



# Full wwPDB X-ray Structure Validation Report ⓘ

May 19, 2026 – 04:10 pm BST

PDB ID : 9RLV / pdb\_00009rlv  
Title : Leishmania major N-myristoyltransferase in complex with azetidinopyrimidine inhibitor IMP-821  
Authors : Brannigan, J.A.  
Deposited on : 2025-06-17  
Resolution : 1.49 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	:	1.8.4, CSD as541be (2020)
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

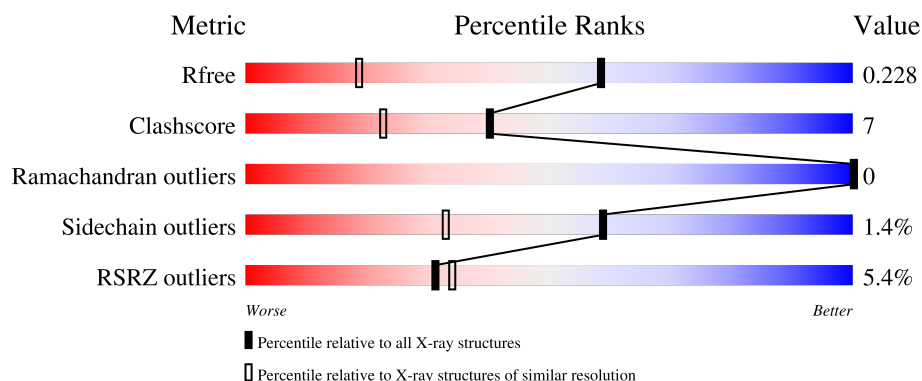
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 1.49 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	4037 (1.50-1.50)
Clashscore	190562	4235 (1.50-1.50)
Ramachandran outliers	187476	4153 (1.50-1.50)
Sidechain outliers	187428	4150 (1.50-1.50)
RSRZ outliers	180081	4039 (1.50-1.50)

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	418	<div> <div>5%</div> <div>87%</div> <div>11%</div> <div>..</div> </div>

## 2 Entry composition [i](#)

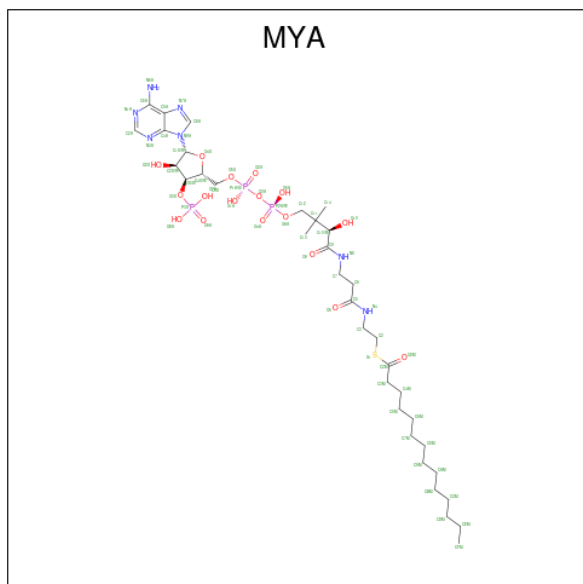
There are 5 unique types of molecules in this entry. The entry contains 4050 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Glycylpeptide N-tetradecanoyltransferase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	411	Total	C	N	O	S	2	28	0
			3502	2277	582	624	19			

- Molecule 2 is TETRADECANOYL-COA (CCD ID: MYA) (formula:  $C_{35}H_{62}N_7O_{17}P_3S$ ).



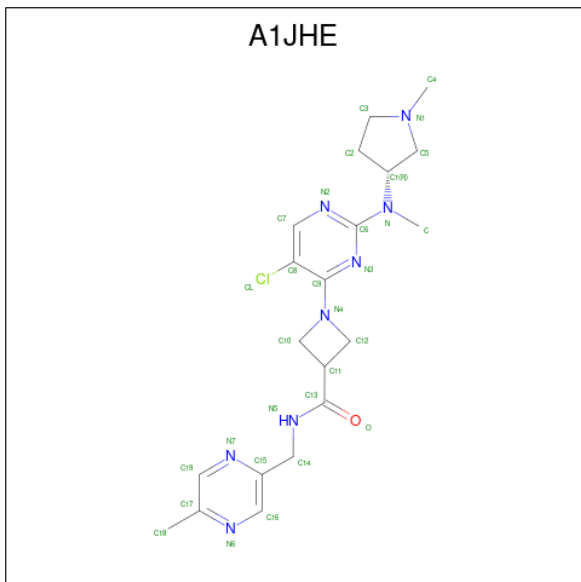
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	P S	0	0
			63	35	7	17	3 1		

- Molecule 3 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	1	Total	Mg	0	0
			1	1		

- Molecule 4 is 1-[5-chloranyl-2-[methyl-[(3 {R})-1-methylpyrrolidin-3-yl]amino]pyrimidin-4-y

1)-{N}-[(5-methylpyrazin-2-yl)methyl]azetidine-3-carboxamide (CCD ID: A1JHE) (formula: C<sub>20</sub>H<sub>27</sub>ClN<sub>8</sub>O) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	A	1	Total 30	C 20	Cl 1	N 8	O 1	0	0

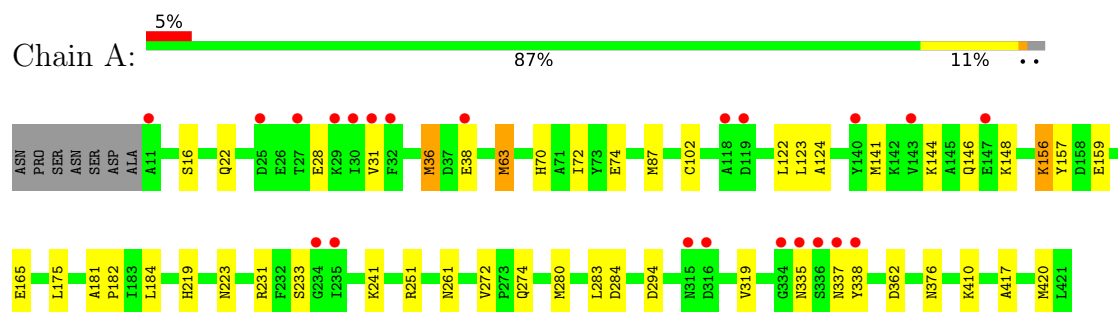
- Molecule 5 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	A	454	Total O 454 454	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: Glycylpeptide N-tetradecanoyltransferase



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	48.36Å 91.85Å 53.48Å 90.00° 112.81° 90.00°	Depositor
Resolution (Å)	49.29 – 1.49 49.29 – 1.49	Depositor EDS
% Data completeness (in resolution range)	98.7 (49.29-1.49) 98.7 (49.29-1.49)	Depositor EDS
$R_{merge}$	0.04	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.69 (at 1.49Å)	Xtriage
Refinement program	REFMAC 5.8.0430	Depositor
R, $R_{free}$	0.189 , 0.228 0.189 , 0.228	Depositor DCC
$R_{free}$ test set	3431 reflections (4.15%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	21.2	Xtriage
Anisotropy	0.111	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.31 , 34.7	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.48$ , $\langle L^2 \rangle = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
$F_o, F_c$ correlation	0.97	EDS
Total number of atoms	4050	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	26.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.04% 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: MG, A1JHE, MYA

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	0.66	0/3686	1.17	6/5004 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	2

There are no bond length outliers.

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed( $^{\circ}$ )	Ideal( $^{\circ}$ )
1	A	63	MET	CB-CG-SD	-6.02	94.64	112.70
1	A	272	VAL	N-CA-CB	5.77	114.95	110.45
1	A	28	GLU	CB-CA-C	5.52	120.32	109.72
1	A	233	SER	CA-C-N	-5.21	118.59	122.18
1	A	233	SER	C-N-CA	-5.21	118.59	122.18
1	A	294	ASP	CA-CB-CG	5.06	117.66	112.60

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	251[B]	ARG	Sidechain
1	A	251[C]	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	3502	0	3529	46	0
2	A	63	0	58	0	0
3	A	1	0	0	0	0
4	A	30	0	0	1	0
5	A	454	0	0	4	0
All	All	4050	0	3587	47	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 7.

All (47) 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:63:MET:HE1	1:A:72[B]:ILE:CD1	1.59	1.31
1:A:63:MET:CE	1:A:72[B]:ILE:HD12	1.71	1.19
1:A:63:MET:HE1	1:A:72[B]:ILE:HD12	1.23	1.09
1:A:63:MET:CE	1:A:72[B]:ILE:CD1	2.32	1.02
1:A:63:MET:HE1	1:A:72[B]:ILE:HD11	1.53	0.89
1:A:335:ASN:HD22	1:A:338:TYR:H	1.25	0.85
1:A:280[A]:MET:HA	1:A:280[A]:MET:HE2	1.72	0.71
1:A:31:VAL:HA	1:A:141:MET:HE2	1.73	0.70
1:A:63:MET:HB3	1:A:102:CYS:SG	2.32	0.70
1:A:123:LEU:HD22	1:A:175:LEU:HD11	1.75	0.69
1:A:124:ALA:HB1	1:A:184[A]:LEU:HD11	1.73	0.68
1:A:146:GLN:HG2	5:A:1140:HOH:O	1.92	0.68
1:A:123:LEU:HD22	1:A:175:LEU:CD1	2.26	0.66
1:A:63:MET:HE2	1:A:72[B]:ILE:HD12	1.74	0.65
1:A:87[B]:MET:HE1	1:A:231:ARG:HB2	1.80	0.62
1:A:274:GLN:NE2	1:A:319:VAL:H	1.98	0.60
1:A:156[A]:LYS:HB2	1:A:156[A]:LYS:NZ	2.17	0.58
1:A:335:ASN:HD22	1:A:338:TYR:N	1.98	0.57
1:A:280[B]:MET:HE3	5:A:1416:HOH:O	2.04	0.56
1:A:70:HIS:CE1	1:A:74[A]:GLU:OE2	2.60	0.55
1:A:72[A]:ILE:HD13	1:A:122:LEU:HD21	1.89	0.54
1:A:219[B]:HIS:ND1	1:A:376:ASN:OD1	2.35	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:156[A]:LYS:HB2	1:A:156[A]:LYS:HZ2	1.75	0.52
1:A:63:MET:HE2	1:A:72[B]:ILE:CD1	2.33	0.51
1:A:156[A]:LYS:HD2	1:A:157:TYR:CE2	2.47	0.50
1:A:70:HIS:HE1	1:A:74[A]:GLU:OE2	1.94	0.49
1:A:283:LEU:HD22	1:A:417:ALA:HB1	1.95	0.49
1:A:72[A]:ILE:HD13	1:A:122:LEU:CD2	2.43	0.48
1:A:335:ASN:ND2	1:A:337:ASN:H	2.11	0.48
1:A:16:SER:HA	1:A:22:GLN:HE22	1.78	0.47
1:A:72[A]:ILE:CD1	1:A:122:LEU:HD21	2.44	0.47
1:A:36:MET:HE3	1:A:36:MET:HB3	1.74	0.46
1:A:156[A]:LYS:NZ	1:A:156[A]:LYS:CB	2.79	0.46
1:A:165:GLU:HG2	1:A:420:MET:HE3	1.97	0.46
4:A:1003:A1JHE:C10	4:A:1003:A1JHE:CL	3.01	0.45
1:A:31:VAL:CA	1:A:141:MET:HE2	2.45	0.45
1:A:261:ASN:ND2	1:A:362:ASP:OD2	2.47	0.45
1:A:148:LYS:NZ	5:A:1110:HOH:O	2.47	0.43
1:A:144:LYS:O	1:A:148:LYS:HG3	2.18	0.43
1:A:420:MET:HE2	1:A:420:MET:HB3	1.94	0.43
1:A:181:ALA:HB3	1:A:182:PRO:HD3	2.00	0.42
1:A:274:GLN:HE22	1:A:319:VAL:H	1.65	0.42
1:A:159:GLU:HG2	5:A:1531:HOH:O	2.19	0.41
1:A:335:ASN:HD21	1:A:337:ASN:HB2	1.85	0.41
1:A:16:SER:HA	1:A:22:GLN:NE2	2.36	0.41
1:A:223:ASN:C	1:A:223:ASN:HD22	2.28	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	A	437/418 (104%)	424 (97%)	13 (3%)	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	390/368 (106%)	384 (98%)	6 (2%)	57 31

All (6) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	36	MET
1	A	38	GLU
1	A	156[A]	LYS
1	A	156[B]	LYS
1	A	284	ASP
1	A	410	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (7) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	22	GLN
1	A	70	HIS
1	A	223	ASN
1	A	274	GLN
1	A	335	ASN
1	A	339	ASN
1	A	398	HIS

### 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 [i](#)

There are no oligosaccharides 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	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
2	MYA	A	1001	3	60,65,65	1.01	3 (5%)	81,91,91	1.56	14 (17%)
4	A1JHE	A	1003	-	31,33,33	1.46	2 (6%)	35,47,47	3.39	17 (48%)

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	MYA	A	1001	3	-	3/64/80/80	0/3/3/3
4	A1JHE	A	1003	-	-	1/17/38/38	0/4/4/4

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1003	A1JHE	C8-C9	5.36	1.46	1.39
2	A	1001	MYA	C8A-N7A	3.20	1.37	1.31
2	A	1001	MYA	C7-C6	2.60	1.59	1.51
2	A	1001	MYA	O2M-C2M	2.59	1.25	1.21
4	A	1003	A1JHE	C6-N	2.57	1.42	1.35

All (31) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1003	A1JHE	C5-N1-C3	11.23	116.62	104.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1003	A1JHE	C-N-C1	5.94	123.05	117.92
2	A	1001	MYA	N3A-C2A-N1A	-5.67	119.73	128.60
4	A	1003	A1JHE	C7-N2-C6	5.51	120.53	115.64
4	A	1003	A1JHE	C8-C7-N2	-5.28	118.31	122.84
4	A	1003	A1JHE	C4-N1-C3	4.66	124.98	113.46
4	A	1003	A1JHE	C8-C9-N3	-4.50	115.04	122.70
4	A	1003	A1JHE	N2-C6-N3	-4.07	121.93	126.00
4	A	1003	A1JHE	C2-C1-C5	4.02	109.01	102.22
2	A	1001	MYA	C5A-C4A-N3A	-3.93	121.62	126.75
4	A	1003	A1JHE	C6-N3-C9	3.92	122.23	114.97
4	A	1003	A1JHE	C2-C1-N	-3.74	109.53	115.08
4	A	1003	A1JHE	C14-N5-C13	3.69	127.64	122.34
2	A	1001	MYA	O8A-P3X-O7A	3.60	121.38	107.64
2	A	1001	MYA	C2A-N3A-C4A	3.47	119.95	111.75
2	A	1001	MYA	N9A-C8A-N7A	-3.46	109.18	113.91
4	A	1003	A1JHE	C9-C8-CL	-3.31	118.58	121.43
2	A	1001	MYA	C4A-N9A-C8A	3.16	109.16	105.73
4	A	1003	A1JHE	C10-N4-C9	2.80	134.59	125.64
2	A	1001	MYA	N3A-C4A-N9A	2.68	131.50	127.08
2	A	1001	MYA	O6A-C12-C11	-2.64	106.31	110.55
2	A	1001	MYA	C6-C5-N4	-2.57	112.10	116.42
4	A	1003	A1JHE	C11-C13-N5	2.48	119.20	115.99
2	A	1001	MYA	C14-C11-C13	-2.44	104.19	109.17
4	A	1003	A1JHE	C17-C19-N7	-2.28	120.09	123.21
2	A	1001	MYA	O7A-P3X-O9A	-2.27	101.78	110.68
4	A	1003	A1JHE	C15-C16-N6	-2.26	120.92	123.13
2	A	1001	MYA	O2M-C2M-C3M	-2.23	121.35	123.99
2	A	1001	MYA	C3M-C2M-S1	2.20	116.02	113.46
2	A	1001	MYA	O5X-P1A-O2A	2.07	117.17	109.07
4	A	1003	A1JHE	N3-C9-N4	2.03	120.09	116.80

There are no chirality outliers.

All (4) torsion outliers are listed below:

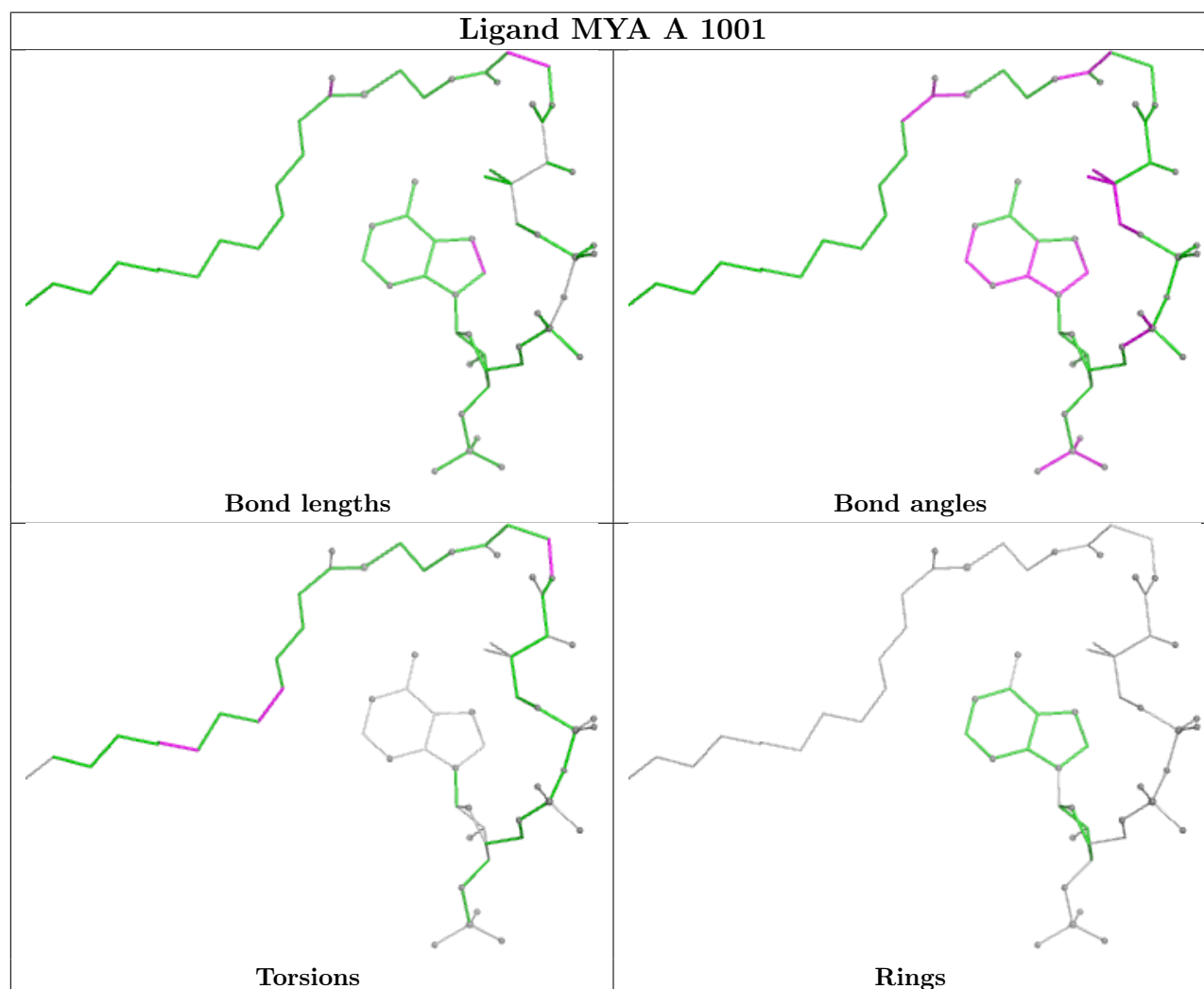
Mol	Chain	Res	Type	Atoms
2	A	1001	MYA	C8M-C9M-CAM-CBM
4	A	1003	A1JHE	C15-C14-N5-C13
2	A	1001	MYA	C5M-C6M-C7M-C8M
2	A	1001	MYA	C6-C7-N8-C9

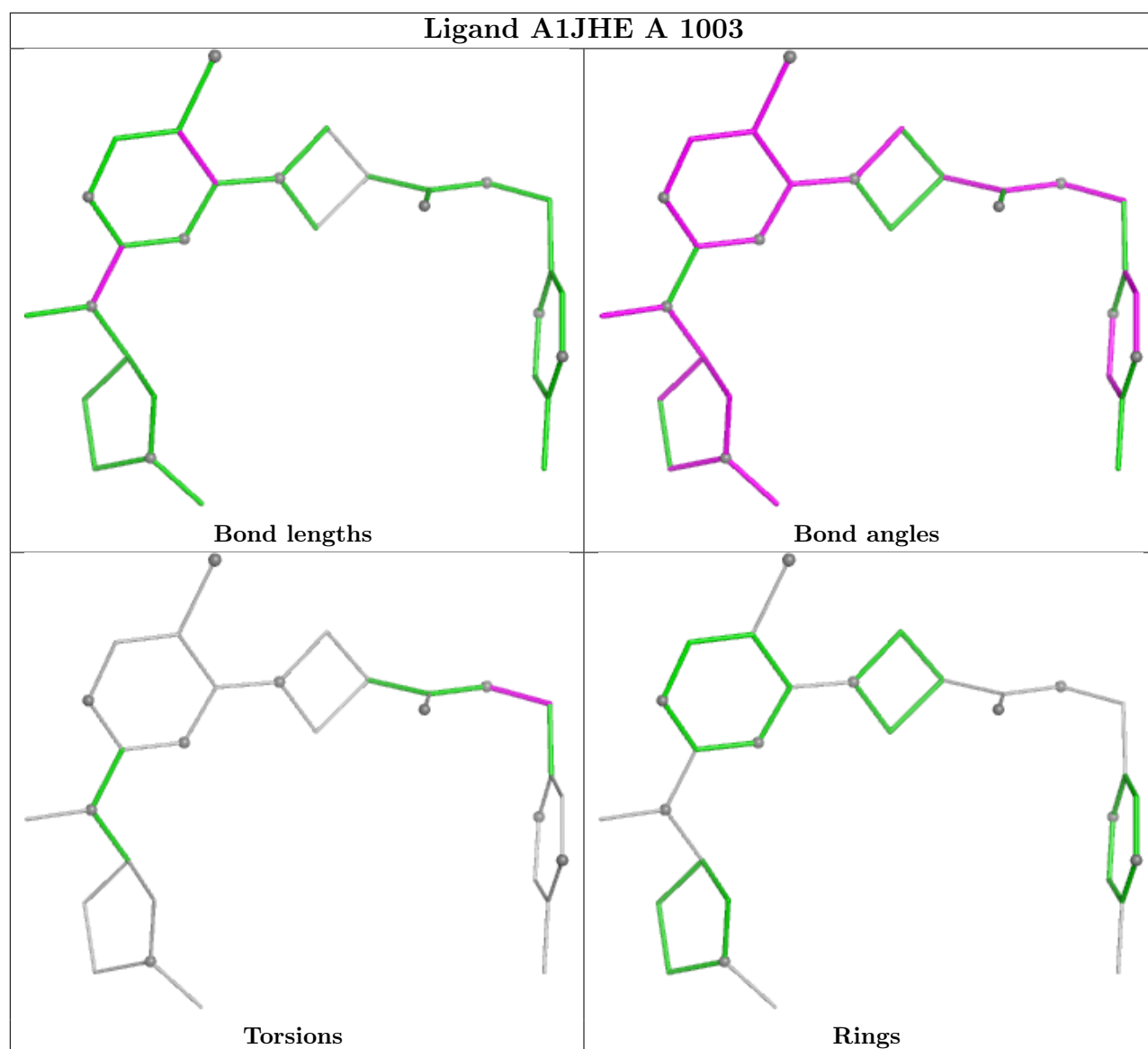
There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	A	1003	A1JHE	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.





## 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<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	411/418 (98%)	0.23	22 (5%) 31 34	10, 21, 42, 66	51 (12%)

All (22) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	29	LYS	4.3
1	A	316	ASP	3.7
1	A	334	GLY	3.7
1	A	336	SER	3.0
1	A	30	ILE	3.0
1	A	118	ALA	2.9
1	A	338	TYR	2.8
1	A	143	VAL	2.7
1	A	147	GLU	2.6
1	A	27	THR	2.6
1	A	140	TYR	2.5
1	A	31	VAL	2.5
1	A	337	ASN	2.4
1	A	235	ILE	2.3
1	A	335	ASN	2.3
1	A	32	PHE	2.3
1	A	234	GLY	2.2
1	A	315	ASN	2.2
1	A	38	GLU	2.2
1	A	11	ALA	2.1
1	A	119	ASP	2.1
1	A	25	ASP	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.

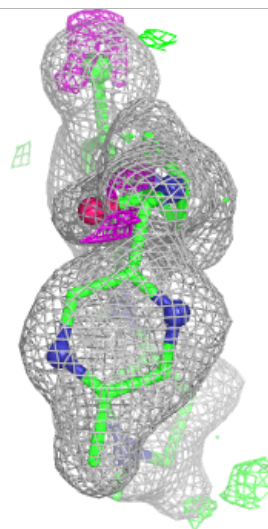
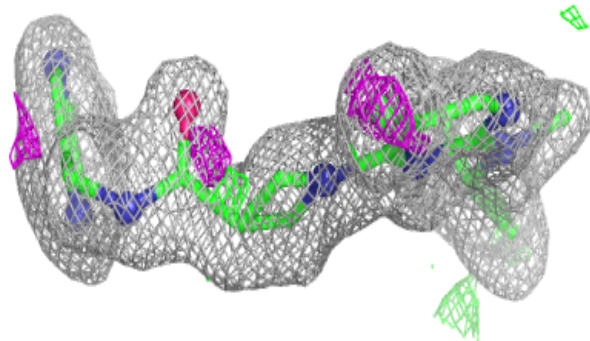
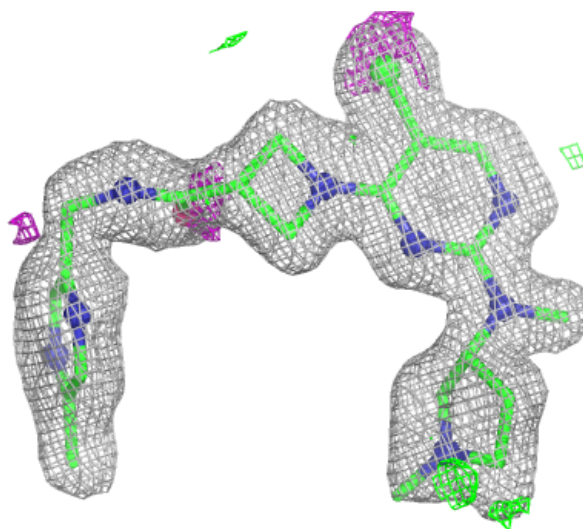
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
4	A1JHE	A	1003	30/30	0.95	0.08	18,24,33,40	0
3	MG	A	1002	1/1	0.97	0.06	30,30,30,30	0
2	MYA	A	1001	63/63	0.98	0.04	13,16,21,23	0

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



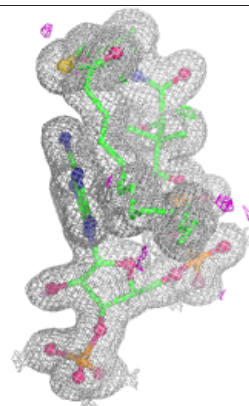
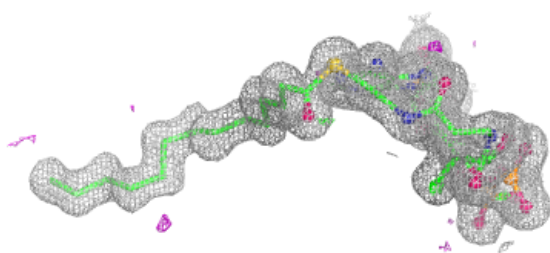
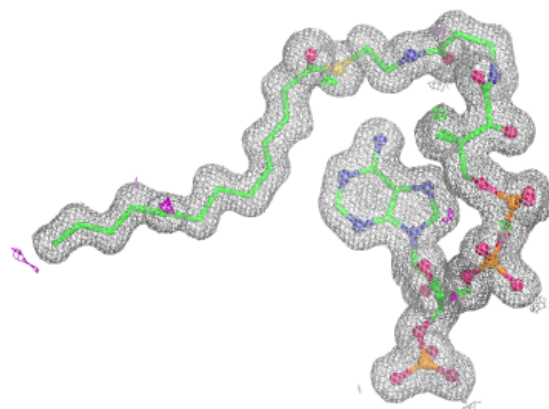
**Electron density around A1JHE A 1003:**

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



**Electron density around MYA A 1001:**

$2mF_o-DF_c$  (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.