WORLDWIDE PDB

PROTEIN DATA BANK

Full wwPDB X-ray Structure Validation Report (i)

Mar 5, 2024 – 03:34 AM EST

PDB ID	:	8GB4
Title	:	EGFR(T790M/V948R) kinase in complex with benzimidazole allosteric inhibitor
Authors	:	Beyett, T.S.; Eck, M.J.
Deposited on	:	2023-02-24
Resolution	:	2.59 Å(reported)

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

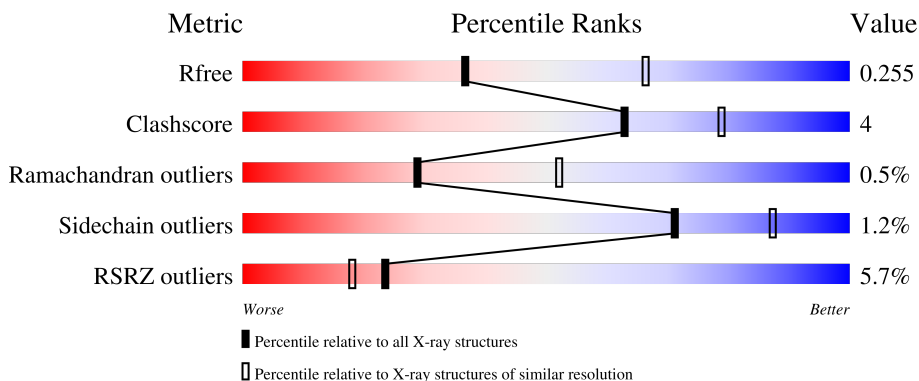|		
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance ⓘ

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	Percentile Ranks	Value
Rfree		0.255
Clashscore		4
Ramachandran outliers		0.5%
Sidechain outliers		1.2%
RSRZ outliers		5.7%

Worse   *Better*

▌ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	3163 (2.60-2.60)
Clashscore	141614	3518 (2.60-2.60)
Ramachandran outliers	138981	3455 (2.60-2.60)
Sidechain outliers	138945	3455 (2.60-2.60)
RSRZ outliers	127900	3104 (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	331	3% / 82% / 6% / 12%
1	B	331	5% / 73% / 14% / • / 12%
1	C	331	8% / 77% / 11% / • / 10%
1	D	331	5% / 79% / 9% / 12%

2 Entry composition (i)

There are 5 unique types of molecules in this entry. The entry contains 9858 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 Epidermal growth factor receptor.

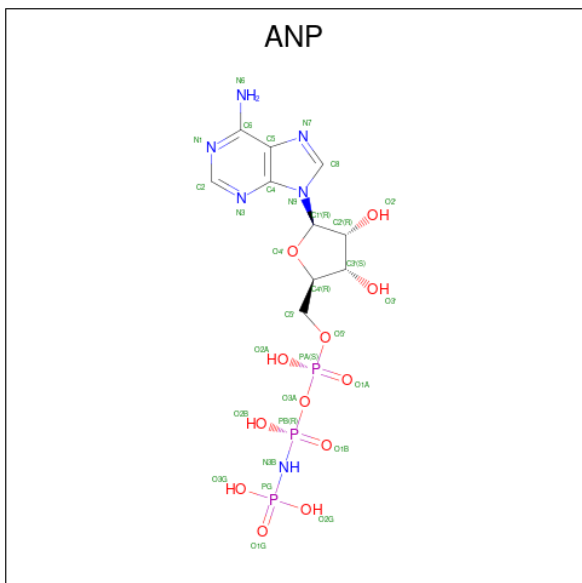| Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	292	Total	C	N	O	S	0	1	0
			2360	1516	401	423	20			
1	B	290	Total	C	N	O	S	0	1	0
			2348	1508	399	421	20			
1	C	297	Total	C	N	O	S	0	1	0
			2398	1538	406	434	20			
1	D	291	Total	C	N	O	S	0	1	0
			2353	1511	400	422	20			

There are 20 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	692	GLY	-	expression tag	UNP P00533
A	693	SER	-	expression tag	UNP P00533
A	694	THR	-	expression tag	UNP P00533
A	790	MET	THR	engineered mutation	UNP P00533
A	948	ARG	VAL	engineered mutation	UNP P00533
B	692	GLY	-	expression tag	UNP P00533
B	693	SER	-	expression tag	UNP P00533
B	694	THR	-	expression tag	UNP P00533
B	790	MET	THR	engineered mutation	UNP P00533
B	948	ARG	VAL	engineered mutation	UNP P00533
C	692	GLY	-	expression tag	UNP P00533
C	693	SER	-	expression tag	UNP P00533
C	694	THR	-	expression tag	UNP P00533
C	790	MET	THR	engineered mutation	UNP P00533
C	948	ARG	VAL	engineered mutation	UNP P00533
D	692	GLY	-	expression tag	UNP P00533
D	693	SER	-	expression tag	UNP P00533
D	694	THR	-	expression tag	UNP P00533
D	790	MET	THR	engineered mutation	UNP P00533
D	948	ARG	VAL	engineered mutation	UNP P00533

• Molecule 2 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	1	Total 1	Mg 1	0	0
2	B	1	Total 1	Mg 1	0	0
2	C	1	Total 1	Mg 1	0	0
2	D	1	Total 1	Mg 1	0	0

• Molecule 3 is PHOSPHOAMINOPHOSPHONIC ACID-ADENYLATE ESTER (three-letter code: ANP) (formula: $C_{10}H_{17}N_6O_{12}P_3$).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total 31	C 10	N 6	O 12	P 3	0	0
3	B	1	Total 31	C 10	N 6	O 12	P 3	0	0
3	C	1	Total 31	C 10	N 6	O 12	P 3	0	0
3	D	1	Total 31	C 10	N 6	O 12	P 3	0	0

• Molecule 4 is 2-[(R)-(1H-benzimidazol-2-yl)(3-fluorophenyl)methyl]-6-[4-(1-methylpiperidin-4-yl)phenyl]-2,3-dihydro-1H-isoindol-1-one (three-letter code: YW5) (formula: $C_{34}H_{31}FN_4O$) (labeled as "Ligand of Interest" by depositor).
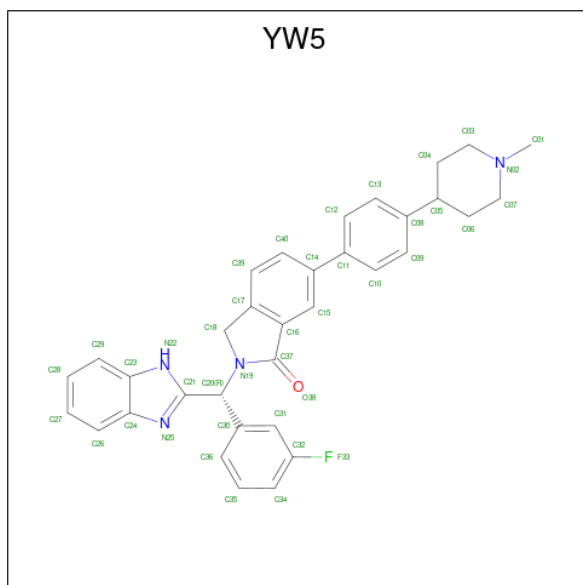
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	A	1	Total	C	F	N	O	0	0
			40	34	1	4	1		
4	B	1	Total	C	F	N	O	0	0
			40	34	1	4	1		
4	C	1	Total	C	F	N	O	0	0
			40	34	1	4	1		
4	D	1	Total	C	F	N	O	0	0
			40	34	1	4	1		

- Molecule 5 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	22	Total	O	0	0
			22	22		
5	B	36	Total	O	0	0
			36	36		
5	C	22	Total	O	0	0
			22	22		
5	D	31	Total	O	0	0
			31	31		

3 Residue-property plots ⓘ

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.
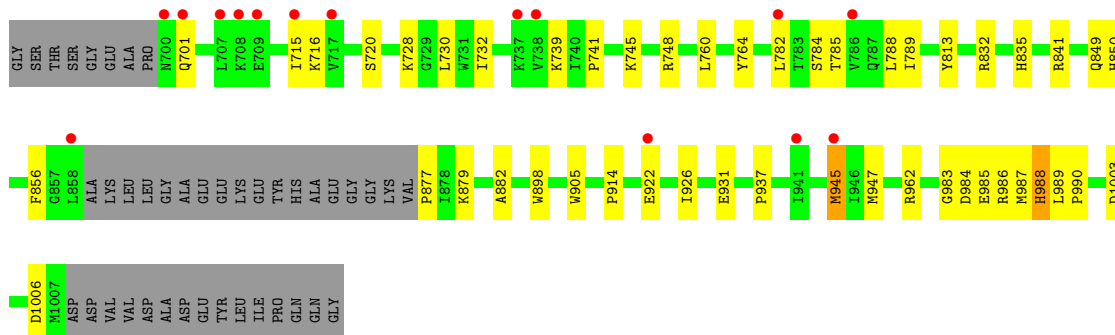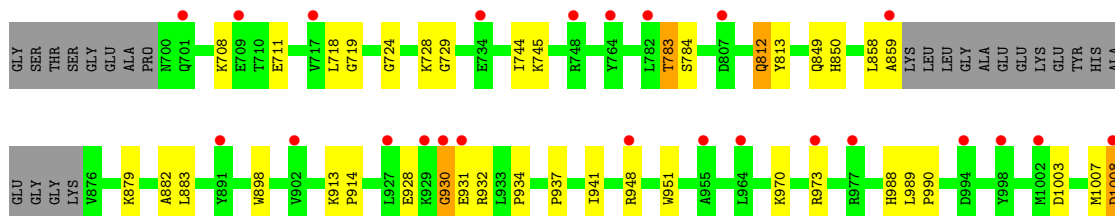
• Molecule 1: Epidermal growth factor receptor
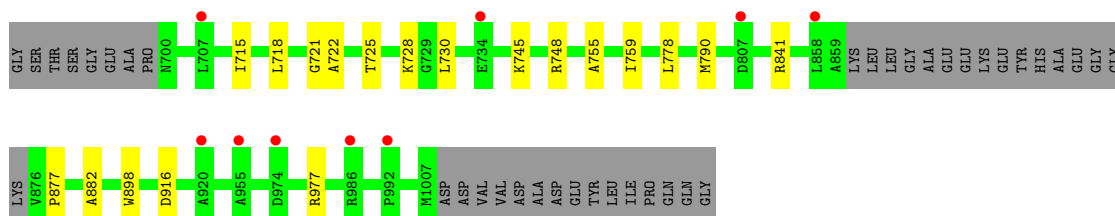
• Molecule 1: Epidermal growth factor receptor

• Molecule 1: Epidermal growth factor receptor

D1009 V1010 V1011 D1012 ALA ASP GLU TYR LEU ILE PRO GLN GLN GLY

• Molecule 1: Epidermal growth factor receptor

Chain D:

5%

79%　　　　9%　　12%

GLY SER THR SER GLY GLU ALA PRO N700 Q701 K708 E709 I710 E711 I715 K716 V717 L730 W731 I732 P733 K737 I744 K745 R748 E749 A750 E758 I759 L782 T783 V786 I789 R832 R836 R841 L858 A859 LYS LEU LEU GLY ALA GLU GLU LYS

GLU TYR HIS ALA GLU GLY GLY LYS VAL P877 W905 G917 E922 I926 I941 M945 I946 M947 K970 D974 R977 H988 T993 D994 F997 M1007 ASP ASP VAL VAL ASP ALA ASP GLU TYR LEU ILE PRO GLN GLN GLY
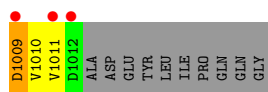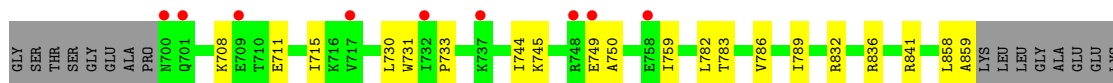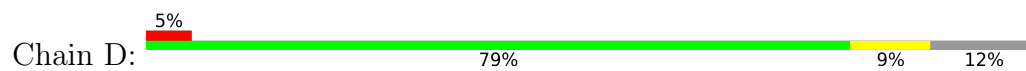
4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	169.45Å 73.45Å 118.42Å 90.00° 118.45° 90.00°	Depositor
Resolution (Å)	104.11 – 2.59 104.12 – 2.59	Depositor EDS
% Data completeness (in resolution range)	97.2 (104.11-2.59) 97.1 (104.12-2.59)	Depositor EDS
R_{merge}	0.16	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.01 (at 2.58Å)	Xtriage
Refinement program	PHENIX 1.20.1	Depositor
R, R_{free}	0.229 , 0.254 0.230 , 0.255	Depositor DCC
R_{free} test set	1908 reflections (4.92%)	wwPDB-VP
Wilson B-factor (Å^2)	45.4	Xtriage
Anisotropy	0.128	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.35 , 45.8	EDS
L-test for twinning[2]	$< \lvert L \rvert > = 0.46$, $< L^2 > = 0.29$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	9858	wwPDB-VP
Average B, all atoms (Å^2)	55.0	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 50.05 % 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 6.8339e-05. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

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[1]Intensities estimated from amplitudes.
[2]Theoretical values of $< \lvert L \rvert >$, $< L^2 >$ 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: ANP, MG, YW5

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	0.26	0/2415	0.50	0/3265
1	B	0.29	0/2403	0.51	0/3247
1	C	0.29	0/2453	0.52	0/3318
1	D	0.27	0/2408	0.51	0/3254
All	All	0.28	0/9679	0.51	0/13084

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2360	0	2406	10	0
1	B	2348	0	2393	34	0
1	C	2398	0	2436	30	0
1	D	2353	0	2398	19	0
2	A	1	0	0	0	0
2	B	1	0	0	0	0
2	C	1	0	0	0	0
2	D	1	0	0	0	0
3	A	31	0	13	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	B	31	0	13	0	0
3	C	31	0	13	1	0
3	D	31	0	13	0	0
4	A	40	0	0	1	0
4	B	40	0	0	1	0
4	C	40	0	0	0	0
4	D	40	0	0	2	0
5	A	22	0	0	0	0
5	B	36	0	0	2	0
5	C	22	0	0	1	0
5	D	31	0	0	1	0
All	All	9858	0	9685	84	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 4.

All (84) 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:989:LEU:HG	1:B:990:PRO:HD2	1.44	0.99
1:C:849:GLN:HG2	1:C:990:PRO:HG3	1.60	0.84
1:C:988:HIS:ND1	1:C:989:LEU:O	2.19	0.76
1:B:720:SER:OG	1:B:748:ARG:NH2	2.22	0.73
1:A:722:ALA:HA	1:A:748:ARG:HH21	1.56	0.70
1:B:760:LEU:HD11	1:B:782:LEU:HD11	1.75	0.69
1:B:849:GLN:HG2	1:B:990:PRO:HG3	1.74	0.68
1:B:849:GLN:NE2	5:B:1204:HOH:O	2.28	0.66
1:B:931:GLU:HG3	1:D:977:ARG:NH1	2.14	0.63
1:B:813:TYR:OH	1:B:990:PRO:HD3	2.02	0.59
1:B:984:ASP:HA	1:B:987:MET:HG3	1.83	0.59
1:D:836:ARG:HD3	1:D:859:ALA:HB2	1.86	0.58
1:D:841:ARG:HH22	1:D:877:PRO:HB3	1.72	0.54
1:D:974:ASP:OD2	1:D:977:ARG:NE	2.42	0.53
1:A:916:ASP:HB3	1:C:941:ILE:HG21	1.91	0.52
1:B:715:ILE:HG13	1:B:730:LEU:HG	1.93	0.51
1:C:813:TYR:OH	1:C:990:PRO:HD3	2.11	0.51
1:C:913:LYS:NZ	5:D:1201:HOH:O	2.32	0.50
1:D:922:GLU:O	1:D:926:ILE:HG23	2.11	0.49
1:C:719:GLY:HA3	3:C:1102:ANP:H4'	1.93	0.49
1:B:987:MET:O	1:B:988:HIS:HB2	2.11	0.49
1:D:749:GLU:HG2	1:D:750:ALA:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:945:MET:SD	1:C:937:PRO:HD3	2.53	0.49
1:B:841:ARG:HH22	1:B:877:PRO:HB3	1.78	0.48
1:C:931:GLU:OE1	1:C:948:ARG:NH2	2.46	0.48
1:C:1008:ASP:O	1:C:1009:ASP:C	2.52	0.47
1:B:905:TRP:HD1	1:B:947:MET:HE1	1.79	0.47
1:C:724:GLY:C	1:D:832:ARG:HH22	2.17	0.47
1:A:755:ALA:O	1:A:759:ILE:HG13	2.15	0.46
1:A:725:THR:OG1	1:B:832:ARG:NH1	2.48	0.46
1:B:937:PRO:HD3	1:D:945:MET:HE2	1.96	0.46
1:B:732:ILE:HG13	1:B:739:LYS:HD3	1.97	0.46
1:B:962:ARG:NH2	5:B:1201:HOH:O	2.23	0.46
1:B:931:GLU:HG3	1:D:977:ARG:HH12	1.78	0.46
1:B:985:GLU:HG2	1:B:986:ARG:N	2.30	0.46
1:D:708:LYS:O	1:D:711:GLU:HG2	2.16	0.45
1:B:879:LYS:HD3	1:B:914:PRO:O	2.17	0.45
1:C:708:LYS:O	1:C:711:GLU:HG2	2.17	0.45
1:C:729:GLY:HA3	1:C:744:ILE:HD11	1.99	0.45
1:B:882:ALA:HA	1:B:898:TRP:CD2	2.52	0.45
1:D:745:LYS:HE2	4:D:1103:YW5:N25	2.32	0.45
1:D:782:LEU:HA	1:D:786:VAL:HG22	1.99	0.45
1:B:983:GLY:O	1:B:987:MET:HG2	2.17	0.45
1:C:718:LEU:HD21	1:C:728:LYS:HB2	1.98	0.44
1:C:879:LYS:HD3	1:C:914:PRO:O	2.17	0.44
1:C:931:GLU:OE1	1:C:932:ARG:HG2	2.16	0.44
1:D:715:ILE:HG13	1:D:730:LEU:HG	2.00	0.44
1:D:905:TRP:HD1	1:D:947:MET:HE1	1.82	0.44
1:C:930:GLY:O	1:C:931:GLU:HG2	2.18	0.44
1:B:835:HIS:CD2	1:B:856:PHE:HB3	2.52	0.44
1:B:813:TYR:CE2	1:B:989:LEU:HD12	2.53	0.44
1:B:850:HIS:ND1	1:B:1003:ASP:OD2	2.50	0.43
1:B:945:MET:CE	1:C:934:PRO:HG2	2.48	0.43
1:A:841:ARG:HH22	1:A:877:PRO:HB3	1.84	0.43
1:B:922:GLU:O	1:B:926:ILE:HG23	2.18	0.43
1:B:989:LEU:CG	1:B:990:PRO:HD2	2.31	0.43
1:B:945:MET:HE2	1:C:934:PRO:HG2	1.99	0.43
1:C:970:LYS:HE2	1:C:970:LYS:HB3	1.85	0.43
1:D:941:ILE:HG13	1:D:945:MET:HE3	1.99	0.43
1:A:715:ILE:HG13	1:A:730:LEU:HG	2.01	0.42
1:A:882:ALA:HA	1:A:898:TRP:CD2	2.54	0.42
1:C:932:ARG:HB3	1:C:951:TRP:CE3	2.54	0.42
1:D:970:LYS:HE2	1:D:970:LYS:HB3	1.86	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:729:GLY:HA3	1:C:744:ILE:CD1	2.50	0.42
1:C:989:LEU:HB3	1:C:990:PRO:HD2	2.01	0.42
1:C:812:GLN:HB3	1:C:989:LEU:HG	2.01	0.41
1:C:882:ALA:HA	1:C:898:TRP:CD2	2.55	0.41
1:A:718:LEU:HD21	1:A:728:LYS:HB2	2.01	0.41
1:B:730:LEU:HD23	1:B:741:PRO:HA	2.03	0.41
1:B:745:LYS:HE2	4:B:1103:YW5:N25	2.35	0.41
1:C:858:LEU:HB2	1:C:859:ALA:H	1.64	0.41
1:B:716:LYS:O	1:B:728:LYS:N	2.45	0.41
1:B:701:GLN:HG3	1:B:764:TYR:CE1	2.56	0.41
1:C:850:HIS:ND1	1:C:1003:ASP:OD2	2.42	0.41
1:D:731:TRP:CZ3	1:D:733:PRO:HG3	2.56	0.41
1:C:783:THR:OG1	1:C:784:SER:N	2.54	0.41
1:D:744:ILE:HG12	1:D:789:ILE:HG13	2.02	0.41
1:A:778:LEU:HG	1:A:790:MET:HA	2.03	0.41
1:C:973:ARG:NH2	5:C:1208:HOH:O	2.54	0.41
1:A:759:ILE:HG12	4:A:1103:YW5:C09	2.51	0.40
1:C:849:GLN:HB3	1:C:1011:VAL:HG11	2.02	0.40
1:D:759:ILE:HG12	4:D:1103:YW5:C09	2.52	0.40
1:B:788:LEU:C	1:B:789:ILE:HD12	2.42	0.40
1:C:883:LEU:HD21	1:C:928:GLU:HG3	2.03	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	289/331 (87%)	281 (97%)	7 (2%)	1 (0%)	41	64
1	B	287/331 (87%)	276 (96%)	8 (3%)	3 (1%)	15	32
1	C	294/331 (89%)	279 (95%)	13 (4%)	2 (1%)	22	43
1	D	288/331 (87%)	280 (97%)	8 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
All	All	1158/1324 (88%)	1116 (96%)	36 (3%)	6 (0%)	29	52

All (6) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	1006	ASP
1	C	930	GLY
1	B	988	HIS
1	C	1009	ASP
1	A	721	GLY
1	B	784	SER

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	262/290 (90%)	260 (99%)	2 (1%)	81	92
1	B	261/290 (90%)	259 (99%)	2 (1%)	81	92
1	C	267/290 (92%)	261 (98%)	6 (2%)	52	76
1	D	261/290 (90%)	258 (99%)	3 (1%)	73	88
All	All	1051/1160 (91%)	1038 (99%)	13 (1%)	71	87

All (13) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	745	LYS
1	A	977	ARG
1	B	785	THR
1	B	945	MET
1	C	745	LYS
1	C	783	THR
1	C	812	GLN
1	C	1007	MET
1	C	1008	ASP

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Mol	Chain	Res	Type
1	C	1010	VAL
1	D	783	THR
1	D	858	LEU
1	D	945	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (2) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	701	GLN
1	D	787	GLN

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 monosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 12 ligands modelled in this entry, 4 are monoatomic - leaving 8 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	ANP	D	1102	2	29,33,33	1.18	5 (17%)	31,52,52	1.14	3 (9%)
4	YW5	D	1103	-	43,46,46	2.94	17 (39%)	56,67,67	3.79	19 (33%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
3	ANP	B	1102	2	29,33,33	1.19	5 (17%)	31,52,52	1.12	3 (9%)
4	YW5	C	1103	-	43,46,46	2.73	17 (39%)	56,67,67	3.68	17 (30%)
3	ANP	C	1102	2	29,33,33	1.16	5 (17%)	31,52,52	1.16	4 (12%)
4	YW5	B	1103	-	43,46,46	2.85	18 (41%)	56,67,67	3.62	17 (30%)
3	ANP	A	1102	2	29,33,33	1.18	5 (17%)	31,52,52	1.13	3 (9%)
4	YW5	A	1103	-	43,46,46	2.84	18 (41%)	56,67,67	3.74	17 (30%)

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	ANP	D	1102	2	-	3/14/38/38	0/3/3/3
4	YW5	D	1103	-	-	2/16/42/42	0/7/7/7
3	ANP	B	1102	2	-	8/14/38/38	0/3/3/3
4	YW5	C	1103	-	-	6/16/42/42	0/7/7/7
3	ANP	C	1102	2	-	2/14/38/38	0/3/3/3
4	YW5	B	1103	-	-	4/16/42/42	0/7/7/7
3	ANP	A	1102	2	-	2/14/38/38	0/3/3/3
4	YW5	A	1103	-	-	2/16/42/42	0/7/7/7

All (90) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	D	1103	YW5	C18-N19	8.32	1.53	1.46
4	A	1103	YW5	C30-C20	7.80	1.63	1.52
4	B	1103	YW5	C30-C20	7.65	1.63	1.52
4	D	1103	YW5	C30-C20	7.51	1.62	1.52
4	A	1103	YW5	C18-N19	7.12	1.52	1.46
4	B	1103	YW5	C18-N19	7.06	1.52	1.46
4	D	1103	YW5	C18-C17	6.99	1.59	1.50
4	C	1103	YW5	C30-C20	6.84	1.61	1.52
4	C	1103	YW5	C18-N19	6.69	1.52	1.46
4	B	1103	YW5	C37-N19	6.18	1.42	1.36
4	C	1103	YW5	C18-C17	6.14	1.58	1.50
4	A	1103	YW5	C18-C17	5.90	1.58	1.50
4	B	1103	YW5	C18-C17	5.78	1.58	1.50
4	A	1103	YW5	C37-N19	5.63	1.41	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1103	YW5	C16-C37	5.49	1.57	1.48
4	D	1103	YW5	C37-N19	5.44	1.41	1.36
4	C	1103	YW5	C37-N19	5.37	1.41	1.36
4	D	1103	YW5	C16-C37	5.22	1.57	1.48
4	B	1103	YW5	C16-C37	4.93	1.56	1.48
4	C	1103	YW5	C14-C11	4.75	1.60	1.49
4	D	1103	YW5	C14-C11	4.67	1.60	1.49
4	A	1103	YW5	C14-C11	4.36	1.59	1.49
4	B	1103	YW5	C14-C11	4.29	1.59	1.49
4	C	1103	YW5	C16-C37	4.15	1.55	1.48
4	D	1103	YW5	C20-N19	4.12	1.53	1.48
4	C	1103	YW5	C20-N19	3.82	1.53	1.48
4	B	1103	YW5	C08-C05	3.80	1.59	1.52
4	A	1103	YW5	C20-N19	3.54	1.53	1.48
4	B	1103	YW5	C20-N19	3.38	1.52	1.48
4	A	1103	YW5	C08-C05	3.16	1.58	1.52
4	B	1103	YW5	C07-N02	2.95	1.52	1.46
4	C	1103	YW5	C08-C05	2.94	1.58	1.52
4	B	1103	YW5	C03-N02	2.86	1.52	1.46
4	D	1103	YW5	C13-C12	2.79	1.43	1.38
3	C	1102	ANP	PB-O1B	2.76	1.50	1.46
4	A	1103	YW5	C07-N02	2.74	1.52	1.46
4	D	1103	YW5	C03-N02	2.69	1.52	1.46
4	A	1103	YW5	C03-N02	2.67	1.52	1.46
3	D	1102	ANP	PB-O1B	2.64	1.50	1.46
3	A	1102	ANP	PB-O1B	2.64	1.50	1.46
4	C	1103	YW5	C07-N02	2.63	1.52	1.46
3	B	1102	ANP	PB-O1B	2.62	1.50	1.46
4	C	1103	YW5	C03-N02	2.62	1.52	1.46
4	A	1103	YW5	C36-C30	2.58	1.43	1.39
4	B	1103	YW5	C36-C30	2.57	1.43	1.39
3	B	1102	ANP	PG-O3G	-2.55	1.49	1.56
3	D	1102	ANP	PG-O3G	-2.55	1.49	1.56
4	D	1103	YW5	C40-C14	2.52	1.44	1.39
3	B	1102	ANP	PG-O1G	2.51	1.50	1.46
3	A	1102	ANP	PB-O2B	-2.50	1.50	1.56
3	A	1102	ANP	PG-O1G	2.48	1.50	1.46
4	D	1103	YW5	C36-C30	2.48	1.43	1.39
3	D	1102	ANP	PG-O2G	-2.47	1.50	1.56
3	C	1102	ANP	PG-O1G	2.47	1.50	1.46
4	D	1103	YW5	C40-C39	2.47	1.43	1.38
4	C	1103	YW5	C28-C27	2.46	1.44	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	D	1103	YW5	C28-C27	2.45	1.44	1.38
4	A	1103	YW5	C28-C27	2.43	1.44	1.38
3	D	1102	ANP	PB-O2B	-2.43	1.50	1.56
4	D	1103	YW5	C07-N02	2.42	1.51	1.46
4	C	1103	YW5	C40-C39	2.42	1.43	1.38
3	B	1102	ANP	PB-O2B	-2.42	1.50	1.56
3	A	1102	ANP	PG-O3G	-2.41	1.50	1.56
4	C	1103	YW5	C40-C14	2.39	1.44	1.39
3	A	1102	ANP	PG-O2G	-2.39	1.50	1.56
3	B	1102	ANP	PG-O2G	-2.38	1.50	1.56
4	C	1103	YW5	C36-C30	2.38	1.42	1.39
3	C	1102	ANP	PB-O2B	-2.38	1.50	1.56
4	B	1103	YW5	C28-C27	2.36	1.44	1.38
4	D	1103	YW5	C39-C17	2.36	1.43	1.39
4	B	1103	YW5	C40-C14	2.34	1.44	1.39
4	A	1103	YW5	C40-C39	2.32	1.43	1.38
4	B	1103	YW5	C31-C32	2.26	1.41	1.37
4	C	1103	YW5	C31-C32	2.25	1.41	1.37
3	C	1102	ANP	PG-O2G	-2.23	1.50	1.56
4	A	1103	YW5	C40-C14	2.23	1.44	1.39
3	D	1102	ANP	PG-O1G	2.21	1.49	1.46
3	C	1102	ANP	PG-O3G	-2.21	1.50	1.56
4	A	1103	YW5	C39-C17	2.21	1.43	1.39
4	B	1103	YW5	C23-N22	2.19	1.46	1.38
4	B	1103	YW5	C04-C05	2.17	1.59	1.53
4	D	1103	YW5	C23-N22	2.15	1.45	1.38
4	C	1103	YW5	C13-C12	2.14	1.42	1.38
4	A	1103	YW5	C23-N22	2.13	1.45	1.38
4	B	1103	YW5	C10-C09	2.10	1.42	1.38
4	B	1103	YW5	C15-C16	2.10	1.43	1.39
4	A	1103	YW5	C31-C32	2.10	1.41	1.37
4	D	1103	YW5	C31-C32	2.09	1.41	1.37
4	C	1103	YW5	C23-N22	2.09	1.45	1.38
4	A	1103	YW5	C04-C05	2.07	1.58	1.53

All (83) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	C	1103	YW5	C18-N19-C37	-16.63	106.28	113.12
4	A	1103	YW5	C18-N19-C37	-16.61	106.28	113.12
4	D	1103	YW5	C18-N19-C37	-16.49	106.33	113.12
4	B	1103	YW5	C18-N19-C37	-16.44	106.36	113.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1103	YW5	C17-C18-N19	14.84	107.12	102.18
4	B	1103	YW5	C17-C18-N19	13.97	106.83	102.18
4	D	1103	YW5	C17-C18-N19	13.34	106.62	102.18
4	C	1103	YW5	C17-C18-N19	12.83	106.45	102.18
4	C	1103	YW5	C16-C37-N19	9.20	111.87	106.44
4	D	1103	YW5	C16-C37-N19	8.95	111.72	106.44
4	B	1103	YW5	C16-C37-N19	8.37	111.38	106.44
4	A	1103	YW5	C16-C37-N19	8.17	111.26	106.44
4	D	1103	YW5	C07-C06-C05	6.85	119.14	111.04
4	C	1103	YW5	C07-C06-C05	6.19	118.37	111.04
4	A	1103	YW5	C07-C06-C05	5.64	117.72	111.04
4	C	1103	YW5	C03-C04-C05	5.34	117.36	111.04
4	D	1103	YW5	C03-C04-C05	5.20	117.19	111.04
4	A	1103	YW5	C03-C04-C05	4.92	116.86	111.04
4	B	1103	YW5	C07-C06-C05	4.86	116.79	111.04
4	D	1103	YW5	C01-N02-C07	-4.74	103.57	110.66
4	D	1103	YW5	C06-C05-C08	-4.64	101.91	112.79
4	D	1103	YW5	O38-C37-N19	-4.46	121.90	125.24
4	A	1103	YW5	O38-C37-N19	-4.32	122.00	125.24
3	D	1102	ANP	O2B-PB-O1B	4.21	118.75	109.92
3	C	1102	ANP	O2B-PB-O1B	4.14	118.61	109.92
4	B	1103	YW5	C04-C03-N02	-4.12	105.70	111.22
4	D	1103	YW5	C01-N02-C03	-4.12	104.50	110.66
4	C	1103	YW5	O38-C37-N19	-4.10	122.17	125.24
3	A	1102	ANP	O2B-PB-O1B	4.07	118.46	109.92
4	B	1103	YW5	C03-C04-C05	4.01	115.78	111.04
3	B	1102	ANP	O2B-PB-O1B	3.98	118.27	109.92
4	B	1103	YW5	C06-C07-N02	-3.98	105.89	111.22
4	B	1103	YW5	C17-C16-C37	-3.97	106.81	108.94
4	A	1103	YW5	C04-C03-N02	-3.91	105.99	111.22
4	B	1103	YW5	O38-C37-N19	-3.86	122.35	125.24
4	C	1103	YW5	C04-C03-N02	-3.83	106.09	111.22
4	C	1103	YW5	C17-C16-C37	-3.83	106.89	108.94
4	A	1103	YW5	C17-C16-C37	-3.68	106.97	108.94
4	C	1103	YW5	C06-C07-N02	-3.62	106.37	111.22
4	A	1103	YW5	C01-N02-C07	-3.51	105.41	110.66
4	A	1103	YW5	C06-C07-N02	-3.50	106.53	111.22
4	C	1103	YW5	C01-N02-C07	-3.48	105.46	110.66
4	A	1103	YW5	C18-N19-C20	-3.46	120.62	123.86
4	C	1103	YW5	C01-N02-C03	-3.40	105.58	110.66
4	D	1103	YW5	C04-C03-N02	-3.37	106.71	111.22
4	D	1103	YW5	C17-C16-C37	-3.34	107.15	108.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	1103	YW5	C18-N19-C20	-3.27	120.81	123.86
4	A	1103	YW5	C01-N02-C03	-3.27	105.78	110.66
4	D	1103	YW5	C06-C07-N02	-3.19	106.95	111.22
4	C	1103	YW5	C40-C14-C15	-2.90	114.07	118.16
4	D	1103	YW5	C40-C14-C15	-2.85	114.13	118.16
4	C	1103	YW5	C18-N19-C20	-2.75	121.30	123.86
4	A	1103	YW5	C40-C14-C15	-2.71	114.33	118.16
4	B	1103	YW5	C40-C14-C15	-2.60	114.49	118.16
4	C	1103	YW5	C06-C05-C08	-2.59	106.71	112.79
4	B	1103	YW5	C15-C14-C11	2.58	125.13	120.86
4	B	1103	YW5	C01-N02-C07	-2.58	106.80	110.66
4	D	1103	YW5	C18-C17-C16	-2.54	108.17	109.75
4	A	1103	YW5	C15-C16-C37	2.41	133.39	129.36
3	D	1102	ANP	O2G-PG-O1G	-2.40	107.42	113.45
3	C	1102	ANP	C5-C6-N6	2.39	123.99	120.35
4	B	1103	YW5	C01-N02-C03	-2.39	107.09	110.66
4	D	1103	YW5	C18-C17-C39	2.37	133.52	128.85
3	A	1102	ANP	O2G-PG-O1G	-2.37	107.51	113.45
3	B	1102	ANP	C5-C6-N6	2.35	123.92	120.35
3	A	1102	ANP	C5-C6-N6	2.33	123.90	120.35
3	D	1102	ANP	C5-C6-N6	2.31	123.86	120.35
4	B	1103	YW5	C15-C16-C37	2.28	133.17	129.36
4	B	1103	YW5	C10-C11-C14	2.25	125.25	121.36
4	C	1103	YW5	C39-C17-C16	-2.24	118.28	120.31
4	A	1103	YW5	C18-C17-C16	-2.24	108.35	109.75
4	C	1103	YW5	C18-C17-C39	2.22	133.22	128.85
4	A	1103	YW5	C30-C31-C32	2.21	121.04	118.80
4	D	1103	YW5	C30-C31-C32	2.21	121.04	118.80
4	D	1103	YW5	C39-C17-C16	-2.20	118.32	120.31
4	B	1103	YW5	C04-C05-C08	2.18	117.90	112.79
3	B	1102	ANP	O2G-PG-O1G	-2.13	108.10	113.45
4	A	1103	YW5	C18-C17-C39	2.11	133.02	128.85
3	C	1102	ANP	O2G-PG-O1G	-2.11	108.14	113.45
3	C	1102	ANP	O3G-PG-O1G	-2.10	108.17	113.45
4	D	1103	YW5	C30-C20-N19	2.08	114.35	111.67
4	D	1103	YW5	C15-C16-C37	2.06	132.80	129.36
4	C	1103	YW5	C18-C17-C16	-2.00	108.50	109.75

There are no chirality outliers.

All (29) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	1102	ANP	PB-N3B-PG-O1G
3	B	1102	ANP	PB-N3B-PG-O1G
3	B	1102	ANP	C5'-O5'-PA-O3A
3	D	1102	ANP	C5'-O5'-PA-O1A
3	B	1102	ANP	O4'-C4'-C5'-O5'
3	B	1102	ANP	C3'-C4'-C5'-O5'
3	C	1102	ANP	PB-O3A-PA-O1A
4	C	1103	YW5	C10-C11-C14-C15
3	D	1102	ANP	C5'-O5'-PA-O3A
4	B	1103	YW5	C04-C05-C08-C13
3	B	1102	ANP	C5'-O5'-PA-O1A
3	B	1102	ANP	C5'-O5'-PA-O2A
4	B	1103	YW5	C21-C20-C30-C31
4	D	1103	YW5	C21-C20-C30-C31
4	C	1103	YW5	C10-C11-C14-C40
4	C	1103	YW5	C21-C20-C30-C31
4	C	1103	YW5	C12-C11-C14-C15
4	A	1103	YW5	C21-C20-C30-C31
4	B	1103	YW5	C21-C20-C30-C36
4	C	1103	YW5	C21-C20-C30-C36
4	D	1103	YW5	C21-C20-C30-C36
4	A	1103	YW5	C21-C20-C30-C36
4	B	1103	YW5	C04-C05-C08-C09
3	A	1102	ANP	PB-O3A-PA-O1A
3	C	1102	ANP	PB-O3A-PA-O2A
4	C	1103	YW5	C12-C11-C14-C40
3	B	1102	ANP	PB-O3A-PA-O1A
3	B	1102	ANP	PB-O3A-PA-O2A
3	D	1102	ANP	PB-O3A-PA-O1A

There are no ring outliers.

4 monomers are involved in 5 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	D	1103	YW5	2	0
3	C	1102	ANP	1	0
4	B	1103	YW5	1	0
4	A	1103	YW5	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 ANP D 1102

Bond lengths

Bond angles

Torsions

Rings

Ligand YW5 D 1103

Bond lengths

Bond angles

Torsions

Rings

Ligand ANP B 1102

Bond lengths

Bond angles

Torsions

Rings

Ligand YW5 C 1103

Bond lengths

Bond angles

Torsions

Rings

Ligand ANP C 1102

Bond lengths

Bond angles

Torsions

Rings

Ligand YW5 B 1103

Bond lengths

Bond angles

Torsions

Rings

Ligand ANP A 1102

Bond lengths

Bond angles

Torsions

Rings

Ligand YW5 A 1103

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, 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(Å²)	Q<0.9
1	A	292/331 (88%)	0.53	9 (3%)	49	42	33, 52, 78, 96	0
1	B	290/331 (87%)	0.53	15 (5%)	27	21	29, 50, 78, 89	0
1	C	297/331 (89%)	0.79	27 (9%)	9	6	39, 57, 87, 107	0
1	D	291/331 (87%)	0.56	16 (5%)	25	19	26, 51, 86, 104	0
All	All	1170/1324 (88%)	0.60	67 (5%)	23	18	26, 54, 83, 107	0

All (67) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	700	ASN	5.3
1	C	1009	ASP	4.6
1	C	930	GLY	4.2
1	C	1011	VAL	4.0
1	C	1012	ASP	3.8
1	A	974	ASP	3.7
1	D	994	ASP	3.5
1	B	945	MET	3.3
1	D	917	GLY	3.2
1	C	931	GLU	3.1
1	C	701	GLN	3.1
1	C	807	ASP	3.1
1	C	998	TYR	3.0
1	C	717	VAL	3.0
1	B	738	VAL	2.9
1	B	717	VAL	2.9
1	A	734	GLU	2.9
1	D	700	ASN	2.8
1	D	749	GLU	2.8
1	B	858	LEU	2.8
1	D	993	THR	2.8

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Mol	Chain	Res	Type	RSRZ
1	B	701	GLN	2.7
1	A	992	PRO	2.7
1	D	945	MET	2.7
1	C	977	ARG	2.6
1	A	955	ALA	2.6
1	C	948	ARG	2.6
1	C	891	TYR	2.6
1	A	986	ARG	2.6
1	D	709	GLU	2.6
1	C	1008	ASP	2.5
1	C	1002	MET	2.4
1	C	709	GLU	2.4
1	D	758	GLU	2.4
1	A	707	LEU	2.4
1	C	955	ALA	2.4
1	C	734	GLU	2.4
1	A	858	LEU	2.4
1	B	786	VAL	2.4
1	C	929	LYS	2.4
1	C	964	LEU	2.4
1	B	715	ILE	2.4
1	B	782	LEU	2.4
1	B	922	GLU	2.3
1	D	732	ILE	2.3
1	C	764	TYR	2.3
1	A	807	ASP	2.3
1	D	997	PHE	2.3
1	B	707	LEU	2.3
1	B	737	LYS	2.2
1	D	717	VAL	2.2
1	B	708	LYS	2.2
1	C	748	ARG	2.2
1	C	782	LEU	2.2
1	D	701	GLN	2.2
1	B	941	ILE	2.2
1	D	922	GLU	2.2
1	D	988	HIS	2.1
1	C	973	ARG	2.1
1	C	859	ALA	2.1
1	C	902	VAL	2.1
1	C	994	ASP	2.1
1	A	920	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
1	D	737	LYS	2.1
1	B	709	GLU	2.1
1	C	927	LEU	2.1
1	D	748	ARG	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 ⓘ

There are no monosaccharides 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, 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	RSCC	RSR	B-factors($\mathring{A}^2$)	Q<0.9
2	MG	B	1101	1/1	0.87	0.09	44,44,44,44	0
2	MG	C	1101	1/1	0.88	0.08	51,51,51,51	0
4	YW5	C	1103	40/40	0.89	0.25	41,52,69,71	0
4	YW5	B	1103	40/40	0.90	0.31	41,54,87,89	0
4	YW5	D	1103	40/40	0.91	0.25	37,47,84,87	0
2	MG	A	1101	1/1	0.92	0.08	48,48,48,48	0
4	YW5	A	1103	40/40	0.94	0.23	36,45,72,75	0
3	ANP	C	1102	31/31	0.94	0.17	42,52,64,70	0
2	MG	D	1101	1/1	0.96	0.08	42,42,42,42	0
3	ANP	A	1102	31/31	0.97	0.14	33,46,51,53	0
3	ANP	D	1102	31/31	0.97	0.15	36,44,50,57	0
3	ANP	B	1102	31/31	0.97	0.13	35,41,47,48	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.
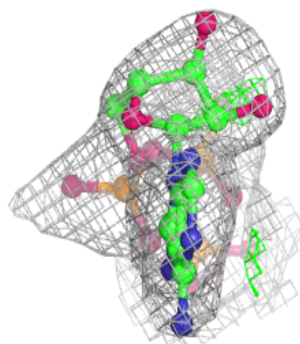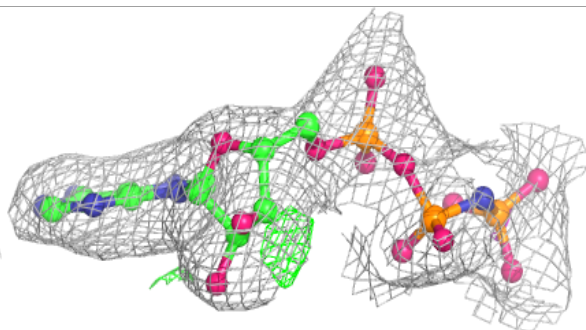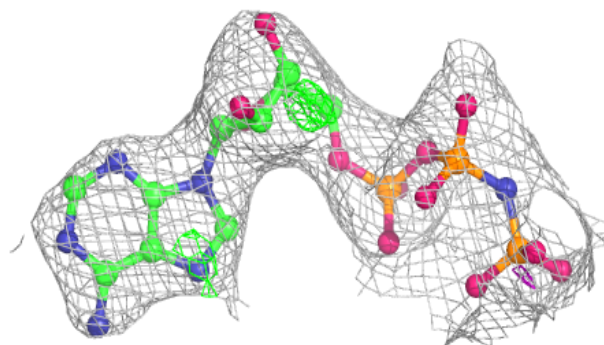
Electron density around YW5 C 1103:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
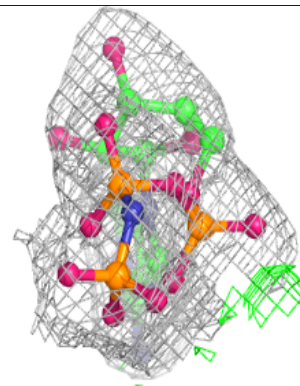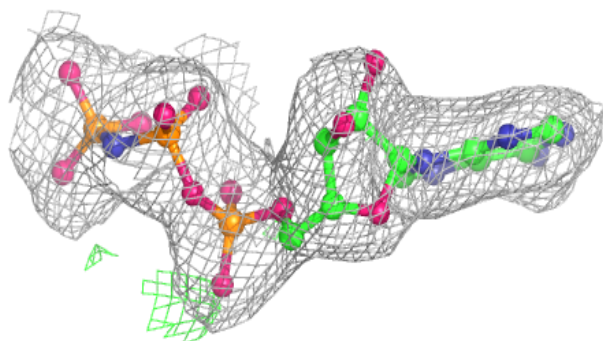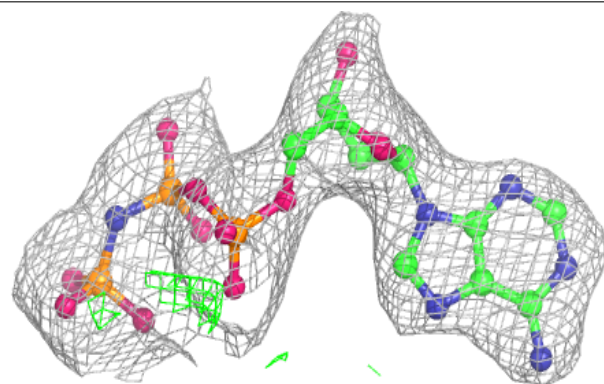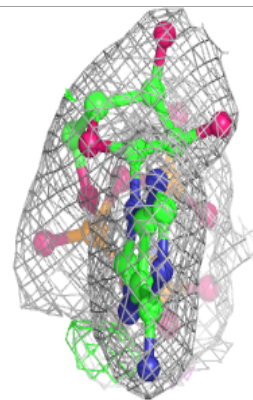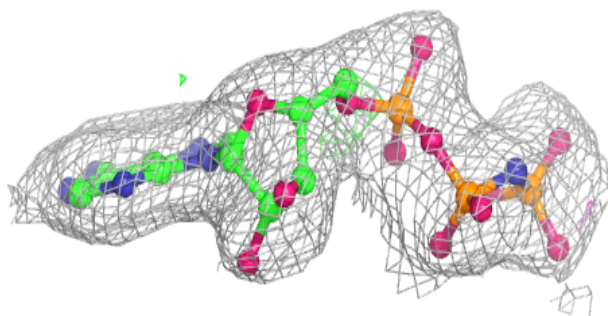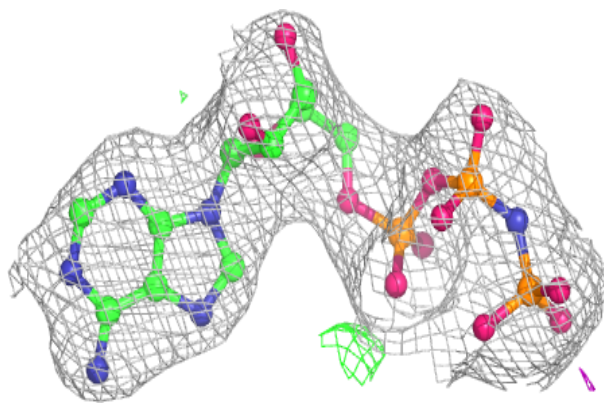mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
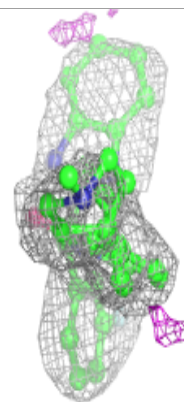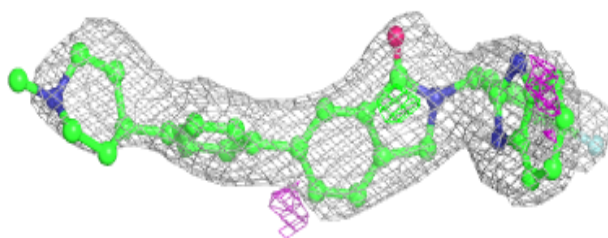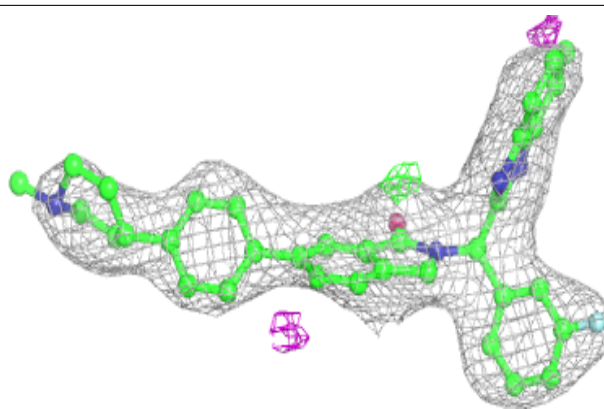

Electron density around YW5 B 1103:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
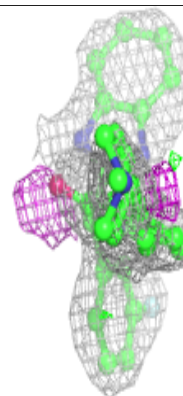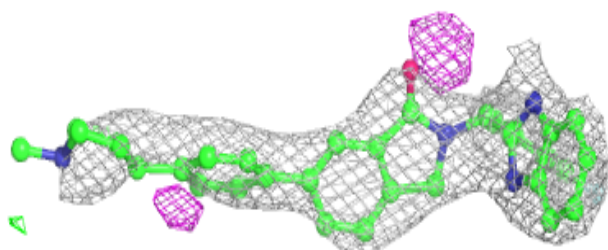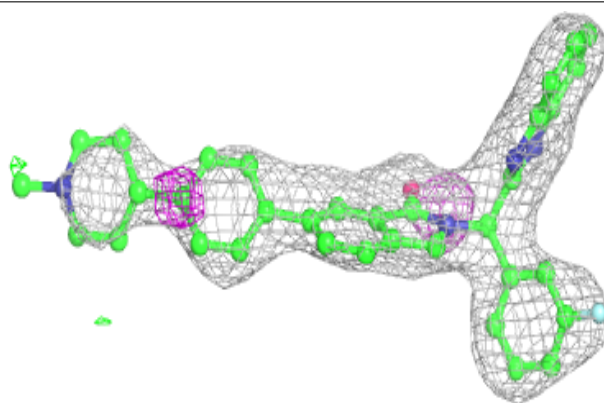
Electron density around YW5 D 1103:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
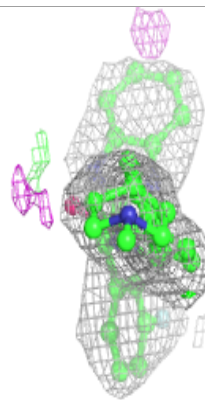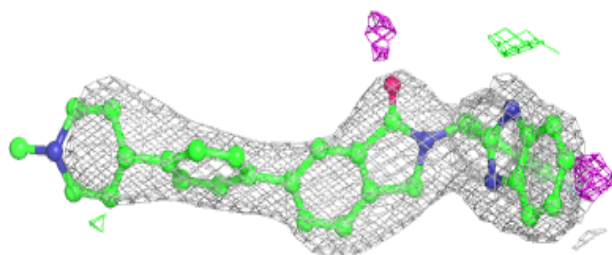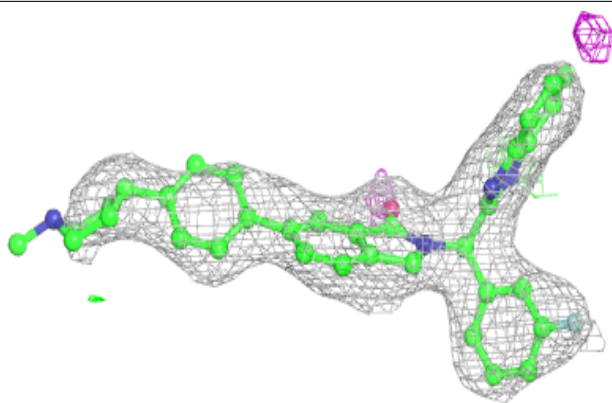
Electron density around YW5 A 1103:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
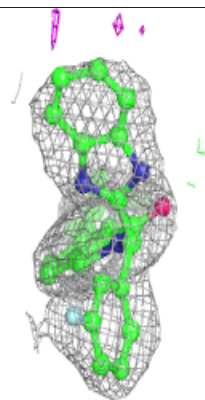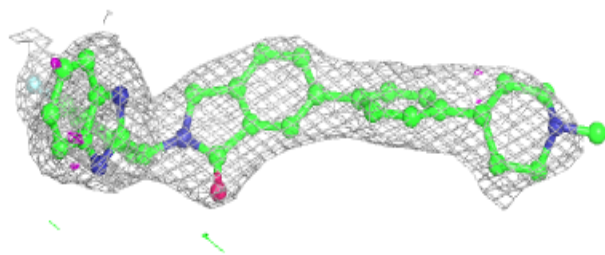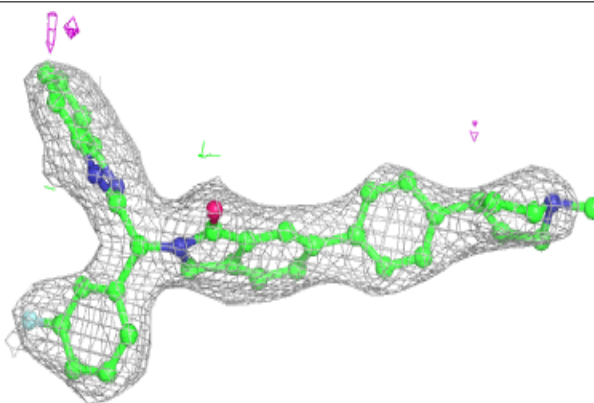
Electron density around ANP C 1102:

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

Electron density around ANP A 1102:

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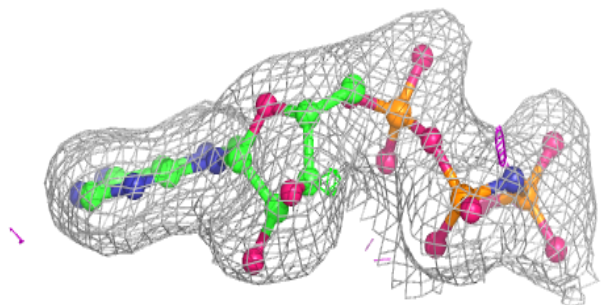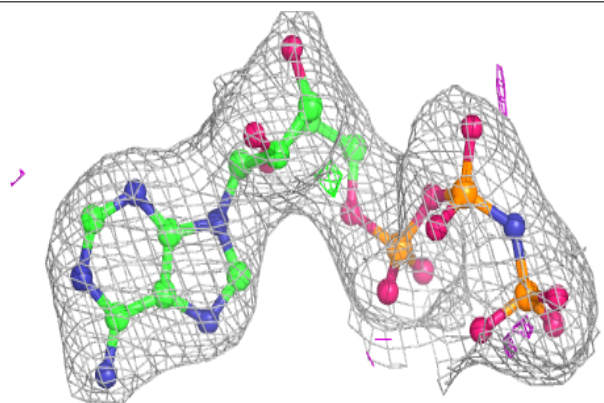and green (positive)

Electron density around ANP D 1102:

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

Electron density around ANP B 1102:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
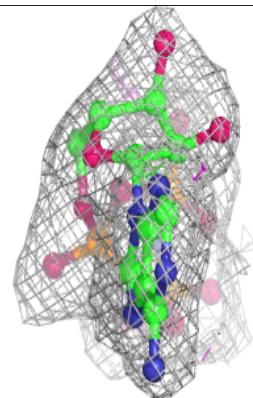
6.5 Other polymers (i)

There are no such residues in this entry.