

# Full wwPDB X-ray Structure Validation Report (i)

### Aug 7, 2023 – 06:02 pm BST

PDB ID : 8AIV

Title: Mpro of SARS COV-2 in complex with the MG-100 inhibitor

Authors : El Kilani, H.; Hilgenfeld, R.

Deposited on : 2022-07-27

Resolution : 2.60 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*A user guide is available at <a href="https://www.wwpdb.org/validation/2017/XrayValidationReportHelp">https://www.wwpdb.org/validation/2017/XrayValidationReportHelp</a> 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 (1)) were used in the production of this report:

MolProbity: 4.02b-467

Mogul : 1.8.4, CSD as541be (2020)

Xtriage (Phenix) : 1.13

EDS : 2.34

buster-report : 1.1.7 (2018)

Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)

Refmac : 5.8.0158

CCP4 : 7.0.044 (Gargrove)

Ideal geometry (proteins) : Engh & Huber (2001) Ideal geometry (DNA, RNA) : Parkinson et al. (1996)

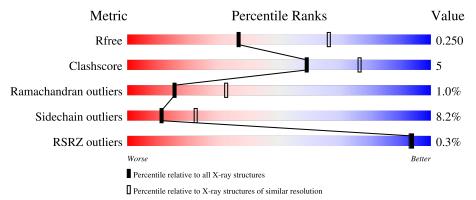
Validation Pipeline (wwPDB-VP) : 2.34

# 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 2.60 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	Similar resolution
Metric	$(\# \mathrm{Entries})$	$(\#  ext{Entries},  ext{ resolution range}( ext{Å}))$
$R_{free}$	130704	3163 (2.60-2.60)
Clashscore	141614	3518 (2.60-2.60)
Ramachandran outliers	138981	3455 (2.60-2.60)
Sidechain outliers	138945	3455 (2.60-2.60)
RSRZ outliers	127900	3104 (2.60-2.60)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain		
1	AAA	306	86%	13%	
1	BBB	306	78%	20%	-

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
2	MFL	AAA	401	X	-	_	_



# 2 Entry composition (i)

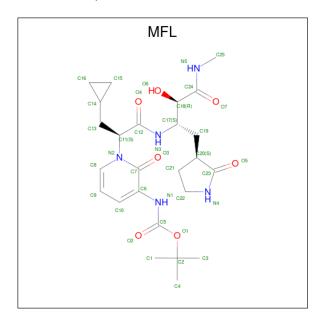
There are 4 unique types of molecules in this entry. The entry contains 4863 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 3C-like proteinase nsp5.

$\mathbf{Mol}$	Chain	Residues	Atoms			ZeroOcc	AltConf	Trace		
1	AAA	306	Total 2367	C 1499	N 402	O 444	S 22	0	0	0
1	BBB	306	Total 2367	C 1499	N 402	O 444	S 22	0	0	0

• Molecule 2 is tert-butyl N-[1-[(2S)-3-cyclopropyl-1-[[(2S,3R)-4-(methylamino)-3-oxidanyl-4-oxidanylidene-1-[(3S)-2-oxidanylidenepyrrolidin-3-yl]butan-2-yl]amino]-1-oxidanylidene-pyridin-3-yl]carbamate (three-letter code: MFL) (formula:  $C_{25}H_{37}N_5O_7$ ).



Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	
2	AAA	1	Total 37			0	0
2	BBB	1	Total 37			0	0

• Molecule 3 is CHLORIDE ION (three-letter code: CL) (formula: Cl).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	AAA	1	Total Cl 1 1	0	0

## • Molecule 4 is water.

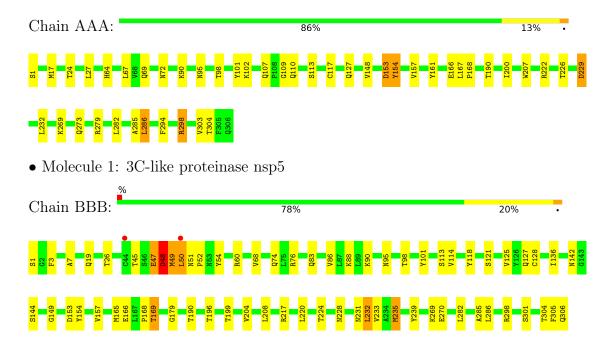
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	AAA	33	Total O 33 33	0	0
4	BBB	21	Total O 21 21	0	0



# 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: 3C-like proteinase nsp5





# 4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants	45.84Å 63.41Å 103.37Å	Donogitor
a, b, c, $\alpha$ , $\beta$ , $\gamma$	$90.00^{\circ}$ $91.10^{\circ}$ $90.00^{\circ}$	Depositor
Resolution (Å)	40.06 - 2.60	Depositor
resolution (A)	40.06 - 2.60	EDS
% Data completeness	98.3 (40.06-2.60)	Depositor
(in resolution range)	98.4 (40.06-2.60)	EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$< I/\sigma(I) > 1$	2.35 (at 2.61Å)	Xtriage
Refinement program	REFMAC 5.8.0267	Depositor
Ρ. Р.	0.181 , 0.252	Depositor
$R, R_{free}$	0.186 , $0.250$	DCC
$R_{free}$ test set	917 reflections (5.06%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	32.1	Xtriage
Anisotropy	0.088	Xtriage
Bulk solvent $k_{sol}(e/Å^3)$ , $B_{sol}(Å^2)$	0.37, 37.9	EDS
L-test for twinning <sup>2</sup>	$< L >=0.49, < L^2>=0.32$	Xtriage
Estimated twinning fraction	0.038 for h,-k,-l	Xtriage
$F_o, F_c$ correlation	0.94	EDS
Total number of atoms	4863	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	34.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 5.68% of the height of the origin peak. No significant pseudotranslation is detected.

<sup>&</sup>lt;sup>2</sup>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.



<sup>&</sup>lt;sup>1</sup>Intensities estimated from amplitudes.

# 5 Model quality (i)

## 5.1 Standard geometry (i)

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

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
MIOI	Chain	RMSZ	# Z  > 5	RMSZ	# Z  > 5
1	AAA	0.69	0/2420	0.88	0/3289
1	BBB	0.69	0/2420	0.86	0/3289
All	All	0.69	0/4840	0.87	0/6578

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

### 5.2 Too-close contacts (i)

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	AAA	2367	0	2313	20	0
1	BBB	2367	0	2313	30	0
2	AAA	37	0	0	0	0
2	BBB	37	0	0	0	0
3	AAA	1	0	0	0	0
4	AAA	33	0	0	0	0
4	BBB	21	0	0	0	0
All	All	4863	0	4626	44	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.



All (44) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom 2	Interatomic	Clash
Atom-1	Atom-2	${ m distance}({ m \AA})$	overlap(Å)
1:BBB:199:THR:HG21	1:BBB:239:TYR:CZ	2.31	0.66
1:AAA:95:ASN:HB3	1:AAA:98:THR:OG1	2.01	0.61
1:BBB:233:VAL:HG11	1:BBB:269:LYS:HG3	1.84	0.59
1:AAA:109:GLY:HA2	1:AAA:200:ILE:HD13	1.85	0.57
1:BBB:217:ARG:HB2	1:BBB:220:LEU:HD12	1.87	0.57
1:BBB:231:ASN:O	1:BBB:235:MET:HB3	2.06	0.56
1:BBB:101:TYR:HA	1:BBB:157:VAL:O	2.07	0.55
1:BBB:48:ASP:O	1:BBB:50:LEU:N	2.41	0.53
1:AAA:107:GLN:HG2	1:AAA:110:GLN:OE1	2.10	0.51
1:AAA:286:LEU:HD23	1:BBB:285:ALA:HB2	1.91	0.51
1:AAA:166:GLU:OE2	1:BBB:1:SER:N	2.44	0.49
1:BBB:95:ASN:HB3	1:BBB:98:THR:OG1	2.11	0.49
1:AAA:167:LEU:HB3	1:AAA:168:PRO:CD	2.43	0.49
1:BBB:114:VAL:O	1:BBB:125:VAL:HA	2.13	0.48
1:BBB:47:GLU:O	1:BBB:49:MET:N	2.33	0.48
1:AAA:269:LYS:O	1:AAA:273:GLN:HG3	2.14	0.48
1:AAA:101:TYR:HA	1:AAA:157:VAL:O	2.15	0.47
1:BBB:86:VAL:HG13	1:BBB:179:GLY:HA2	1.96	0.47
1:AAA:153:ASP:O	1:AAA:154:TYR:HB3	2.15	0.46
1:BBB:204:VAL:O	1:BBB:208:LEU:HG	2.16	0.46
1:AAA:1:SER:HB3	1:BBB:166:GLU:OE2	2.16	0.46
1:BBB:83:GLN:OE1	1:BBB:88:LYS:NZ	2.48	0.46
1:AAA:226:THR:OG1	1:AAA:229:ASP:HB2	2.16	0.45
1:AAA:113:SER:OG	1:AAA:127:GLN:NE2	2.50	0.45
1:BBB:52:PRO:HG2	1:BBB:54:TYR:CE2	2.52	0.45
1:AAA:1:SER:CB	1:BBB:166:GLU:OE2	2.64	0.45
1:BBB:168:PRO:O	1:BBB:169:THR:CB	2.65	0.43
1:AAA:285:ALA:HB3	1:BBB:285:ALA:HB3	2.01	0.43
1:AAA:1:SER:OG	1:BBB:166:GLU:OE2	2.30	0.42
1:BBB:7:ALA:HA	1:BBB:127:GLN:HE21	1.84	0.42
1:AAA:207:TRP:NE1	1:AAA:282:LEU:HD12	2.34	0.42
1:AAA:294:PHE:CE1	1:AAA:298:ARG:HG3	2.55	0.42
1:AAA:148:VAL:HA	1:AAA:161:TYR:O	2.19	0.41
1:AAA:17:MET:HG3	1:AAA:117:CYS:SG	2.60	0.41
1:BBB:19:GLN:O	1:BBB:68:VAL:HA	2.20	0.41
1:BBB:113:SER:O	1:BBB:149:GLY:HA2	2.21	0.41
1:BBB:86:VAL:HG13	1:BBB:179:GLY:CA	2.50	0.41
1:BBB:118:TYR:CE1	1:BBB:144:SER:HB3	2.55	0.41
1:BBB:83:GLN:O	1:BBB:86:VAL:HG22	2.19	0.41
1:BBB:142:ASN:HD22	1:BBB:142:ASN:HA	1.70	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash
		distance (A)	overlap (Å)
1:BBB:3:PHE:HB3	1:BBB:282:LEU:HD22	2.02	0.40
1:BBB:298:ARG:HD2	1:BBB:305:PHE:HZ	1.86	0.40
1:AAA:95:ASN:HB3	1:AAA:98:THR:HG1	1.85	0.40
1:BBB:232:LEU:HD12	1:BBB:232:LEU:HA	1.86	0.40

There are no symmetry-related clashes.

### 5.3 Torsion angles (i)

### 5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	AAA	304/306 (99%)	287 (94%)	16 (5%)	1 (0%)	41 64
1	BBB	304/306 (99%)	278 (91%)	21 (7%)	5 (2%)	9 19
All	All	608/612 (99%)	565 (93%)	37 (6%)	6 (1%)	15 32

All (6) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	BBB	48	ASP
1	BBB	47	GLU
1	BBB	49	MET
1	AAA	154	TYR
1	BBB	169	THR
1	BBB	154	TYR

### 5.3.2 Protein sidechains (i)

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	AAA	$263/263 \; (100\%)$	245 (93%)	18 (7%)	16	32	
1	BBB	$263/263 \; (100\%)$	238 (90%)	25 (10%)	8	16	
All	All	526/526 (100%)	483 (92%)	43 (8%)	11	22	

All (43) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	AAA	24	THR
1	AAA	27	LEU
1	AAA	64	HIS
1	AAA	67	LEU
1	AAA	69	GLN
1	AAA	72	ASN
1	AAA	90	LYS
1	AAA	102	LYS
1	AAA	153	ASP
1	AAA	190	THR
1	AAA	222	ARG
1	AAA	229	ASP
1	AAA	232	LEU
1	AAA	279	ARG
1	AAA	286	LEU
1	AAA	298	ARG
1	AAA	303	VAL
1	AAA	304	THR
1	BBB	26	THR
1	BBB	45	THR
1	BBB	48	ASP
1	BBB	50	LEU
1	BBB	51	ASN
1	BBB	60	ARG
1	BBB	74	GLN
1	BBB	76	ARG
1	BBB	90	LYS
1	BBB	121	SER
1	BBB	128	CYS
1	BBB	136	ILE
1	BBB	153	ASP
1	BBB	165	MET
1	BBB	190	THR
1	BBB	196	THR

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Mol	Chain	Res	Type
1	BBB	224	THR
1	BBB	228	ASN
1	BBB	232	LEU
1	BBB	235	MET
1	BBB	270	GLU
1	BBB	286	LEU
1	BBB	301	SER
1	BBB	304	THR
1	BBB	306	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

### 5.3.3 RNA (i)

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 monosaccharides in this entry.

## 5.6 Ligand geometry (i)

Of 3 ligands modelled in this entry, 1 is monoatomic - leaving 2 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with |Z| > 2 is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bo	ond leng	$ ag{ths}$	В	ond ang	eles
MIOI	туре	Chain	nes	LIIIK	Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
2	MFL	BBB	401	1	39,39,39	0.85	1 (2%)	48,56,56	1.50	5 (10%)
2	MFL	AAA	401	1	39,39,39	0.73	1 (2%)	48,56,56	1.36	5 (10%)



In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	MFL	BBB	401	1	-	6/39/51/51	0/3/3/3
2	MFL	AAA	401	1	1/1/10/14	13/39/51/51	0/3/3/3

#### All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	$\mathbf{Z}$	$\operatorname{Observed}(\text{\AA})$	$\operatorname{Ideal}( ext{\AA})$
2	AAA	401	MFL	C6-C7	-3.23	1.39	1.47
2	BBB	401	MFL	C6-C7	-3.20	1.39	1.47

### All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	$Observed(^o)$	$\operatorname{Ideal}({}^{o})$
2	BBB	401	MFL	C7-C6-N1	6.22	117.98	112.30
2	AAA	401	MFL	C7-C6-N1	5.94	117.72	112.30
2	BBB	401	MFL	C10-C6-N1	-5.17	120.22	127.20
2	AAA	401	MFL	C10-C6-N1	-4.41	121.25	127.20
2	AAA	401	MFL	O3-C7-C6	2.88	125.64	122.29
2	BBB	401	MFL	C10-C6-C7	2.61	121.79	120.30
2	AAA	401	MFL	C14-C13-C11	-2.41	111.36	114.54
2	AAA	401	MFL	O3-C7-N2	-2.12	118.04	122.43
2	BBB	401	MFL	O3-C7-C6	2.11	124.75	122.29
2	BBB	401	MFL	O7-C24-N5	2.07	126.53	123.09

#### All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	AAA	401	MFL	C20

All (19) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	AAA	401	MFL	C19-C17-C18-O6
2	AAA	401	MFL	C17-C19-C20-C21
2	AAA	401	MFL	C13-C11-N2-C8
2	BBB	401	MFL	C7-C6-N1-C5
2	BBB	401	MFL	C13-C11-N2-C8
2	AAA	401	MFL	N2-C11-C13-C14

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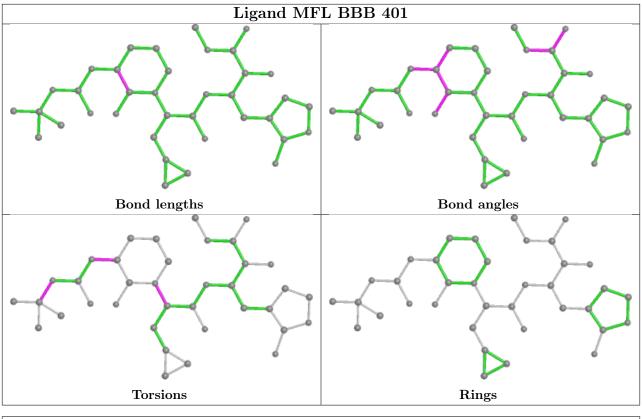
Mol	Chain	Res	Type	Atoms
2	AAA	401	MFL	C12-C11-C13-C14
2	BBB	401	MFL	C13-C11-N2-C7
2	AAA	401	MFL	N1-C5-O1-C2
2	BBB	401	MFL	C1-C2-O1-C5
2	AAA	401	MFL	N3-C17-C18-O6
2	AAA	401	MFL	N3-C17-C19-C20
2	AAA	401	MFL	O2-C5-O1-C2
2	AAA	401	MFL	C13-C11-N2-C7
2	BBB	401	MFL	C10-C6-N1-C5
2	AAA	401	MFL	N3-C17-C18-C24
2	AAA	401	MFL	C12-C11-N2-C7
2	AAA	401	MFL	C17-C19-C20-C23
2	BBB	401	MFL	C4-C2-O1-C5

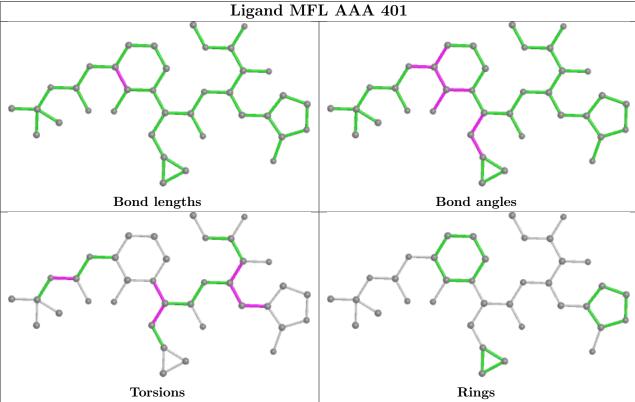
There are no ring outliers.

No monomer is involved in short contacts.

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.







# 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,  $95^{th}$  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 $>$	$\# \mathrm{RSRZ}{>}2$	$OWAB(Å^2)$	Q<0.9
1	AAA	306/306 (100%)	-0.44	0 100 100	18, 30, 54, 86	0
1	BBB	306/306 (100%)	-0.38	2 (0%) 87 86	18, 31, 64, 96	0
All	All	612/612 (100%)	-0.41	2 (0%) 94 93	18, 30, 58, 96	0

#### All (2) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	BBB	50	LEU	2.2
1	BBB	44	CYS	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 monosaccharides in this entry.

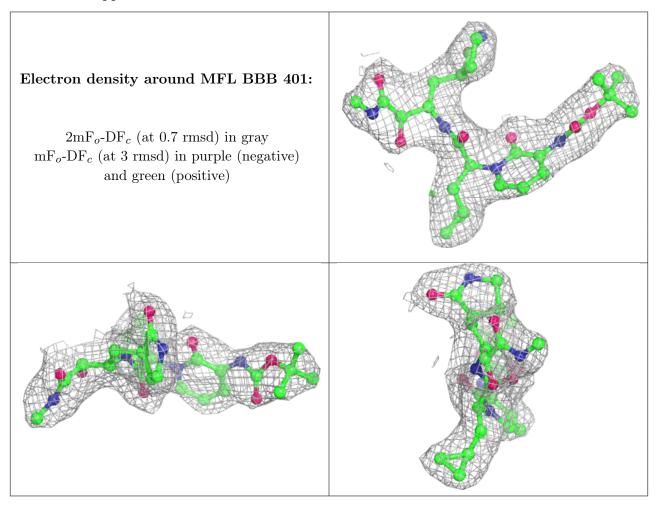
## 6.4 Ligands (i)

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,  $95^{th}$  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.

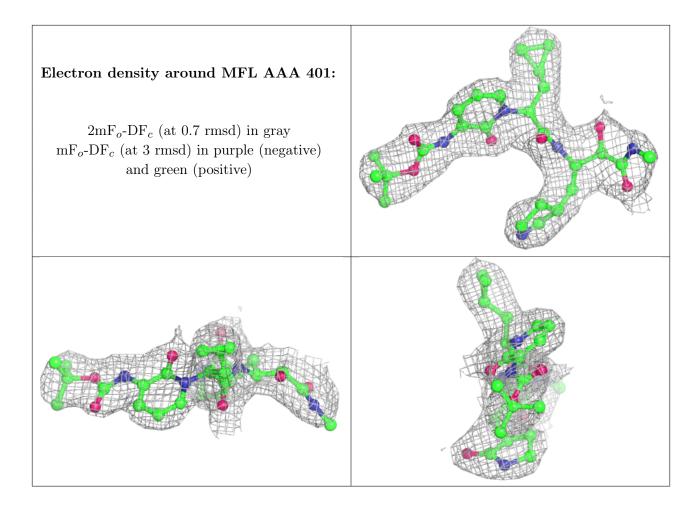
Mol	Type	Chain	$\operatorname{Res}$	Atoms	RSCC	RSR	$\mathbf{B} ext{-}\mathbf{factors}(\mathbf{\mathring{A}}^2)$	Q<0.9
2	MFL	BBB	401	37/37	0.95	0.14	30,34,45,46	0
3	CL	AAA	402	1/1	0.96	0.07	44,44,44	0
2	MFL	AAA	401	37/37	0.97	0.13	25,31,40,42	0



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







## 6.5 Other polymers (i)

There are no such residues in this entry.

