



wwPDB X-ray Structure Validation Summary Report ⓘ

Mar 6, 2026 – 07:37 PM UTC

PDB ID : 9Q66 / pdb_00009q66
Title : Human prolyl endopeptidase (PREP) - complex with JP-4-1-7
Authors : Fucci, I.J.; Thakur, K.; Pandian, J.; Yoo, E.; Monteiro, D.C.F.
Deposited on : 2025-08-21
Resolution : 2.01 Å(reported)

This is a wwPDB X-ray Structure Validation Summary 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	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

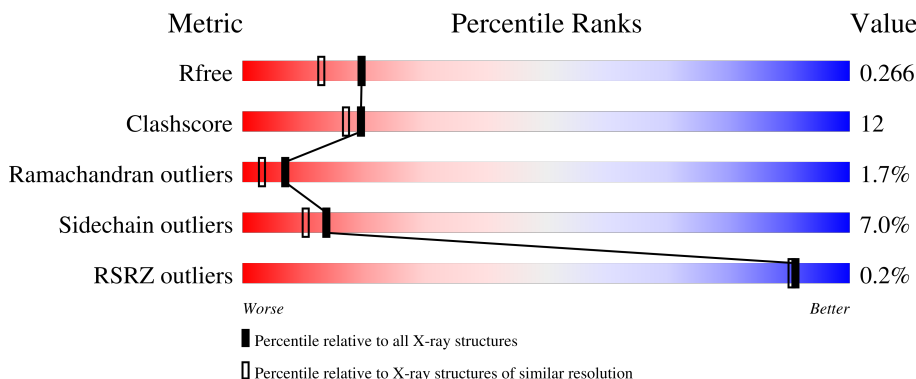
1 Overall quality at a glance ⓘ

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.01 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}	180053	10052 (2.00-2.00)
Clashscore	190562	11152 (2.00-2.00)
Ramachandran outliers	187476	11031 (2.00-2.00)
Sidechain outliers	187428	11029 (2.00-2.00)
RSRZ outliers	180081	10067 (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 $\leq 5\%$. 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	711	74% 21% . ..
1	B	711	56% 34% 8% ..
1	C	711	57% 33% 7% ..

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
4	GOL	B	803	-	-	X	-

2 Entry composition [i](#)

There are 6 unique types of molecules in this entry. The entry contains 34673 atoms, of which 16734 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.

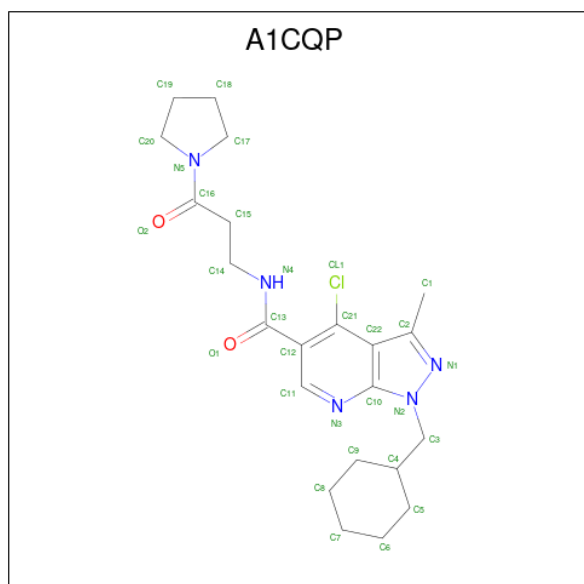
- Molecule 1 is a protein called Prolyl endopeptidase.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	707	Total	C	H	N	O	S	176	2	0
			11249	3654	5552	950	1066	27			
1	B	707	Total	C	H	N	O	S	176	0	0
			11186	3639	5513	941	1066	27			
1	C	707	Total	C	H	N	O	S	176	0	0
			11186	3639	5513	941	1066	27			

There are 3 discrepancies between the modelled and reference sequences:

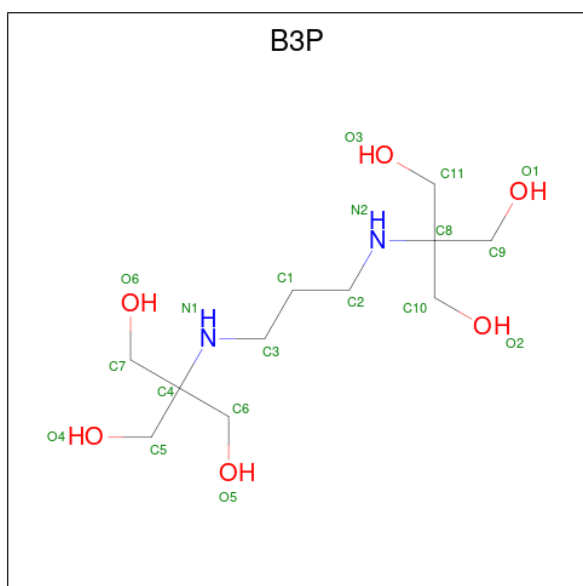
Chain	Residue	Modelled	Actual	Comment	Reference
A	0	GLY	-	expression tag	UNP P48147
B	0	GLY	-	expression tag	UNP P48147
C	0	GLY	-	expression tag	UNP P48147

- Molecule 2 is 4-chloro-1-(cyclohexylmethyl)-3-methyl-N-[3-oxo-3-(pyrrolidin-1-yl)propyl]-1H-pyrazolo[3,4-b]pyridine-5-carboxamide (CCD ID: A1CQP) (formula: $C_{22}H_{30}ClN_5O_2$) (labeled as "Ligand of Interest" by depositor).



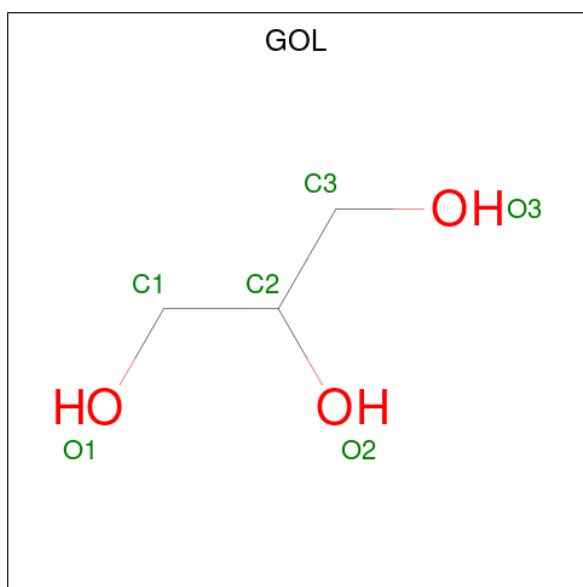
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	H	N	O	3	0
			59	22	30	5	2		
2	B	1	Total	C	H	N	O	3	0
			59	22	30	5	2		
2	C	1	Total	C	H	N	O	3	0
			59	22	30	5	2		

- Molecule 3 is 2-[3-(2-HYDROXY-1,1-DIHYDROXYMETHYL-ETHYLAMINO)-PROPYLAMINO]-2-HYDROXYMETHYL-PROPANE-1,3-DIOL (CCD ID: B3P) (formula: $C_{11}H_{26}N_2O_6$).



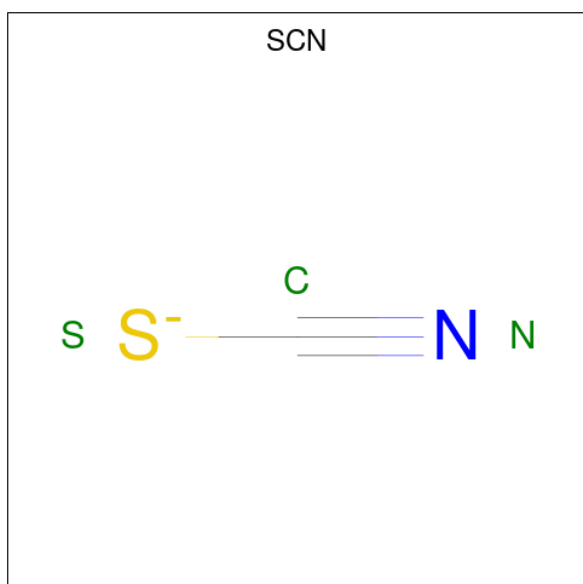
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total	C	H	N	O	8	0
			45	11	26	2	6		

- Molecule 4 is GLYCEROL (CCD ID: GOL) (formula: $C_3H_8O_3$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
4	A	1	Total	C	H	O	3	0
			14	3	8	3		
4	A	1	Total	C	H	O	3	0
			14	3	8	3		
4	B	1	Total	C	H	O	3	0
			14	3	8	3		
4	B	1	Total	C	H	O	3	0
			14	3	8	3		
4	C	1	Total	C	H	O	3	0
			14	3	8	3		

- Molecule 5 is THIOCYANATE ION (CCD ID: SCN) (formula: CNS).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	A	1	Total C N S 3 1 1 1	0	0
5	A	1	Total C N S 3 1 1 1	0	0
5	A	1	Total C N S 3 1 1 1	0	0
5	B	1	Total C N S 3 1 1 1	0	0
5	B	1	Total C N S 3 1 1 1	0	0
5	C	1	Total C N S 3 1 1 1	0	0
5	C	1	Total C N S 3 1 1 1	0	0

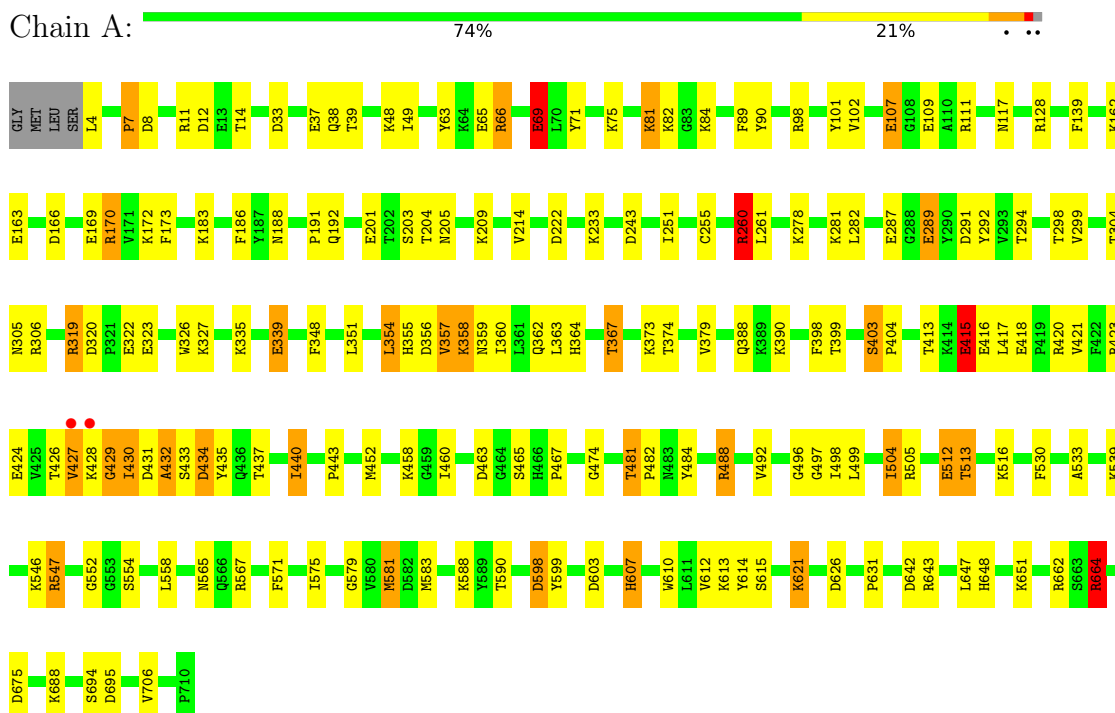
- Molecule 6 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	A	421	Total O 421 421	0	0
6	B	188	Total O 188 188	0	0
6	C	130	Total O 130 130	0	0

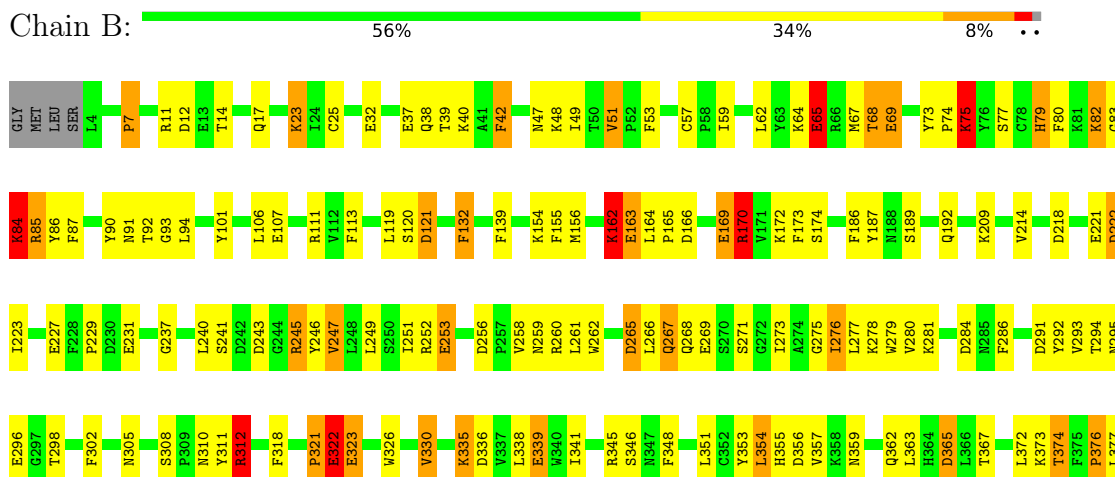
3 Residue-property plots

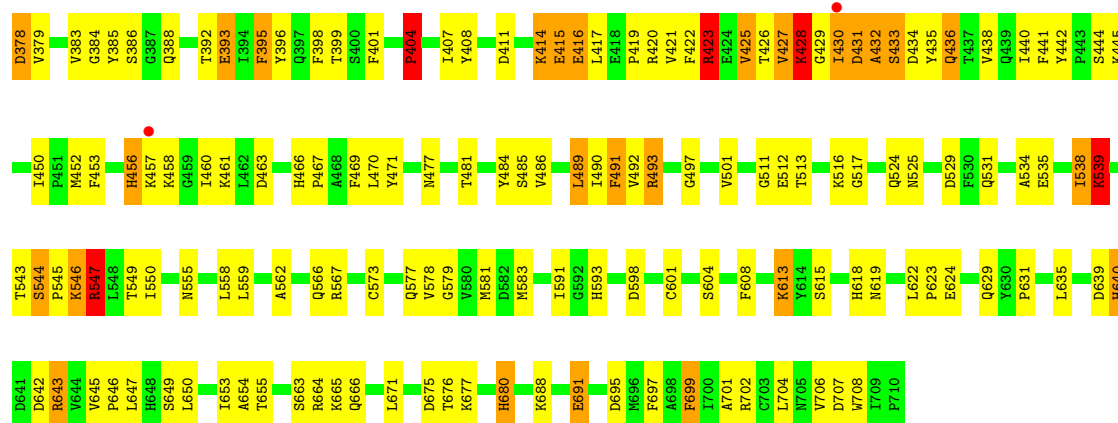
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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: Prolyl endopeptidase



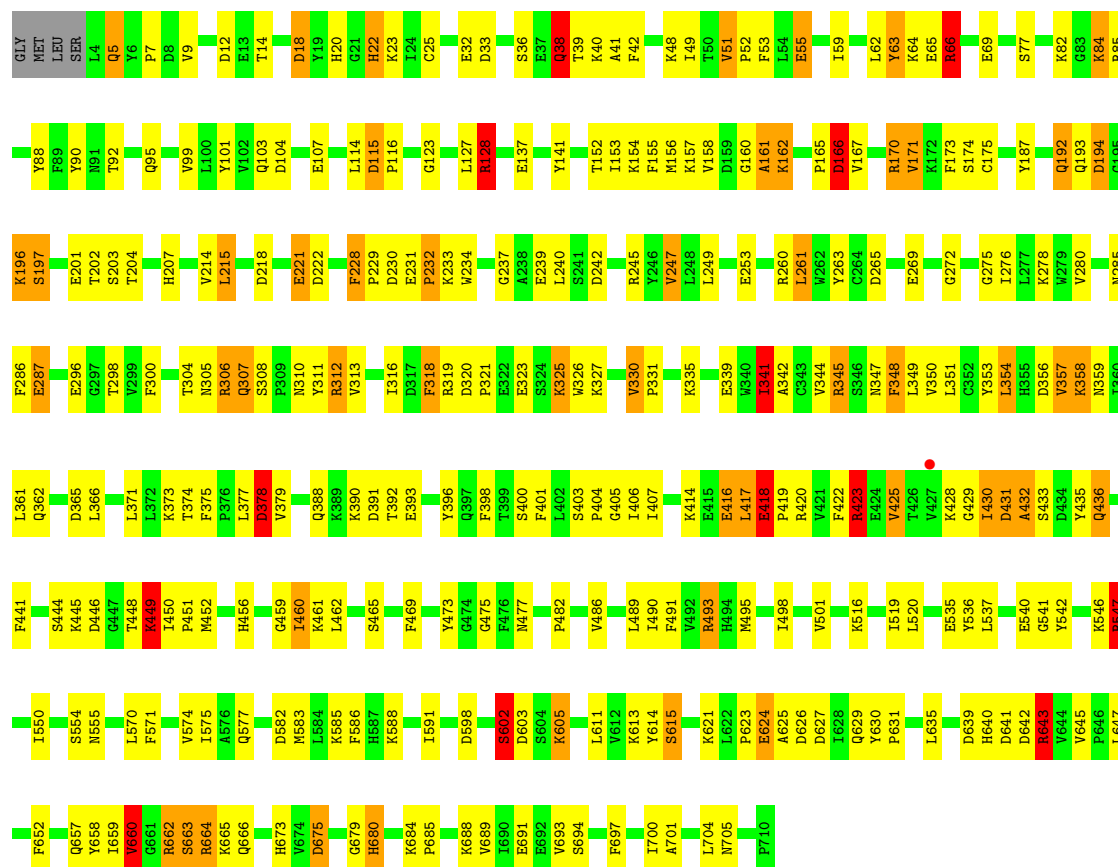
• Molecule 1: Prolyl endopeptidase





● Molecule 1: Prolyl endopeptidase

Chain C: 57% 33% 7% ..



4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	105.85Å 67.29Å 158.02Å 90.00° 99.11° 90.00°	Depositor
Resolution (Å)	44.00 – 2.01 44.00 – 2.01	Depositor EDS
% Data completeness (in resolution range)	73.4 (44.00-2.01) 73.4 (44.00-2.01)	Depositor EDS
R_{merge}	0.27	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.57 (at 2.01Å)	Xtriage
Refinement program	REFMAC 5.8.0430 (refmacat 0.4.105)	Depositor
R, R_{free}	0.184 , 0.266 0.185 , 0.266	Depositor DCC
R_{free} test set	7315 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å ²)	24.5	Xtriage
Anisotropy	0.120	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.37 , 33.7	EDS
L-test for twinning ²	$\langle L \rangle = 0.44$, $\langle L^2 \rangle = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.95	EDS
Total number of atoms	34673	wwPDB-VP
Average B, all atoms (Å ²)	34.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 7.72% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ 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: A1CQP, B3P, SCN, GOL

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	1.14	8/5858 (0.1%)	1.76	104/7939 (1.3%)
1	B	1.02	5/5825 (0.1%)	1.78	118/7897 (1.5%)
1	C	0.95	2/5825 (0.0%)	1.78	136/7897 (1.7%)
All	All	1.04	15/17508 (0.1%)	1.77	358/23733 (1.5%)

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	12
1	B	0	15
1	C	0	6
All	All	0	33

The worst 5 of 15 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	618	HIS	CE1-NE2	6.37	1.39	1.32
1	C	615	SER	CA-CB	-6.09	1.43	1.53
1	B	555	ASN	C-O	-5.97	1.16	1.24
1	A	581	MET	C-O	-5.89	1.16	1.24
1	A	567	ARG	NE-CZ	5.86	1.39	1.33

The worst 5 of 358 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	624	GLU	N-CA-CB	12.79	129.33	110.53
1	B	339	GLU	CB-CA-C	-11.35	88.66	110.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	513	THR	CA-CB-OG1	-10.65	93.63	109.60
1	B	339	GLU	N-CA-CB	10.63	126.09	110.26
1	C	378	ASP	CA-CB-CG	-10.35	102.25	112.60

There are no chirality outliers.

5 of 33 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	170	ARG	Sidechain
1	A	260	ARG	Sidechain
1	A	306	ARG	Sidechain
1	A	66[A]	ARG	Sidechain
1	A	66[B]	ARG	Sidechain

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	5697	5552	5529	64	0
1	B	5673	5513	5490	167	0
1	C	5673	5513	5490	161	1
2	A	29	30	0	0	0
2	B	29	30	0	0	0
2	C	29	30	0	0	0
3	A	19	26	26	1	0
4	A	12	16	16	2	0
4	B	12	16	16	4	0
4	C	6	8	8	1	0
5	A	9	0	0	0	0
5	B	6	0	0	1	0
5	C	6	0	0	0	0
6	A	421	0	0	11	1
6	B	188	0	0	11	1
6	C	130	0	0	8	0
All	All	17939	16734	16575	392	2

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 12.

The worst 5 of 392 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:192:GLN:OE1	1:C:192:GLN:HA	1.53	1.03
1:B:69:GLU:HG2	1:C:287:GLU:OE2	1.75	0.87
1:B:107:GLU:OE1	6:B:901:HOH:O	1.94	0.85
1:B:339:GLU:OE2	1:B:354:LEU:CD2	2.24	0.85
1:C:192:GLN:OE1	1:C:192:GLN:CA	2.27	0.82

All (2) 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)
6:A:1320:HOH:O	6:B:1086:HOH:O[2_546]	2.07	0.13
1:C:25:CYS:H	1:C:194:ASP:OD1[2_647]	1.53	0.07

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	708/711 (100%)	672 (95%)	29 (4%)	7 (1%)	12	8
1	B	705/711 (99%)	634 (90%)	57 (8%)	14 (2%)	6	2
1	C	705/711 (99%)	644 (91%)	47 (7%)	14 (2%)	6	2
All	All	2118/2133 (99%)	1950 (92%)	133 (6%)	35 (2%)	7	3

5 of 35 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	404	PRO
1	B	430	ILE
1	B	431	ASP

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Mol	Chain	Res	Type
1	C	196	LYS
1	C	197	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	617/617 (100%)	589 (96%)	28 (4%)	24	23
1	B	614/617 (100%)	561 (91%)	53 (9%)	10	6
1	C	614/617 (100%)	566 (92%)	48 (8%)	11	8
All	All	1845/1851 (100%)	1716 (93%)	129 (7%)	14	10

5 of 129 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	C	449	LYS
1	C	588	LYS
1	B	322	GLU
1	B	321	PRO
1	C	602	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 26 such sidechains are listed below:

Mol	Chain	Res	Type
1	C	56	GLN
1	C	307	GLN
1	C	657	GLN
1	C	205	ASN
1	C	355	HIS

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

16 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	$\# Z > 2$
5	SCN	A	805	-	1,2,2	0.59	0	0,1,1	-	-
5	SCN	A	807	-	1,2,2	2.33	1 (100%)	0,1,1	-	-
5	SCN	C	802	-	1,2,2	0.36	0	0,1,1	-	-
5	SCN	A	804	-	1,2,2	0.17	0	0,1,1	-	-
3	B3P	A	802	-	18,18,18	0.93	1 (5%)	23,23,23	1.51	5 (21%)
4	GOL	C	803	-	5,5,5	0.50	0	5,5,5	1.16	0
2	A1CQP	B	801	1	32,32,33	0.94	1 (3%)	43,44,46	2.62	15 (34%)
4	GOL	B	803	-	5,5,5	0.33	0	5,5,5	0.35	0
5	SCN	B	805	-	1,2,2	0.00	0	0,1,1	-	-
2	A1CQP	A	801	1	32,32,33	1.40	5 (15%)	43,44,46	3.02	10 (23%)
4	GOL	A	803	-	5,5,5	0.30	0	5,5,5	1.16	0
2	A1CQP	C	801	1	32,32,33	1.08	3 (9%)	43,44,46	1.62	8 (18%)
4	GOL	B	802	-	5,5,5	0.38	0	5,5,5	0.44	0
5	SCN	B	804	-	1,2,2	0.33	0	0,1,1	-	-
5	SCN	C	804	-	1,2,2	0.73	0	0,1,1	-	-
4	GOL	A	806	-	5,5,5	0.24	0	5,5,5	0.53	0

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	B3P	A	802	-	-	6/28/28/28	-
4	GOL	C	803	-	-	1/4/4/4	-
2	A1CQP	B	801	1	-	9/18/33/33	0/4/4/4
4	GOL	B	803	-	-	2/4/4/4	-
2	A1CQP	A	801	1	-	7/18/33/33	0/4/4/4
4	GOL	A	803	-	-	2/4/4/4	-
2	A1CQP	C	801	1	-	7/18/33/33	0/4/4/4
4	GOL	B	802	-	-	0/4/4/4	-
4	GOL	A	806	-	-	3/4/4/4	-

The worst 5 of 11 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	801	A1CQP	C11-C12	3.34	1.44	1.39
2	A	801	A1CQP	C21-C12	3.06	1.44	1.39
3	A	802	B3P	C11-C8	-3.02	1.50	1.53
2	C	801	A1CQP	C22-C10	3.01	1.45	1.41
2	C	801	A1CQP	C2-N1	2.87	1.35	1.32

The worst 5 of 38 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	801	A1CQP	C4-C3-N2	16.76	123.18	112.03
2	B	801	A1CQP	C4-C3-N2	9.29	118.21	112.03
2	B	801	A1CQP	C15-C14-N4	5.96	124.68	112.00
2	B	801	A1CQP	C21-C12-C11	4.86	122.91	117.92
2	B	801	A1CQP	C14-N4-C13	-4.64	111.61	122.11

There are no chirality outliers.

5 of 37 torsion outliers are listed below:

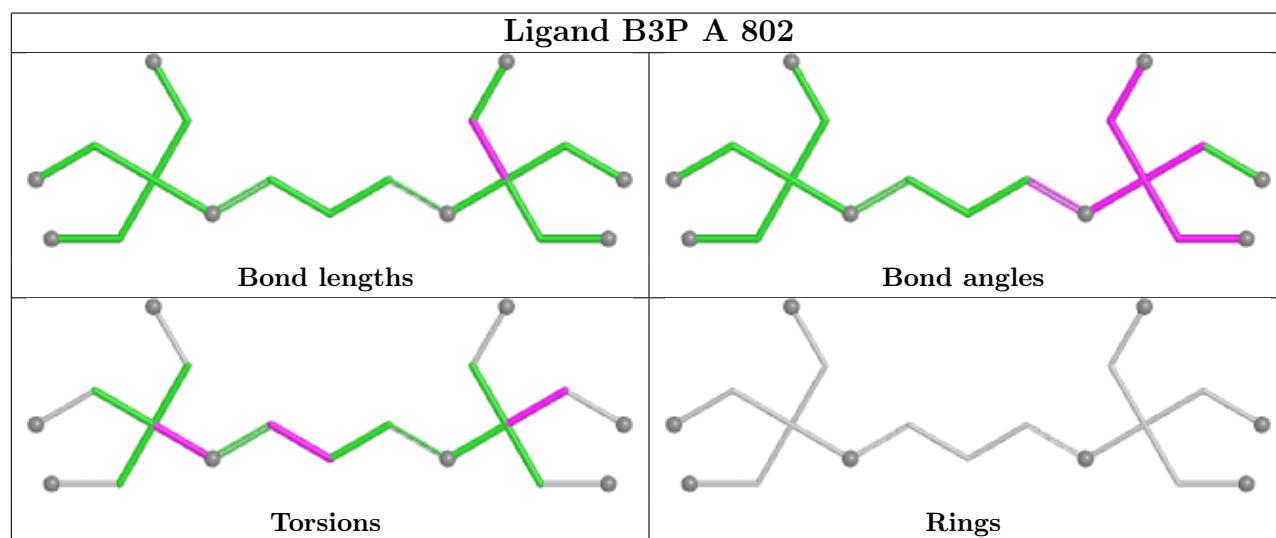
Mol	Chain	Res	Type	Atoms
2	A	801	A1CQP	N2-C3-C4-C5
2	A	801	A1CQP	N2-C3-C4-C9
2	B	801	A1CQP	C15-C16-N5-C17
2	B	801	A1CQP	C15-C16-N5-C20
3	A	802	B3P	O2-C10-C8-N2

There are no ring outliers.

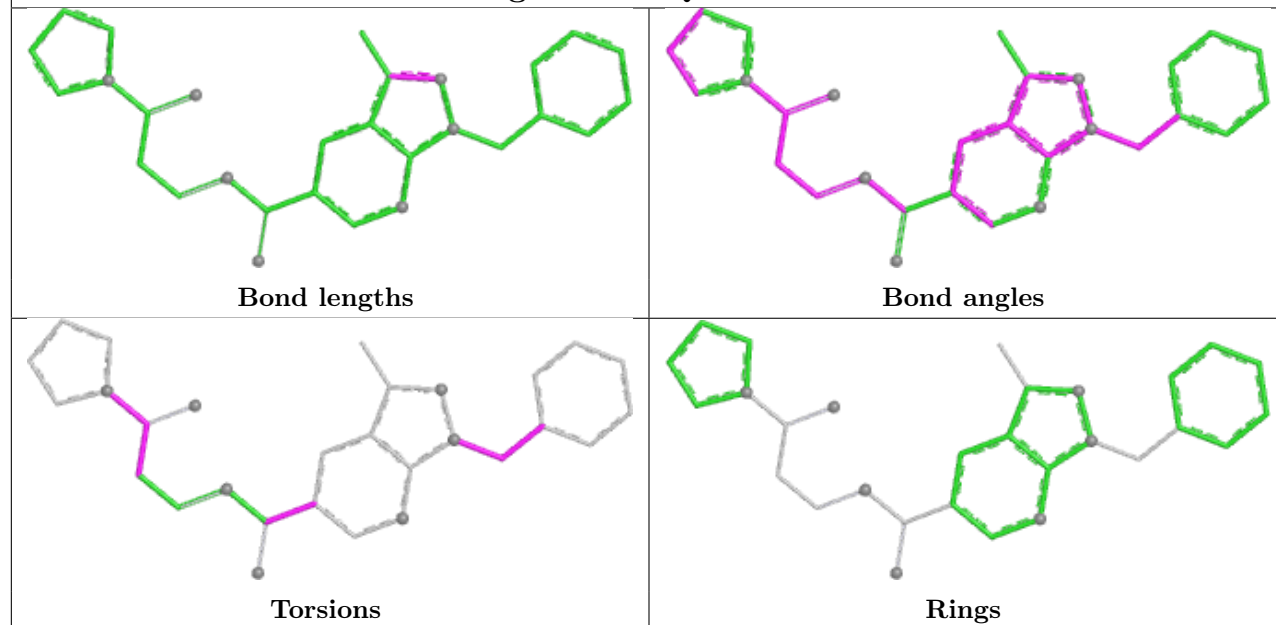
6 monomers are involved in 9 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	802	B3P	1	0
4	C	803	GOL	1	0
4	B	803	GOL	4	0
4	A	803	GOL	1	0
5	B	804	SCN	1	0
4	A	806	GOL	1	0

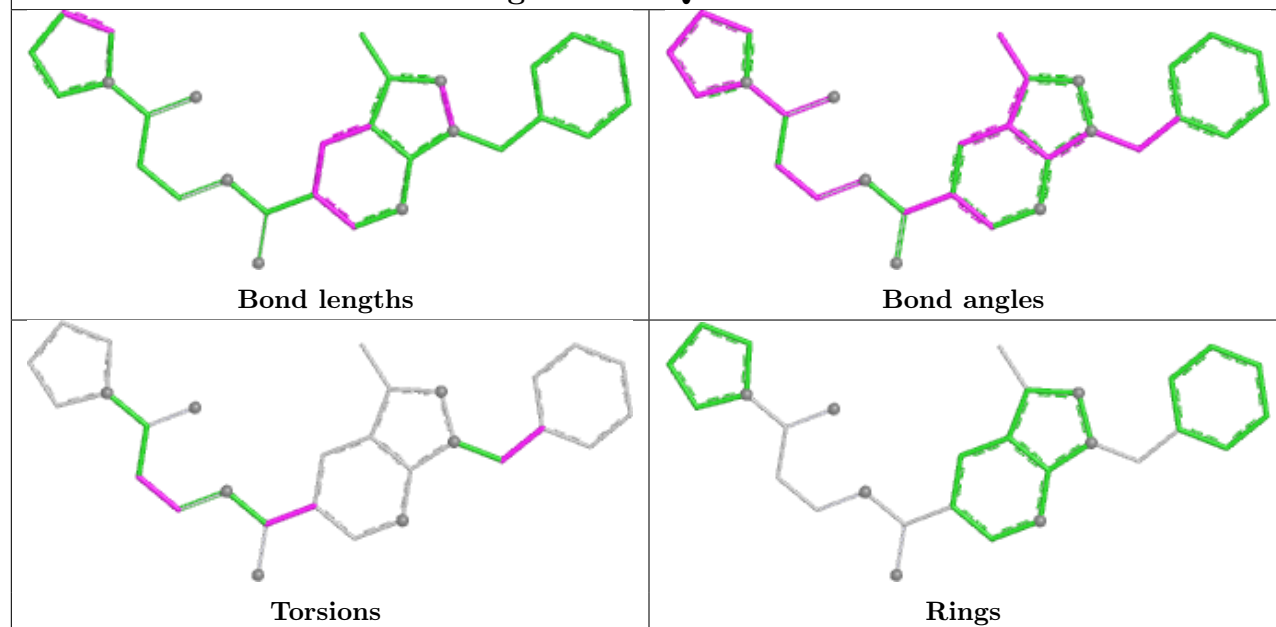
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 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.

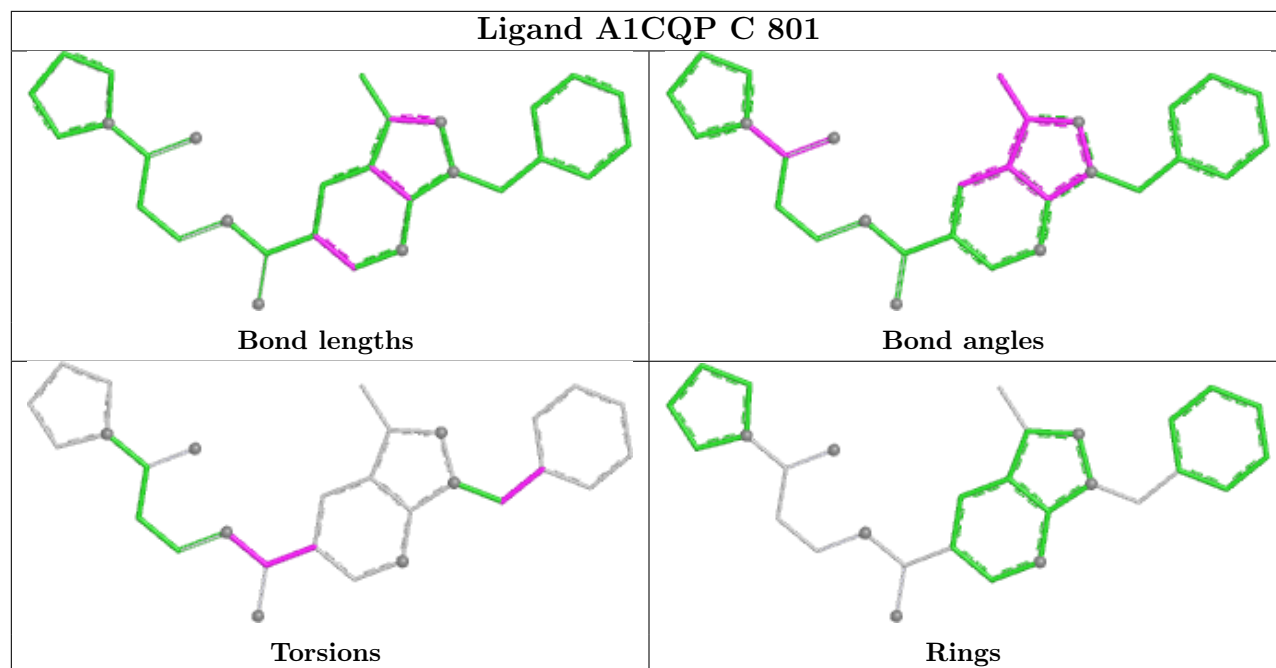


Ligand A1CQP B 801



Ligand A1CQP A 801





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data [i](#)

6.1 Protein, DNA and RNA chains [i](#)

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	707/711 (99%)	-1.04	2 (0%) 90 89	9, 22, 42, 86	2 (0%)
1	B	707/711 (99%)	-0.44	2 (0%) 90 89	10, 37, 68, 96	0
1	C	707/711 (99%)	-0.39	1 (0%) 92 91	19, 39, 63, 92	0
All	All	2121/2133 (99%)	-0.62	5 (0%) 91 90	9, 32, 62, 96	2 (0%)

All (5) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	427	VAL	2.8
1	B	430	ILE	2.7
1	B	457	LYS	2.3
1	A	428	LYS	2.2
1	A	427	VAL	2.1

6.2 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

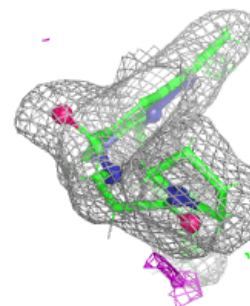
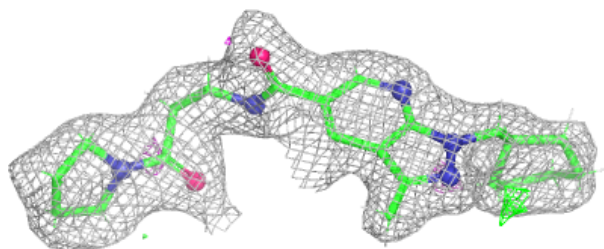
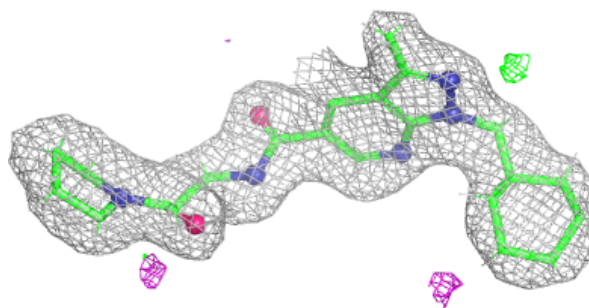
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled ‘Q< 0.9’ lists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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
4	GOL	A	806	6/6	0.87	0.12	30,52,57,61	3
5	SCN	B	805	3/3	0.89	0.13	33,33,57,62	0
4	GOL	C	803	6/6	0.91	0.10	30,39,42,43	3
5	SCN	C	802	3/3	0.92	0.11	47,47,55,72	0
5	SCN	B	804	3/3	0.93	0.09	39,39,49,59	0
5	SCN	A	805	3/3	0.94	0.12	24,24,30,50	0
4	GOL	B	803	6/6	0.94	0.08	30,37,45,50	3
5	SCN	C	804	3/3	0.94	0.08	39,39,44,53	0
5	SCN	A	807	3/3	0.95	0.08	30,30,32,60	0
4	GOL	A	803	6/6	0.96	0.06	18,26,33,39	3
5	SCN	A	804	3/3	0.96	0.09	34,34,42,45	0
2	A1CQP	B	801	29/30	0.96	0.06	15,24,31,32	3
2	A1CQP	C	801	29/30	0.96	0.06	25,33,40,41	3
4	GOL	B	802	6/6	0.97	0.05	17,26,31,35	3
3	B3P	A	802	19/19	0.97	0.04	13,18,30,30	8
2	A1CQP	A	801	29/30	0.98	0.04	9,20,25,30	3

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.

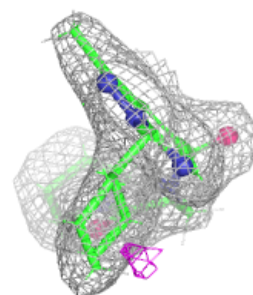
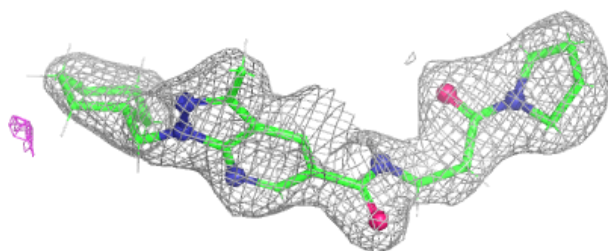
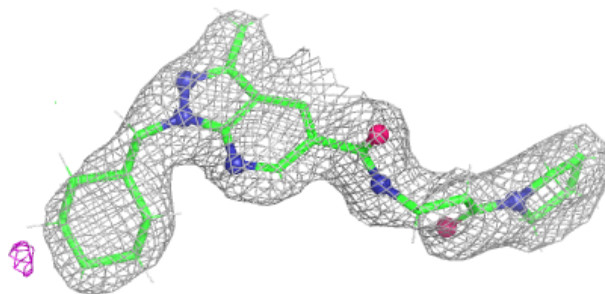
Electron density around A1CQP B 801:

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

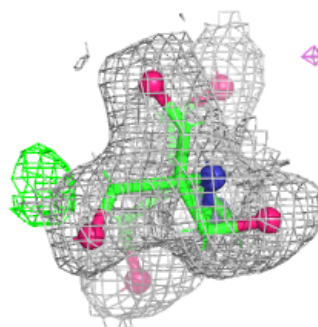
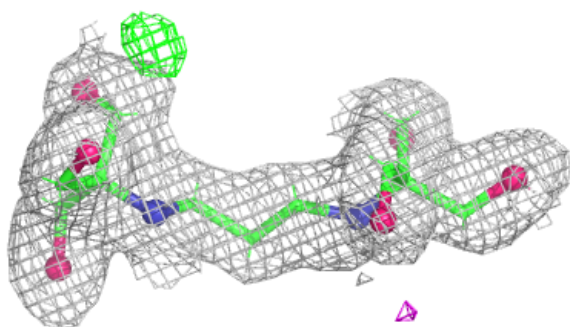
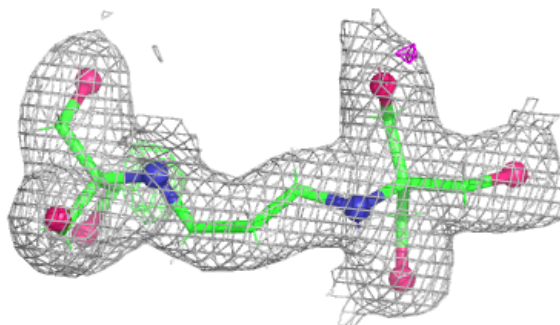


Electron density around A1CQP C 801:

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

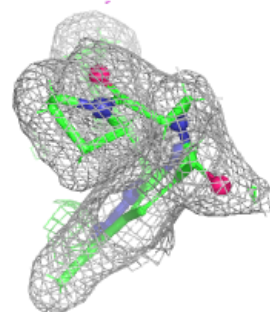
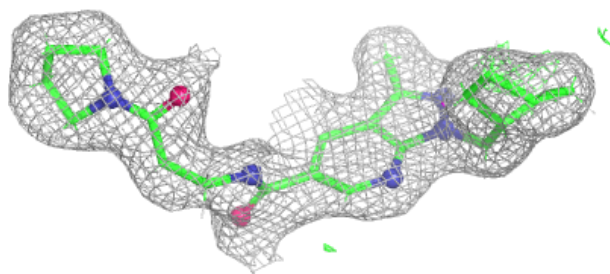
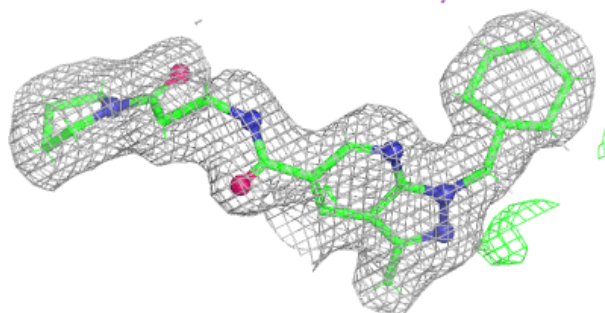
**Electron density around B3P A 802:**

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



Electron density around A1CQP A 801:

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



6.5 Other polymers [i](#)

There are no such residues in this entry.