wwPDB X-ray Structure Validation Summary Report (i)

Dec 2, 2024 – 06:05 PM EST

PDB ID	:	9D7A
Title	:	OXA-58-NA-1-157 5 min complex
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Deposited on	:	2024-08-16
Resolution	:	2.05 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 (i) 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 (i)) were used in the production of this report:

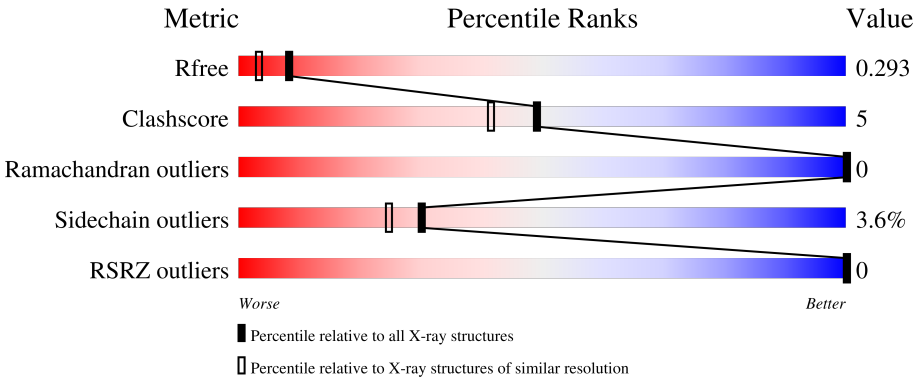
MolProbity	:	4.02b-467
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	1.21
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.004 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.40

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 2.05 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}	164625	2096 (2.04-2.04)
Clashscore	180529	2229 (2.04-2.04)
Ramachandran outliers	177936	2217 (2.04-2.04)
Sidechain outliers	177891	2217 (2.04-2.04)
RSRZ outliers	164620	2096 (2.04-2.04)

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	281	69% 17% • 13%
1	B	281	76% 10% 13%
1	C	281	75% 11% • 13%
2	D	280	66% 20% • 14%

2 Entry composition (i)

There are 4 unique types of molecules in this entry. The entry contains 7967 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.

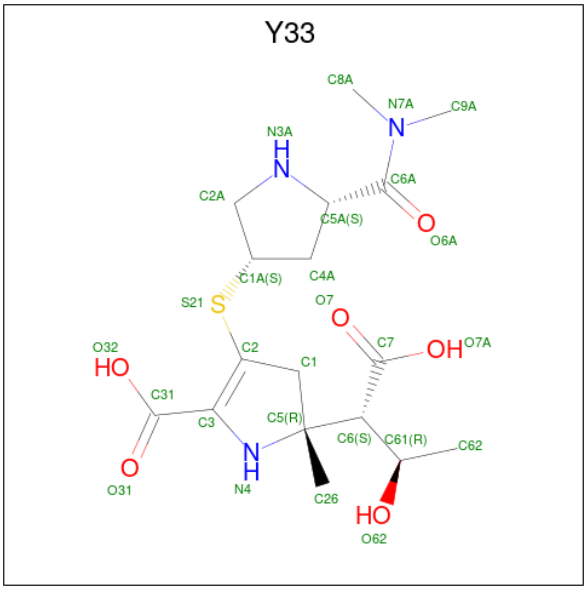
- Molecule 1 is a protein called Beta-lactamase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	243	Total	C	N	O	S	0	1	0
			1949	1256	327	359	7			
1	B	243	Total	C	N	O	S	0	1	0
			1949	1256	327	359	7			
1	C	243	Total	C	N	O	S	0	1	0
			1949	1256	327	359	7			

- Molecule 2 is a protein called Beta-lactamase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	D	242	Total	C	N	O	S	0	0	0
			1931	1244	325	355	7			

- Molecule 3 is (5R)-3-{[(3S,5S)-5-(dimethylcarbamoyl)pyrrolidin-3-yl]sulfanyl}-5-[(2S,3R)-3-hydroxy-1-oxobutan-2-yl]-5-methyl-4,5-dihydro-1H-pyrrole-2-carboxylic acid (three-letter code: Y33) (formula: $C_{17}H_{27}N_3O_6S$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total	C	N	O	S	0	0
			26	17	3	5	1		
3	B	1	Total	C	N	O	S	0	0
			26	17	3	5	1		
3	C	1	Total	C	N	O	S	0	0
			26	17	3	5	1		
3	D	1	Total	C	N	O	S	0	0
			26	17	3	5	1		

- Molecule 4 is water.

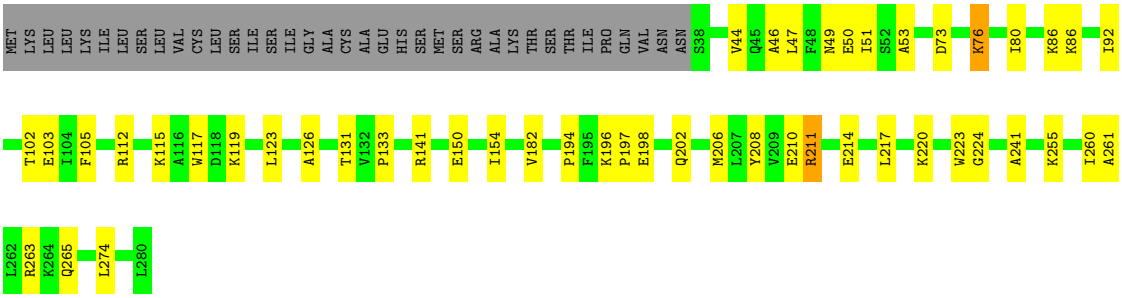
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	14	Total	O	0	0
			14	14		
4	B	21	Total	O	0	0
			21	21		
4	C	34	Total	O	0	0
			34	34		
4	D	16	Total	O	0	0
			16	16		

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.

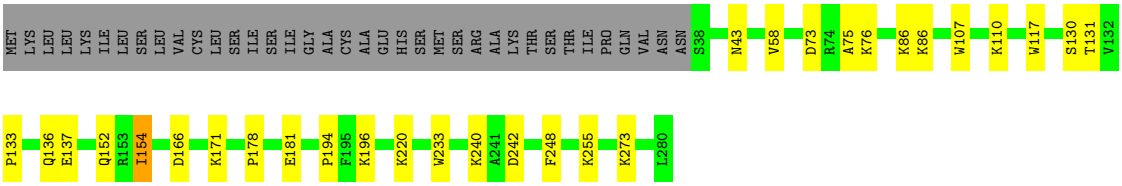
• Molecule 1: Beta-lactamase

Chain A:



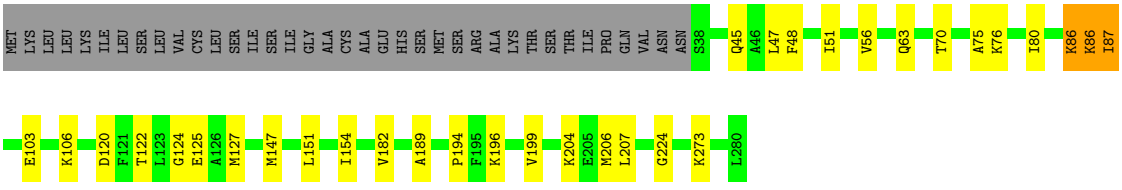
• Molecule 1: Beta-lactamase

Chain B:



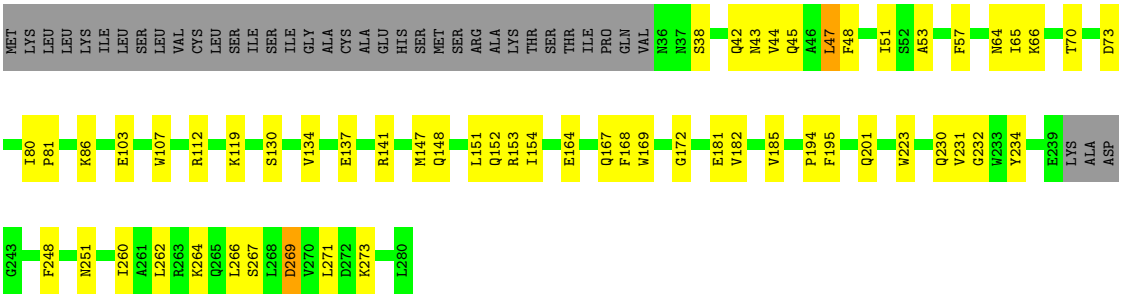
• Molecule 1: Beta-lactamase

Chain C:



• Molecule 2: Beta-lactamase

Chain D:


MET LYS LEU LEU LYS ILE LEU SER LEU VAL CYS LEU SER ILE SER ILE GLY ALA CYS ALA GLU HIS SER MET SER ARG ALA LYS THR SER THR ILE PRO GLN VAL N36 N37 S38 Q42 M43 V44 Q45 A46 L47 F48 I51 S52 A53 F57 N64 I65 K66 T70 D73
I80 P81 K86 E103 W107 R112 K119 S130 V134 E137 R141 M147 Q148 L151 Q152 R153 I154 E164 Q167 F168 W169 G172 E181 V182 V185 P194 F195 Q201 W223 Q230 V231 G232 W233 Y234 E239 LYS ALA ASP
G243 F248 N251 I260 A261 L262 R263 K264 Q265 L266 S267 L268 D269 V270 L271 D272 K273 L280

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	37.06Å 66.26Å 193.06Å 90.00° 91.12° 90.00°	Depositor
Resolution (Å)	39.01 – 2.05 39.01 – 2.05	Depositor EDS
% Data completeness (in resolution range)	98.8 (39.01-2.05) 98.9 (39.01-2.05)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.59 (at 2.05Å)	Xtriage
Refinement program	PHENIX (1.21.1_5286: ???)	Depositor
R, R_{free}	0.240 , 0.293 0.240 , 0.293	Depositor DCC
R_{free} test set	2810 reflections (4.82%)	wwPDB-VP
Wilson B-factor (Å^2)	31.9	Xtriage
Anisotropy	0.530	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.36 , 35.0	EDS
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.29$	Xtriage
Estimated twinning fraction	0.094 for h,-k,-l	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	7967	wwPDB-VP
Average B, all atoms (Å^2)	38.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 14.88% 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: Y33, KCX

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	0.49	0/1980	0.64	0/2675
1	B	0.42	0/1980	0.61	0/2675
1	C	0.52	0/1980	0.66	0/2675
2	D	0.41	0/1974	0.60	1/2668 (0.0%)
All	All	0.46	0/7914	0.63	1/10693 (0.0%)

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	D	47	LEU	CA-CB-CG	5.71	128.44	115.30

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	1949	0	1934	23	0
1	B	1949	0	1934	13	0
1	C	1949	0	1934	18	0
2	D	1931	0	1914	30	0
3	A	26	0	0	1	0
3	B	26	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	C	26	0	0	0	0
3	D	26	0	0	0	0
4	A	14	0	0	0	0
4	B	21	0	0	0	0
4	C	34	0	0	0	0
4	D	16	0	0	1	0
All	All	7967	0	7716	83	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 5.

The worst 5 of 83 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:A:44:VAL:HG21	1:A:274:LEU:HD12	1.72	0.70
1:B:154:ILE:HG22	1:B:194:PRO:HG2	1.76	0.66
2:D:112:ARG:HH12	2:D:134:VAL:HG23	1.61	0.65
2:D:269:ASP:O	2:D:273:LYS:HG2	1.99	0.63
1:C:48:PHE:HD1	1:C:51:ILE:HD11	1.64	0.62

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	240/281 (85%)	228 (95%)	12 (5%)	0	100	100
1	B	240/281 (85%)	233 (97%)	7 (3%)	0	100	100
1	C	240/281 (85%)	231 (96%)	9 (4%)	0	100	100
2	D	238/280 (85%)	232 (98%)	6 (2%)	0	100	100
All	All	958/1123 (85%)	924 (96%)	34 (4%)	0	100	100

There are no Ramachandran outliers to report.

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	202/236 (86%)	193 (96%)	9 (4%)	23	17
1	B	202/236 (86%)	194 (96%)	8 (4%)	27	21
1	C	202/236 (86%)	197 (98%)	5 (2%)	42	38
2	D	202/236 (86%)	195 (96%)	7 (4%)	31	25
All	All	808/944 (86%)	779 (96%)	29 (4%)	30	25

5 of 29 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	240	LYS
2	D	260	ILE
1	C	45	GLN
2	D	137	GLU
1	B	255	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 6 such sidechains are listed below:

Mol	Chain	Res	Type
2	D	148	GLN
2	D	152	GLN
2	D	230	GLN
1	C	63	GLN
1	C	49	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

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

3 non-standard protein/DNA/RNA residues 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	$\#\|Z\| > 2$
1	KCX	A	86[A]	1	10,11,12	1.59	2 (20%)	6,12,14	2.39	2 (33%)
1	KCX	C	86[A]	1	10,11,12	1.74	2 (20%)	6,12,14	2.73	2 (33%)
1	KCX	B	86[A]	1	10,11,12	1.60	2 (20%)	6,12,14	2.42	1 (16%)

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	KCX	A	86[A]	1	-	1/9/10/12	-
1	KCX	C	86[A]	1	-	2/9/10/12	-
1	KCX	B	86[A]	1	-	1/9/10/12	-

The worst 5 of 6 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	86[A]	KCX	CX-NZ	4.68	1.43	1.35
1	A	86[A]	KCX	CX-NZ	4.32	1.42	1.35
1	B	86[A]	KCX	CX-NZ	4.26	1.42	1.35
1	B	86[A]	KCX	OQ1-CX	2.12	1.25	1.21
1	A	86[A]	KCX	OQ1-CX	2.05	1.25	1.21

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	86[A]	KCX	OQ1-CX-NZ	-6.11	115.63	124.92
1	B	86[A]	KCX	OQ1-CX-NZ	-5.68	116.29	124.92
1	A	86[A]	KCX	OQ1-CX-NZ	-5.01	117.31	124.92
1	C	86[A]	KCX	CE-NZ-CX	2.32	125.92	121.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	86[A]	KCX	CD-CE-NZ	2.11	118.11	112.20

There are no chirality outliers.

All (4) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	A	86[A]	KCX	C-CA-CB-CG
1	B	86[A]	KCX	C-CA-CB-CG
1	C	86[A]	KCX	C-CA-CB-CG
1	C	86[A]	KCX	CE-CD-CG-CB

There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	C	86[A]	KCX	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

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	$\#\|Z\| > 2$
3	Y33	A	301	1	20,27,28	1.39	3 (15%)	20,40,42	1.39	4 (20%)
3	Y33	C	301	1	20,27,28	1.32	2 (10%)	20,40,42	1.43	4 (20%)
3	Y33	B	301	1	20,27,28	1.28	2 (10%)	20,40,42	1.51	4 (20%)
3	Y33	D	301	2	20,27,28	1.24	2 (10%)	20,40,42	1.18	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
3	Y33	A	301	1	-	7/23/51/53	0/2/2/2
3	Y33	C	301	1	-	11/23/51/53	0/2/2/2
3	Y33	B	301	1	-	13/23/51/53	0/2/2/2
3	Y33	D	301	2	-	12/23/51/53	0/2/2/2

The worst 5 of 9 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	301	Y33	C2-S21	-3.90	1.67	1.74
3	C	301	Y33	C2-S21	-3.60	1.67	1.74
3	B	301	Y33	C1A-S21	-3.38	1.77	1.82
3	B	301	Y33	C2-S21	-3.24	1.68	1.74
3	D	301	Y33	C1A-S21	-3.22	1.78	1.82

The worst 5 of 13 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	B	301	Y33	O7-C7-C6	-4.65	112.62	124.67
3	C	301	Y33	O32-C31-C3	3.42	122.16	116.73
3	A	301	Y33	O7-C7-C6	-3.14	116.53	124.67
3	D	301	Y33	O7-C7-C6	-3.04	116.79	124.67
3	A	301	Y33	O32-C31-C3	2.97	121.45	116.73

There are no chirality outliers.

5 of 43 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	301	Y33	C5-C6-C61-C62
3	A	301	Y33	C7-C6-C61-C62
3	A	301	Y33	C2A-C1A-S21-C2
3	A	301	Y33	C4A-C1A-S21-C2
3	B	301	Y33	C3-C2-S21-C1A

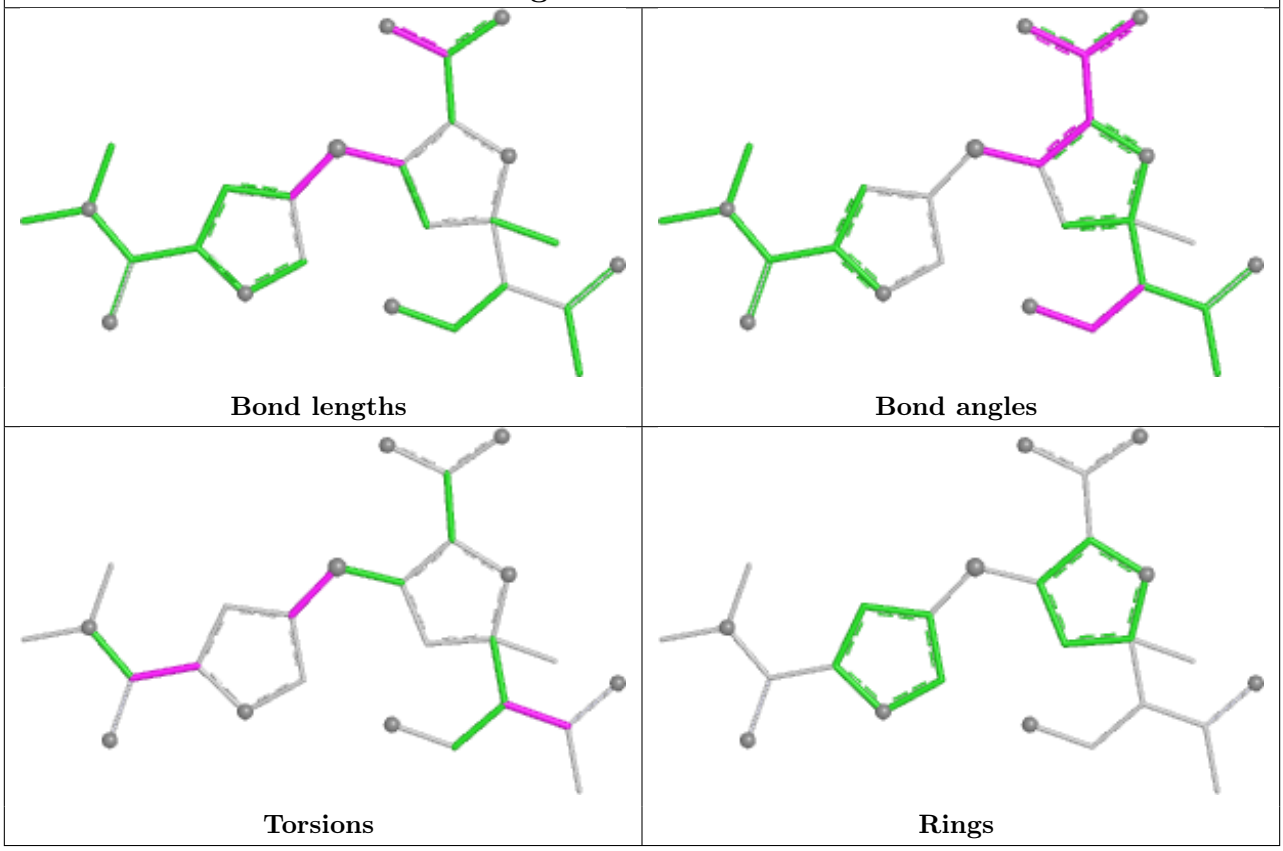
There are no ring outliers.

1 monomer is involved in 1 short contact:

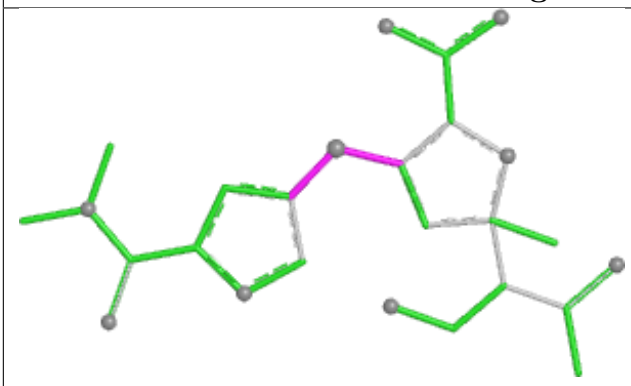
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	301	Y33	1	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

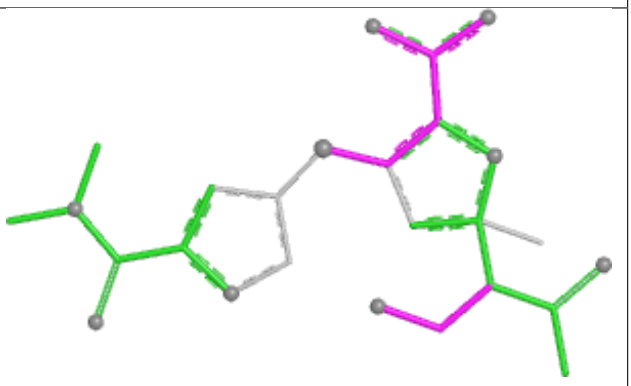
Ligand Y33 A 301



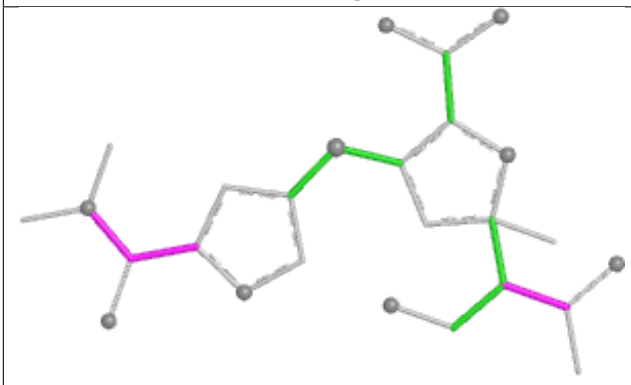
Ligand Y33 C 301



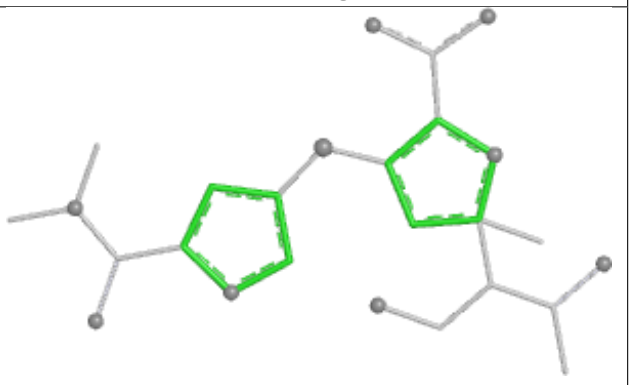
Bond lengths



Bond angles

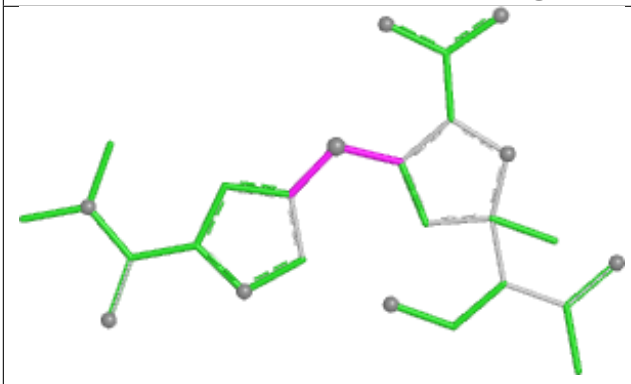


Torsions

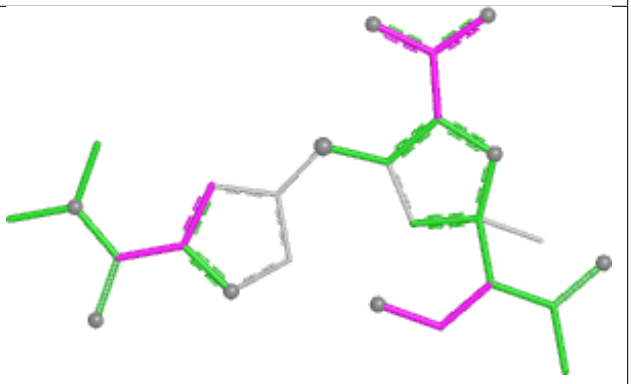


Rings

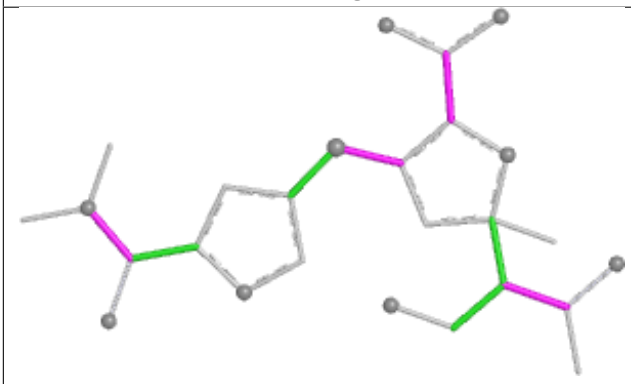
Ligand Y33 B 301



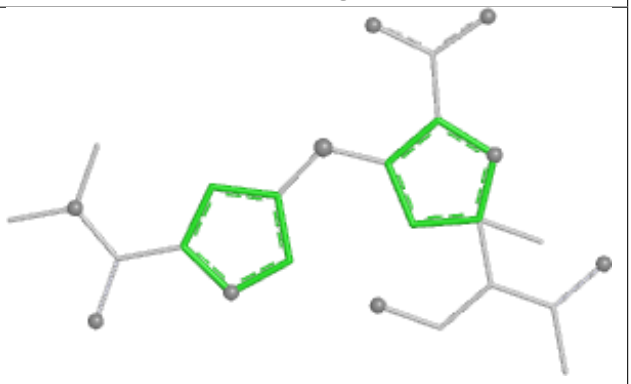
Bond lengths



Bond angles

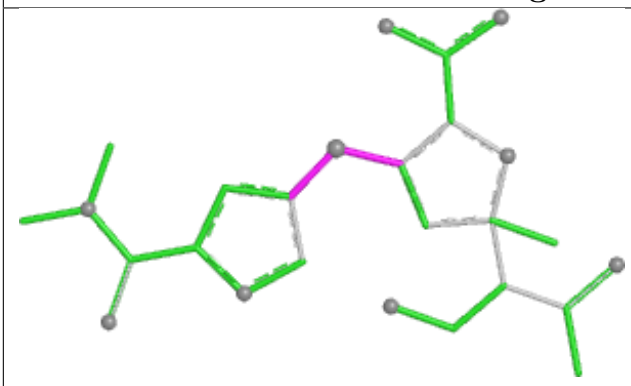


Torsions

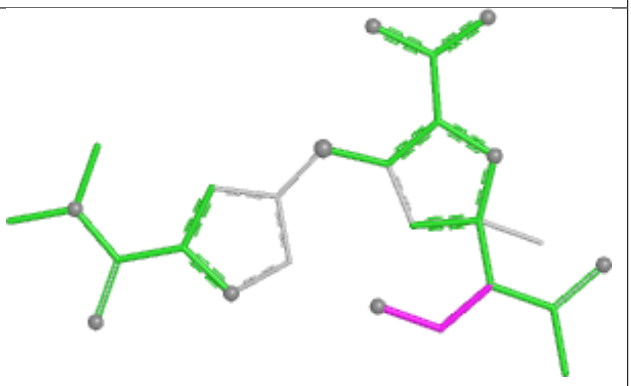


Rings

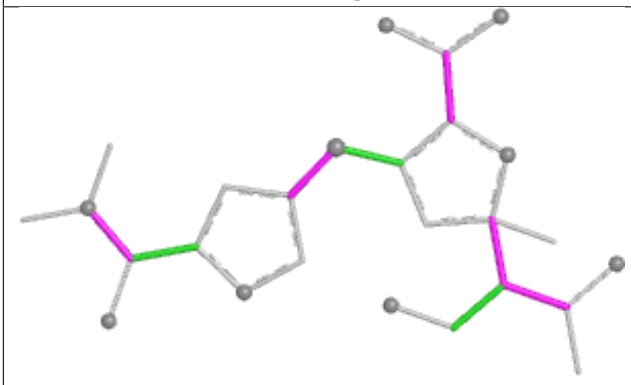
Ligand Y33 D 301



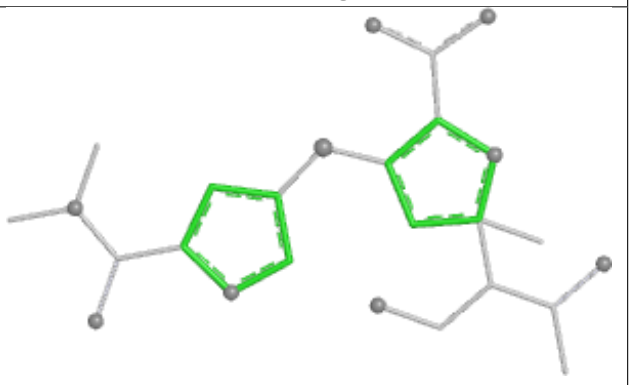
Bond lengths



Bond angles



Torsions



Rings

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^{th} 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	242/281 (86%)	-1.30	0	100	100	26, 36, 58, 85	0
1	B	242/281 (86%)	-1.35	0	100	100	25, 33, 47, 78	0
1	C	242/281 (86%)	-1.36	0	100	100	22, 33, 49, 78	0
2	D	242/280 (86%)	-1.21	0	100	100	30, 43, 72, 104	0
All	All	968/1123 (86%)	-1.31	0	100	100	22, 36, 61, 104	0

There are no RSRZ outliers to report.

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, 95^{th} 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(Å^2)	Q<0.9
1	KCX	A	86[A]	12/13	0.98	0.05	27,30,33,33	12
1	KCX	B	86[A]	12/13	0.98	0.04	24,29,31,33	12
1	KCX	C	86[A]	12/13	0.98	0.05	25,26,33,35	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,

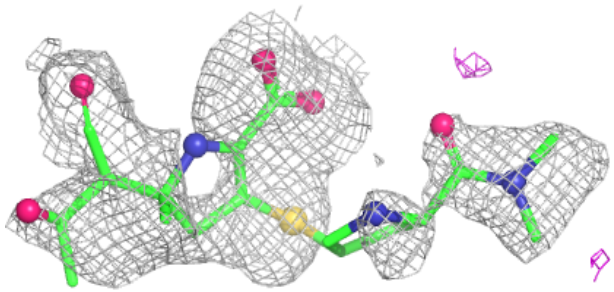
median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

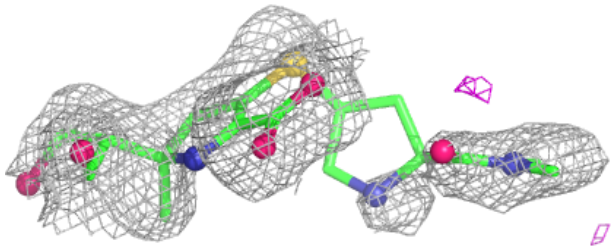
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	Y33	A	301	26/27	0.97	0.07	33,45,53,56	26
3	Y33	B	301	26/27	0.97	0.05	30,36,52,54	26
3	Y33	C	301	26/27	0.98	0.06	28,39,51,52	26
3	Y33	D	301	26/27	0.98	0.06	39,50,56,57	26

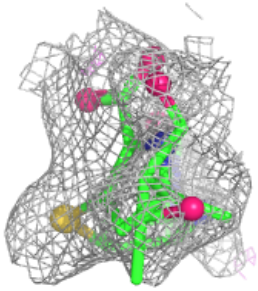
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around Y33 A 301:

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

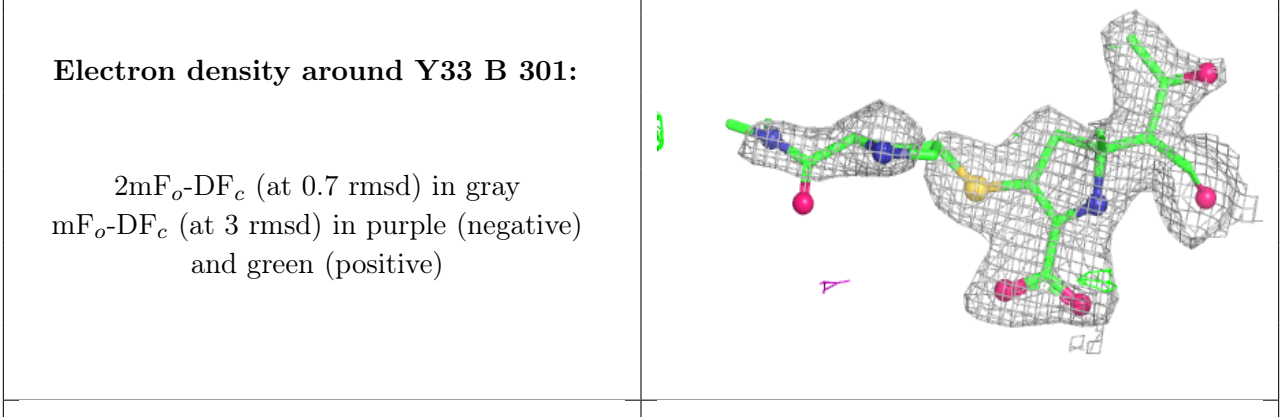






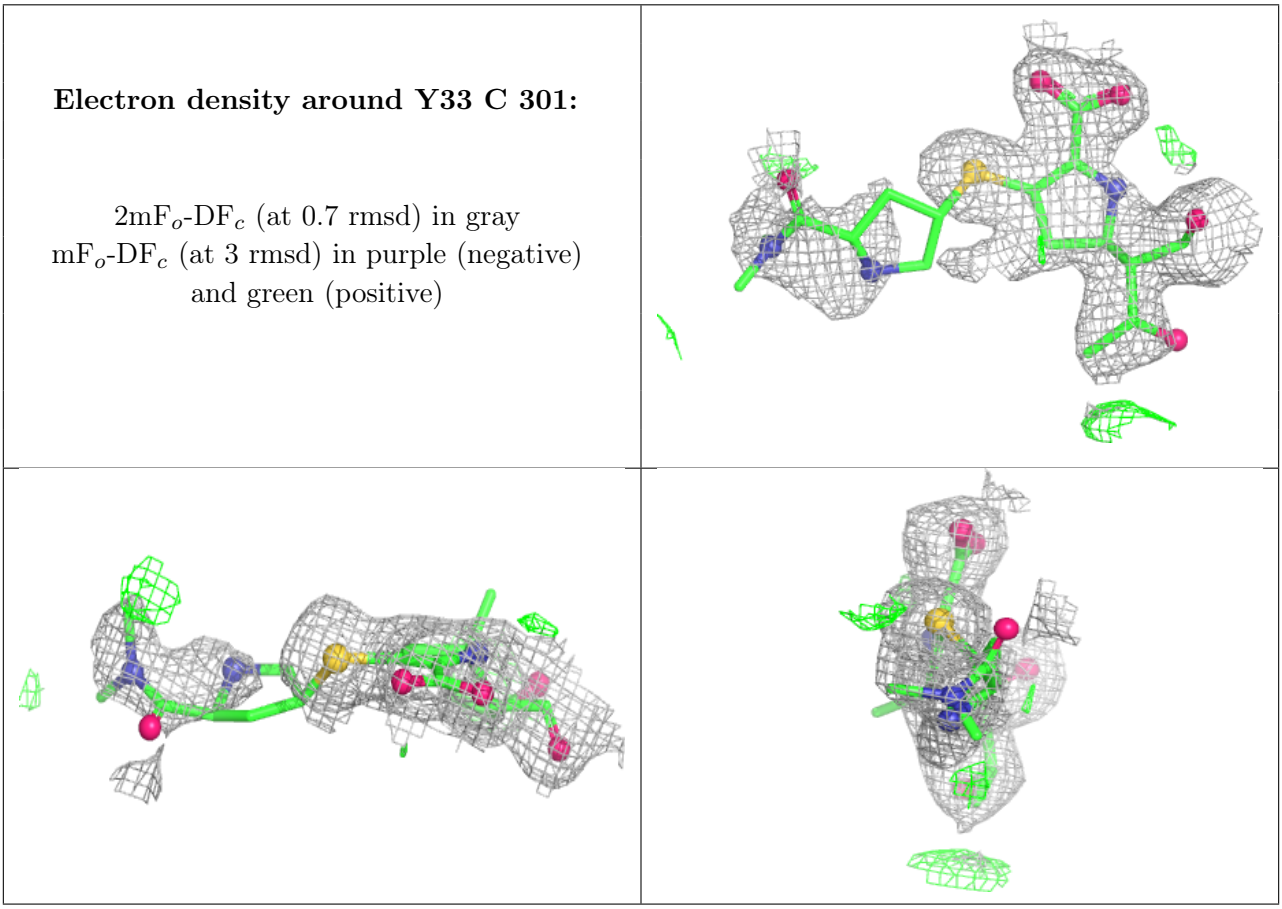
Electron density around Y33 B 301:

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



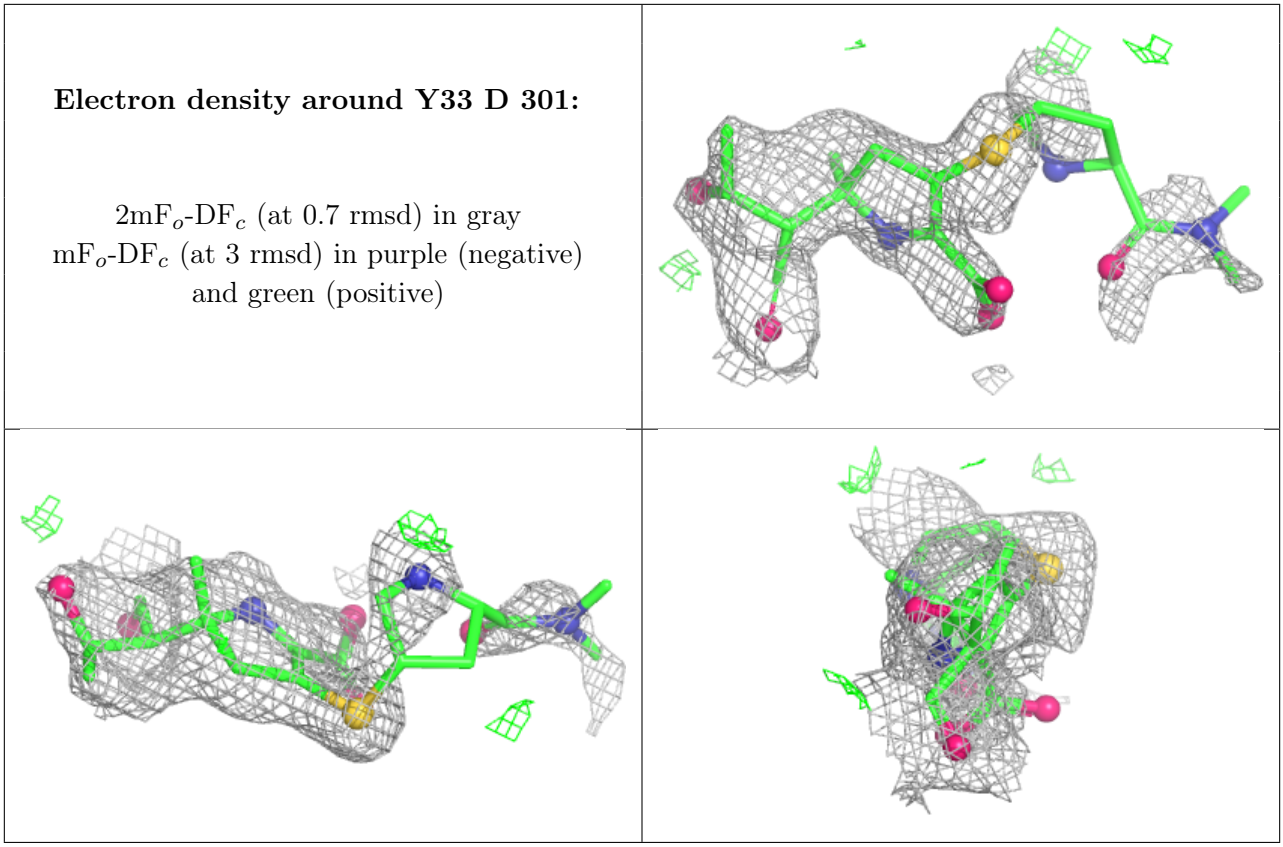
Electron density around Y33 C 301:

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



Electron density around Y33 D 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.