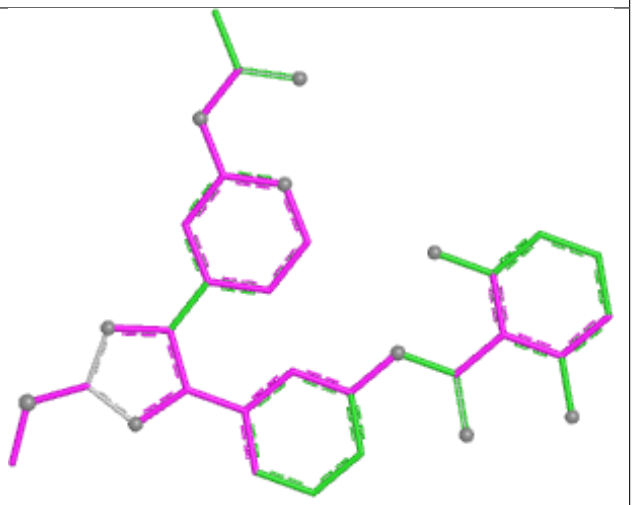


Rings

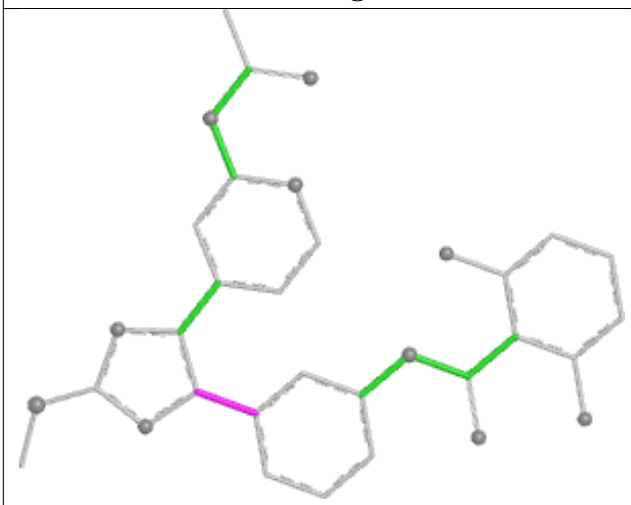
Ligand A1BWA B 1101



Bond lengths



Bond angles



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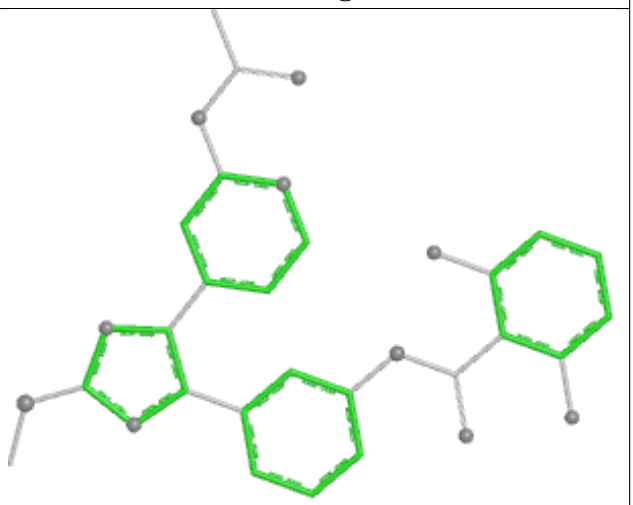
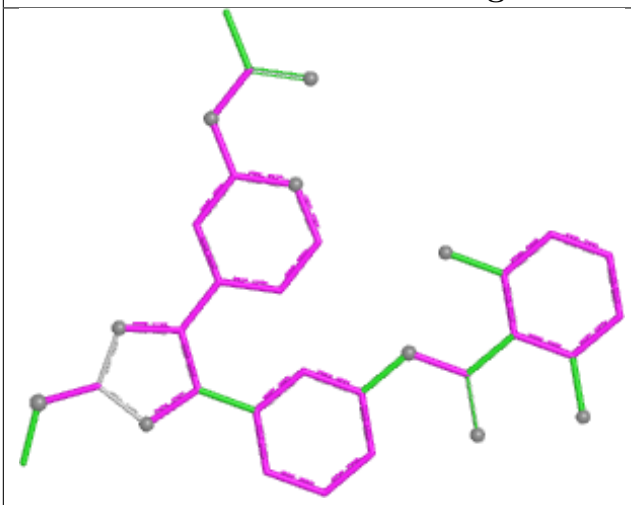
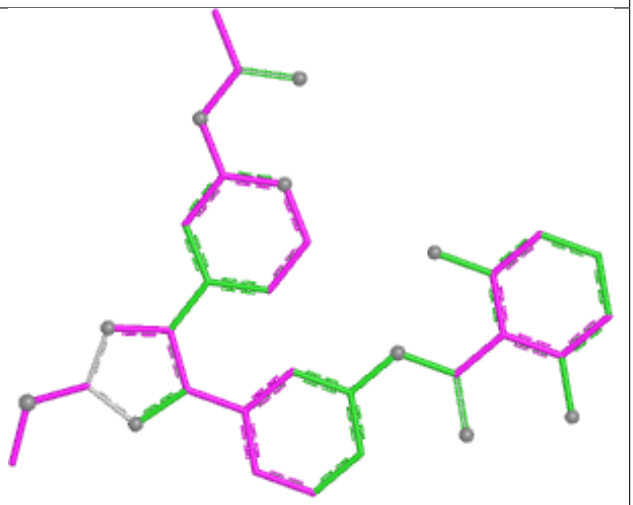


Rings

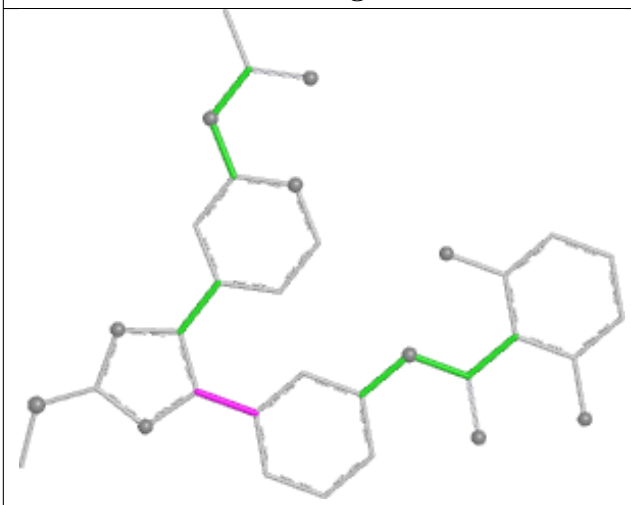
Ligand A1BWA C 1101



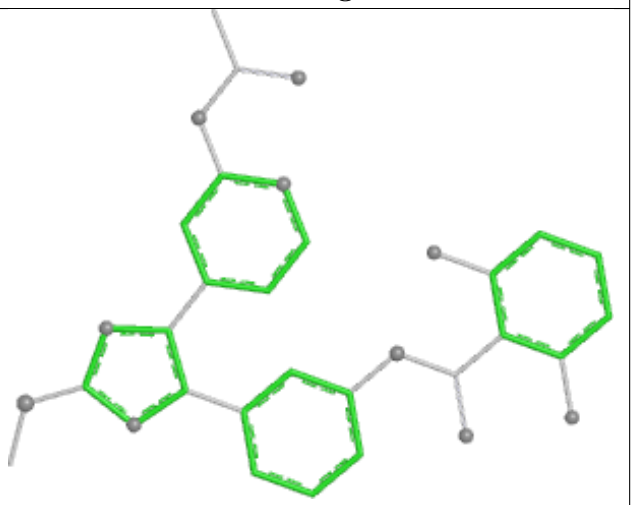
Bond lengths



Bond angles

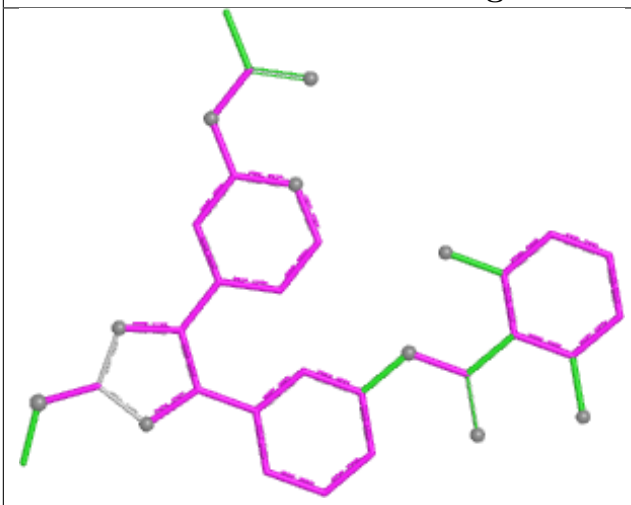


Torsions

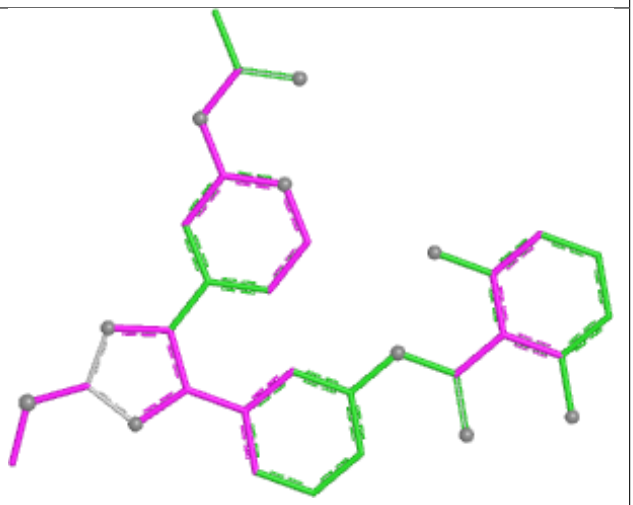


Rings

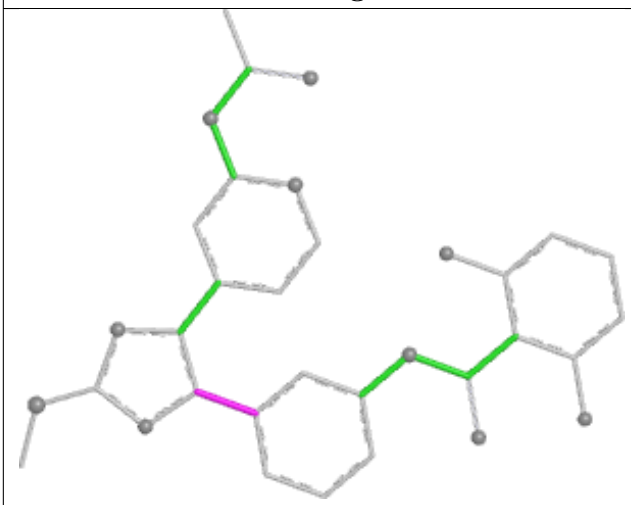
Ligand A1BWA D 1101



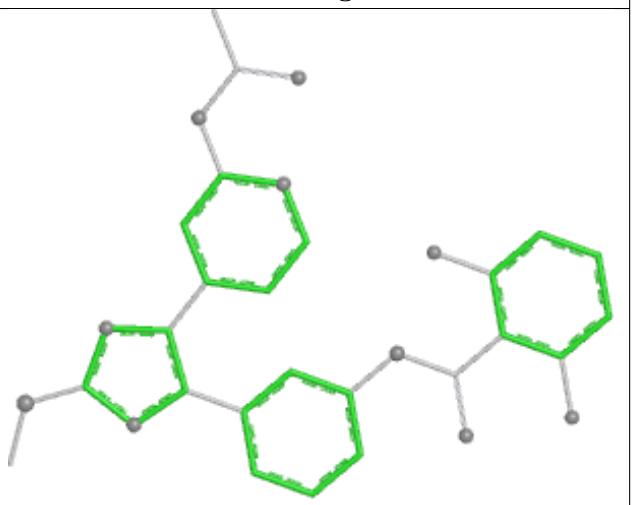
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

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	283/327 (86%)	0.17	4 (1%)	73	68	31, 47, 62, 82	0
1	B	278/327 (85%)	0.22	5 (1%)	67	62	29, 46, 64, 77	0
1	C	281/327 (85%)	0.08	2 (0%)	84	81	26, 43, 60, 68	0
1	D	282/327 (86%)	0.15	3 (1%)	77	74	32, 46, 62, 69	0
All	All	1124/1308 (85%)	0.15	14 (1%)	76	72	26, 46, 62, 82	0

All (14) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	993	THR	3.8
1	D	989	LEU	3.3
1	A	722	ALA	3.0
1	B	921	SER	2.8
1	D	702	ALA	2.7
1	A	989	LEU	2.4
1	D	750	ALA	2.4
1	B	861	LEU	2.4
1	B	1002	MET	2.3
1	A	750	ALA	2.2
1	C	732	ILE	2.2
1	B	834	VAL	2.1
1	B	782	LEU	2.1
1	A	807	ASP	2.1

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 (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

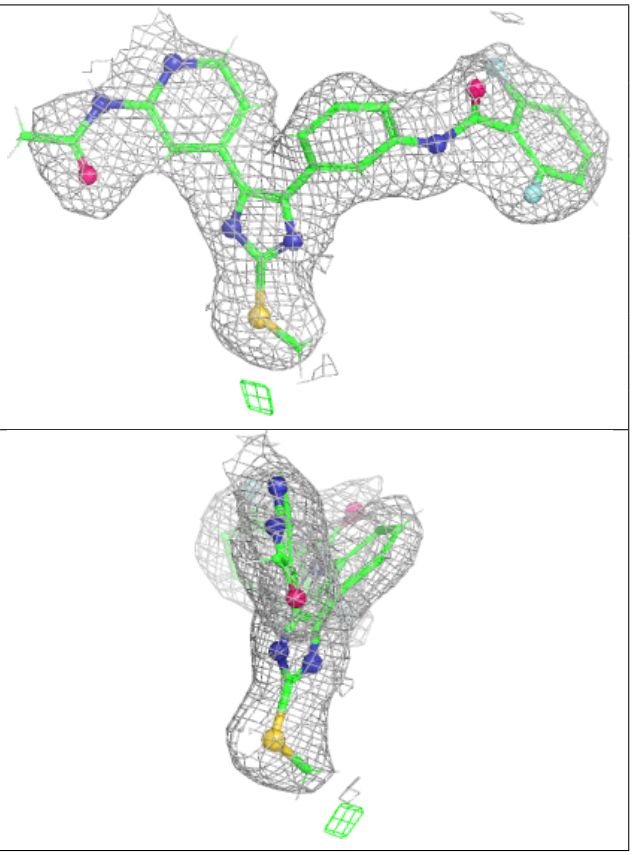
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' 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	A1BWA	D	1101	34/34	0.93	0.10	28,44,68,69	0
2	A1BWA	B	1101	34/34	0.93	0.09	28,40,60,64	0
2	A1BWA	C	1101	34/34	0.93	0.10	28,40,48,49	0
2	A1BWA	A	1101	34/34	0.94	0.10	26,38,45,50	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.

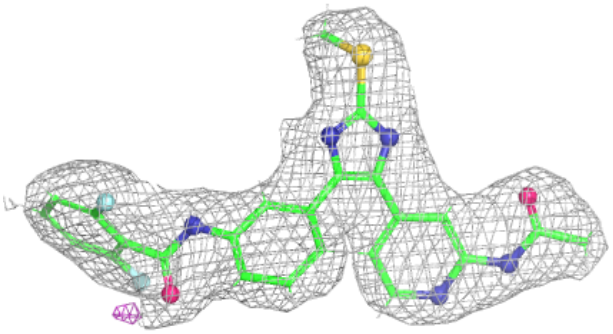
Electron density around A1BWA D 1101:

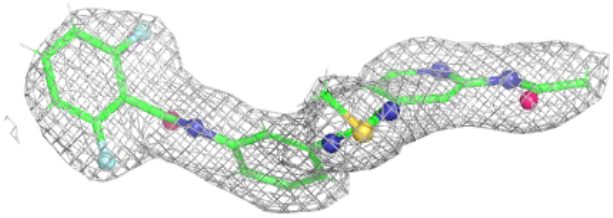
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

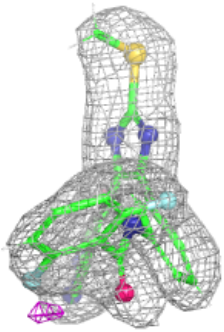


Electron density around A1BWA B 1101:

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

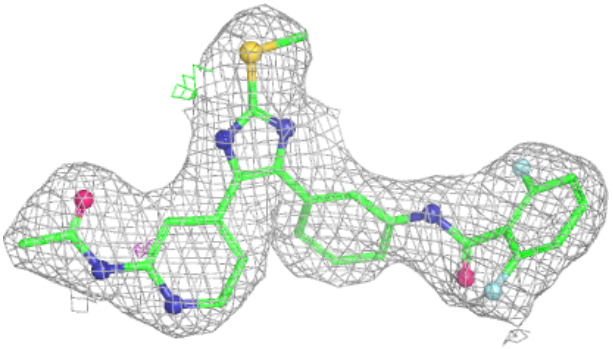


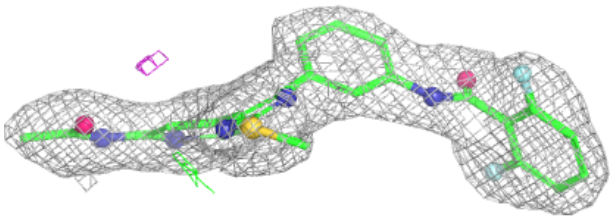


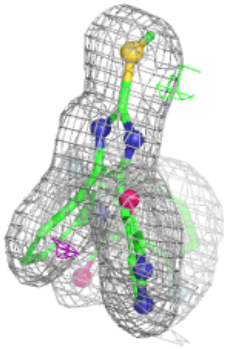


Electron density around A1BWA C 1101:

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

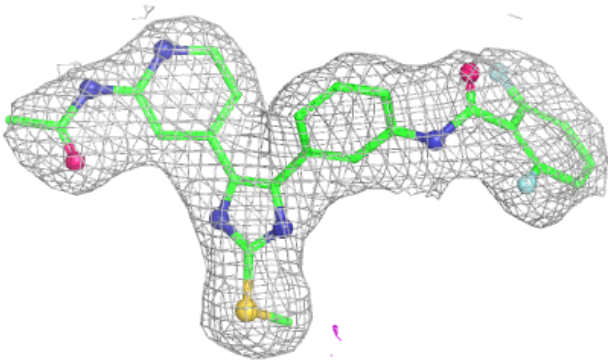


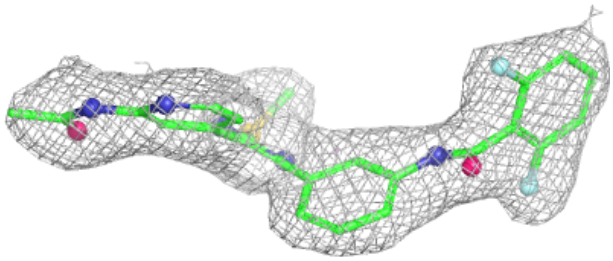


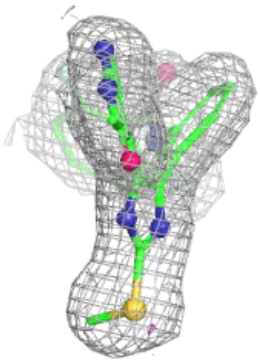


Electron density around A1BWA A 1101:

$2mF_o$-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.