Full wwPDB X-ray Structure Validation Report ⓘ

Nov 5, 2023 – 08:35 AM EST

PDB ID	:	6VNK
Title	:	JAK2 JH1 in complex with PN4-073
Authors	:	Davis, R.R.; Schonbrunn, E.
Deposited on	:	2020-01-29
Resolution	:	2.00 Å(reported)

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

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

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

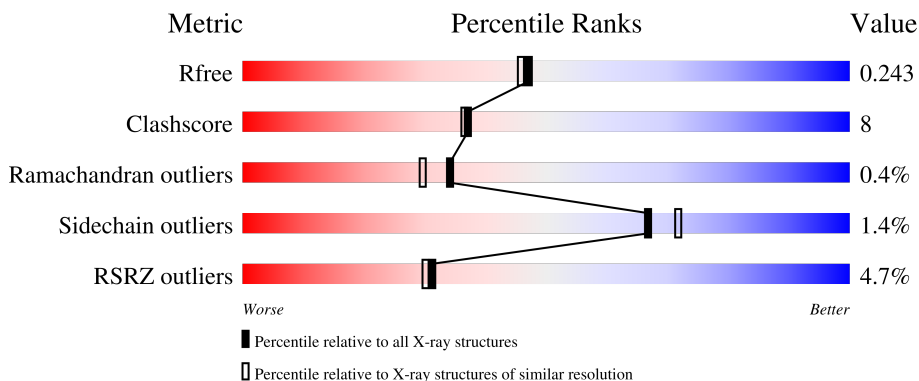|		
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & 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 2.00 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		0.243
Clashscore		8
Ramachandran outliers		0.4%
Sidechain outliers		1.4%
RSRZ outliers		4.7%

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	8085 (2.00-2.00)
Clashscore	141614	9178 (2.00-2.00)
Ramachandran outliers	138981	9054 (2.00-2.00)
Sidechain outliers	138945	9053 (2.00-2.00)
RSRZ outliers	127900	7900 (2.00-2.00)

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	308	5% / 80% / 14% · ·
1	B	308	5% / 79% / 17% · ·
1	C	308	4% / 76% / 16% · 6%
1	D	308	5% / 81% / 12% · 6%

2 Entry composition ⓘ

There are 3 unique types of molecules in this entry. The entry contains 10264 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 Tyrosine-protein kinase JAK2.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	D	289	Total	C	N	O	P	S	0	0	0
			2395	1521	417	442	1	14			
1	B	297	Total	C	N	O	P	S	0	0	0
			2460	1564	426	455	1	14			
1	C	289	Total	C	N	O	P	S	0	0	0
			2395	1521	417	442	1	14			
1	A	297	Total	C	N	O	P	S	0	0	0
			2460	1564	426	455	1	14			

There are 60 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
D	825	HIS	-	expression tag	UNP O60674
D	826	HIS	-	expression tag	UNP O60674
D	827	HIS	-	expression tag	UNP O60674
D	828	HIS	-	expression tag	UNP O60674
D	829	HIS	-	expression tag	UNP O60674
D	830	HIS	-	expression tag	UNP O60674
D	831	HIS	-	expression tag	UNP O60674
D	832	HIS	-	expression tag	UNP O60674
D	833	GLU	-	expression tag	UNP O60674
D	834	ASN	-	expression tag	UNP O60674
D	835	LEU	-	expression tag	UNP O60674
D	836	TYR	-	expression tag	UNP O60674
D	837	PHE	-	expression tag	UNP O60674
D	838	GLN	-	expression tag	UNP O60674
D	839	GLY	-	expression tag	UNP O60674
B	825	HIS	-	expression tag	UNP O60674
B	826	HIS	-	expression tag	UNP O60674
B	827	HIS	-	expression tag	UNP O60674
B	828	HIS	-	expression tag	UNP O60674
B	829	HIS	-	expression tag	UNP O60674
B	830	HIS	-	expression tag	UNP O60674

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
B	831	HIS	-	expression tag	UNP O60674
B	832	HIS	-	expression tag	UNP O60674
B	833	GLU	-	expression tag	UNP O60674
B	834	ASN	-	expression tag	UNP O60674
B	835	LEU	-	expression tag	UNP O60674
B	836	TYR	-	expression tag	UNP O60674
B	837	PHE	-	expression tag	UNP O60674
B	838	GLN	-	expression tag	UNP O60674
B	839	GLY	-	expression tag	UNP O60674
C	825	HIS	-	expression tag	UNP O60674
C	826	HIS	-	expression tag	UNP O60674
C	827	HIS	-	expression tag	UNP O60674
C	828	HIS	-	expression tag	UNP O60674
C	829	HIS	-	expression tag	UNP O60674
C	830	HIS	-	expression tag	UNP O60674
C	831	HIS	-	expression tag	UNP O60674
C	832	HIS	-	expression tag	UNP O60674
C	833	GLU	-	expression tag	UNP O60674
C	834	ASN	-	expression tag	UNP O60674
C	835	LEU	-	expression tag	UNP O60674
C	836	TYR	-	expression tag	UNP O60674
C	837	PHE	-	expression tag	UNP O60674
C	838	GLN	-	expression tag	UNP O60674
C	839	GLY	-	expression tag	UNP O60674
A	825	HIS	-	expression tag	UNP O60674
A	826	HIS	-	expression tag	UNP O60674
A	827	HIS	-	expression tag	UNP O60674
A	828	HIS	-	expression tag	UNP O60674
A	829	HIS	-	expression tag	UNP O60674
A	830	HIS	-	expression tag	UNP O60674
A	831	HIS	-	expression tag	UNP O60674
A	832	HIS	-	expression tag	UNP O60674
A	833	GLU	-	expression tag	UNP O60674
A	834	ASN	-	expression tag	UNP O60674
A	835	LEU	-	expression tag	UNP O60674
A	836	TYR	-	expression tag	UNP O60674
A	837	PHE	-	expression tag	UNP O60674
A	838	GLN	-	expression tag	UNP O60674
A	839	GLY	-	expression tag	UNP O60674

- Molecule 2 is (3R)-3-cyclopentyl-3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]propanenitrile (three-letter code: RXT) (formula: $C_{17}H_{18}N_6$) (labeled as "Ligand of Interest" by depositor).

RXT

Structure diagram of ligand RXT with atom labels: NAA, CAB, CAJ, CAK, CAH, NAO, CAV(R), CAU, CAI, NAW, CAL, CAF, CAG, CAQ, CAR, CAD, NAM, CAS, CAC, CAE, CAT, NAP, NAN.
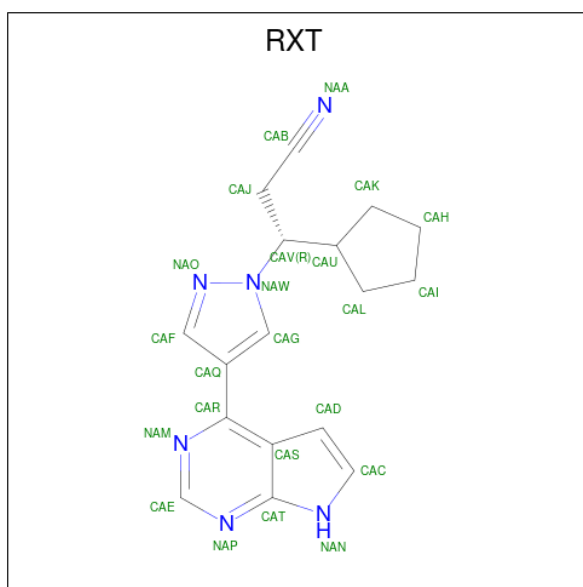
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
2	D	1	Total 23	C 17	N 6	0	0
2	B	1	Total 23	C 17	N 6	0	0
2	C	1	Total 23	C 17	N 6	0	0
2	A	1	Total 23	C 17	N 6	0	0

• Molecule 3 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	D	108	Total 108	O 108	0	0
3	B	115	Total 115	O 115	0	0
3	C	106	Total 106	O 106	0	0
3	A	133	Total 133	O 133	0	0

W O R L D W I D E

PDB

PROTEIN DATA BANK

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.
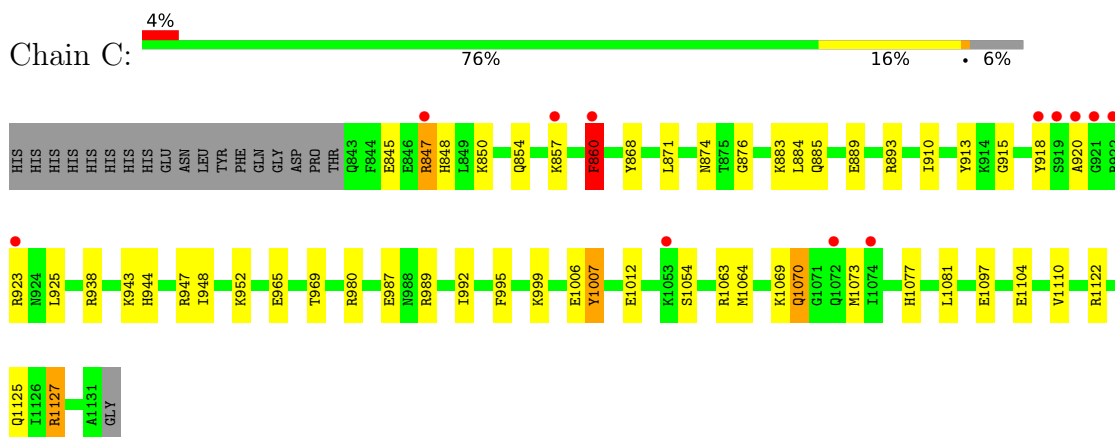
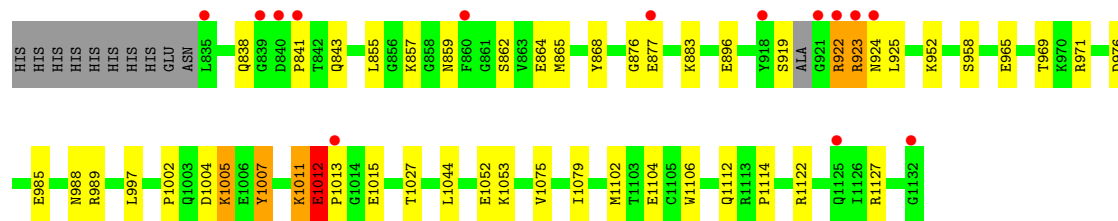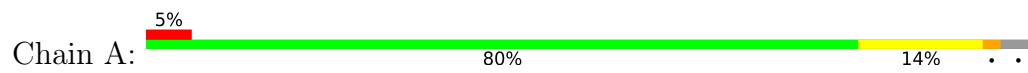- Molecule 1: Tyrosine-protein kinase JAK2
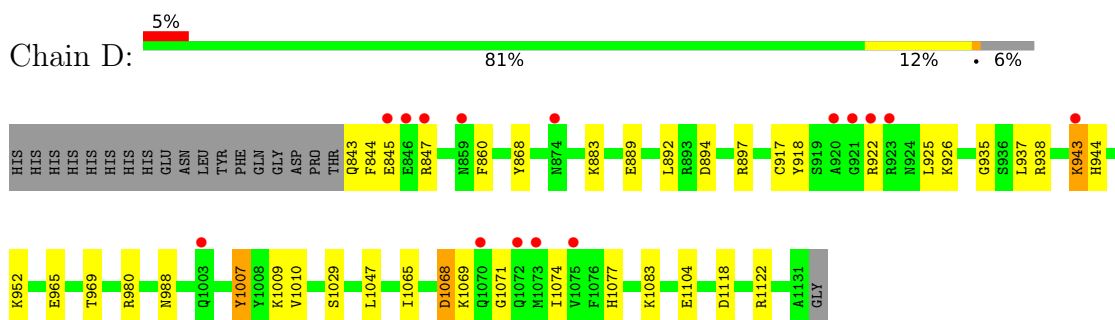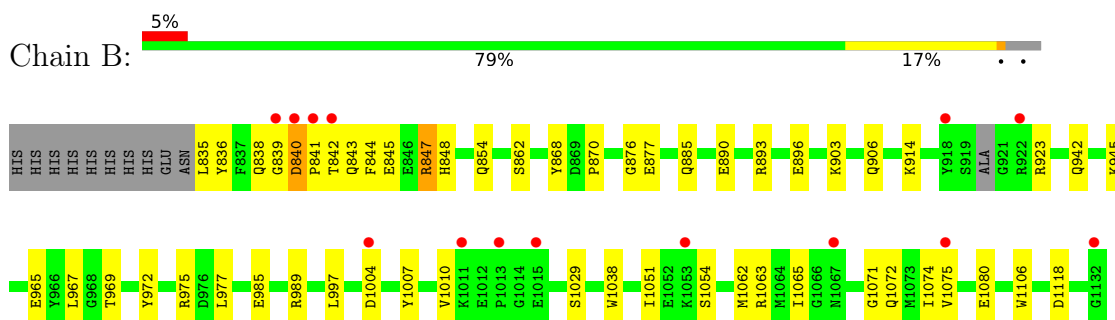
- Molecule 1: Tyrosine-protein kinase JAK2

- Molecule 1: Tyrosine-protein kinase JAK2

- Molecule 1: Tyrosine-protein kinase JAK2

Chain A:

4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	111.67Å 70.43Å 112.79Å 90.00° 90.61° 90.00°	Depositor
Resolution (Å)	40.91 – 2.00 40.91 – 2.00	Depositor EDS
% Data completeness (in resolution range)	86.0 (40.91-2.00) 89.5 (40.91-2.00)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.67 (at 2.00Å)	Xtriage
Refinement program	PHENIX 1.14-3260_3260	Depositor
R, R_{free}	0.218 , 0.244 0.217 , 0.243	Depositor DCC
R_{free} test set	1095 reflections (0.99%)	wwPDB-VP
Wilson B-factor (Å^2)	37.2	Xtriage
Anisotropy	0.384	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.35 , 38.3	EDS
L-test for twinning[2]	$< |L| > = 0.47, < L^2 > = 0.30$	Xtriage
Estimated twinning fraction	0.196 for l,k,-h 0.038 for h,-k,-l 0.028 for l,-k,h	Xtriage
F_o,F_c correlation	0.96	EDS
Total number of atoms	10264	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 3.67% of the height of the origin peak. No significant pseudotranslation is detected.*

---

[1]Intensities estimated from amplitudes.

[2]Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5   Model quality ⓘ

5.1   Standard geometry ⓘ

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

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	0.50	1/2496 (0.0%)	0.72	7/3357 (0.2%)
1	B	0.48	1/2496 (0.0%)	0.69	3/3357 (0.1%)
1	C	0.49	1/2429 (0.0%)	0.71	3/3267 (0.1%)
1	D	0.52	1/2429 (0.0%)	0.70	3/3267 (0.1%)
All	All	0.50	4/9850 (0.0%)	0.71	16/13248 (0.1%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	2
1	B	0	1
1	C	0	1
All	All	0	4

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	847	ARG	CB-CG	-6.06	1.36	1.52
1	D	845	GLU	CB-CG	5.70	1.62	1.52
1	C	1012	GLU	CB-CG	5.46	1.62	1.52
1	A	877	GLU	CD-OE2	5.00	1.31	1.25

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	847	ARG	NE-CZ-NH2	11.16	125.88	120.30
1	A	922	ARG	NE-CZ-NH1	10.10	125.35	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	922	ARG	NE-CZ-NH2	-7.87	116.37	120.30
1	C	860	PHE	CB-CG-CD2	-7.42	115.60	120.80
1	B	847	ARG	CA-CB-CG	-7.29	97.36	113.40
1	D	1068	ASP	CB-CG-OD1	6.87	124.48	118.30
1	D	1068	ASP	CB-CG-OD2	-6.66	112.31	118.30
1	B	847	ARG	CG-CD-NE	6.61	125.67	111.80
1	A	1012	GLU	N-CA-C	6.10	127.47	111.00
1	A	922	ARG	CD-NE-CZ	6.08	132.11	123.60
1	C	860	PHE	CB-CG-CD1	6.06	125.04	120.80
1	D	847	ARG	NE-CZ-NH2	-5.67	117.46	120.30
1	A	1005	LYS	CD-CE-NZ	5.48	124.30	111.70
1	C	1097	GLU	CA-CB-CG	5.46	125.40	113.40
1	A	1005	LYS	CG-CD-CE	-5.31	95.97	111.90
1	A	923	ARG	CB-CG-CD	5.03	124.68	111.60

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1011	LYS	Peptide
1	A	1012	GLU	Peptide
1	B	839	GLY	Peptide
1	C	1069	LYS	Peptide

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	2460	0	2432	38	0
1	B	2460	0	2432	48	0
1	C	2395	0	2377	41	1
1	D	2395	0	2377	29	1
2	A	23	0	18	2	0
2	B	23	0	18	1	0
2	C	23	0	18	2	0
2	D	23	0	18	2	0
3	A	133	0	0	8	1

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	B	115	0	0	8	0
3	C	106	0	0	11	0
3	D	108	0	0	6	1
All	All	10264	0	9690	151	3

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 8.

All (151) 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:C:1064:MET:HE2	1:C:1081:LEU:HD21	1.11	1.11
1:D:843:GLN:N	3:D:1301:HOH:O	1.93	1.00
1:C:1064:MET:CE	1:C:1081:LEU:HD21	1.93	0.98
1:C:1054:SER:O	1:C:1063:ARG:NH2	1.96	0.97
1:A:1007:PTR:O2P	3:A:1303:HOH:O	1.87	0.92
1:A:1052:GLU:O	3:A:1301:HOH:O	1.85	0.92
1:B:847:ARG:HH12	1:B:848:HIS:CE1	1.92	0.87
1:D:1118:ASP:OD2	3:D:1302:HOH:O	1.96	0.82
1:B:841:PRO:HA	1:A:1012:GLU:OE1	1.77	0.82
1:C:874:ASN:O	3:C:1301:HOH:O	1.98	0.81
1:C:938:ARG:NH1	3:C:1304:HOH:O	2.15	0.79
1:B:847:ARG:NH1	1:B:848:HIS:CE1	2.51	0.78
1:A:1112:GLN:NE2	3:A:1304:HOH:O	1.98	0.77
1:C:1125:GLN:NE2	3:C:1303:HOH:O	2.05	0.77
1:C:1064:MET:HE2	1:C:1081:LEU:CD2	2.06	0.76
1:A:1122:ARG:NH1	3:A:1307:HOH:O	2.16	0.76
1:A:958:SER:OG	3:A:1305:HOH:O	2.02	0.76
1:D:918:TYR:CD1	1:D:922:ARG:HG2	2.22	0.75
1:B:1118:ASP:OD1	3:B:1301:HOH:O	2.06	0.74
1:B:862:SER:HB3	1:B:885:GLN:HE22	1.53	0.73
1:B:840:ASP:O	1:A:1012:GLU:OE1	2.06	0.72
1:B:862:SER:CB	1:B:885:GLN:HE22	2.01	0.72
1:D:1071:GLY:O	1:D:1074:ILE:HB	1.90	0.71
1:B:835:LEU:N	3:B:1307:HOH:O	2.23	0.71
1:B:903:LYS:O	3:B:1302:HOH:O	2.09	0.70
1:D:1029:SER:OG	3:D:1303:HOH:O	2.11	0.69
1:C:1070:GLN:HB3	1:C:1073:MET:CB	2.22	0.69
1:C:868:TYR:O	1:C:876:GLY:HA3	1.91	0.69
1:D:943:LYS:HG3	1:D:944:HIS:CE1	2.29	0.68
1:B:1080:GLU:OE2	3:B:1303:HOH:O	2.11	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:845:GLU:HB3	1:C:847:ARG:HH11	1.59	0.67
1:D:1068:ASP:OD1	1:D:1069:LYS:HD3	1.95	0.67
1:A:896:GLU:O	3:A:1306:HOH:O	2.14	0.64
1:B:906:GLN:HB2	1:A:1005:LYS:NZ	2.13	0.64
1:C:999:LYS:NZ	3:C:1307:HOH:O	2.24	0.63
1:A:868:TYR:O	1:A:876:GLY:HA3	1.98	0.63
1:B:906:GLN:HB2	1:A:1005:LYS:HZ1	1.64	0.61
1:C:989:ARG:NH1	3:C:1302:HOH:O	2.00	0.61
1:B:985:GLU:OE1	3:B:1304:HOH:O	2.16	0.61
1:C:1127:ARG:HH11	1:C:1127:ARG:HB2	1.65	0.61
1:B:841:PRO:O	1:B:842:THR:HG22	2.02	0.60
1:B:1054:SER:HB2	1:B:1063:ARG:HH12	1.66	0.60
1:C:1070:GLN:HB3	1:C:1073:MET:HB3	1.82	0.60
1:B:847:ARG:NH1	1:B:848:HIS:NE2	2.48	0.60
1:B:893:ARG:NH1	1:B:896:GLU:OE1	2.35	0.59
1:B:923:ARG:HG2	1:B:923:ARG:HH11	1.68	0.59
1:B:877:GLU:OE2	1:B:914:LYS:NZ	2.23	0.58
1:C:1070:GLN:HB3	1:C:1073:MET:HB2	1.86	0.56
1:C:1104:GLU:OE2	1:C:1122:ARG:NH1	2.37	0.56
1:C:910:ILE:HD12	1:C:995:PHE:HZ	1.71	0.56
1:B:841:PRO:CA	1:A:1012:GLU:OE1	2.53	0.56
1:A:1044:LEU:HD23	1:A:1102:MET:HG3	1.88	0.55
1:A:1104:GLU:HG2	1:A:1114:PRO:HD3	1.89	0.55
1:B:1062:MET:HE1	1:B:1065:ILE:HD11	1.89	0.55
1:A:841:PRO:HD2	1:A:843:GLN:HG3	1.90	0.54
1:A:1027:THR:HG22	1:A:1079:ILE:HD13	1.89	0.54
1:B:1010:VAL:O	1:B:1029:SER:OG	2.20	0.53
1:B:1072:GLN:O	1:B:1075:VAL:HG12	2.08	0.53
1:C:943:LYS:HD2	1:C:944:HIS:NE2	2.23	0.53
1:B:840:ASP:C	1:A:1012:GLU:OE1	2.47	0.53
1:D:918:TYR:HE1	1:D:925:LEU:HD13	1.74	0.52
1:C:889:GLU:HG3	1:C:893:ARG:HH21	1.74	0.52
1:D:1065:ILE:O	1:D:1069:LYS:HE2	2.09	0.52
1:A:1102:MET:HE3	1:A:1106:TRP:CH2	2.45	0.52
1:D:952:LYS:NZ	1:D:988:ASN:OD1	2.42	0.52
1:D:1009:LYS:NZ	3:D:1306:HOH:O	2.34	0.52
1:D:918:TYR:CE1	1:D:922:ARG:HG2	2.46	0.51
1:C:1127:ARG:HH11	1:C:1127:ARG:CB	2.23	0.51
1:A:864:GLU:OE2	1:A:883:LYS:NZ	2.34	0.51
1:B:1004:ASP:OD1	1:B:1004:ASP:N	2.35	0.51
1:D:938:ARG:HE	1:D:980:ARG:HB3	1.76	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:854:GLN:HB2	3:B:1310:HOH:O	2.11	0.51
1:B:975:ARG:HD3	1:B:997:LEU:O	2.10	0.50
1:B:868:TYR:O	1:B:876:GLY:HA3	2.11	0.50
1:C:910:ILE:HD13	1:C:992:ILE:HB	1.92	0.50
1:B:862:SER:HB3	1:B:885:GLN:NE2	2.25	0.50
1:D:965:GLU:O	1:D:969:THR:HG23	2.12	0.50
1:D:918:TYR:CE1	1:D:925:LEU:HD13	2.46	0.50
1:B:906:GLN:CB	1:A:1005:LYS:NZ	2.74	0.50
1:D:1104:GLU:OE1	1:D:1122:ARG:NH1	2.28	0.49
1:B:836:TYR:HB3	1:A:1015:GLU:HB2	1.95	0.49
1:A:976:ASP:HB2	1:A:997:LEU:HD12	1.95	0.49
1:A:985:GLU:OE1	1:A:989:ARG:HD2	2.12	0.49
1:B:1062:MET:HE3	1:B:1074:ILE:HG23	1.93	0.49
1:C:987:GLU:HG2	3:C:1384:HOH:O	2.12	0.48
2:C:1201:RXT:H12	2:C:1201:RXT:H8	1.63	0.48
1:C:987:GLU:HB3	3:C:1397:HOH:O	2.12	0.48
1:C:1073:MET:HG3	1:C:1077:HIS:CE1	2.49	0.48
2:A:1201:RXT:H21	2:A:1201:RXT:H18	1.96	0.48
1:D:937:LEU:HD21	1:D:1047:LEU:HD21	1.94	0.48
1:A:952:LYS:NZ	1:A:988:ASN:OD1	2.46	0.48
1:D:918:TYR:CZ	1:D:922:ARG:HD3	2.48	0.47
1:B:841:PRO:O	1:B:843:GLN:HG2	2.14	0.47
1:B:1071:GLY:O	1:B:1074:ILE:HB	2.14	0.47
1:B:844:PHE:C	1:B:845:GLU:HG2	2.34	0.47
1:B:838:GLN:HG3	1:A:1015:GLU:HA	1.97	0.47
1:C:1006:GLU:OE1	3:C:1305:HOH:O	2.20	0.47
1:A:965:GLU:O	1:A:969:THR:HG23	2.14	0.47
1:B:977:LEU:HB2	3:B:1352:HOH:O	2.15	0.47
1:C:910:ILE:HD12	1:C:995:PHE:CZ	2.50	0.47
1:A:1075:VAL:HG23	3:A:1309:HOH:O	2.16	0.46
1:B:967:LEU:HD22	1:B:972:TYR:HB2	1.98	0.46
1:B:989:ARG:NH2	3:B:1304:HOH:O	2.48	0.46
1:C:848:HIS:HB2	1:C:868:TYR:CE1	2.51	0.46
1:B:890:GLU:H	1:B:890:GLU:CD	2.19	0.46
1:D:1069:LYS:HE3	1:D:1077:HIS:CD2	2.51	0.46
1:A:859:ASN:ND2	1:A:1015:GLU:OE1	2.35	0.46
1:D:844:PHE:HD2	1:D:868:TYR:CG	2.33	0.45
1:B:903:LYS:HD2	1:A:1011:LYS:HD2	1.98	0.45
1:A:922:ARG:HH11	1:A:925:LEU:HD13	1.81	0.45
1:C:980:ARG:NE	3:C:1306:HOH:O	2.21	0.44
1:B:1038:TRP:CE3	1:B:1106:TRP:HA	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:860:PHE:O	1:C:884:LEU:HA	2.17	0.44
1:A:857:LYS:HG3	1:A:862:SER:HB3	1.99	0.44
1:C:944:HIS:HB2	1:C:948:ILE:HD11	1.99	0.44
2:D:1201:RXT:H21	2:D:1201:RXT:H18	2.00	0.44
1:C:857:LYS:HG2	1:C:885:GLN:NE2	2.33	0.43
1:C:1064:MET:HE3	1:C:1081:LEU:HD11	1.99	0.43
2:B:1201:RXT:H12	2:B:1201:RXT:H8	1.80	0.43
1:C:889:GLU:HG3	1:C:893:ARG:NH2	2.33	0.43
1:C:913:TYR:CZ	1:C:915:GLY:HA2	2.53	0.43
1:C:1110:VAL:HG12	3:C:1367:HOH:O	2.19	0.43
1:D:889:GLU:HA	1:D:889:GLU:OE1	2.19	0.43
1:D:1069:LYS:HE3	1:D:1077:HIS:CE1	2.54	0.42
1:B:942:GLN:HG3	1:B:1051:ILE:HB	2.00	0.42
1:D:917:CYS:HB3	1:D:926:LYS:HB2	2.02	0.42
1:D:894:ASP:OD1	1:D:897:ARG:NH2	2.49	0.42
1:B:848:HIS:CD2	1:B:870:PRO:HB3	2.54	0.42
1:C:947:ARG:HH21	1:C:947:ARG:HD2	1.62	0.42
1:C:952:LYS:HD3	1:C:952:LYS:HA	1.84	0.42
1:D:1069:LYS:HE3	1:D:1077:HIS:CG	2.54	0.42
1:A:855:LEU:HD13	2:A:1201:RXT:CAE	2.49	0.42
1:A:971:ARG:NH2	1:A:1002:PRO:O	2.53	0.42
2:D:1201:RXT:H2	2:D:1201:RXT:H12	1.63	0.42
1:B:893:ARG:HD3	1:B:893:ARG:HA	1.74	0.42
1:A:1127:ARG:NH1	3:A:1302:HOH:O	1.85	0.41
1:D:860:PHE:N	3:D:1307:HOH:O	2.35	0.41
1:D:935:GLY:HA2	3:D:1343:HOH:O	2.19	0.41
1:B:1062:MET:HE1	1:B:1065:ILE:CD1	2.50	0.41
1:C:943:LYS:HD2	1:C:944:HIS:CD2	2.55	0.41
1:C:965:GLU:O	1:C:969:THR:HG23	2.21	0.41
1:D:1010:VAL:O	1:D:1029:SER:HB3	2.20	0.41
1:C:918:TYR:CE1	1:C:925:LEU:HD13	2.55	0.41
1:A:919:SER:C	1:A:923:ARG:HG3	2.41	0.41
1:A:1004:ASP:C	1:A:1005:LYS:HG2	2.39	0.41
1:B:906:GLN:CB	1:A:1005:LYS:HZ3	2.33	0.41
1:C:943:LYS:NZ	3:C:1312:HOH:O	2.52	0.41
1:D:844:PHE:CD2	1:D:868:TYR:CD2	3.08	0.41
2:C:1201:RXT:H18	2:C:1201:RXT:H21	2.03	0.41
1:A:855:LEU:HD11	1:A:865:MET:HB2	2.03	0.40
1:B:965:GLU:O	1:B:969:THR:HG23	2.21	0.40

All (3) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:883:LYS:NZ	1:D:1007:PTR:O3P[2_646]	1.30	0.90
1:C:883:LYS:NZ	1:C:1007:PTR:O3P[2_745]	1.30	0.90
3:D:1386:HOH:O	3:A:1312:HOH:O[1_545]	2.12	0.08

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	292/308 (95%)	285 (98%)	4 (1%)	3 (1%)	15	9
1	B	292/308 (95%)	285 (98%)	7 (2%)	0	100	100
1	C	286/308 (93%)	279 (98%)	5 (2%)	2 (1%)	22	16
1	D	286/308 (93%)	278 (97%)	8 (3%)	0	100	100
All	All	1156/1232 (94%)	1127 (98%)	24 (2%)	5 (0%)	34	30

All (5) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	924	ASN
1	A	1013	PRO
1	C	860	PHE
1	C	920	ALA
1	A	1012	GLU

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	270/280 (96%)	268 (99%)	2 (1%)	84	88
1	B	270/280 (96%)	268 (99%)	2 (1%)	84	88
1	C	263/280 (94%)	255 (97%)	8 (3%)	41	41
1	D	263/280 (94%)	260 (99%)	3 (1%)	73	78
All	All	1066/1120 (95%)	1051 (99%)	15 (1%)	67	72

All (15) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	D	892	LEU
1	D	943	LYS
1	D	1083	LYS
1	B	840	ASP
1	B	945	LYS
1	C	847	ARG
1	C	850	LYS
1	C	854	GLN
1	C	860	PHE
1	C	871	LEU
1	C	923	ARG
1	C	1070	GLN
1	C	1127	ARG
1	A	838	GLN
1	A	1053	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (3) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	885	GLN
1	C	1072	GLN
1	C	1077	HIS

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

4 non-standard protein/DNA/RNA residues are modelled in this entry.

WORLDWIDE
wwPDB
PROTEIN DATA BANK

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	#$|Z| > 2$
1	PTR	B	1007	1	15,16,17	1.32	2 (13%)	19,22,24	0.73	1 (5%)
1	PTR	D	1007	1	15,16,17	1.26	1 (6%)	19,22,24	0.94	1 (5%)
1	PTR	A	1007	1	15,16,17	1.32	1 (6%)	19,22,24	0.64	0
1	PTR	C	1007	1	15,16,17	1.31	1 (6%)	19,22,24	0.84	1 (5%)

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
1	PTR	B	1007	1	-	0/10/11/13	0/1/1/1
1	PTR	D	1007	1	-	0/10/11/13	0/1/1/1
1	PTR	A	1007	1	-	0/10/11/13	0/1/1/1
1	PTR	C	1007	1	-	0/10/11/13	0/1/1/1

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	1007	PTR	OH-CZ	-4.46	1.30	1.40
1	B	1007	PTR	OH-CZ	-4.34	1.30	1.40
1	C	1007	PTR	OH-CZ	-4.09	1.31	1.40
1	A	1007	PTR	OH-CZ	-4.09	1.31	1.40
1	B	1007	PTR	P-OH	2.10	1.62	1.59

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	D	1007	PTR	O2P-P-OH	2.87	114.21	105.24
1	B	1007	PTR	O2P-P-OH	2.55	113.22	105.24
1	C	1007	PTR	OH-CZ-CE1	2.12	125.55	119.23

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

3 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	D	1007	PTR	0	1
1	A	1007	PTR	1	0
1	C	1007	PTR	0	1

5.5 Carbohydrates ⓘ

There are no monosaccharides in this entry.

5.6 Ligand geometry ⓘ

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	RXT	B	1201	-	22,26,26	2.14	10 (45%)	20,36,36	2.24	5 (25%)
2	RXT	A	1201	-	22,26,26	2.10	7 (31%)	20,36,36	3.03	9 (45%)
2	RXT	D	1201	-	22,26,26	1.98	8 (36%)	20,36,36	2.30	7 (35%)
2	RXT	C	1201	-	22,26,26	1.94	8 (36%)	20,36,36	2.43	6 (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
2	RXT	B	1201	-	-	0/6/22/22	0/4/4/4
2	RXT	A	1201	-	-	5/6/22/22	0/4/4/4
2	RXT	D	1201	-	-	0/6/22/22	0/4/4/4
2	RXT	C	1201	-	-	1/6/22/22	0/4/4/4

All (33) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	1201	RXT	CAG-NAW	-5.38	1.30	1.35
2	B	1201	RXT	CAG-NAW	-5.16	1.30	1.35
2	D	1201	RXT	CAG-NAW	-4.37	1.31	1.35
2	C	1201	RXT	CAI-CAL	-3.73	1.36	1.51
2	A	1201	RXT	CAH-CAK	-3.67	1.36	1.51
2	D	1201	RXT	CAH-CAK	-3.65	1.36	1.51
2	C	1201	RXT	CAG-NAW	-3.62	1.32	1.35
2	B	1201	RXT	CAI-CAL	-3.54	1.37	1.51
2	A	1201	RXT	CAI-CAL	-3.53	1.37	1.51
2	D	1201	RXT	CAI-CAL	-3.49	1.37	1.51
2	B	1201	RXT	CAH-CAK	-3.45	1.37	1.51
2	C	1201	RXT	CAH-CAK	-3.30	1.38	1.51
2	A	1201	RXT	CAJ-CAB	3.20	1.53	1.46
2	D	1201	RXT	CAJ-CAB	3.15	1.53	1.46
2	B	1201	RXT	CAJ-CAB	3.08	1.52	1.46
2	C	1201	RXT	CAQ-CAR	2.96	1.53	1.49
2	B	1201	RXT	CAV-NAW	-2.72	1.45	1.49
2	A	1201	RXT	CAI-CAH	2.71	1.67	1.48
2	C	1201	RXT	CAI-CAH	2.70	1.67	1.48
2	D	1201	RXT	CAI-CAH	2.67	1.67	1.48
2	C	1201	RXT	CAK-CAU	2.64	1.60	1.53
2	D	1201	RXT	CAK-CAU	2.62	1.60	1.53
2	B	1201	RXT	CAL-CAU	2.61	1.60	1.53
2	C	1201	RXT	CAL-CAU	2.54	1.60	1.53
2	B	1201	RXT	CAI-CAH	2.52	1.66	1.48
2	A	1201	RXT	CAV-NAW	-2.38	1.45	1.49
2	B	1201	RXT	CAQ-CAR	2.38	1.52	1.49
2	D	1201	RXT	CAQ-CAR	2.23	1.52	1.49
2	D	1201	RXT	CAL-CAU	2.16	1.59	1.53
2	A	1201	RXT	CAK-CAU	2.07	1.59	1.53
2	C	1201	RXT	CAV-NAW	-2.05	1.46	1.49
2	B	1201	RXT	CAT-NAN	2.02	1.38	1.34
2	B	1201	RXT	CAK-CAU	2.02	1.59	1.53

All (27) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	1201	RXT	CAV-CAJ-CAB	-8.43	99.31	112.12
2	C	1201	RXT	CAS-CAR-NAM	-7.00	118.43	123.04
2	B	1201	RXT	CAS-CAR-NAM	-6.34	118.86	123.04
2	A	1201	RXT	CAS-CAR-NAM	-6.04	119.07	123.04
2	D	1201	RXT	CAS-CAR-NAM	-6.01	119.08	123.04

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	D	1201	RXT	NAP-CAE-NAM	-4.94	120.96	128.68
2	B	1201	RXT	NAP-CAE-NAM	-4.74	121.26	128.68
2	C	1201	RXT	NAP-CAE-NAM	-4.71	121.32	128.68
2	A	1201	RXT	NAP-CAE-NAM	-4.41	121.79	128.68
2	A	1201	RXT	CAG-NAW-CAV	-3.79	122.13	125.48
2	B	1201	RXT	CAE-NAP-CAT	3.38	121.37	113.45
2	C	1201	RXT	CAE-NAP-CAT	3.28	121.13	113.45
2	D	1201	RXT	CAE-NAP-CAT	3.23	121.02	113.45
2	A	1201	RXT	CAE-NAP-CAT	3.22	121.00	113.45
2	D	1201	RXT	CAG-NAW-CAV	-3.04	122.79	125.48
2	C	1201	RXT	CAL-CAU-CAV	-2.94	106.96	112.73
2	C	1201	RXT	CAE-NAM-CAR	2.92	122.17	117.69
2	A	1201	RXT	CAH-CAK-CAU	-2.92	96.89	104.96
2	D	1201	RXT	CAK-CAU-CAV	-2.72	107.38	112.73
2	A	1201	RXT	CAI-CAL-CAU	-2.70	97.49	104.96
2	D	1201	RXT	CAE-NAM-CAR	2.65	121.76	117.69
2	C	1201	RXT	CAG-NAW-CAV	-2.58	123.20	125.48
2	B	1201	RXT	CAE-NAM-CAR	2.46	121.47	117.69
2	A	1201	RXT	CAQ-CAR-NAM	2.28	118.75	115.32
2	B	1201	RXT	CAJ-CAB-NAA	-2.20	172.02	177.82
2	D	1201	RXT	CAQ-CAR-NAM	2.12	118.52	115.32
2	A	1201	RXT	CAE-NAM-CAR	2.08	120.89	117.69

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	1201	RXT	CAK-CAU-CAV-CAJ
2	A	1201	RXT	CAK-CAU-CAV-NAW
2	A	1201	RXT	CAL-CAU-CAV-CAJ
2	A	1201	RXT	CAL-CAU-CAV-NAW
2	A	1201	RXT	CAB-CAJ-CAV-CAU
2	C	1201	RXT	CAK-CAU-CAV-CAJ

There are no ring outliers.

4 monomers are involved in 7 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	1201	RXT	1	0
2	A	1201	RXT	2	0
2	D	1201	RXT	2	0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	C	1201	RXT	2	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 RXT B 1201

Bond lengths

Bond angles

Torsions

Rings

Ligand RXT A 1201

Bond lengths

Bond angles

Torsions

Rings

Ligand RXT D 1201

Bond lengths

Bond angles

Torsions

Rings

Ligand RXT C 1201
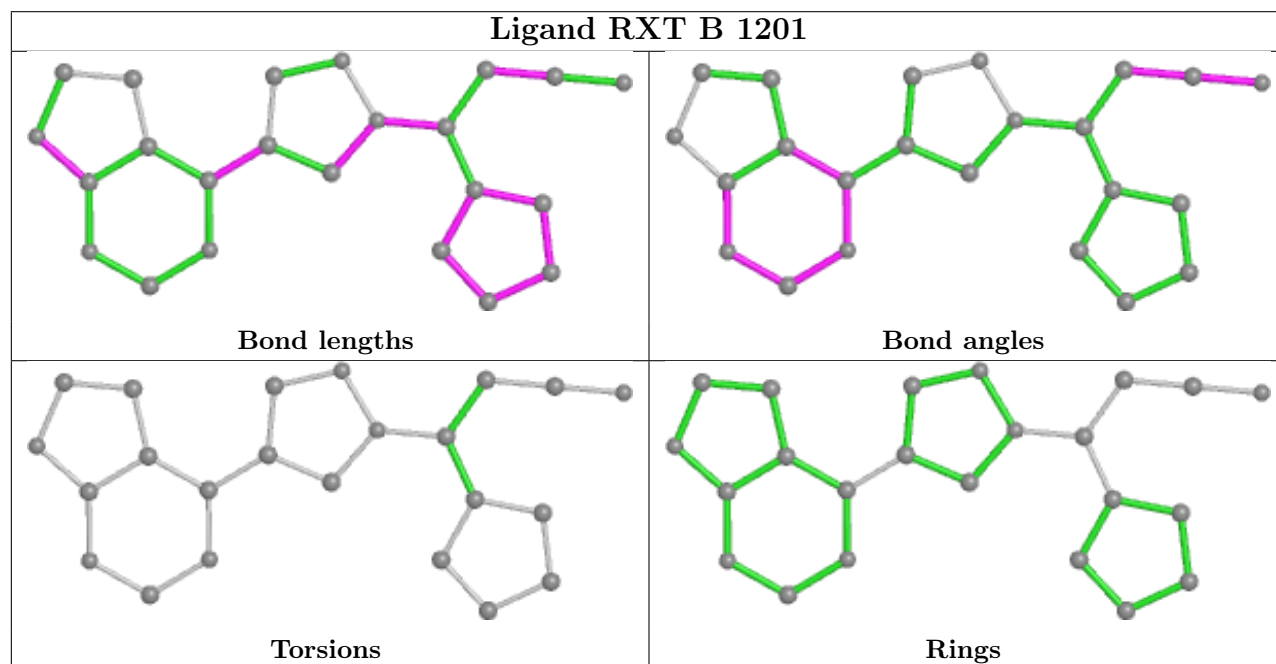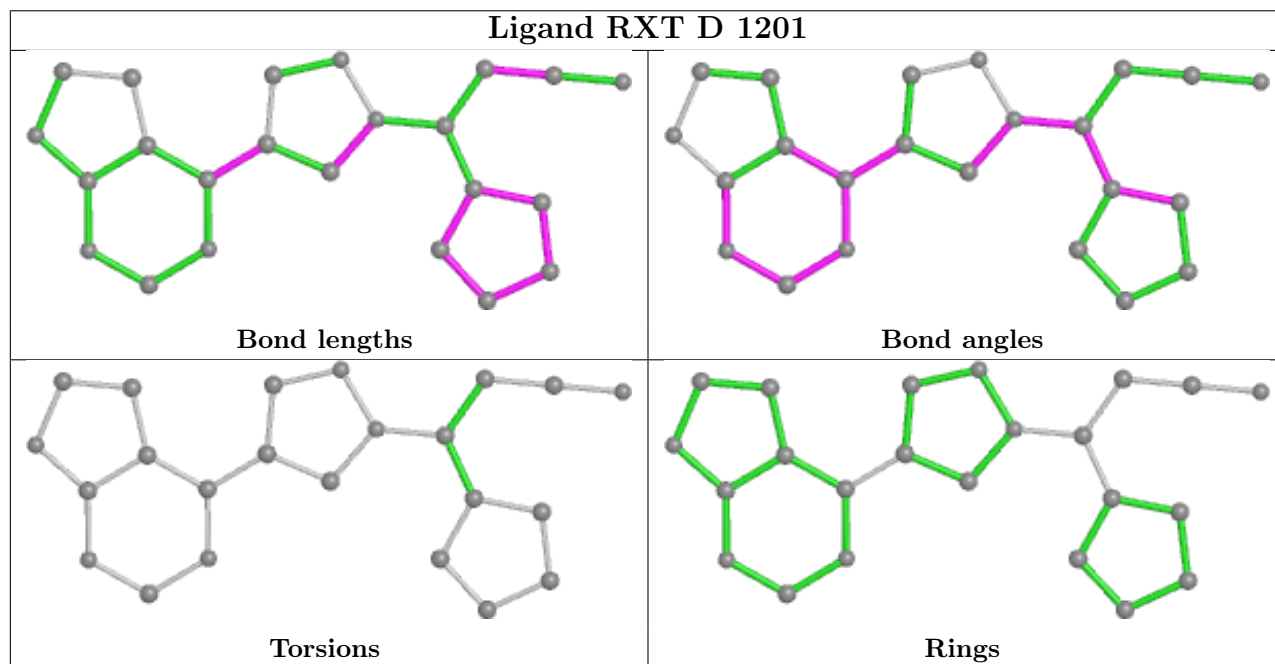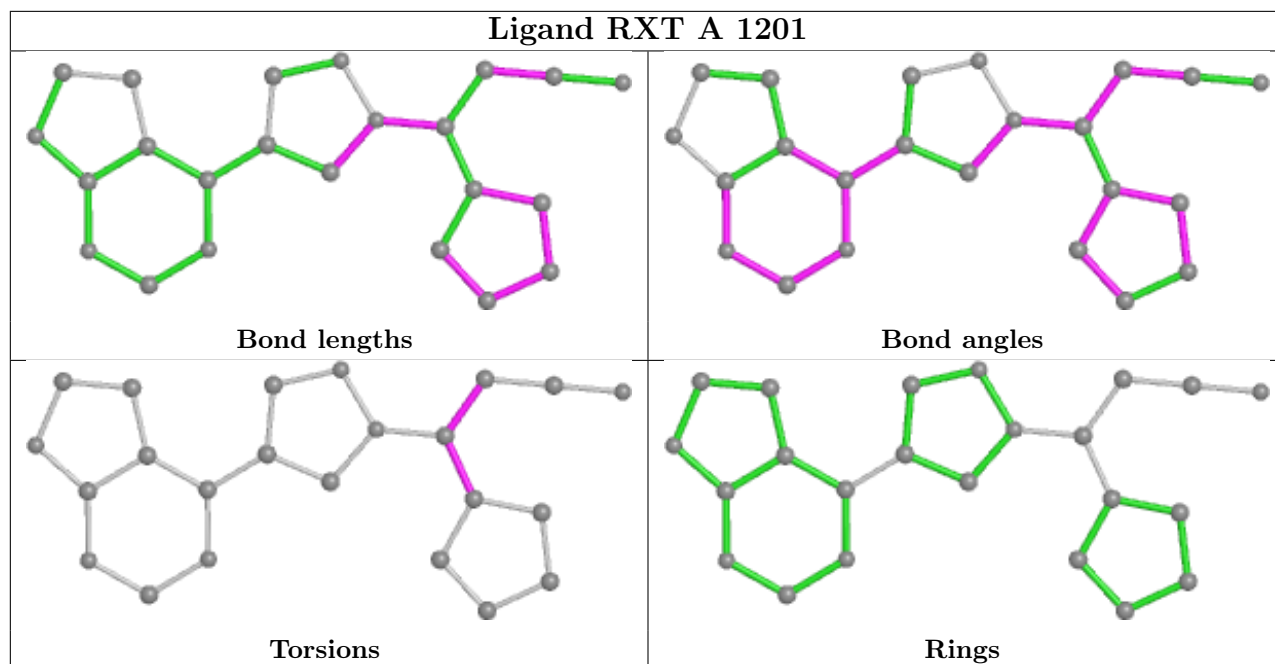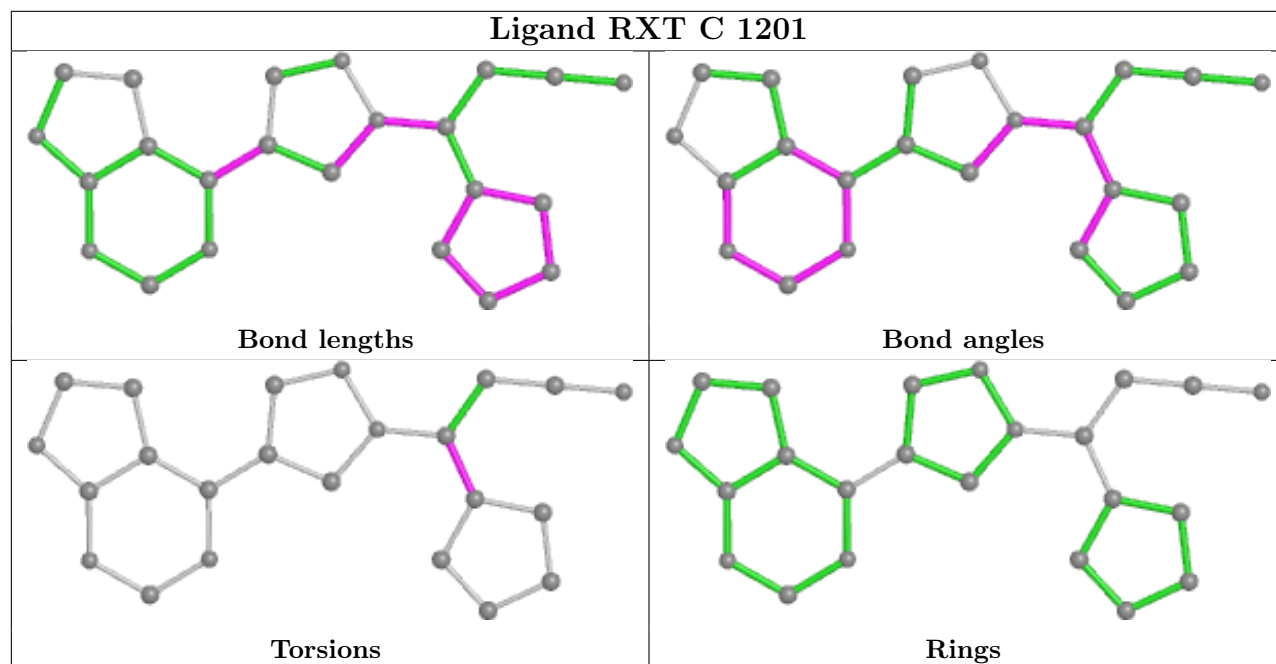
5.7 Other polymers ⓘ

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	296/308 (96%)	0.36	14 (4%)	31	30	32, 47, 81, 115	0
1	B	296/308 (96%)	0.47	14 (4%)	31	30	34, 48, 85, 109	0
1	C	288/308 (93%)	0.43	12 (4%)	36	35	31, 44, 89, 115	0
1	D	288/308 (93%)	0.45	15 (5%)	27	26	30, 45, 84, 110	0
All	All	1168/1232 (94%)	0.43	55 (4%)	31	30	30, 46, 85, 115	0

All (55) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	920	ALA	9.0
1	C	860	PHE	6.3
1	B	839	GLY	5.9
1	A	839	GLY	5.8
1	B	1011	LYS	5.3
1	D	922	ARG	5.2
1	C	921	GLY	5.1
1	D	920	ALA	4.9
1	B	840	ASP	4.8
1	B	1132	GLY	4.7
1	D	921	GLY	4.6
1	A	921	GLY	4.4
1	C	1072	GLN	4.4
1	A	840	ASP	4.3
1	A	918	TYR	3.9
1	A	922	ARG	3.7
1	B	922	ARG	3.5
1	A	841	PRO	3.5
1	C	1053	LYS	3.3
1	C	919	SER	3.3
1	D	846	GLU	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	B	1013	PRO	3.2
1	B	1015	GLU	3.2
1	D	923	ARG	3.1
1	B	918	TYR	3.0
1	C	918	TYR	3.0
1	A	923	ARG	2.9
1	B	841	PRO	2.9
1	A	924	ASN	2.7
1	A	1132	GLY	2.7
1	C	847	ARG	2.7
1	D	1070	GLN	2.7
1	A	1125	GLN	2.5
1	C	857	LYS	2.5
1	C	923	ARG	2.4
1	D	845	GLU	2.3
1	B	842	THR	2.3
1	D	847	ARG	2.3
1	A	1013	PRO	2.3
1	D	859	ASN	2.3
1	D	874	ASN	2.3
1	D	1003	GLN	2.3
1	B	1067	ASN	2.2
1	D	1073	MET	2.2
1	C	922	ARG	2.2
1	D	1075	VAL	2.2
1	D	943	LYS	2.2
1	B	1004	ASP	2.2
1	B	1053	LYS	2.1
1	D	1072	GLN	2.1
1	B	1075	VAL	2.1
1	A	835	LEU	2.1
1	A	860	PHE	2.0
1	C	1074	ILE	2.0
1	A	877	GLU	2.0

6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

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(Å²)	Q<0.9
1	PTR	D	1007	16/17	0.88	0.15	45,56,85,101	0
1	PTR	A	1007	16/17	0.90	0.14	52,64,84,88	0
1	PTR	B	1007	16/17	0.91	0.14	58,70,87,95	0
1	PTR	C	1007	16/17	0.94	0.11	42,60,93,95	0

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(Å²)	Q<0.9
2	RXT	A	1201	23/23	0.94	0.13	34,38,42,43	0
2	RXT	D	1201	23/23	0.95	0.14	34,37,44,49	0
2	RXT	C	1201	23/23	0.96	0.13	32,36,46,49	0
2	RXT	B	1201	23/23	0.96	0.13	33,38,43,45	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 RXT A 1201:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
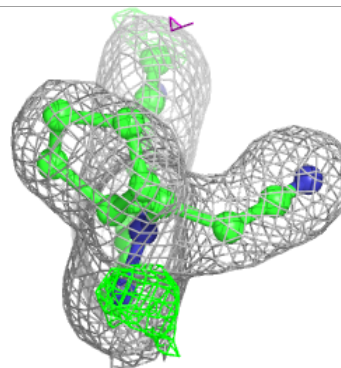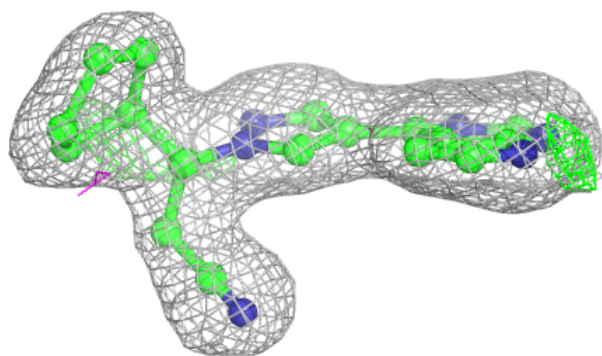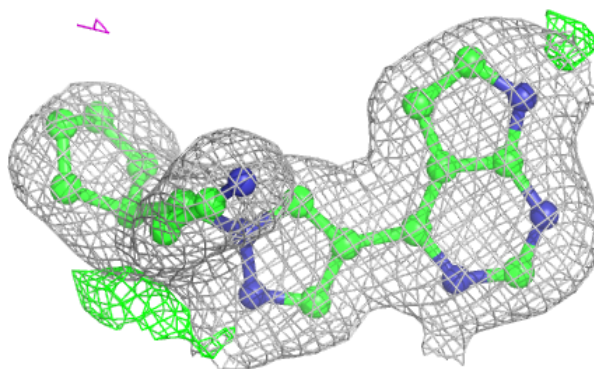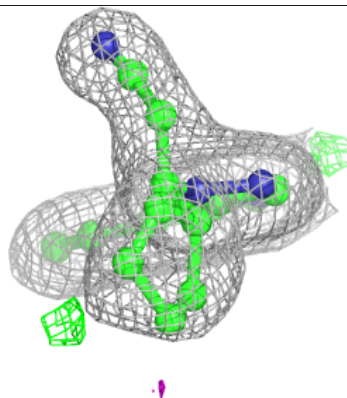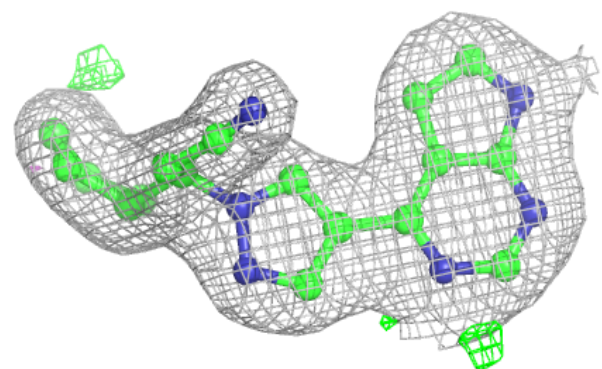and green (positive)
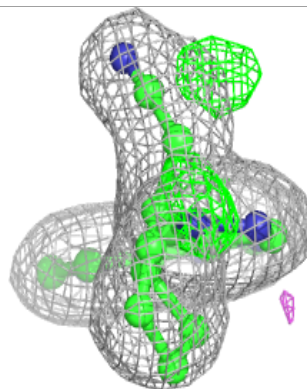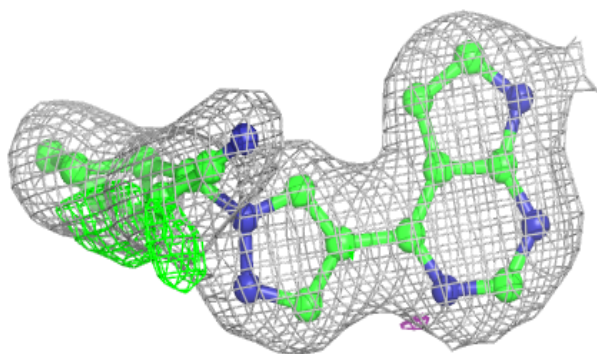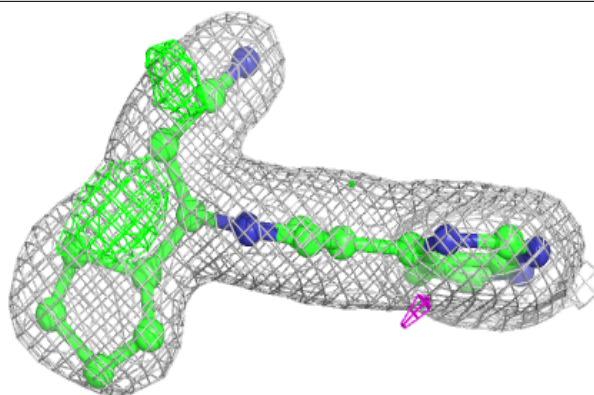
Electron density around RXT D 1201:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
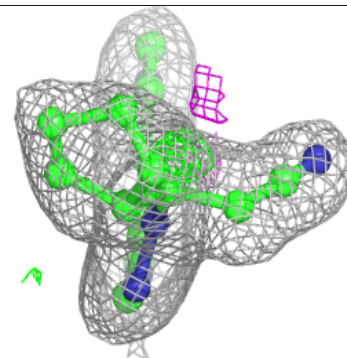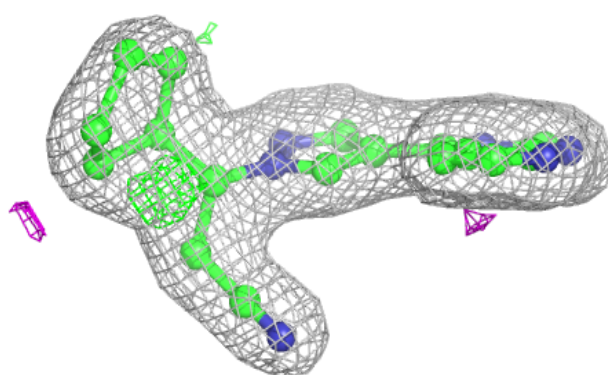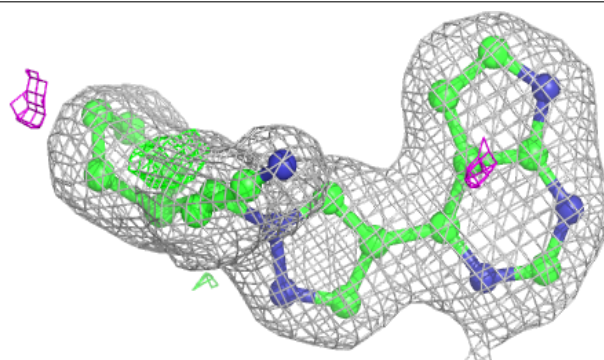
Electron density around RXT C 1201:

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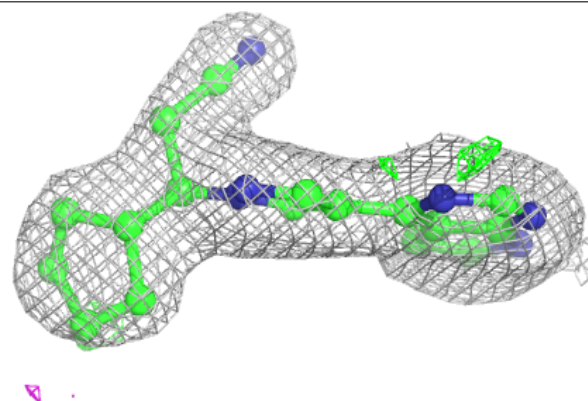mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

Electron density around RXT B 1201:

$2mF_o$-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.