



Full wwPDB X-ray Structure Validation Report

Feb 28, 2014 – 03:28 PM GMT

PDB ID : 3G0F
Title : KIT kinase domain mutant D816H in complex with sunitinib
Authors : Gajiwala, K.S.; Wu, J.C.; Lunney, E.A.; Demetri, G.D.
Deposited on : 2009-01-27
Resolution : 2.60 Å(reported)

This is a full wwPDB validation report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at <http://wwpdb.org/ValidationPDFNotes.html>

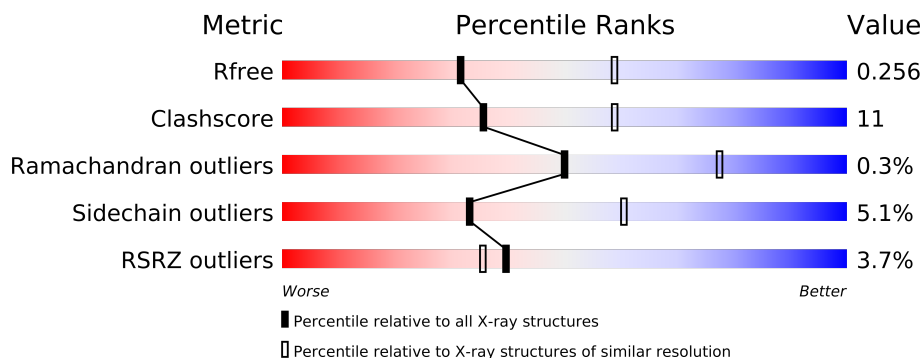
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.15 2013
Xtriage (Phenix) : dev-1323
EDS : stable22639
Percentile statistics : 21963
Refmac : 5.8.0049
CCP4 : 6.3.0 (Settle)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : stable22683

1 Overall quality at a glance

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}	66092	1718 (2.60-2.60)
Clashscore	79885	2154 (2.60-2.60)
Ramachandran outliers	78287	2113 (2.60-2.60)
Sidechain outliers	78261	2113 (2.60-2.60)
RSRZ outliers	66119	1718 (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 on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	A	336	
1	B	336	

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 4722 atoms, of which 0 are hydrogen and 0 are deuterium.

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.

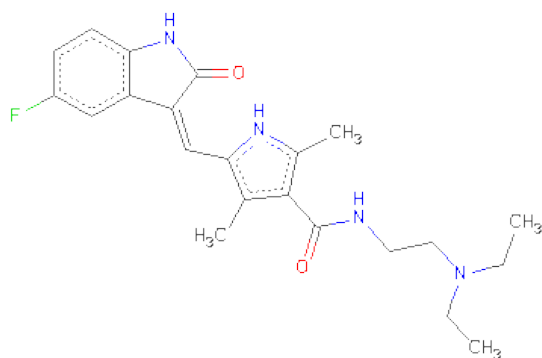
- Molecule 1 is a protein called Mast/stem cell growth factor receptor.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	291	Total	C	N	O	S	0	0	0
			2323	1502	388	415	18			
1	B	293	Total	C	N	O	S	0	0	0
			2335	1508	391	418	18			

There are 10 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	542	GLY	-	EXPRESSION TAG	UNP P10721
A	543	PRO	-	EXPRESSION TAG	UNP P10721
A	694	THR	-	SEE REMARK 999	UNP P10721
A	753	SER	-	SEE REMARK 999	UNP P10721
A	816	HIS	ASP	ENGINEERED	UNP P10721
B	542	GLY	-	EXPRESSION TAG	UNP P10721
B	543	PRO	-	EXPRESSION TAG	UNP P10721
B	694	THR	-	SEE REMARK 999	UNP P10721
B	753	SER	-	SEE REMARK 999	UNP P10721
B	816	HIS	ASP	ENGINEERED	UNP P10721

- Molecule 2 is N-[2-(DIETHYLAMINO)ETHYL]-5-[(Z)-(5-FLUORO-2-OXO-1,2-DIHYDRO-3H-INDOL-3-YLIDENE)METHYL]-2,4-DIMETHYL-1H-PYRROLE-3-CARBOXAMIDE (three-letter code: B49) (formula: C₂₂H₂₇FN₄O₂).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	F	N	O	0	0
			22	16	1	3	2		
2	B	1	Total	C	F	N	O	0	0
			22	16	1	3	2		

- Molecule 3 is SULFATE ION (three-letter code: SO4) (formula: O₄S).



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

- Molecule 4 is water.

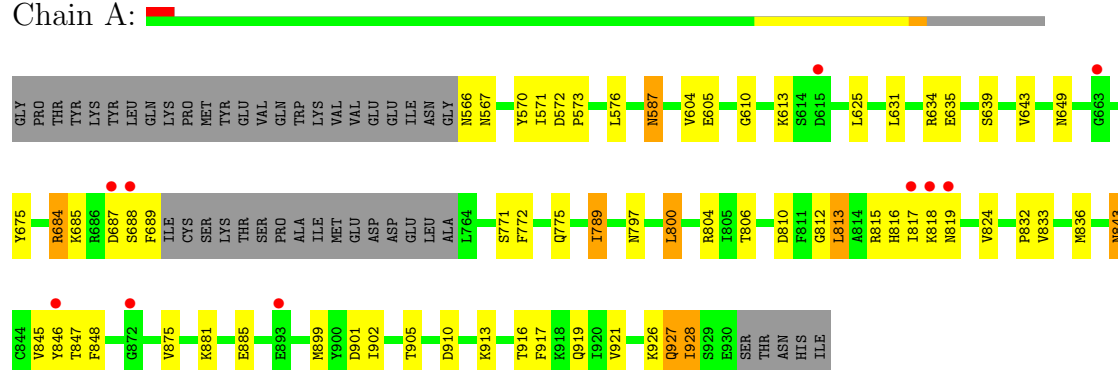
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	8	Total 8	O 8	0	0
4	B	7	Total 7	O 7	0	0

3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors 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.

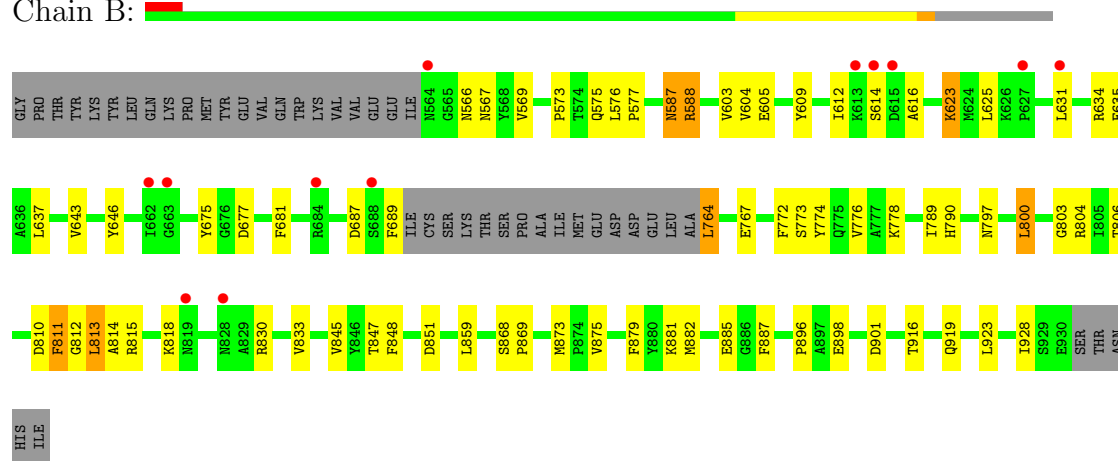
- Molecule 1: Mast/stem cell growth factor receptor

Chain A:



- Molecule 1: Mast/stem cell growth factor receptor

Chain B:



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 2	Depositor
Cell constants a, b, c, α , β , γ	79.46Å 101.78Å 105.50Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	20.00 – 2.60 20.00 – 2.20	Depositor EDS
% Data completeness (in resolution range)	95.9 (20.00-2.60) 96.0 (20.00-2.20)	Depositor EDS
R_{merge}	0.04	Depositor
R_{sym}	0.04	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.00 (at 2.19Å)	Xtriage
Refinement program	CNX	Depositor
R, R_{free}	0.204 , 0.255 0.204 , 0.256	Depositor DCC
R_{free} test set	1308 reflections (5.31%)	DCC
Wilson B-factor (Å ²)	44.6	Xtriage
Anisotropy	0.848	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.36 , 37.0	EDS
Estimated twinning fraction	0.011 for -h,l,k	Xtriage
L-test for twinning	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.31$	Xtriage
Outliers	1 of 40306 reflections (0.002%)	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	4722	wwPDB-VP
Average B, all atoms (Å ²)	51.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.51% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: B49, SO4

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	0.35	0/2381	0.49	0/3219
1	B	0.35	0/2393	0.50	0/3235
All	All	0.35	0/4774	0.49	0/6454

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 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 hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2323	0	2328	52	0
1	B	2335	0	2337	59	0
2	A	22	0	12	0	0
2	B	22	0	12	0	0
3	A	5	0	0	0	0
4	A	8	0	0	0	0
4	B	7	0	0	0	0
All	All	4722	0	4689	99	0

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including

hydrogens) of the entry. The overall clashscore for this entry is 11.

All (99) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:916:THR:H	1:B:919:GLN:HE21	1.10	0.91
1:B:576:LEU:HG	1:B:577:PRO:HD2	1.55	0.89
1:A:899:MET:HE1	1:A:902:ILE:HD12	1.58	0.84
1:B:881:LYS:O	1:B:885:GLU:HG2	1.76	0.83
1:B:797:ASN:ND2	1:B:815:ARG:HH11	1.80	0.79
1:B:675:TYR:HB2	1:B:800:LEU:HB3	1.64	0.79
1:A:816:HIS:NE2	1:A:818:LYS:HD3	1.97	0.79
1:A:571:ILE:HD11	1:B:789:ILE:HG13	1.65	0.79
1:A:789:ILE:HD11	1:A:848:PHE:HA	1.64	0.79
1:A:843:ASN:HB2	1:A:845:VAL:HG23	1.70	0.71
1:B:797:ASN:HD21	1:B:815:ARG:HH11	1.39	0.71
1:B:833:VAL:HG21	1:B:875:VAL:HG11	1.73	0.70
1:A:881:LYS:O	1:A:885:GLU:HG2	1.92	0.69
1:A:926:LYS:C	1:A:928:ILE:H	1.97	0.68
1:A:797:ASN:ND2	1:A:815:ARG:HH11	1.92	0.68
1:B:576:LEU:CG	1:B:577:PRO:HD2	2.24	0.67
1:B:916:THR:H	1:B:919:GLN:NE2	1.90	0.67
1:A:675:TYR:HB2	1:A:800:LEU:HB3	1.75	0.66
1:B:789:ILE:HD11	1:B:848:PHE:HA	1.76	0.65
1:A:832:PRO:O	1:A:836:MET:HG3	1.96	0.64
1:A:816:HIS:HD2	1:A:817:ILE:H	1.45	0.62
1:B:609:TYR:HA	1:B:616:ALA:O	2.00	0.62
1:A:927:GLN:O	1:A:927:GLN:HG2	2.02	0.60
1:A:684:ARG:NH2	1:A:685:LYS:HE2	2.18	0.58
1:A:833:VAL:HG21	1:A:875:VAL:HG11	1.85	0.58
1:A:845:VAL:HG12	1:A:847:THR:HG23	1.86	0.58
1:A:816:HIS:CD2	1:A:817:ILE:H	2.22	0.58
1:A:625:LEU:HD11	1:A:634:ARG:HA	1.86	0.57
1:B:587:ASN:HD22	1:B:587:ASN:H	1.50	0.57
1:A:916:THR:H	1:A:919:GLN:HE21	1.52	0.57
1:B:689:PHE:HD2	1:B:764:LEU:HD23	1.70	0.57
1:B:625:LEU:HD11	1:B:634:ARG:HA	1.86	0.57
1:A:789:ILE:HG22	1:B:569:VAL:CG1	2.35	0.56
1:B:587:ASN:HD22	1:B:587:ASN:N	2.03	0.56
1:A:570:TYR:CE1	1:B:643:VAL:HG13	2.41	0.56
1:A:587:ASN:N	1:A:587:ASN:HD22	2.04	0.55
1:B:812:GLY:O	1:B:813:LEU:HB2	2.07	0.54
1:B:845:VAL:HG12	1:B:847:THR:HG23	1.90	0.54
1:A:631:LEU:HG	1:A:635:GLU:OE2	2.08	0.54
1:B:773:SER:HB2	1:B:859:LEU:HD21	1.90	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:812:GLY:O	1:A:813:LEU:HB2	2.08	0.54
1:A:688:SER:O	1:A:689:PHE:HB2	2.09	0.53
1:B:575:GLN:O	1:B:576:LEU:HB2	2.09	0.51
1:A:567:ASN:ND2	1:B:811:PHE:H	2.08	0.51
1:A:571:ILE:HD11	1:B:789:ILE:CG1	2.39	0.51
1:B:689:PHE:CD2	1:B:764:LEU:HD23	2.46	0.51
1:A:899:MET:HG2	1:A:927:GLN:HE22	1.76	0.50
1:A:604:VAL:HG12	1:A:605:GLU:O	2.12	0.50
1:B:896:PRO:HB2	1:B:898:GLU:OE1	2.12	0.50
1:B:604:VAL:HG12	1:B:605:GLU:O	2.11	0.50
1:A:843:ASN:HB2	1:A:845:VAL:CG2	2.41	0.50
1:B:882:MET:HG3	1:B:887:PHE:HB2	1.93	0.49
1:A:567:ASN:HD22	1:B:810:ASP:HA	1.76	0.49
1:B:603:VAL:HG22	1:B:623:LYS:HD3	1.95	0.49
1:A:570:TYR:CD1	1:B:573:PRO:HG2	2.48	0.48
1:B:815:ARG:HH21	1:B:815:ARG:HG3	1.79	0.48
1:A:567:ASN:HB3	1:B:790:HIS:CE1	2.48	0.48
1:A:926:LYS:C	1:A:928:ILE:N	2.63	0.48
1:A:570:TYR:OH	1:B:646:TYR:HD2	1.97	0.47
1:B:774:TYR:CE1	1:B:778:LYS:HE2	2.50	0.47
1:A:631:LEU:N	1:A:634:ARG:NH2	2.62	0.47
1:B:631:LEU:O	1:B:635:GLU:HG3	2.15	0.47
1:B:800:LEU:HD22	1:B:806:THR:HG22	1.97	0.46
1:A:899:MET:HE3	1:A:927:GLN:OE1	2.15	0.46
1:A:587:ASN:H	1:A:587:ASN:HD22	1.64	0.46
1:A:789:ILE:HG22	1:B:569:VAL:HG13	1.96	0.45
1:B:575:GLN:HG3	1:B:575:GLN:O	2.17	0.44
1:A:570:TYR:CE1	1:B:573:PRO:HG2	2.52	0.44
1:B:612:ILE:HG22	1:B:614:SER:H	1.81	0.44
1:B:603:VAL:HG22	1:B:623:LYS:CD	2.48	0.44
1:B:625:LEU:HG	1:B:637:LEU:HD22	2.00	0.44
1:B:603:VAL:HG23	1:B:814:ALA:CB	2.48	0.44
1:A:771:SER:O	1:A:775:GLN:HG3	2.18	0.44
1:B:790:HIS:O	1:B:851:ASP:OD1	2.36	0.43
1:A:800:LEU:HD22	1:A:806:THR:HG22	2.01	0.43
1:A:772:PHE:CD2	1:A:806:THR:HG21	2.53	0.43
1:B:681:PHE:HE2	1:B:764:LEU:CD1	2.31	0.43
1:A:917:PHE:O	1:A:921:VAL:HG23	2.19	0.43
1:B:868:SER:HA	1:B:869:PRO:HD3	1.87	0.43
1:A:899:MET:CE	1:A:927:GLN:OE1	2.67	0.43
1:A:610:GLY:HA2	1:A:613:LYS:O	2.19	0.42
1:A:910:ASP:HB3	1:A:913:LYS:HG3	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:810:ASP:CG	1:B:567:ASN:H	2.22	0.42
1:B:797:ASN:ND2	1:B:815:ARG:NH1	2.60	0.42
1:B:813:LEU:HD12	1:B:813:LEU:HA	1.77	0.42
1:B:772:PHE:O	1:B:776:VAL:HG23	2.19	0.42
1:A:639:SER:O	1:A:643:VAL:HG23	2.20	0.42
1:B:677:ASP:C	1:B:677:ASP:OD1	2.55	0.42
1:B:576:LEU:CD2	1:B:577:PRO:HD2	2.50	0.42
1:B:803:GLY:O	1:B:804:ARG:HB2	2.20	0.42
1:A:797:ASN:ND2	1:A:815:ARG:NH1	2.64	0.41
1:A:916:THR:H	1:A:919:GLN:NE2	2.16	0.41
1:B:818:LYS:HG2	1:B:830:ARG:NE	2.36	0.41
1:B:588:ARG:HG2	1:B:588:ARG:HH21	1.84	0.41
1:B:815:ARG:NH2	1:B:815:ARG:HG3	2.36	0.41
1:A:901:ASP:O	1:A:905:THR:HG23	2.21	0.41
1:B:767:GLU:OE1	1:B:767:GLU:HA	2.21	0.41
1:A:572:ASP:HA	1:A:573:PRO:HD3	1.96	0.40
1:B:873:MET:HE1	1:B:879:PHE:HA	2.02	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone ⓘ

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	287/336 (85%)	277 (96%)	9 (3%)	1 (0%)	50	77
1	B	289/336 (86%)	278 (96%)	10 (4%)	1 (0%)	50	77
All	All	576/672 (86%)	555 (96%)	19 (3%)	2 (0%)	50	77

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	927	GLN
1	B	566	ASN

5.3.2 Protein sidechains ⓘ

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	252/293 (86%)	237 (94%)	15 (6%)	27	51
1	B	253/293 (86%)	242 (96%)	11 (4%)	40	69
All	All	505/586 (86%)	479 (95%)	26 (5%)	33	60

All (26) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	566	ASN
1	A	576	LEU
1	A	587	ASN
1	A	649	ASN
1	A	684	ARG
1	A	687	ASP
1	A	789	ILE
1	A	800	LEU
1	A	804	ARG
1	A	813	LEU
1	A	819	ASN
1	A	824	VAL
1	A	843	ASN
1	A	846	TYR
1	A	928	ILE
1	B	587	ASN
1	B	588	ARG
1	B	623	LYS
1	B	687	ASP
1	B	764	LEU
1	B	800	LEU
1	B	811	PHE
1	B	813	LEU
1	B	901	ASP
1	B	923	LEU
1	B	928	ILE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (13) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	567	ASN
1	A	587	ASN
1	A	649	ASN
1	A	797	ASN
1	A	816	HIS
1	A	919	GLN
1	B	587	ASN
1	B	649	ASN
1	B	797	ASN
1	B	816	HIS
1	B	819	ASN
1	B	822	ASN
1	B	919	GLN

5.3.3 RNA ⓘ

There are no RNA chains 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 carbohydrates in this entry.

5.6 Ligand geometry ⓘ

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	$\# Z > 2$
3	SO4	A	1	-	4,4,4	0.26	0	6,6,6	0.13	0
2	B49	A	9001	-	23,24,31	1.43	4 (17%)	33,36,44	1.36	7 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	B49	B	9001	-	23,24,31	1.58	3 (13%)	33,36,44	1.39	6 (18%)

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
3	SO4	A	1	-	-	0/0/0/0	0/0/0/0
2	B49	A	9001	-	-	1/5/20/30	0/1/3/3
2	B49	B	9001	-	-	1/5/20/30	0/1/3/3

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	9001	B49	C21-N24	4.67	1.41	1.36
2	A	9001	B49	C5-C15	3.47	1.43	1.36
2	B	9001	B49	C5-C15	3.20	1.43	1.36
2	A	9001	B49	C21-N24	2.69	1.38	1.36
2	B	9001	B49	C7-C15	2.56	1.42	1.37
2	A	9001	B49	C7-C15	2.51	1.42	1.37
2	A	9001	B49	C19-C22	-2.34	1.47	1.50

All (13) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	9001	B49	C18-C12-C20	2.77	132.16	128.00
2	B	9001	B49	C4-C14-N23	-2.74	119.42	122.64
2	B	9001	B49	C4-C14-C19	2.66	133.28	131.22
2	A	9001	B49	C17-C20-C12	-2.43	120.25	131.81
2	A	9001	B49	C4-C14-N23	-2.40	119.82	122.64
2	B	9001	B49	C17-C20-C12	-2.31	120.81	131.81
2	A	9001	B49	C12-C20-C21	2.30	133.53	121.66
2	A	9001	B49	C20-C21-N24	-2.19	105.45	106.86
2	B	9001	B49	C18-C12-C20	2.18	131.28	128.00
2	A	9001	B49	C4-C14-C19	2.17	132.90	131.22
2	B	9001	B49	C12-C20-C21	2.15	132.75	121.66
2	B	9001	B49	C20-C21-N24	-2.13	105.50	106.86
2	A	9001	B49	C6-C16-N24	-2.00	127.00	131.08

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	B	9001	B49	O28-C22-C19-C14
2	A	9001	B49	O28-C22-C19-C13

There are no ring outliers.

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, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	291/336 (86%)	-0.01	10 (3%) 43 39	27, 50, 77, 89	0
1	B	293/336 (87%)	-0.08	12 (4%) 35 32	23, 49, 79, 91	0
All	All	584/672 (86%)	-0.04	22 (3%) 39 35	23, 50, 79, 91	0

All (22) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	614	SER	5.3
1	B	615	ASP	5.2
1	A	893	GLU	3.4
1	B	662	ILE	3.3
1	A	819	ASN	3.0
1	A	687	ASP	3.0
1	A	615	ASP	3.0
1	A	872	GLY	2.9
1	A	818	LYS	2.8
1	B	663	GLY	2.5
1	B	828	ASN	2.5
1	B	631	LEU	2.4
1	A	663	GLY	2.3
1	A	817	ILE	2.3
1	B	564	ASN	2.3
1	B	819	ASN	2.3
1	B	613	LYS	2.2
1	B	688	SER	2.2
1	A	846	TYR	2.1
1	A	688	SER	2.1
1	B	684	ARG	2.1
1	B	627	PRO	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 carbohydrates 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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
2	B49	A	9001	22/29	0.15	-0.02	27,34,48,51	0
2	B49	B	9001	22/29	0.15	-0.37	31,37,43,51	0
3	SO4	A	1	5/5	0.13	-0.90	65,66,66,69	0

6.5 Other polymers ⓘ

There are no such residues in this entry.