



# Full wwPDB X-ray Structure Validation Report ⓘ

Mar 8, 2026 – 01:27 PM UTC

PDB ID : 9HYB / pdb\_00009hyb  
Title : CRYSTAL STRUCTURE OF THE SMARCA2-VCB-COMPLEX WITH  
PROTAC P3  
Authors : Bader, G.; Wolkerstorfer, B.  
Deposited on : 2025-01-09  
Resolution : 2.84 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](mailto: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>.

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

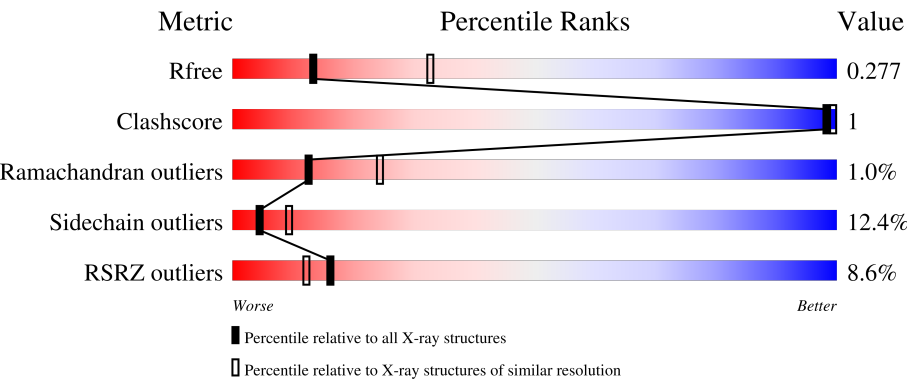
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal 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 i

The following experimental techniques were used to determine the structure:  
*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.84 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	1520 (2.86-2.82)
Clashscore	190562	1559 (2.86-2.82)
Ramachandran outliers	187476	1517 (2.86-2.82)
Sidechain outliers	187428	1518 (2.86-2.82)
RSRZ outliers	180081	1521 (2.86-2.82)

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  $\geq 3$ , 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	104	<div><div>%</div><div>92%8%</div></div>
1	D	104	<div><div>4%</div><div>84%15%.</div></div>
1	G	104	<div><div>8%</div><div>93%7%</div></div>
1	J	104	<div><div>12%</div><div>80%18%.</div></div>
2	B	97	<div><div>15%</div><div>76%13%10%</div></div>

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Mol	Chain	Length	Quality of chain
2	E	97	
2	H	97	
2	K	97	
3	C	162	
3	F	162	
3	I	162	
3	L	162	
4	M	123	
4	N	123	
4	O	123	
4	P	123	

## 2 Entry composition

There are 6 unique types of molecules in this entry. The entry contains 30441 atoms, of which 15129 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 Elongin-B.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	104	Total	C	H	N	O	S	824	0	0
			1647	520	824	138	160	5			
1	D	104	Total	C	H	N	O	S	824	0	0
			1647	520	824	138	160	5			
1	G	104	Total	C	H	N	O	S	822	0	0
			1645	520	822	138	160	5			
1	J	104	Total	C	H	N	O	S	824	0	0
			1647	520	824	138	160	5			

- Molecule 2 is a protein called Elongin-C.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
2	B	87	Total	C	H	N	O	S	697	0	0
			1392	448	697	111	129	7			
2	E	88	Total	C	H	N	O	S	704	0	0
			1406	452	704	112	131	7			
2	H	94	Total	C	H	N	O	S	737	0	0
			1484	480	737	119	142	6			
2	K	87	Total	C	H	N	O	S	697	0	0
			1392	448	697	111	129	7			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	16	MET	-	initiating methionine	UNP Q15369
E	16	MET	-	initiating methionine	UNP Q15369
H	16	MET	-	initiating methionine	UNP Q15369
K	16	MET	-	initiating methionine	UNP Q15369

- Molecule 3 is a protein called von Hippel-Lindau disease tumor suppressor.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
3	C	143	Total	C	H	N	O	S	1170	0	0
			2339	744	1170	213	210	2			
3	F	147	Total	C	H	N	O	S	1205	0	0
			2407	764	1205	220	216	2			
3	I	151	Total	C	H	N	O	S	1233	0	0
			2469	782	1233	230	222	2			
3	L	148	Total	C	H	N	O	S	1217	0	0
			2432	772	1217	224	217	2			

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	52	GLY	-	expression tag	UNP P40337
C	53	SER	-	expression tag	UNP P40337
F	52	GLY	-	expression tag	UNP P40337
F	53	SER	-	expression tag	UNP P40337
I	52	GLY	-	expression tag	UNP P40337
I	53	SER	-	expression tag	UNP P40337
L	52	GLY	-	expression tag	UNP P40337
L	53	SER	-	expression tag	UNP P40337

- Molecule 4 is a protein called Probable global transcription activator SNF2L2.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
4	M	114	Total	C	H	N	O	S	964	0	0
			1900	595	964	165	173	3			
4	N	114	Total	C	H	N	O	S	968	0	0
			1904	595	968	165	173	3			
4	O	114	Total	C	H	N	O	S	968	0	0
			1904	595	968	165	173	3			
4	P	114	Total	C	H	N	O	S	967	0	0
			1903	595	967	165	173	3			

There are 8 discrepancies between the modelled and reference sequences:

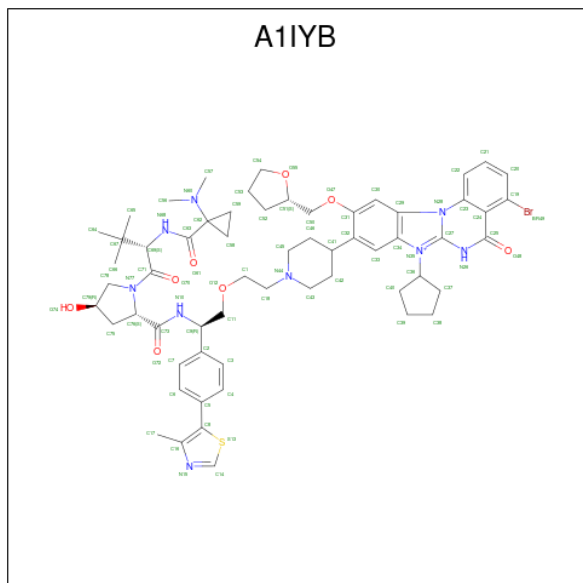
Chain	Residue	Modelled	Actual	Comment	Reference
M	1371	SER	-	expression tag	UNP P51531
M	1372	MET	-	expression tag	UNP P51531
N	1371	SER	-	expression tag	UNP P51531
N	1372	MET	-	expression tag	UNP P51531
O	1371	SER	-	expression tag	UNP P51531
O	1372	MET	-	expression tag	UNP P51531
P	1371	SER	-	expression tag	UNP P51531

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Chain	Residue	Modelled	Actual	Comment	Reference
P	1372	MET	-	expression tag	UNP P51531

- Molecule 5 is (2 {S},4 {R})- {N}-[(1 {R})-2-[2-[4-[4-bromanyl-7-cyclopentyl-5-oxidanylidene-10-[[[(2 {S})-oxolan-2-yl]methoxy]-6 {H}-benzimidazo[1,2-a]quinazolin-9-yl]piperidin-1-yl]ethoxy]-1-[4-(4-methyl-1,3-thiazol-5-yl)phenyl]ethyl]-1-[(2 {S})-2-[[1-(dimethylamino)cyclopropyl]carbonylamino]-3,3-dimethyl-butanoyl]-4-oxidanyl-pyrrolidine-2-carboxamide (CCD ID: A1IYB) (formula: C<sub>60</sub>H<sub>77</sub>BrN<sub>9</sub>O<sub>8</sub>S) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms								ZeroOcc	AltConf
5	C	1	Total	Br	C	H	N	O	S		77	0
			156	1	60	77	9	8	1			
5	F	1	Total	Br	C	H	N	O	S		77	0
			156	1	60	77	9	8	1			
5	I	1	Total	Br	C	H	N	O	S		77	0
			156	1	60	77	9	8	1			
5	L	1	Total	Br	C	H	N	O	S		77	0
			156	1	60	77	9	8	1			

- Molecule 6 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	A	18	Total	O	0	0
			18	18		
6	B	26	Total	O	0	0
			26	26		
6	C	25	Total	O	0	0
			25	25		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	D	14	Total 14	O 14	0	0
6	E	20	Total 20	O 20	0	0
6	F	43	Total 43	O 43	0	0
6	G	4	Total 4	O 4	0	0
6	H	16	Total 16	O 16	0	0
6	I	25	Total 25	O 25	0	0
6	J	8	Total 8	O 8	0	0
6	K	14	Total 14	O 14	0	0
6	L	43	Total 43	O 43	0	0
6	M	14	Total 14	O 14	0	0
6	N	12	Total 12	O 12	0	0
6	O	10	Total 10	O 10	0	0
6	P	7	Total 7	O 7	0	0

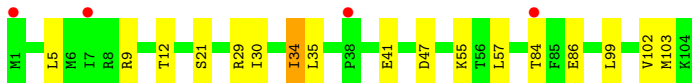
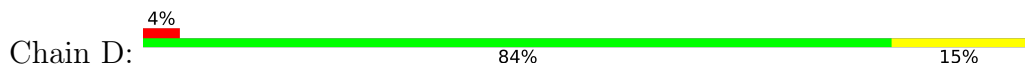
### 3 Residue-property plots [i](#)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ( $RSRZ > 2$ ). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: Elongin-B



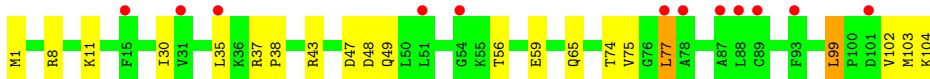
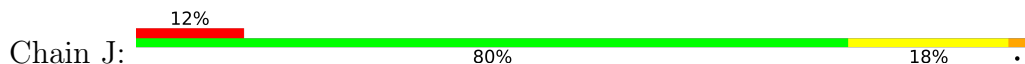
- Molecule 1: Elongin-B



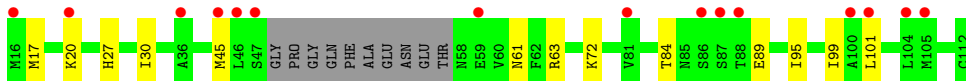
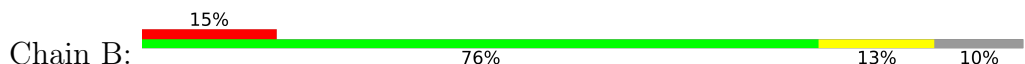
- Molecule 1: Elongin-B



- Molecule 1: Elongin-B

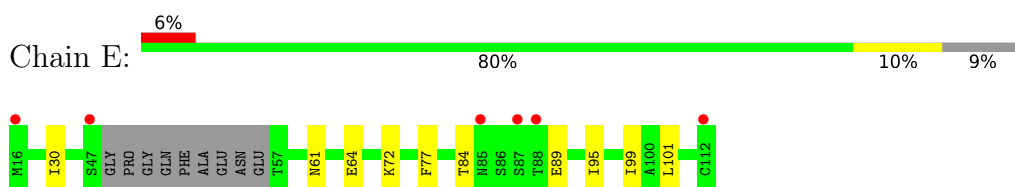


- Molecule 2: Elongin-C

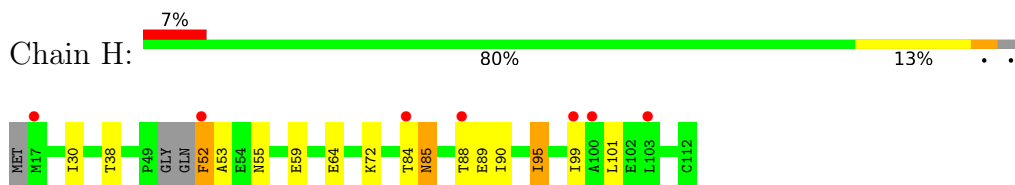


- Molecule 2: Elongin-C

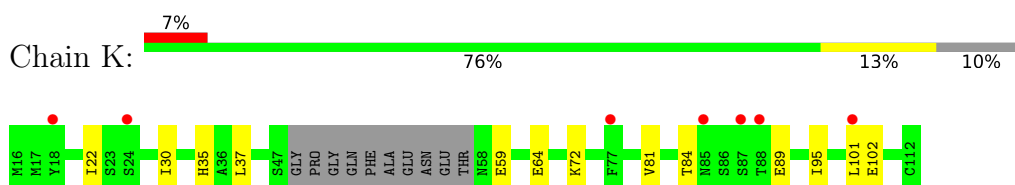




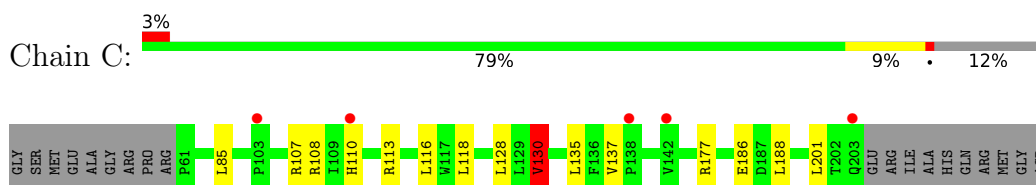
- Molecule 2: Elongin-C



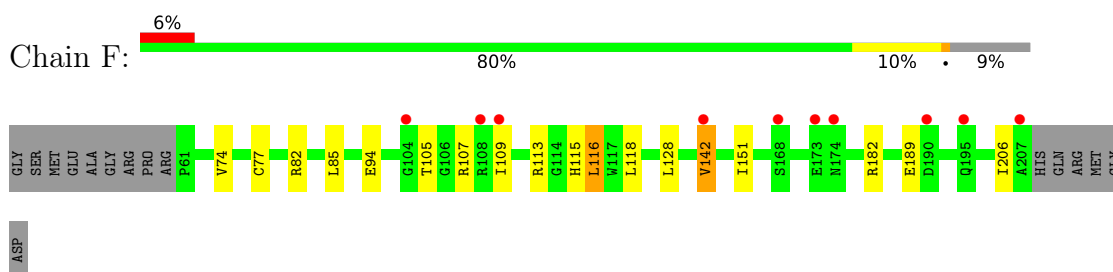
- Molecule 2: Elongin-C



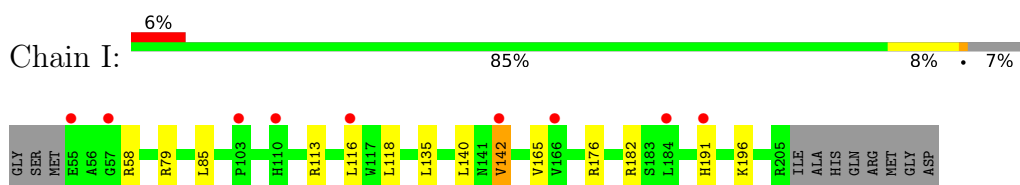
- Molecule 3: von Hippel-Lindau disease tumor suppressor



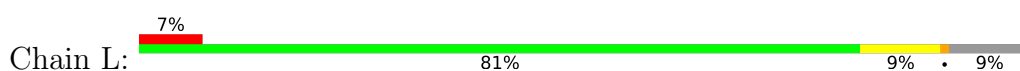
- Molecule 3: von Hippel-Lindau disease tumor suppressor



- Molecule 3: von Hippel-Lindau disease tumor suppressor

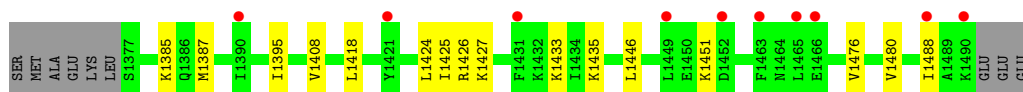
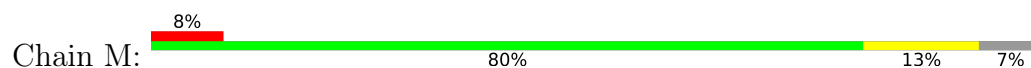


- Molecule 3: von Hippel-Lindau disease tumor suppressor

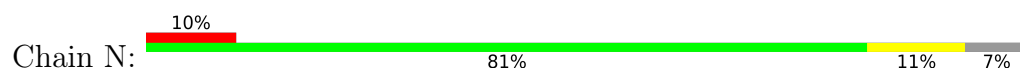




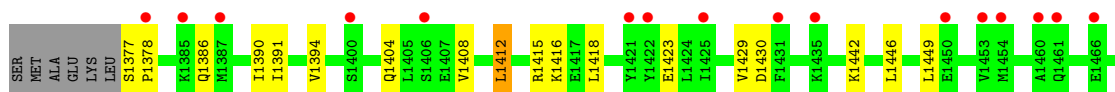
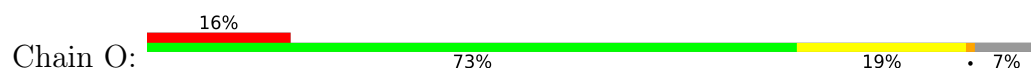
- Molecule 4: Probable global transcription activator SNF2L2



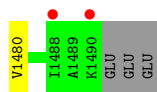
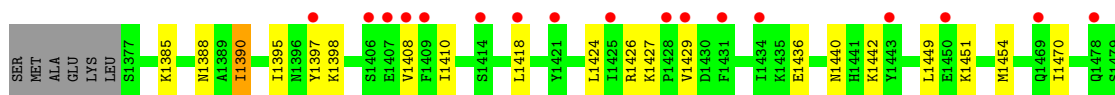
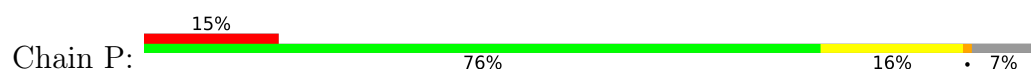
- Molecule 4: Probable global transcription activator SNF2L2



- Molecule 4: Probable global transcription activator SNF2L2



- Molecule 4: Probable global transcription activator SNF2L2



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	108.38Å 78.54Å 171.57Å 90.00° 91.43° 90.00°	Depositor
Resolution (Å)	32.47 – 2.84 32.47 – 2.84	Depositor EDS
% Data completeness (in resolution range)	62.1 (32.47-2.84) 62.3 (32.47-2.84)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.60 (at 2.85Å)	Xtriage
Refinement program	BUSTER 2.11.7	Depositor
R, $R_{free}$	0.251 , 0.265 0.261 , 0.277	Depositor DCC
$R_{free}$ test set	2061 reflections (4.82%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	62.2	Xtriage
Anisotropy	0.020	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.28 , 40.1	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.48$ , $\langle L^2 \rangle = 0.31$	Xtriage
Estimated twinning fraction	0.020 for h,-k,-l	Xtriage
$F_o, F_c$ correlation	0.88	EDS
Total number of atoms	30441	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	73.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.12% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical 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: A1IYB

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	0.76	0/839	0.97	1/1132 (0.1%)
1	D	0.75	0/839	0.97	0/1132
1	G	0.76	0/839	0.93	0/1132
1	J	0.81	0/839	1.03	1/1132 (0.1%)
2	B	0.77	0/709	1.02	0/955
2	E	0.76	0/716	1.02	1/965 (0.1%)
2	H	0.80	0/763	1.14	2/1030 (0.2%)
2	K	0.78	0/709	0.97	0/955
3	C	0.73	0/1200	1.00	2/1638 (0.1%)
3	F	0.74	0/1233	1.02	2/1682 (0.1%)
3	I	0.73	0/1268	1.00	0/1729
3	L	0.71	0/1247	1.01	1/1701 (0.1%)
4	M	0.79	0/952	1.04	0/1278
4	N	0.78	0/952	1.07	0/1278
4	O	0.84	0/952	1.08	0/1278
4	P	0.84	0/952	1.09	1/1278 (0.1%)
All	All	0.77	0/15009	1.02	11/20295 (0.1%)

There are no bond length outliers.

All (11) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	H	85	ASN	CA-CB-CG	11.02	123.62	112.60
3	F	94	GLU	CB-CG-CD	7.32	125.04	112.60
4	P	1390	ILE	N-CA-CB	7.28	119.89	110.57
2	H	52	PHE	CA-CB-CG	6.80	120.60	113.80
3	C	130	VAL	CA-C-N	6.22	133.41	121.54
3	C	130	VAL	C-N-CA	6.22	133.41	121.54
3	F	82	ARG	CD-NE-CZ	5.36	131.91	124.40
1	A	79	PHE	CA-CB-CG	5.27	119.07	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	J	38	PRO	N-CA-C	5.25	117.10	110.70
3	L	76	PHE	CA-CB-CG	5.13	118.93	113.80
2	E	77	PHE	CA-CB-CG	5.10	118.90	113.80

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	823	824	824	0	0
1	D	823	824	824	1	0
1	G	823	822	824	0	0
1	J	823	824	824	1	0
2	B	695	697	697	0	0
2	E	702	704	704	0	0
2	H	747	737	737	2	0
2	K	695	697	697	1	0
3	C	1169	1170	1170	0	0
3	F	1202	1205	1205	1	0
3	I	1236	1233	1235	1	0
3	L	1215	1217	1220	0	0
4	M	936	964	968	1	0
4	N	936	968	968	2	0
4	O	936	968	968	3	0
4	P	936	967	968	1	0
5	C	79	77	0	2	0
5	F	79	77	0	1	0
5	I	79	77	0	1	0
5	L	79	77	0	2	0
6	A	18	0	0	0	0
6	B	26	0	0	0	0
6	C	25	0	0	0	0
6	D	14	0	0	0	0
6	E	20	0	0	0	0
6	F	43	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
6	G	4	0	0	0	0
6	H	16	0	0	0	0
6	I	25	0	0	0	0
6	J	8	0	0	0	0
6	K	14	0	0	0	0
6	L	43	0	0	0	0
6	M	14	0	0	0	0
6	N	12	0	0	0	0
6	O	10	0	0	0	0
6	P	7	0	0	0	0
All	All	15312	15129	14833	17	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 1.

All (17) 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)
2:K:35:HIS:CD2	2:K:81:VAL:HG21	2.35	0.62
5:L:301:A1IYB:BR49	5:L:301:A1IYB:O48	2.75	0.59
5:I:1501:A1IYB:BR49	5:I:1501:A1IYB:O48	2.76	0.57
5:F:1501:A1IYB:O48	5:F:1501:A1IYB:BR49	2.78	0.56
5:C:1501:A1IYB:BR49	5:C:1501:A1IYB:O48	2.79	0.55
2:H:95:ILE:HB	3:I:165:VAL:HG21	1.97	0.47
4:O:1386:GLN:O	4:O:1390:ILE:HD12	2.14	0.47
4:N:1458:HIS:O	4:N:1462:THR:HG23	2.14	0.46
3:F:77:CYS:SG	2:H:88:THR:HG21	2.56	0.45
5:C:1501:A1IYB:C41	5:C:1501:A1IYB:C50	2.96	0.43
5:L:301:A1IYB:BR49	4:N:1456:LEU:HD12	2.73	0.43
1:J:99:LEU:HD23	1:J:104:LYS:HG3	2.01	0.43
1:D:34:ILE:HD13	1:D:34:ILE:N	2.35	0.42
4:O:1377:SER:CB	4:O:1378:PRO:HD3	2.50	0.41
4:O:1412:LEU:HD12	4:O:1430:ASP:HB3	2.02	0.41
4:P:1397:TYR:CD2	4:P:1480:VAL:HG21	2.56	0.41
4:M:1476:VAL:O	4:M:1480:VAL:HG23	2.21	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles

### 5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	102/104 (98%)	95 (93%)	5 (5%)	2 (2%)	6	12
1	D	102/104 (98%)	95 (93%)	6 (6%)	1 (1%)	12	24
1	G	102/104 (98%)	96 (94%)	5 (5%)	1 (1%)	12	24
1	J	102/104 (98%)	91 (89%)	8 (8%)	3 (3%)	3	8
2	B	83/97 (86%)	80 (96%)	2 (2%)	1 (1%)	10	22
2	E	84/97 (87%)	80 (95%)	3 (4%)	1 (1%)	10	22
2	H	90/97 (93%)	83 (92%)	5 (6%)	2 (2%)	5	11
2	K	83/97 (86%)	79 (95%)	3 (4%)	1 (1%)	10	22
3	C	141/162 (87%)	128 (91%)	12 (8%)	1 (1%)	18	35
3	F	145/162 (90%)	135 (93%)	8 (6%)	2 (1%)	9	18
3	I	149/162 (92%)	134 (90%)	13 (9%)	2 (1%)	9	20
3	L	146/162 (90%)	134 (92%)	11 (8%)	1 (1%)	18	35
4	M	112/123 (91%)	111 (99%)	1 (1%)	0	100	100
4	N	112/123 (91%)	110 (98%)	2 (2%)	0	100	100
4	O	112/123 (91%)	109 (97%)	3 (3%)	0	100	100
4	P	112/123 (91%)	111 (99%)	1 (1%)	0	100	100
All	All	1777/1944 (91%)	1671 (94%)	88 (5%)	18 (1%)	12	24

All (18) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	F	116	LEU
2	H	89	GLU
3	I	142	VAL
3	L	142	VAL
2	H	53	ALA
1	D	47	ASP

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Mol	Chain	Res	Type
1	G	47	ASP
1	A	47	ASP
3	I	58	ARG
1	J	37	ARG
1	J	47	ASP
1	J	77	LEU
1	A	82	ASP
3	C	130	VAL
2	E	89	GLU
2	B	89	GLU
2	K	89	GLU
3	F	142	VAL

### 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	92/92 (100%)	87 (95%)	5 (5%)	20	42
1	D	92/92 (100%)	76 (83%)	16 (17%)	2	3
1	G	92/92 (100%)	86 (94%)	6 (6%)	15	32
1	J	92/92 (100%)	75 (82%)	17 (18%)	1	2
2	B	79/86 (92%)	67 (85%)	12 (15%)	3	5
2	E	80/86 (93%)	72 (90%)	8 (10%)	7	16
2	H	84/86 (98%)	71 (84%)	13 (16%)	2	5
2	K	79/86 (92%)	69 (87%)	10 (13%)	4	8
3	C	134/148 (90%)	119 (89%)	15 (11%)	6	12
3	F	137/148 (93%)	122 (89%)	15 (11%)	6	12
3	I	140/148 (95%)	128 (91%)	12 (9%)	10	21
3	L	139/148 (94%)	124 (89%)	15 (11%)	6	13
4	M	107/115 (93%)	93 (87%)	14 (13%)	4	8
4	N	107/115 (93%)	96 (90%)	11 (10%)	7	14

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	O	107/115 (93%)	88 (82%)	19 (18%)	2	3
4	P	107/115 (93%)	88 (82%)	19 (18%)	2	3
All	All	1668/1764 (95%)	1461 (88%)	207 (12%)	4	9

All (207) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	5	LEU
1	A	12	THR
1	A	50	LEU
1	A	102	VAL
1	A	103	MET
2	B	17	MET
2	B	20	LYS
2	B	27	HIS
2	B	30	ILE
2	B	45	MET
2	B	61	ASN
2	B	63	ARG
2	B	72	LYS
2	B	84	THR
2	B	95	ILE
2	B	99	ILE
2	B	101	LEU
3	C	85	LEU
3	C	107	ARG
3	C	108	ARG
3	C	110	HIS
3	C	113	ARG
3	C	116	LEU
3	C	118	LEU
3	C	128	LEU
3	C	130	VAL
3	C	135	LEU
3	C	137	VAL
3	C	177	ARG
3	C	186	GLU
3	C	188	LEU
3	C	201	LEU
1	D	5	LEU
1	D	9	ARG

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Mol	Chain	Res	Type
1	D	12	THR
1	D	21	SER
1	D	29	ARG
1	D	30	ILE
1	D	34	ILE
1	D	35	LEU
1	D	41	GLU
1	D	55	LYS
1	D	57	LEU
1	D	84	THR
1	D	86	GLU
1	D	99	LEU
1	D	102	VAL
1	D	103	MET
2	E	30	ILE
2	E	61	ASN
2	E	64	GLU
2	E	72	LYS
2	E	84	THR
2	E	95	ILE
2	E	99	ILE
2	E	101	LEU
3	F	74	VAL
3	F	85	LEU
3	F	105	THR
3	F	107	ARG
3	F	109	ILE
3	F	113	ARG
3	F	115	HIS
3	F	116	LEU
3	F	118	LEU
3	F	128	LEU
3	F	142	VAL
3	F	151	ILE
3	F	182	ARG
3	F	189	GLU
3	F	206	ILE
1	G	5	LEU
1	G	35	LEU
1	G	49	GLN
1	G	57	LEU
1	G	59	GLU

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Mol	Chain	Res	Type
1	G	98	GLU
2	H	30	ILE
2	H	38	THR
2	H	52	PHE
2	H	55	ASN
2	H	59	GLU
2	H	64	GLU
2	H	72	LYS
2	H	84	THR
2	H	85	ASN
2	H	90	ILE
2	H	95	ILE
2	H	99	ILE
2	H	101	LEU
3	I	79	ARG
3	I	85	LEU
3	I	113	ARG
3	I	116	LEU
3	I	118	LEU
3	I	135	LEU
3	I	140	LEU
3	I	142	VAL
3	I	176	ARG
3	I	182	ARG
3	I	191	HIS
3	I	196	LYS
1	J	1	MET
1	J	8	ARG
1	J	11	LYS
1	J	30	ILE
1	J	35	LEU
1	J	43	ARG
1	J	48	ASP
1	J	49	GLN
1	J	56	THR
1	J	59	GLU
1	J	65	GLN
1	J	74	THR
1	J	75	VAL
1	J	77	LEU
1	J	99	LEU
1	J	102	VAL

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Mol	Chain	Res	Type
1	J	103	MET
2	K	22	ILE
2	K	30	ILE
2	K	37	LEU
2	K	59	GLU
2	K	64	GLU
2	K	72	LYS
2	K	84	THR
2	K	95	ILE
2	K	101	LEU
2	K	102	GLU
3	L	62	VAL
3	L	69	ARG
3	L	73	GLN
3	L	85	LEU
3	L	107	ARG
3	L	118	LEU
3	L	120	ARG
3	L	135	LEU
3	L	140	LEU
3	L	141	ASN
3	L	142	VAL
3	L	159	LYS
3	L	176	ARG
3	L	200	ARG
3	L	206	ILE
4	M	1385	LYS
4	M	1387	MET
4	M	1395	ILE
4	M	1408	VAL
4	M	1418	LEU
4	M	1424	LEU
4	M	1425	ILE
4	M	1426	ARG
4	M	1427	LYS
4	M	1433	LYS
4	M	1435	LYS
4	M	1446	LEU
4	M	1451	LYS
4	M	1488	ILE
4	N	1377	SER
4	N	1384	THR

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Mol	Chain	Res	Type
4	N	1388	ASN
4	N	1390	ILE
4	N	1391	ILE
4	N	1408	VAL
4	N	1427	LYS
4	N	1436	GLU
4	N	1446	LEU
4	N	1470	ILE
4	N	1490	LYS
4	O	1391	ILE
4	O	1394	VAL
4	O	1404	GLN
4	O	1408	VAL
4	O	1412	LEU
4	O	1415	ARG
4	O	1416	LYS
4	O	1418	LEU
4	O	1423	GLU
4	O	1429	VAL
4	O	1442	LYS
4	O	1446	LEU
4	O	1449	LEU
4	O	1469	GLN
4	O	1470	ILE
4	O	1482	LYS
4	O	1483	SER
4	O	1486	GLN
4	O	1490	LYS
4	P	1385	LYS
4	P	1388	ASN
4	P	1390	ILE
4	P	1395	ILE
4	P	1398	LYS
4	P	1408	VAL
4	P	1410	ILE
4	P	1418	LEU
4	P	1424	LEU
4	P	1426	ARG
4	P	1427	LYS
4	P	1429	VAL
4	P	1436	GLU
4	P	1440	ASN

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Mol	Chain	Res	Type
4	P	1442	LYS
4	P	1449	LEU
4	P	1451	LYS
4	P	1454	MET
4	P	1470	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (14) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	65	GLN
2	B	58	ASN
3	F	67	ASN
2	H	85	ASN
2	H	108	ASN
3	L	73	GLN
3	L	174	ASN
4	N	1396	ASN
4	N	1458	HIS
4	O	1396	ASN
4	O	1441	HIS
4	O	1459	ASN
4	O	1469	GLN
4	P	1396	ASN

### 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 oligosaccharides 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$
5	A1IYB	L	301	-	86,89,89	0.48	1 (1%)	112,133,133	0.95	3 (2%)
5	A1IYB	I	1501	-	86,89,89	0.49	1 (1%)	112,133,133	1.08	8 (7%)
5	A1IYB	C	1501	-	86,89,89	0.57	1 (1%)	112,133,133	1.21	8 (7%)
5	A1IYB	F	1501	-	86,89,89	0.51	1 (1%)	112,133,133	1.16	10 (8%)

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
5	A1IYB	L	301	-	-	5/61/106/106	0/10/11/11
5	A1IYB	I	1501	-	-	8/61/106/106	0/10/11/11
5	A1IYB	C	1501	-	-	15/61/106/106	0/10/11/11
5	A1IYB	F	1501	-	-	19/61/106/106	0/10/11/11

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	L	301	A1IYB	C27-N26	-2.56	1.31	1.35
5	F	1501	A1IYB	C27-N26	-2.45	1.31	1.35
5	I	1501	A1IYB	C27-N26	-2.43	1.31	1.35
5	C	1501	A1IYB	C27-N26	-2.41	1.31	1.35

All (29) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	L	301	A1IYB	C27-N26-C25	-5.97	120.13	126.33
5	I	1501	A1IYB	C27-N26-C25	-5.94	120.16	126.33
5	C	1501	A1IYB	C27-N26-C25	-5.93	120.18	126.33
5	F	1501	A1IYB	C27-N26-C25	-5.73	120.38	126.33
5	C	1501	A1IYB	C31-C32-C41	4.72	127.67	120.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	C	1501	A1IYB	C50-O47-C31	4.20	127.53	118.21
5	F	1501	A1IYB	C50-O47-C31	3.86	126.79	118.21
5	F	1501	A1IYB	O47-C31-C30	-3.69	115.51	123.49
5	I	1501	A1IYB	O61-C63-C62	-3.65	114.61	120.32
5	C	1501	A1IYB	O47-C31-C30	-3.36	116.24	123.49
5	F	1501	A1IYB	O61-C63-C62	-3.29	115.17	120.32
5	I	1501	A1IYB	C62-C63-N68	3.28	122.14	116.59
5	I	1501	A1IYB	N26-C27-N28	3.25	126.80	120.86
5	L	301	A1IYB	N26-C27-N28	3.21	126.71	120.86
5	C	1501	A1IYB	N26-C27-N28	3.17	126.64	120.86
5	C	1501	A1IYB	C33-C32-C41	-3.02	114.98	120.42
5	F	1501	A1IYB	N26-C27-N28	2.98	126.31	120.86
5	F	1501	A1IYB	C34-N35-C36	2.79	128.59	124.67
5	F	1501	A1IYB	C62-C63-N68	2.62	121.02	116.59
5	F	1501	A1IYB	C24-C25-N26	2.56	117.92	115.05
5	C	1501	A1IYB	C24-C25-N26	2.55	117.91	115.05
5	L	301	A1IYB	C24-C25-N26	2.53	117.88	115.05
5	I	1501	A1IYB	C24-C25-N26	2.51	117.86	115.05
5	F	1501	A1IYB	C31-C32-C41	2.46	124.18	120.41
5	I	1501	A1IYB	C65-C67-C69	2.39	114.60	109.71
5	F	1501	A1IYB	C71-C69-N68	2.32	110.21	107.40
5	I	1501	A1IYB	C34-N35-C36	2.28	127.87	124.67
5	I	1501	A1IYB	C50-O47-C31	2.18	123.06	118.21
5	C	1501	A1IYB	O61-C63-C62	-2.01	117.17	120.32

There are no chirality outliers.

All (47) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	C	1501	A1IYB	O12-C11-C9-C2
5	C	1501	A1IYB	O12-C11-C9-N10
5	C	1501	A1IYB	C58-C62-N60-C56
5	C	1501	A1IYB	C59-C62-N60-C56
5	C	1501	A1IYB	C64-C67-C69-N68
5	C	1501	A1IYB	C64-C67-C69-C71
5	C	1501	A1IYB	C65-C67-C69-N68
5	C	1501	A1IYB	C65-C67-C69-C71
5	C	1501	A1IYB	C66-C67-C69-N68
5	C	1501	A1IYB	C66-C67-C69-C71
5	F	1501	A1IYB	O12-C11-C9-C2
5	F	1501	A1IYB	O12-C11-C9-N10
5	F	1501	A1IYB	O47-C50-C51-C52

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Mol	Chain	Res	Type	Atoms
5	F	1501	A1IYB	O47-C50-C51-O55
5	F	1501	A1IYB	C58-C62-N60-C56
5	F	1501	A1IYB	C59-C62-N60-C56
5	F	1501	A1IYB	C58-C62-N60-C57
5	F	1501	A1IYB	C58-C62-C63-O61
5	F	1501	A1IYB	C58-C62-C63-N68
5	F	1501	A1IYB	C59-C62-C63-O61
5	F	1501	A1IYB	C59-C62-C63-N68
5	F	1501	A1IYB	C67-C69-N68-C63
5	F	1501	A1IYB	C71-C69-N68-C63
5	I	1501	A1IYB	C58-C62-C63-O61
5	I	1501	A1IYB	C58-C62-C63-N68
5	I	1501	A1IYB	C59-C62-C63-O61
5	I	1501	A1IYB	C59-C62-C63-N68
5	I	1501	A1IYB	C67-C69-N68-C63
5	L	301	A1IYB	C58-C62-N60-C56
5	L	301	A1IYB	C59-C62-N60-C56
5	L	301	A1IYB	C58-C62-N60-C57
5	L	301	A1IYB	C59-C62-N60-C57
5	C	1501	A1IYB	C30-C31-O47-C50
5	C	1501	A1IYB	C32-C31-O47-C50
5	F	1501	A1IYB	C30-C31-O47-C50
5	C	1501	A1IYB	O12-C1-C18-N44
5	F	1501	A1IYB	O12-C1-C18-N44
5	F	1501	A1IYB	C32-C31-O47-C50
5	F	1501	A1IYB	C51-C50-O47-C31
5	I	1501	A1IYB	C51-C50-O47-C31
5	I	1501	A1IYB	N68-C69-C71-O70
5	C	1501	A1IYB	C58-C62-C63-O61
5	C	1501	A1IYB	N60-C62-C63-O61
5	F	1501	A1IYB	N60-C62-C63-O61
5	I	1501	A1IYB	C1-C18-N44-C43
5	F	1501	A1IYB	C59-C62-N60-C57
5	L	301	A1IYB	O12-C1-C18-N44

There are no ring outliers.

4 monomers are involved in 6 short contacts:

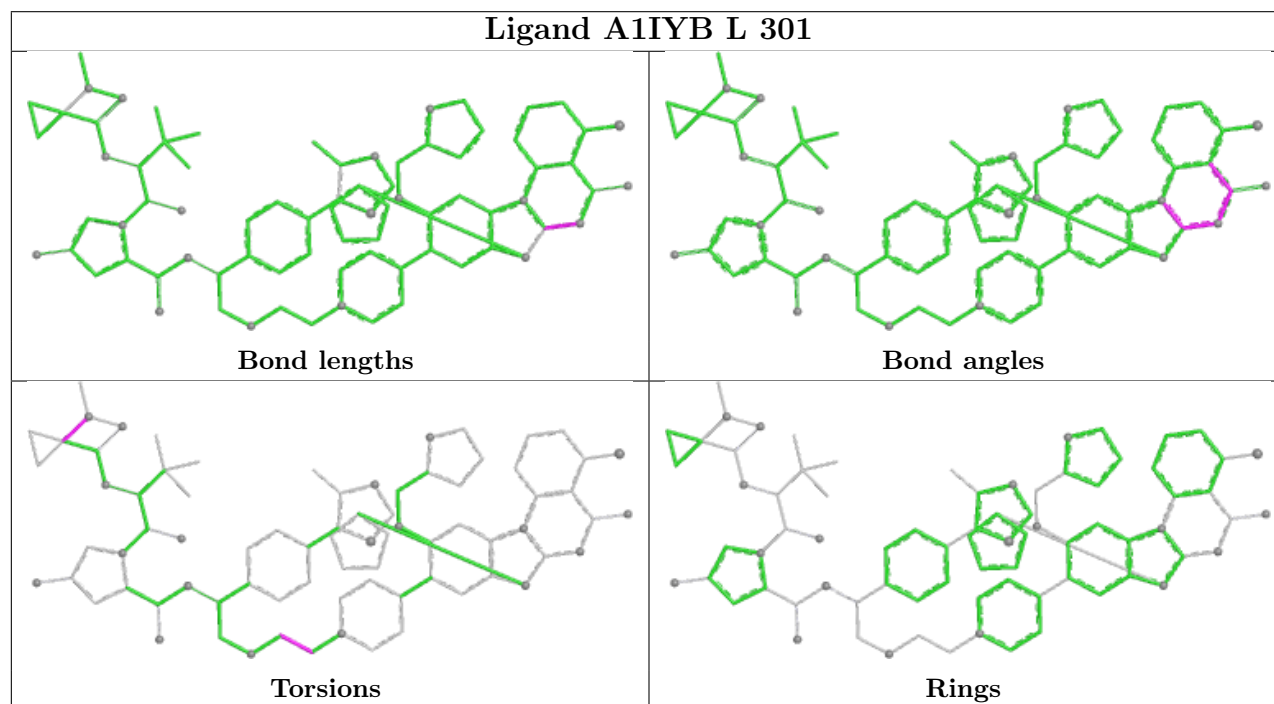
Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	L	301	A1IYB	2	0
5	I	1501	A1IYB	1	0
5	C	1501	A1IYB	2	0

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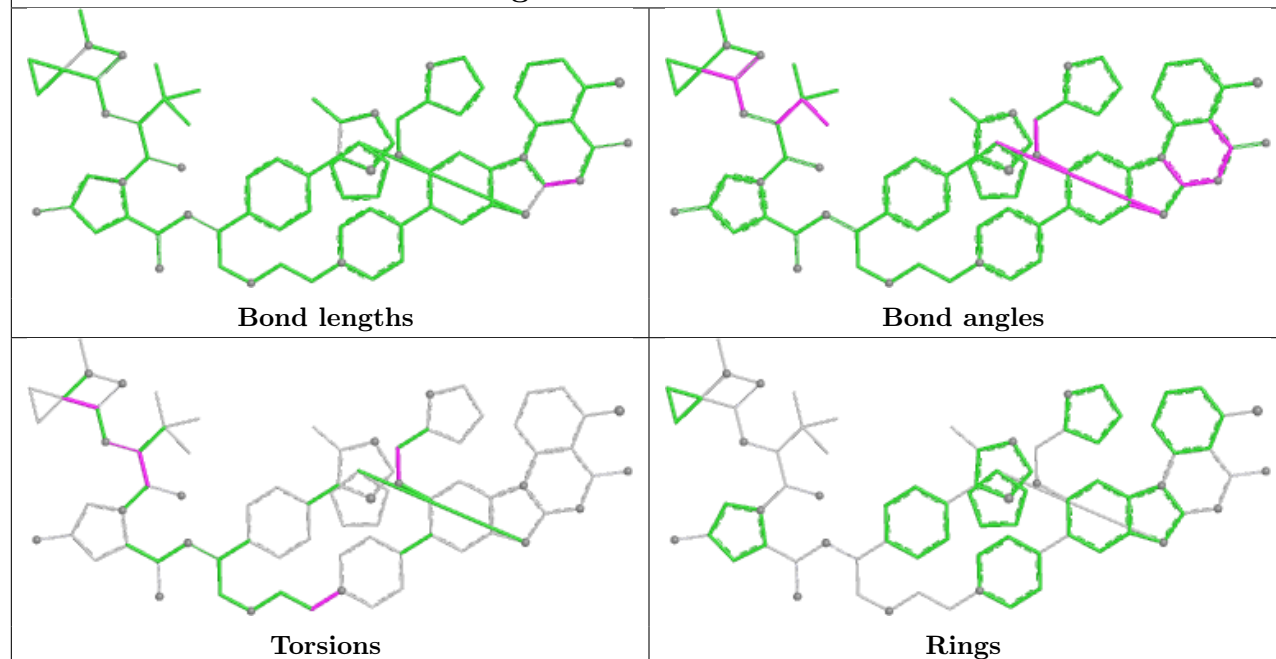
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Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	F	1501	A1IYB	1	0

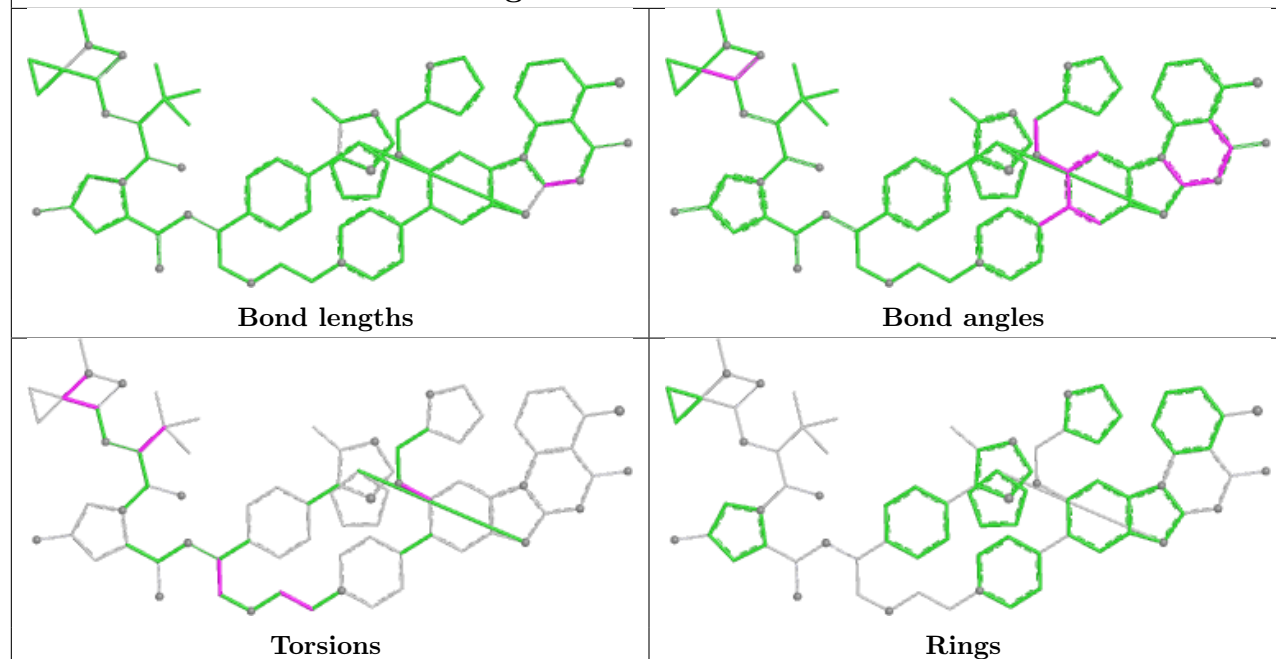
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

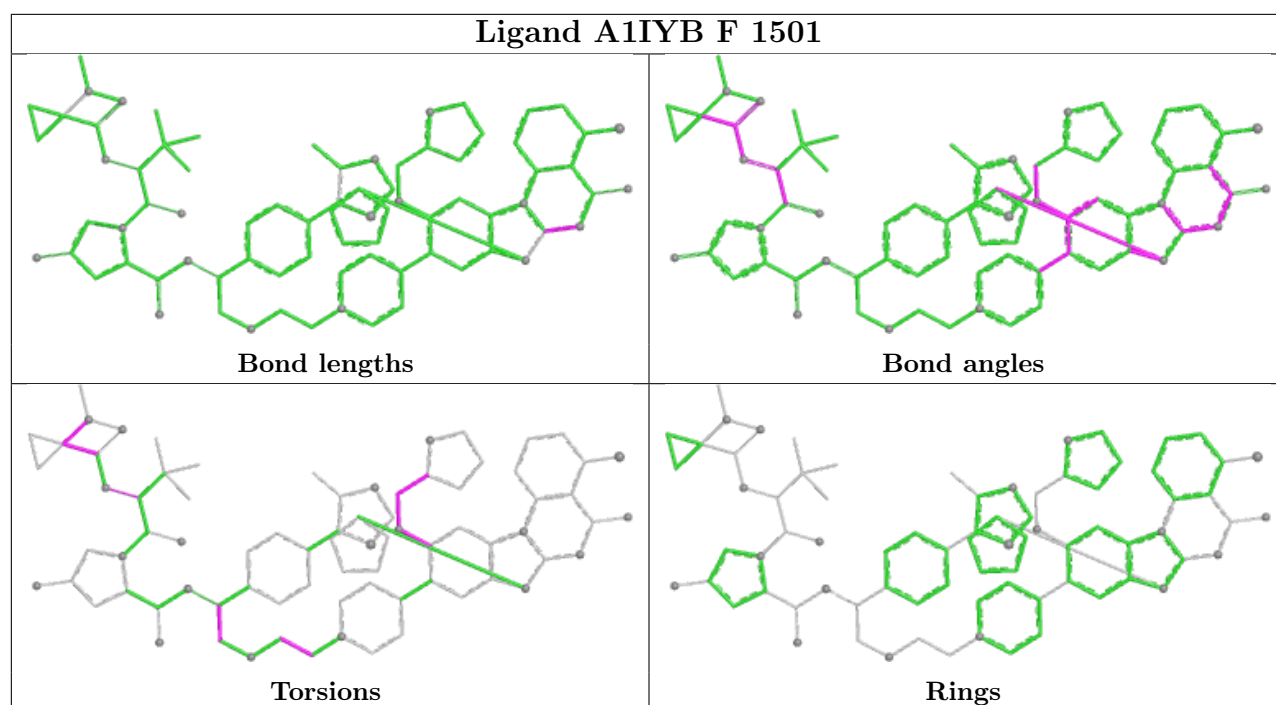


## Ligand A1IYB I 1501



## Ligand A1IYB C 1501





## 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 ⓘ

### 6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	A	104/104 (100%)	0.61	1 (0%) 79 75	16, 29, 47, 66	0
1	D	104/104 (100%)	0.72	4 (3%) 44 35	22, 36, 53, 62	0
1	G	104/104 (100%)	0.87	8 (7%) 19 15	23, 41, 61, 75	0
1	J	104/104 (100%)	1.12	12 (11%) 9 7	31, 45, 68, 85	0
2	B	87/97 (89%)	1.02	15 (17%) 4 3	16, 30, 45, 59	0
2	E	88/97 (90%)	0.87	6 (6%) 23 18	17, 28, 44, 49	0
2	H	94/97 (96%)	0.83	7 (7%) 20 15	17, 28, 43, 51	0
2	K	87/97 (89%)	0.94	7 (8%) 18 14	21, 38, 55, 65	0
3	C	143/162 (88%)	0.65	5 (3%) 47 37	18, 31, 48, 57	0
3	F	147/162 (90%)	0.70	10 (6%) 23 18	12, 24, 42, 52	0
3	I	151/162 (93%)	0.73	9 (5%) 27 21	14, 29, 56, 69	0
3	L	148/162 (91%)	0.85	11 (7%) 20 15	18, 30, 47, 55	0
4	M	114/123 (92%)	0.84	10 (8%) 15 12	19, 36, 55, 74	0
4	N	114/123 (92%)	1.16	12 (10%) 11 9	25, 42, 57, 67	0
4	O	114/123 (92%)	1.39	20 (17%) 4 3	33, 50, 68, 76	0
4	P	114/123 (92%)	1.30	19 (16%) 4 3	38, 54, 71, 81	0
All	All	1817/1944 (93%)	0.90	156 (8%) 16 12	12, 35, 60, 85	0

All (156) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	L	77	CYS	5.6
4	N	1381	PRO	5.6
3	L	140	LEU	4.9
2	E	88	THR	4.7
2	H	52	PHE	4.7

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Mol	Chain	Res	Type	RSRZ
4	O	1431	PHE	4.5
2	K	88	THR	4.3
3	L	116	LEU	4.3
3	C	203	GLN	4.2
3	L	206	ILE	4.1
2	B	88	THR	4.1
4	P	1490	LYS	4.0
2	E	87	SER	3.9
2	E	16	MET	3.8
2	B	46	LEU	3.7
4	P	1431	PHE	3.7
4	O	1450	GLU	3.7
1	G	76	GLY	3.6
3	F	207	ALA	3.6
3	L	182	ARG	3.6
4	P	1488	ILE	3.5
1	J	88	LEU	3.4
1	J	87	ALA	3.4
4	P	1418	LEU	3.3
4	N	1405	LEU	3.3
2	H	88	THR	3.3
4	O	1481	PHE	3.2
1	G	103	MET	3.2
3	F	173	GLU	3.1
4	O	1466	GLU	3.1
3	L	79	ARG	3.1
4	N	1490	LYS	3.1
1	J	89	CYS	3.0
4	N	1383	LEU	3.0
2	B	100	ALA	3.0
2	K	18	TYR	2.9
2	E	47	SER	2.9
2	E	85	ASN	2.9
2	K	85	ASN	2.9
4	O	1406	SER	2.9
4	N	1429	VAL	2.9
4	P	1408	VAL	2.9
1	D	7	ILE	2.9
4	O	1422	TYR	2.8
3	I	166	VAL	2.8
2	B	101	LEU	2.8
4	P	1434	ILE	2.8

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Mol	Chain	Res	Type	RSRZ
4	M	1466	GLU	2.8
4	N	1421	TYR	2.8
4	O	1421	TYR	2.8
1	G	62	PHE	2.7
4	O	1470	ILE	2.7
4	P	1429	VAL	2.7
4	M	1488	ILE	2.7
4	P	1421	TYR	2.7
1	J	78	ALA	2.7
2	B	45	MET	2.7
2	H	17	MET	2.7
4	O	1425	ILE	2.6
4	N	1409	PHE	2.6
4	M	1490	LYS	2.6
4	O	1400	SER	2.6
1	J	77	LEU	2.6
2	H	103	LEU	2.6
2	B	87	SER	2.5
4	N	1402	GLY	2.5
3	L	113	ARG	2.5
1	G	5	LEU	2.5
3	C	103	PRO	2.5
3	I	57	GLY	2.5
4	M	1390	ILE	2.5
4	P	1425	ILE	2.5
4	M	1421	TYR	2.5
1	J	15	PHE	2.5
1	D	1	MET	2.5
1	J	51	LEU	2.5
2	K	87	SER	2.5
3	L	139	SER	2.5
4	O	1453	VAL	2.5
2	B	59	GLU	2.5
1	G	66	THR	2.5
4	M	1449	LEU	2.4
2	K	24	SER	2.4
3	C	142	VAL	2.4
3	I	116	LEU	2.4
4	O	1490	LYS	2.4
4	P	1469	GLN	2.4
3	F	108	ARG	2.4
4	O	1478	GLN	2.4

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Mol	Chain	Res	Type	RSRZ
4	P	1414	SER	2.4
3	I	103	PRO	2.4
3	L	67	ASN	2.3
1	J	35	LEU	2.3
3	C	110	HIS	2.3
3	F	142	VAL	2.3
3	F	104	GLY	2.3
2	K	101	LEU	2.3
1	D	84	THR	2.3
1	J	31	VAL	2.3
3	L	59	PRO	2.3
2	B	104	LEU	2.3
2	B	86	SER	2.3
2	B	81	VAL	2.3
4	O	1435	LYS	2.2
3	F	190	ASP	2.2
3	I	191	HIS	2.2
1	D	38	PRO	2.2
2	B	47	SER	2.2
3	L	142	VAL	2.2
2	H	100	ALA	2.2
2	H	84	THR	2.2
3	F	168	SER	2.2
1	G	35	LEU	2.2
4	O	1460	ALA	2.2
4	M	1452	ASP	2.2
3	I	142	VAL	2.2
1	A	94	SER	2.2
4	P	1406	SER	2.2
2	K	77	PHE	2.2
4	P	1450	GLU	2.2
3	I	110	HIS	2.2
4	O	1454	MET	2.2
4	M	1431	PHE	2.2
4	P	1409	PHE	2.2
4	P	1443	TYR	2.2
4	N	1391	ILE	2.1
1	G	36	LYS	2.1
3	I	55	GLU	2.1
4	N	1407	GLU	2.1
2	B	16	MET	2.1
1	J	93	PHE	2.1

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Mol	Chain	Res	Type	RSRZ
2	E	112	CYS	2.1
3	F	109	ILE	2.1
2	B	105	MET	2.1
4	M	1463	PHE	2.1
2	B	36	ALA	2.1
3	F	195	GLN	2.1
4	O	1461	GLN	2.1
4	O	1385	LYS	2.1
3	C	138	PRO	2.1
3	I	184	LEU	2.1
4	N	1431	PHE	2.1
4	N	1377	SER	2.0
4	P	1478	GLN	2.0
4	O	1378	PRO	2.0
3	F	174	ASN	2.0
1	J	54	GLY	2.0
1	J	101	ASP	2.0
2	H	99	ILE	2.0
1	G	60	CYS	2.0
4	P	1428	PRO	2.0
4	M	1465	LEU	2.0
2	B	20	LYS	2.0
4	P	1407	GLU	2.0
4	O	1387	MET	2.0
4	P	1397	TYR	2.0

## 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](#)

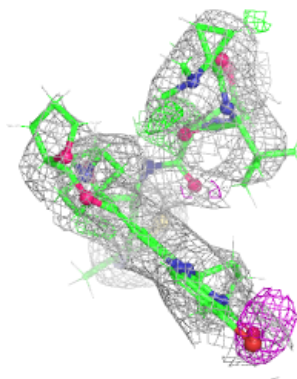
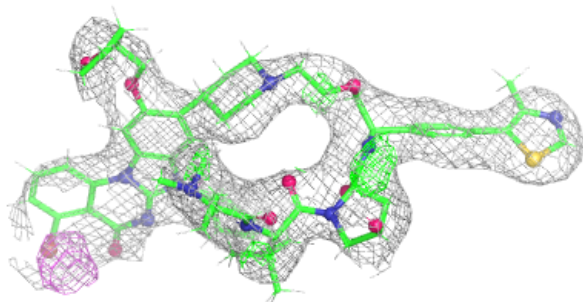
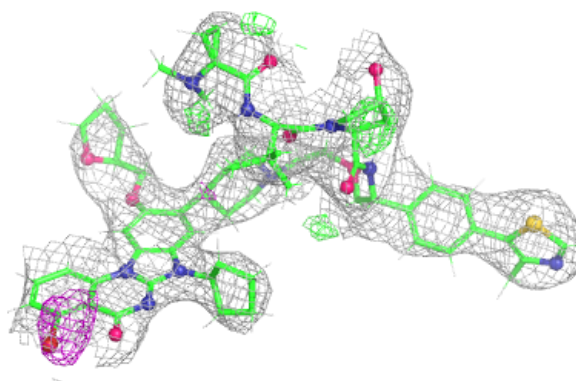
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 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
5	A1IYB	C	1501	79/79	0.87	0.14	62,74,92,94	77
5	A1IYB	I	1501	79/79	0.90	0.14	52,61,89,90	77
5	A1IYB	F	1501	79/79	0.91	0.13	45,51,66,69	77
5	A1IYB	L	301	79/79	0.91	0.14	51,57,77,78	77

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.

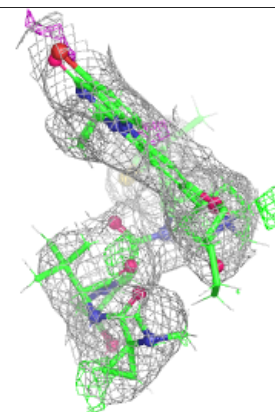
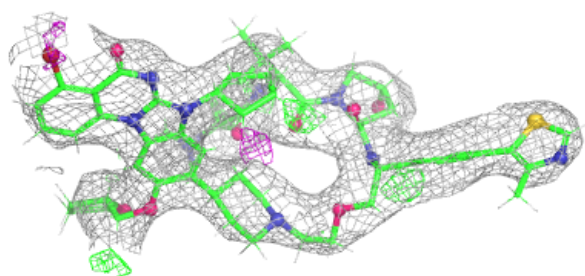
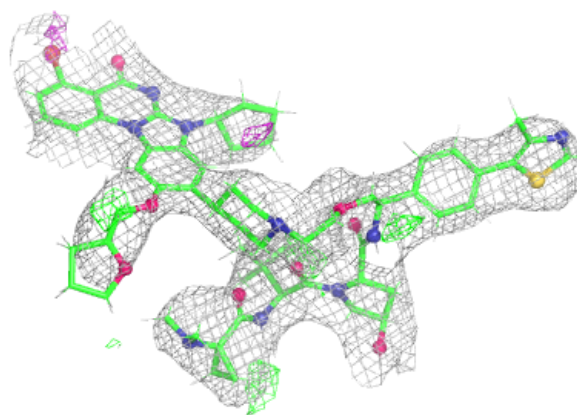
**Electron density around A1IYB C 1501:**

2mF<sub>o</sub>-DF<sub>c</sub> (at 0.7 rmsd) in gray  
mF<sub>o</sub>-DF<sub>c</sub> (at 3 rmsd) in purple (negative)  
and green (positive)

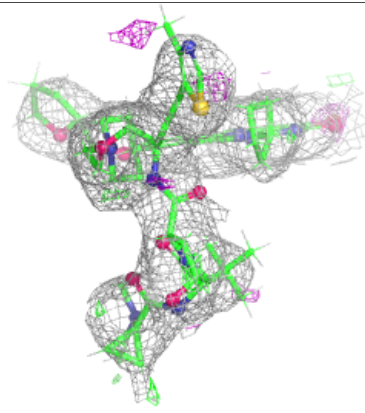
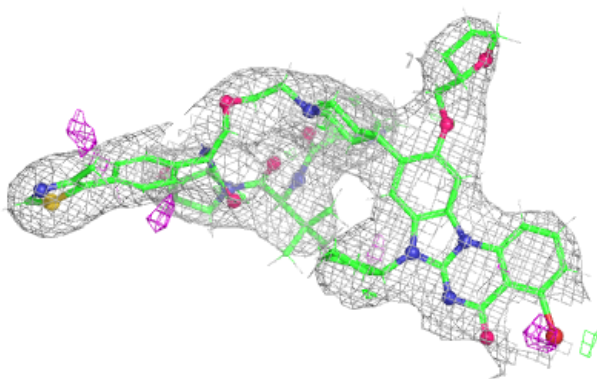
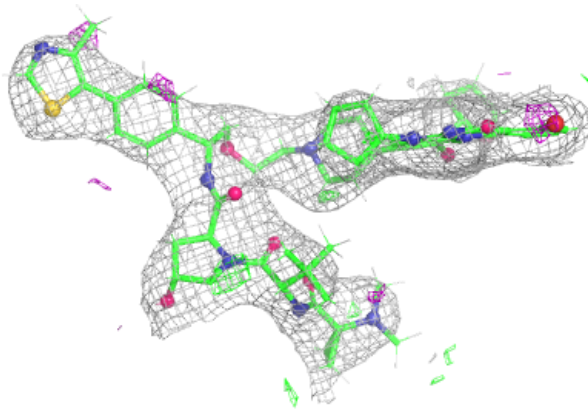


**Electron density around A1IYB I 1501:**

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

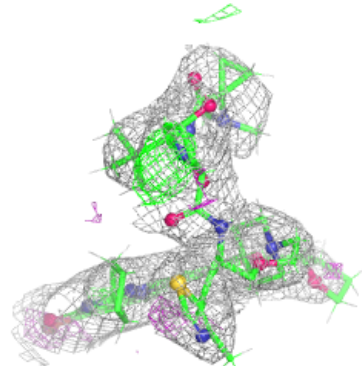
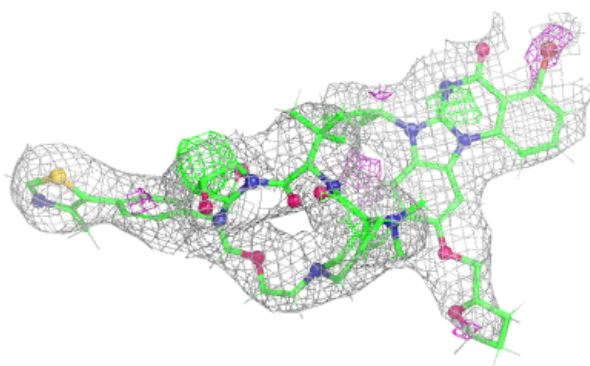
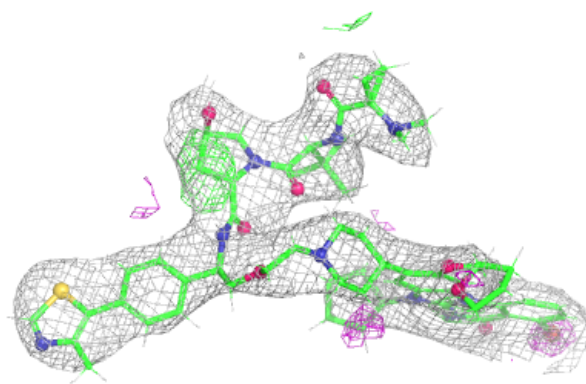
**Electron density around A1IYB F 1501:**

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



**Electron density around A1IYB L 301:**

$2mF_o-DF_c$  (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.