wwPDB X-ray Structure Validation Summary Report (i)

Jan 14, 2026 – 08:57 pm GMT

PDB ID	:	9IDI / pdb_00009idi
Title	:	Human Deoxyhypusine Synthase Fragment Screening Campaign - ligand VT00154
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Deposited on	:	2025-02-15
Resolution	:	1.47 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:

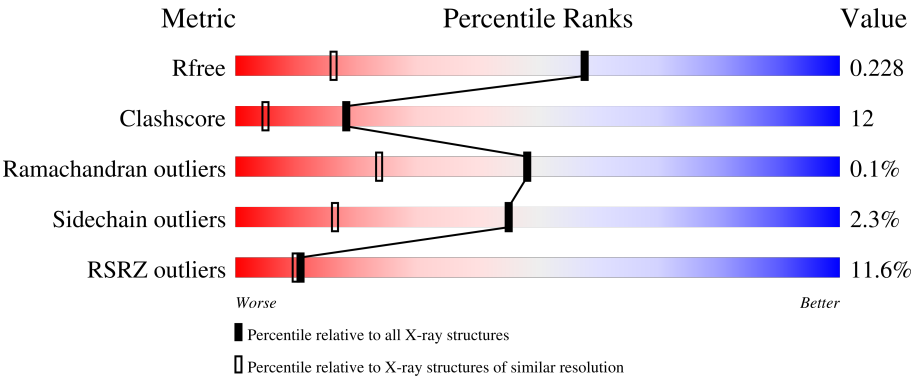
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.47

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 1.47 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	6131 (1.50-1.46)
Clashscore	180529	6623 (1.50-1.46)
Ramachandran outliers	177936	6521 (1.50-1.46)
Sidechain outliers	177891	6518 (1.50-1.46)
RSRZ outliers	164620	6132 (1.50-1.46)

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	369	9% 80% 11% • 8%
2	B	369	13% 82% 10% • 5%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
4	A1I2S	A	402[A]	-	-	X	-
4	A1I2S	B	403[A]	-	-	X	-

2 Entry composition

There are 6 unique types of molecules in this entry. The entry contains 6346 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.

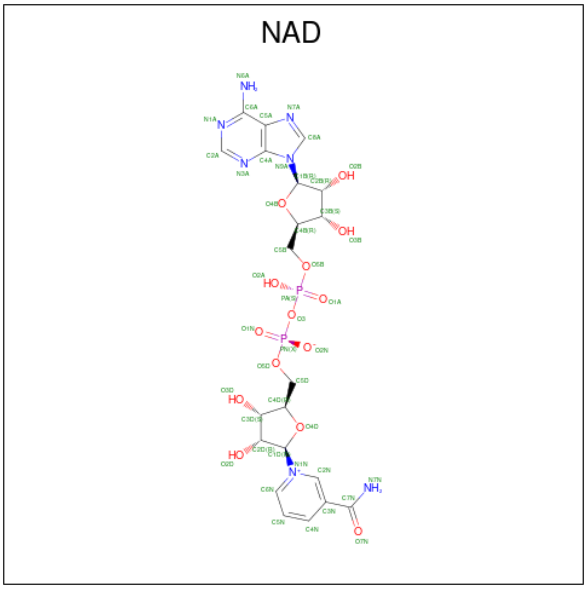
- Molecule 1 is a protein called Deoxyhypusine synthase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	341	Total	C	N	O	S	0	14	0
			2759	1758	463	521	17			

- Molecule 2 is a protein called Deoxyhypusine synthase.

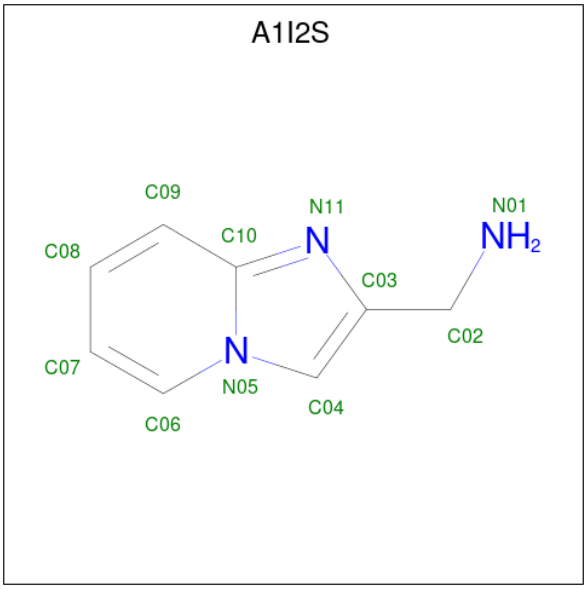
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	352	Total	C	N	O	S	0	18	0
			2871	1827	482	544	18			

- Molecule 3 is NICOTINAMIDE-ADENINE-DINUCLEOTIDE (CCD ID: NAD) (formula: $C_{21}H_{27}N_7O_{14}P_2$).



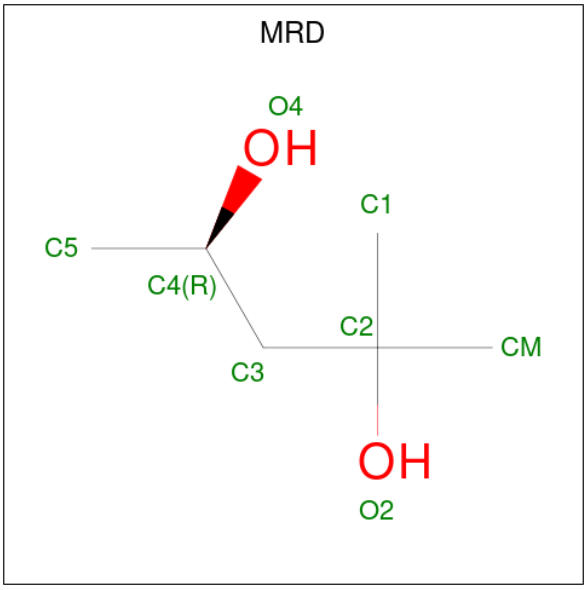
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total	C	N	O	P	0	1
			88	42	14	28	4		
3	B	1	Total	C	N	O	P	0	1
			88	42	14	28	4		

- Molecule 4 is imidazo[1,2-a]pyridin-2-ylmethanamine (CCD ID: A1I2S) (formula: $C_8H_9N_3$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	A	1	Total C N 22 16 6	0	1
4	B	1	Total C N 22 16 6	0	1

- Molecule 5 is (4R)-2-METHYLPENTANE-2,4-DIOL (CCD ID: MRD) (formula: $C_6H_{14}O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	B	1	Total C O 8 6 2	0	0

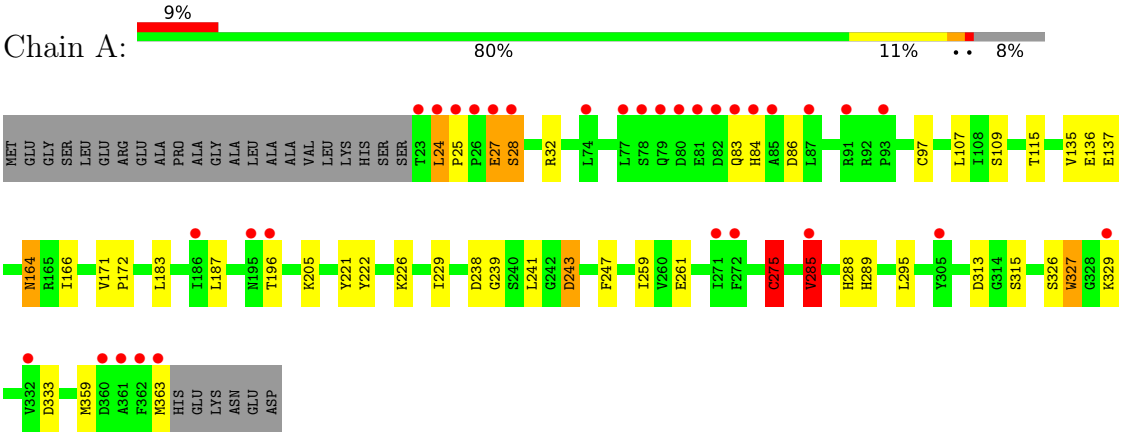
- Molecule 6 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	A	243	Total O 243 243	0	0
6	B	245	Total O 245 245	0	0

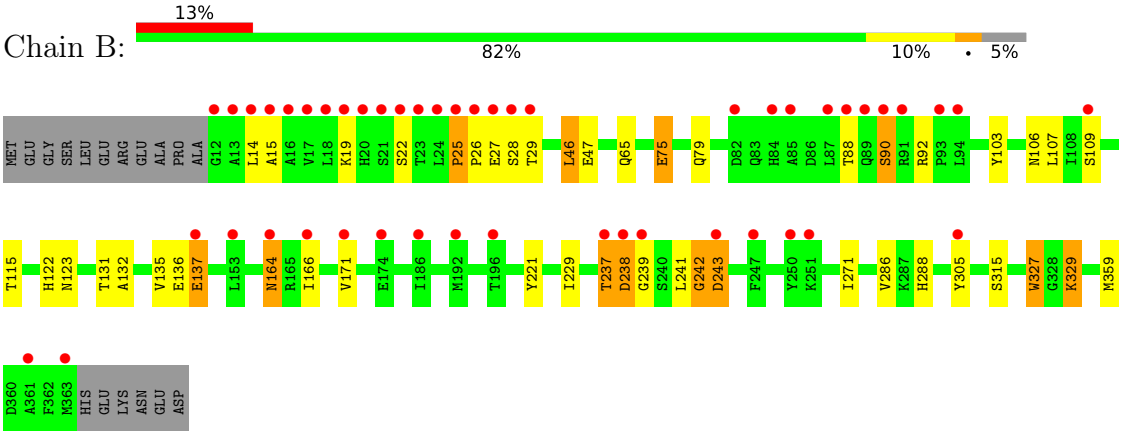
3 Residue-property plots (i)

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: Deoxyhypusine synthase



• Molecule 2: Deoxyhypusine synthase



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 32 2 1	Depositor
Cell constants a, b, c, α, β, γ	104.91Å 104.91Å 160.15Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	45.47 – 1.47 45.47 – 1.47	Depositor EDS
% Data completeness (in resolution range)	99.9 (45.47-1.47) 99.9 (45.47-1.47)	Depositor EDS
R_{merge}	0.08	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.01 (at 1.47Å)	Xtriage
Refinement program	REFMAC 5.8.0419	Depositor
R, R_{free}	0.207 , 0.222 0.215 , 0.228	Depositor DCC
R_{free} test set	8564 reflections (4.94%)	wwPDB-VP
Wilson B-factor (Å^2)	29.5	Xtriage
Anisotropy	0.079	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.36 , 39.6	EDS
L-test for twinning[2]	$< \|L\| > = 0.51$, $< L^2 > = 0.34$	Xtriage
Estimated twinning fraction	0.013 for -h,-k,l	Xtriage
F_o,F_c correlation	0.97	EDS
Total number of atoms	6346	wwPDB-VP
Average B, all atoms (Å^2)	34.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.05% 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: NAD, CSS, A1I2S, MRD

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	1.19	7/2824 (0.2%)	1.32	3/3833 (0.1%)
2	B	1.20	8/2938 (0.3%)	1.28	8/3985 (0.2%)
All	All	1.20	15/5762 (0.3%)	1.30	11/7818 (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	5
2	B	0	13
All	All	0	18

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

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	29	THR	C-N	-19.28	1.08	1.33
2	B	46[A]	LEU	CA-C	6.74	1.62	1.52
2	B	46[B]	LEU	CA-C	6.74	1.62	1.52
1	A	285[A]	VAL	CA-C	6.56	1.61	1.52
1	A	285[B]	VAL	CA-C	6.56	1.61	1.52

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

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	65[A]	GLN	CA-C-O	8.26	129.47	119.97
2	B	65[B]	GLN	CA-C-O	8.26	129.47	119.97
2	B	29	THR	O-C-N	-6.16	114.78	122.35
2	B	47	GLU	CB-CG-CD	6.13	123.03	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	229	ILE	O-C-N	5.45	124.80	121.37

There are no chirality outliers.

5 of 18 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	164[B]	ASN	Mainchain
1	A	243[B]	ASP	Mainchain
1	A	285[B]	VAL	Mainchain
1	A	326	SER	Mainchain
1	A	327[A]	TRP	Mainchain

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	A	2759	0	2700	82	0
2	B	2871	0	2828	72	0
3	A	88	0	52	13	0
3	B	88	0	52	10	0
4	A	22	0	0	18	0
4	B	22	0	0	13	0
5	B	8	0	14	0	0
6	A	243	0	0	13	1
6	B	245	0	0	12	1
All	All	6346	0	5646	136	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 12.

The worst 5 of 136 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:327[A]:TRP:CH2	4:A:402[A]:A1I2S:C06	2.06	1.39
1:A:327[A]:TRP:CZ2	4:A:402[A]:A1I2S:C04	2.39	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:285[B]:VAL:HG12	3:B:402[B]:NAD:O3D	1.54	1.05
2:B:26:PRO:O	6:B:503:HOH:O	1.72	1.05
3:A:401[B]:NAD:N7N	6:A:503:HOH:O	1.87	1.04

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:707:HOH:O	6:B:721:HOH:O[4_555]	2.07	0.13

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	352/369 (95%)	345 (98%)	7 (2%)	0	100 100
2	B	366/369 (99%)	351 (96%)	13 (4%)	2 (0%)	25 8
All	All	718/738 (97%)	696 (97%)	20 (3%)	2 (0%)	48 17

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	B	243[A]	ASP
2	B	243[B]	ASP

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	A	295/309 (96%)	285 (97%)	10 (3%)	32 7
2	B	309/308 (100%)	302 (98%)	7 (2%)	45 16
All	All	604/617 (98%)	587 (97%)	17 (3%)	45 11

5 of 17 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	B	115	THR
2	B	137[B]	GLU
1	A	115	THR
1	A	275[A]	CYS
1	A	275[B]	CYS

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)

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	$\#\|Z\| > 2$
2	CSS	B	177	2	4,6,7	0.76	0	1,6,8	0.64	0
1	CSS	A	177	1	4,6,7	0.48	0	1,6,8	0.19	0
2	CSS	B	275	2	4,6,7	0.25	0	1,6,8	0.85	0

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the

Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	CSS	B	177	2	-	0/1/5/7	-
1	CSS	A	177	1	-	0/1/5/7	-
2	CSS	B	275	2	-	0/1/5/7	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

9 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	$\#\|Z\| > 2$
4	A1I2S	A	402[A]	-	9,12,12	1.85	1 (11%)	8,16,16	0.82	0
3	NAD	B	402[A]	-	42,48,48	1.25	3 (7%)	50,73,73	1.10	4 (8%)
4	A1I2S	A	402[B]	-	9,12,12	1.10	0	8,16,16	1.04	1 (12%)
3	NAD	B	402[B]	-	42,48,48	0.67	1 (2%)	50,73,73	0.81	2 (4%)
4	A1I2S	B	403[A]	-	9,12,12	1.87	1 (11%)	8,16,16	0.76	0
4	A1I2S	B	403[B]	-	9,12,12	1.89	1 (11%)	8,16,16	0.83	0
3	NAD	A	401[A]	-	42,48,48	1.05	3 (7%)	50,73,73	1.18	4 (8%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
5	MRD	B	401	-	7,7,7	0.29	0	9,10,10	0.94	0
3	NAD	A	401[B]	-	42,48,48	0.63	1 (2%)	50,73,73	0.94	3 (6%)

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
4	A1I2S	A	402[A]	-	-	0/0/2/2	0/2/2/2
3	NAD	B	402[A]	-	-	4/26/62/62	0/5/5/5
4	A1I2S	A	402[B]	-	-	0/0/2/2	0/2/2/2
3	NAD	B	402[B]	-	-	9/26/62/62	0/5/5/5
4	A1I2S	B	403[A]	-	-	0/0/2/2	0/2/2/2
4	A1I2S	B	403[B]	-	-	0/0/2/2	0/2/2/2
3	NAD	A	401[A]	-	-	5/26/62/62	0/5/5/5
5	MRD	B	401	-	-	0/5/5/5	-
3	NAD	A	401[B]	-	-	4/26/62/62	0/5/5/5

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

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	B	403[A]	A1I2S	C10-N11	5.28	1.38	1.33
3	B	402[A]	NAD	C2N-N1N	5.24	1.41	1.35
4	B	403[B]	A1I2S	C10-N11	5.13	1.38	1.33
4	A	402[A]	A1I2S	C10-N11	4.99	1.38	1.33
3	A	401[A]	NAD	C2N-N1N	2.67	1.38	1.35

The worst 5 of 14 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	B	402[A]	NAD	O2A-PA-O1A	4.05	132.28	112.24
3	A	401[B]	NAD	O4D-C1D-C2D	-3.58	101.69	106.93
3	A	401[A]	NAD	C6N-N1N-C2N	-3.35	118.92	121.97
3	B	402[A]	NAD	C6N-N1N-C2N	-3.21	119.05	121.97
3	A	401[A]	NAD	O4D-C1D-C2D	-3.00	102.54	106.93

There are no chirality outliers.

5 of 22 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	401[A]	NAD	C5D-O5D-PN-O1N
3	A	401[B]	NAD	C5D-O5D-PN-O1N
3	B	402[A]	NAD	C5D-O5D-PN-O1N
3	B	402[B]	NAD	PA-O3-PN-O5D
3	B	402[B]	NAD	C5D-O5D-PN-O1N

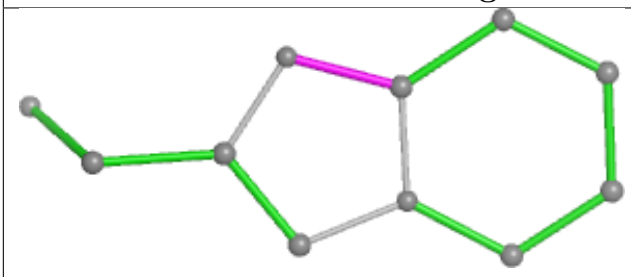
There are no ring outliers.

8 monomers are involved in 51 short contacts:

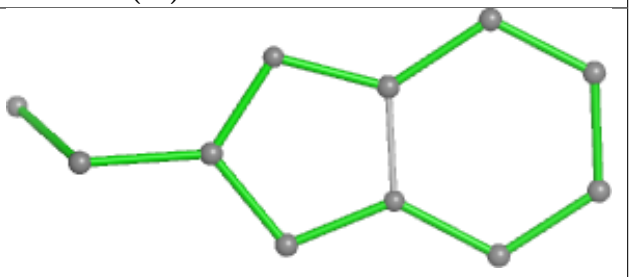
Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	A	402[A]	A1I2S	13	0
3	B	402[A]	NAD	1	0
4	A	402[B]	A1I2S	5	0
3	B	402[B]	NAD	9	0
4	B	403[A]	A1I2S	10	0
4	B	403[B]	A1I2S	3	0
3	A	401[A]	NAD	3	0
3	A	401[B]	NAD	10	0

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.

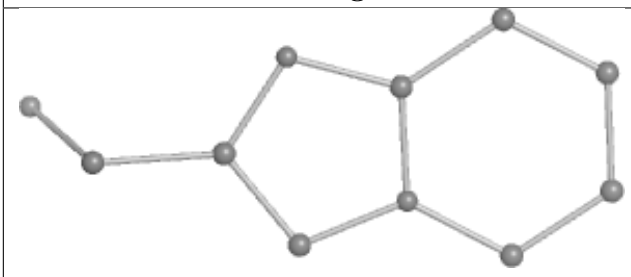
Ligand A1I2S A 402 (A)



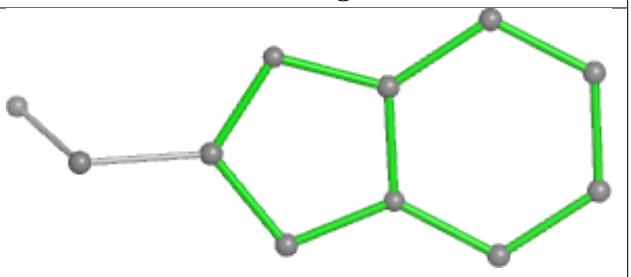
Bond lengths



Bond angles

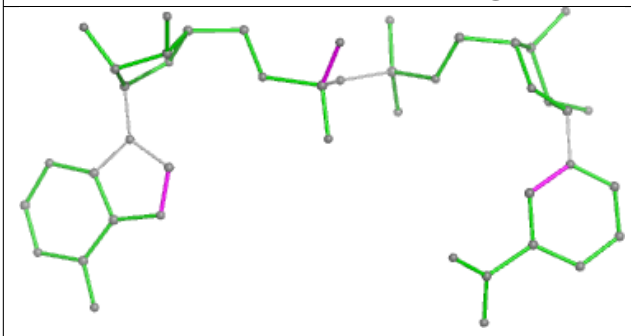


Torsions

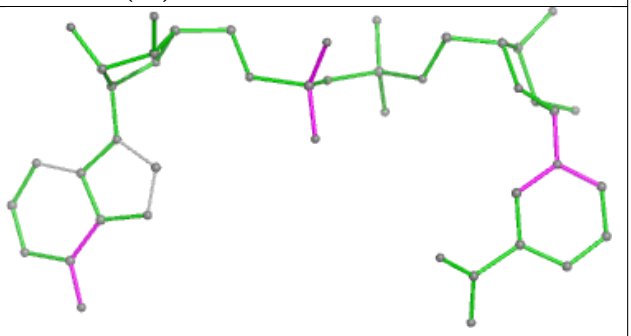


Rings

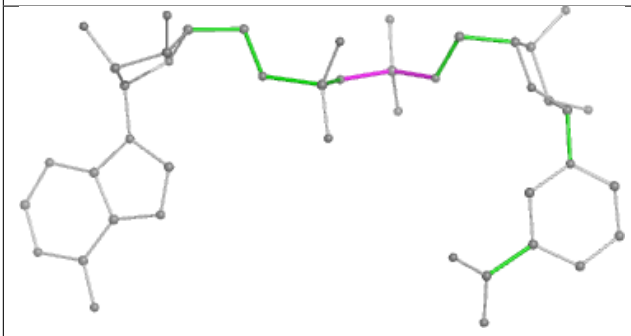
Ligand NAD B 402 (A)



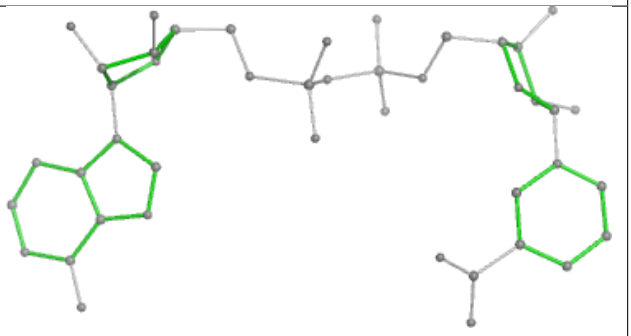
Bond lengths



Bond angles

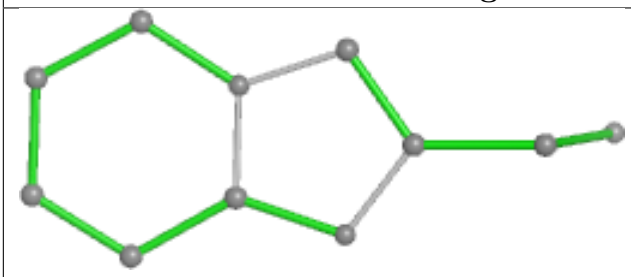


Torsions

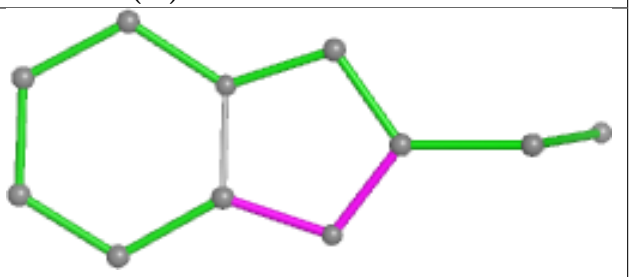


Rings

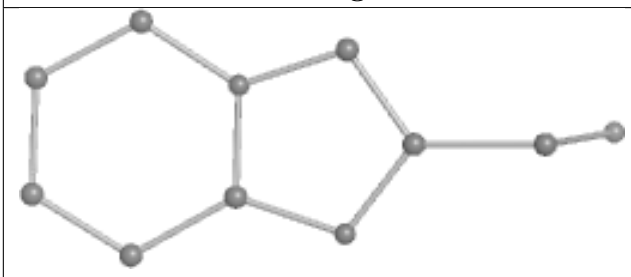
Ligand A1I2S A 402 (B)



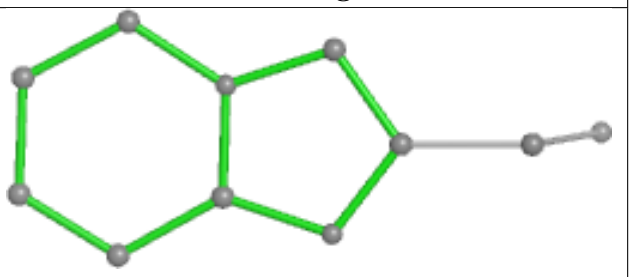
Bond lengths



Bond angles

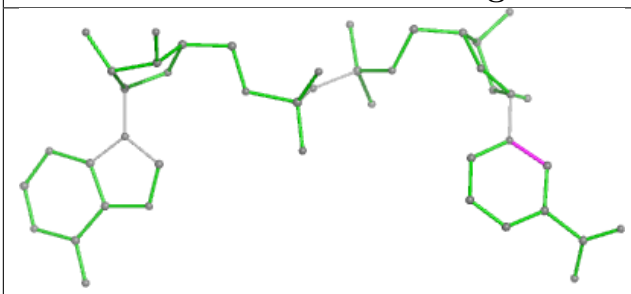


Torsions

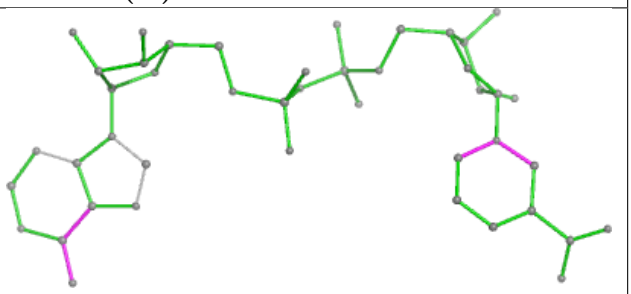


Rings

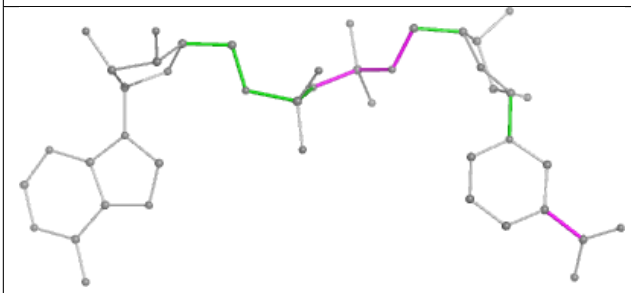
Ligand NAD B 402 (B)



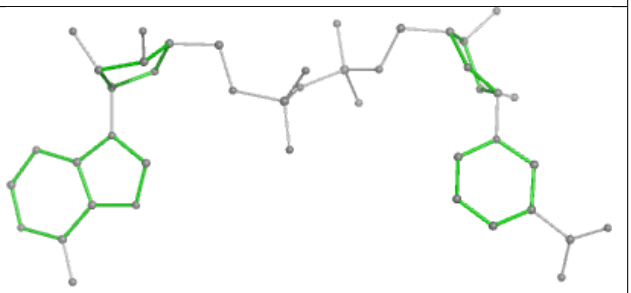
Bond lengths



Bond angles

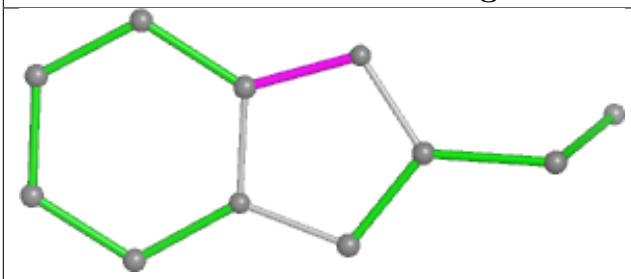


Torsions

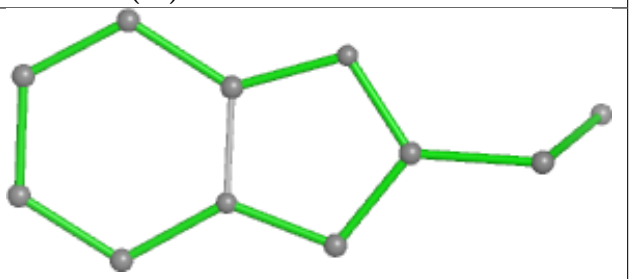


Rings

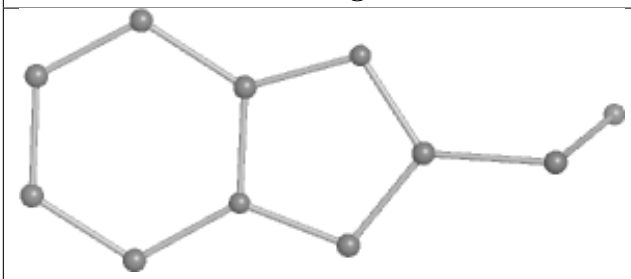
Ligand A1I2S B 403 (A)



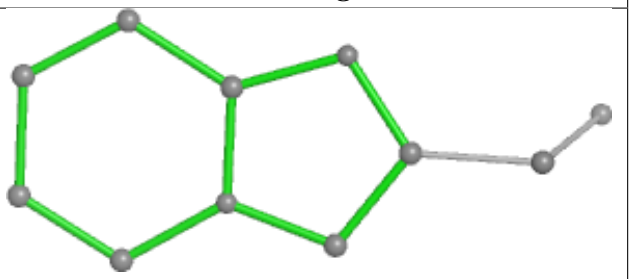
Bond lengths



Bond angles

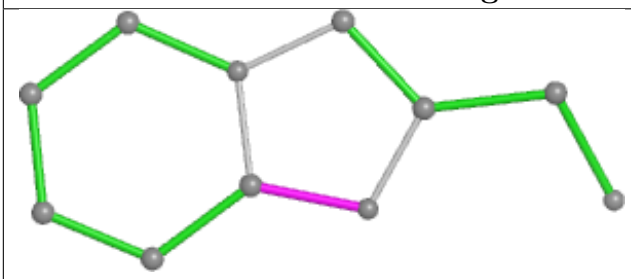


Torsions

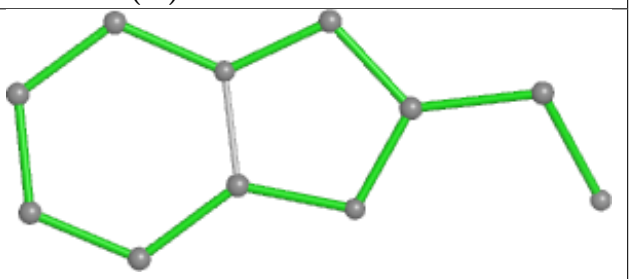


Rings

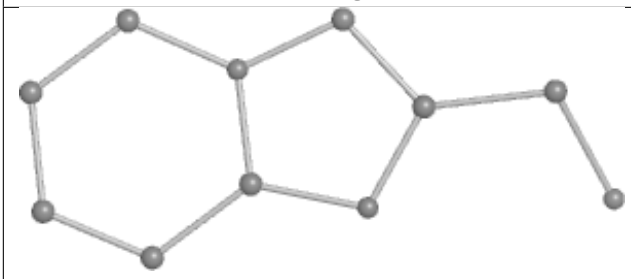
Ligand A1I2S B 403 (B)



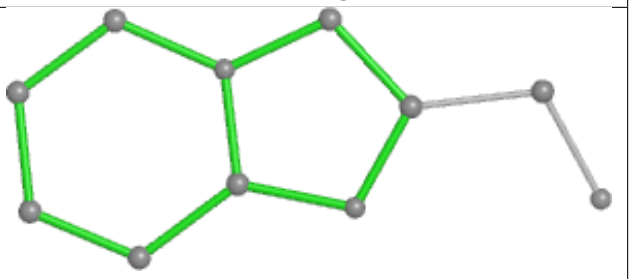
Bond lengths



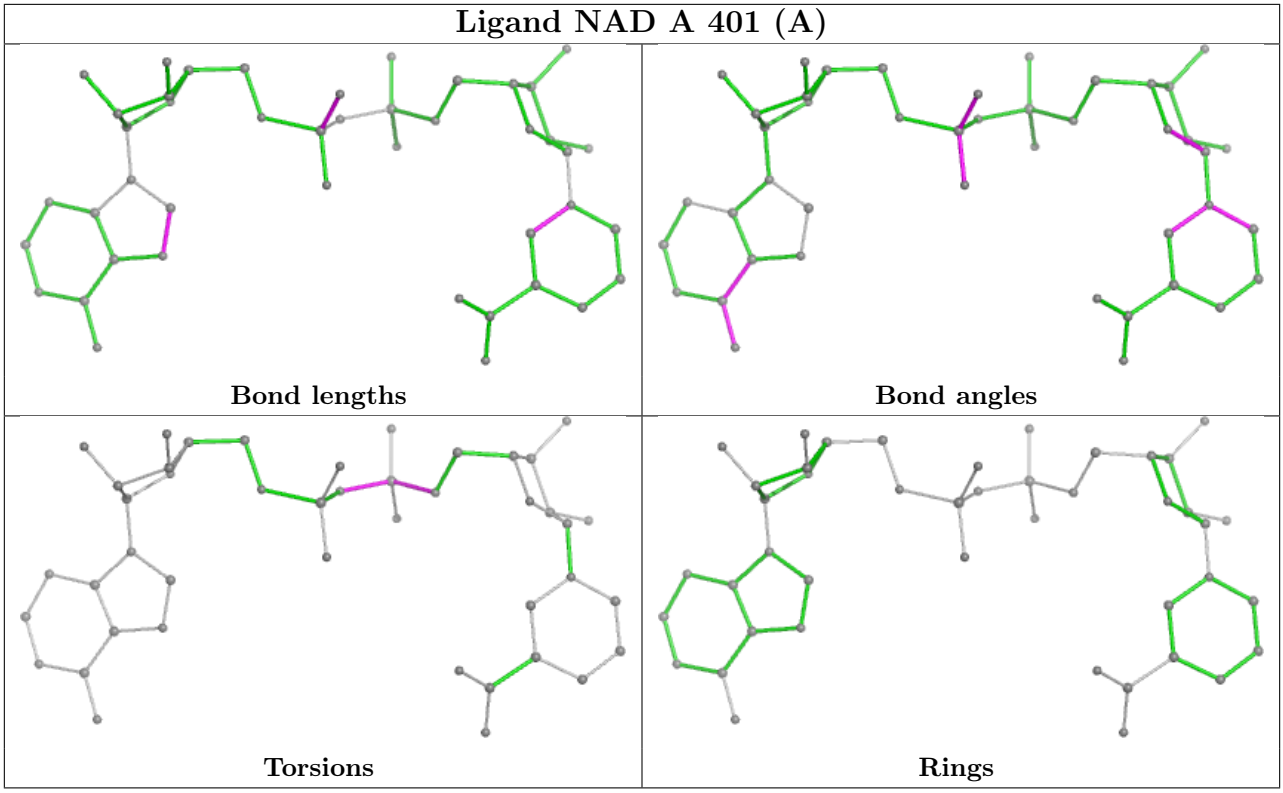
Bond angles

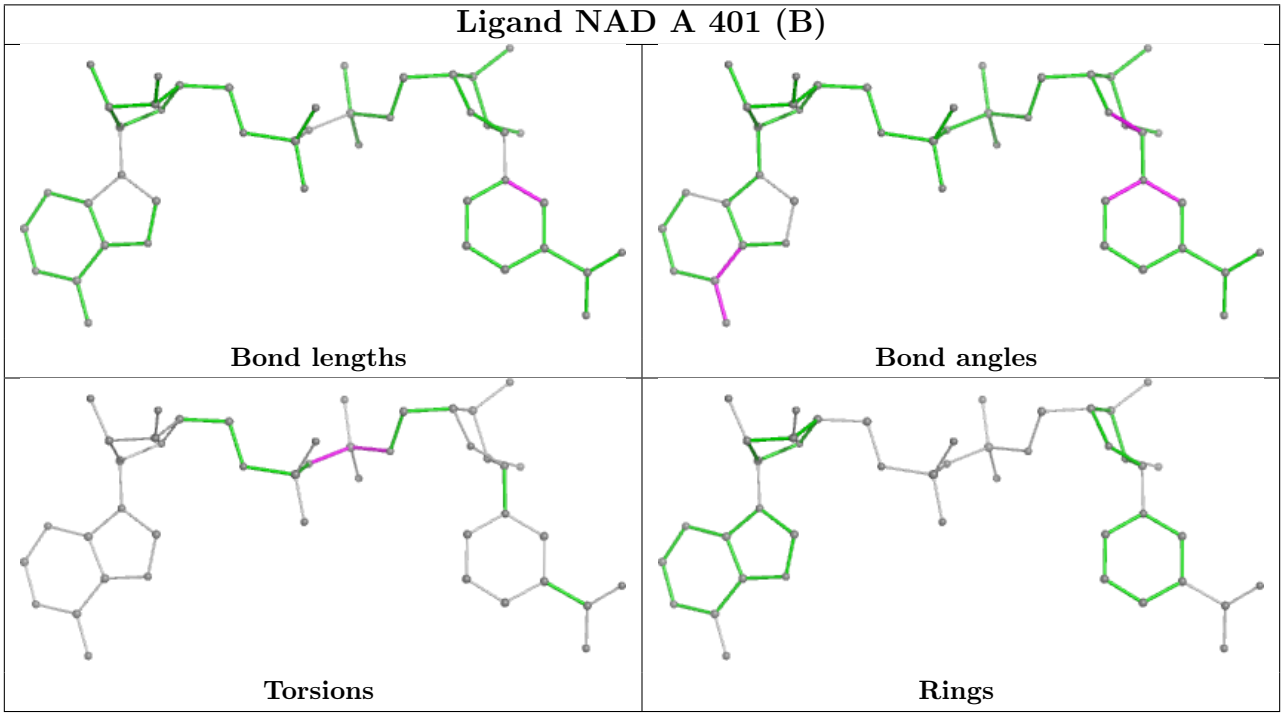


Torsions



Rings





5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
2	B	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	B	29:THR	C	30:GLN	N	1.08

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	340/369 (92%)	0.74	32 (9%)	15	15	13, 30, 55, 142	14 (4%)
2	B	350/369 (94%)	1.13	48 (13%)	8	7	13, 30, 52, 86	19 (5%)
All	All	690/738 (93%)	0.94	80 (11%)	11	10	13, 30, 53, 142	33 (4%)

The worst 5 of 80 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	B	12	GLY	14.2
2	B	24	LEU	12.2
2	B	15	ALA	11.8
2	B	18	LEU	11.4
2	B	23	THR	11.4

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
2	CSS	B	177	7/8	0.89	0.15	38,40,59,94	0
1	CSS	A	177	7/8	0.92	0.10	28,31,46,64	0
2	CSS	B	275	7/8	0.93	0.15	20,20,20,20	0

6.3 Carbohydrates

There are no oligosaccharides in this entry.

6.4 Ligands (i)

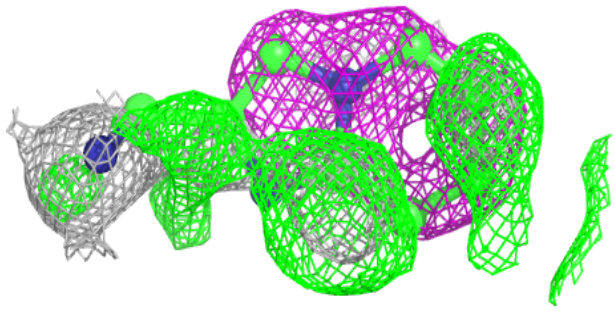
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9'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

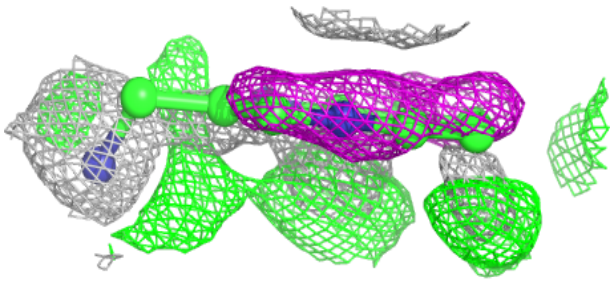
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
4	A1I2S	A	402[A]	11/11	0.23	0.35	20,20,20,20	11
4	A1I2S	A	402[B]	11/11	0.23	0.35	20,20,20,20	11
4	A1I2S	B	403[A]	11/11	0.48	0.31	20,20,20,20	11
4	A1I2S	B	403[B]	11/11	0.48	0.31	20,20,20,20	11
5	MRD	B	401	8/8	0.89	0.21	47,49,55,58	8
3	NAD	A	401[B]	44/44	0.96	0.08	20,24,32,50	44
3	NAD	A	401[A]	44/44	0.96	0.08	20,24,32,50	44
3	NAD	B	402[B]	44/44	0.97	0.08	20,25,36,46	44
3	NAD	B	402[A]	44/44	0.97	0.08	20,25,36,46	44

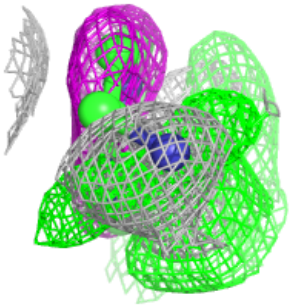
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around A1I2S A 402 (A):

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

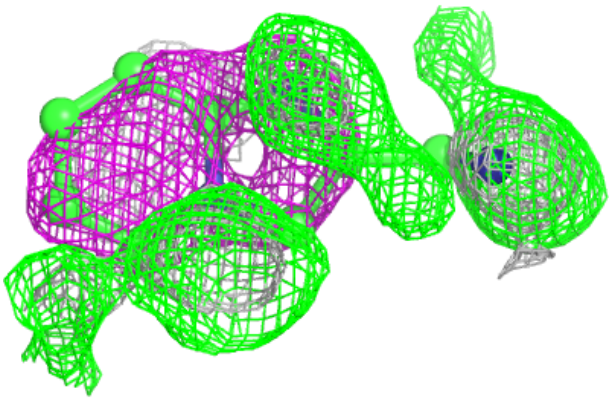


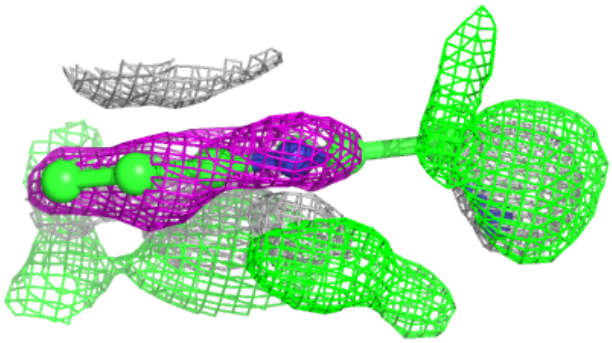


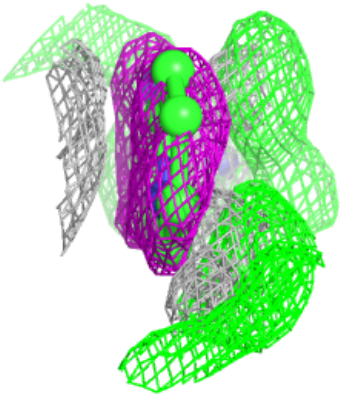


Electron density around A1I2S A 402 (B):

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

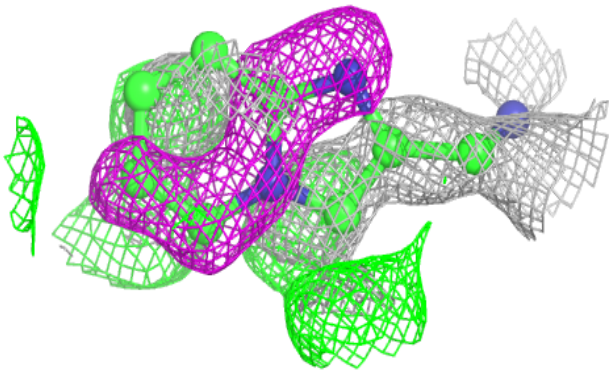


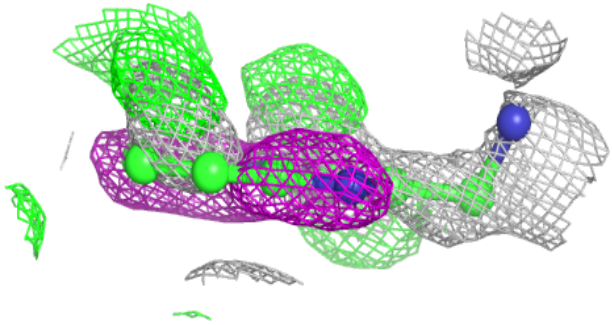


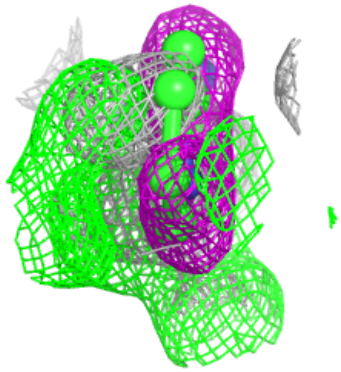


Electron density around A1I2S B 403 (A):

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

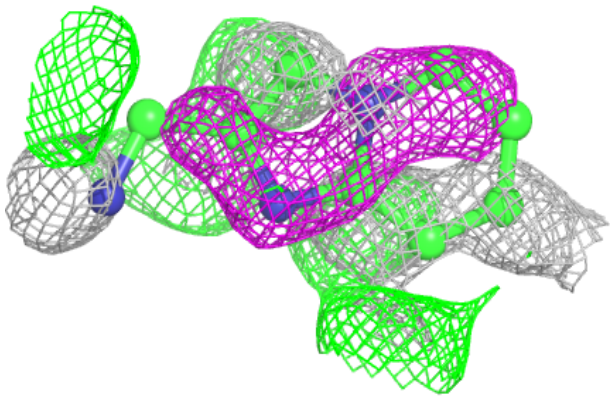


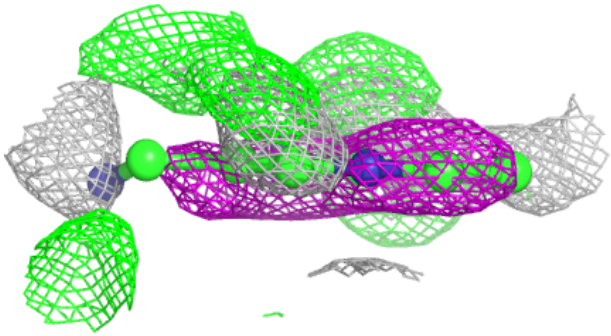


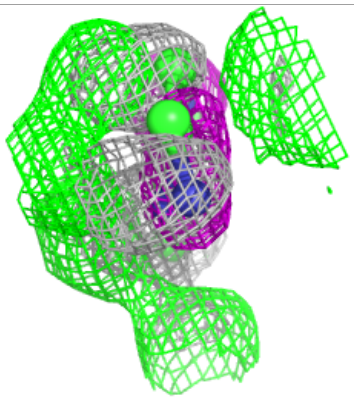


Electron density around A1I2S B 403 (B):

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

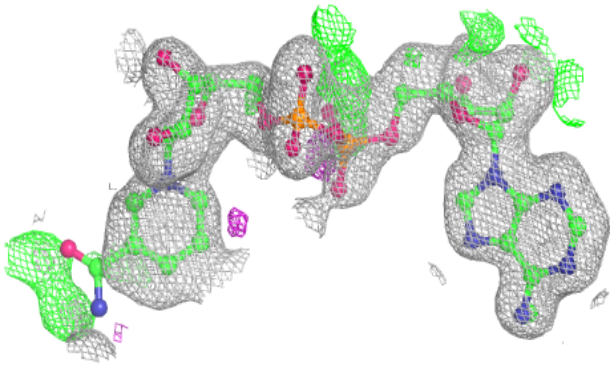


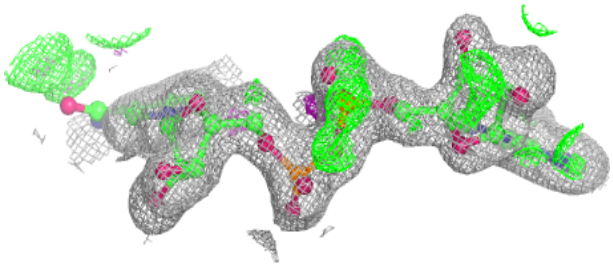


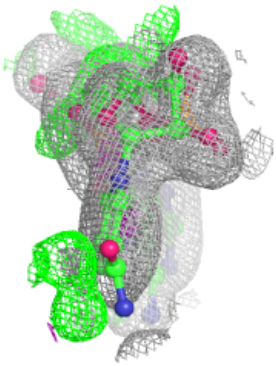


Electron density around NAD A 401 (B):

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

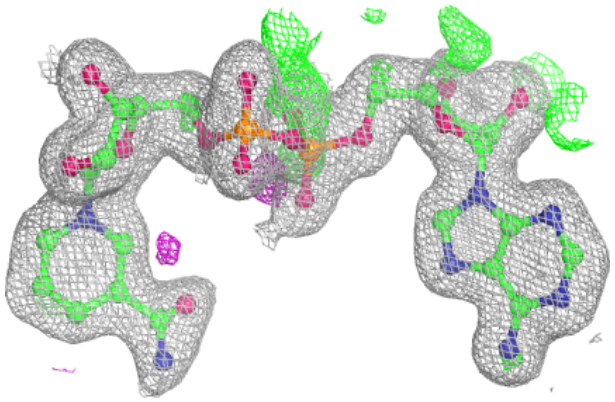


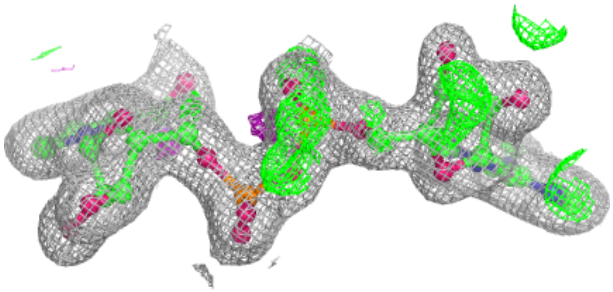


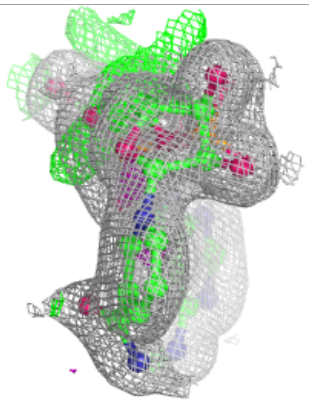


Electron density around NAD A 401 (A):

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

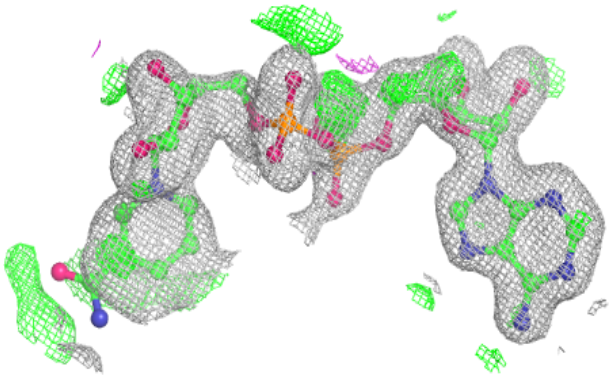


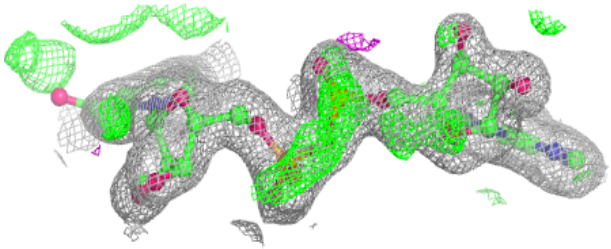


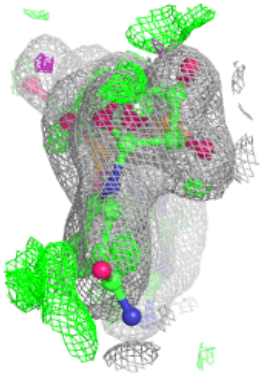


Electron density around NAD B 402 (B):

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

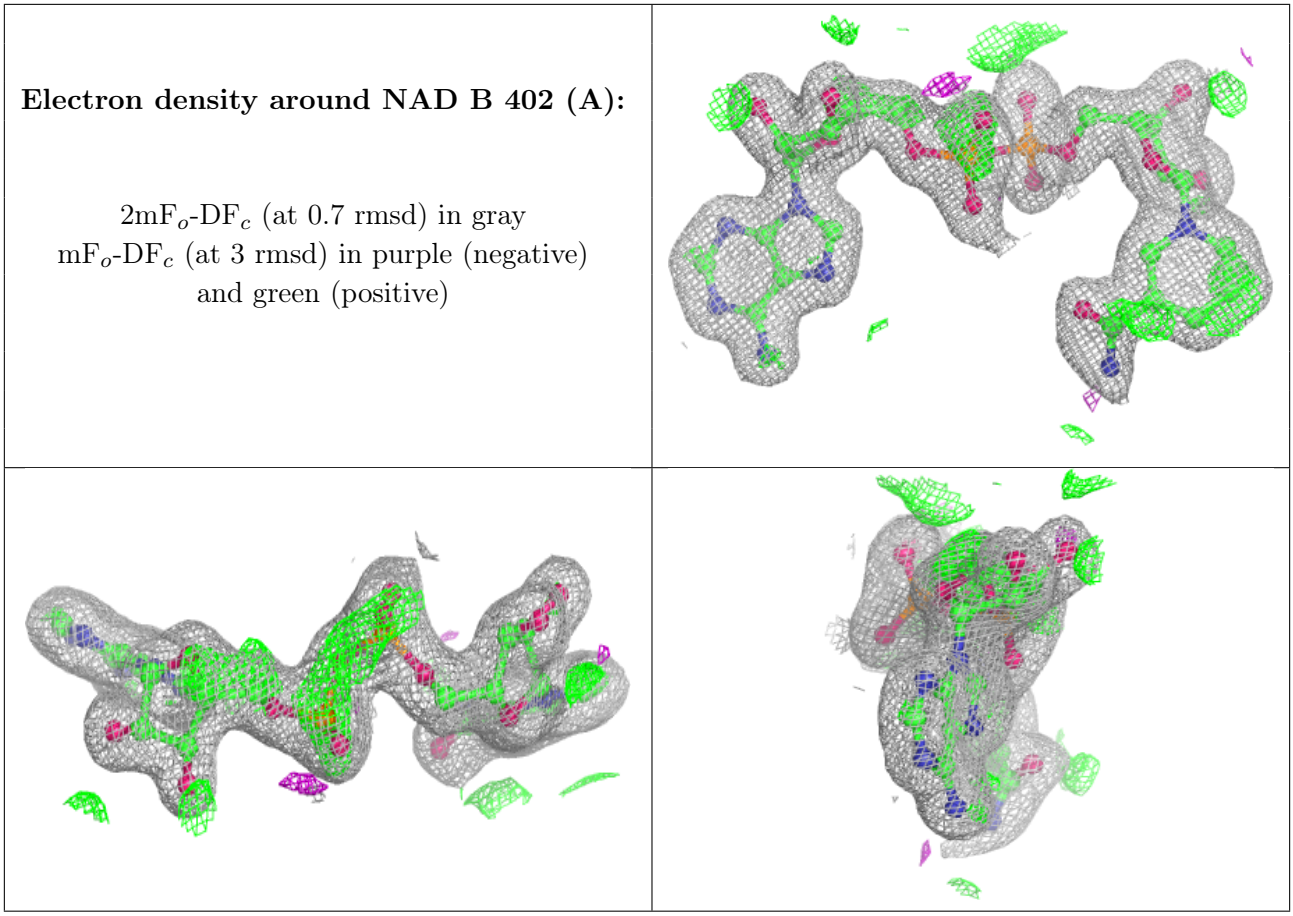






Electron density around NAD B 402 (A):

$2mF_o$-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

There are no such residues in this entry.