Full wwPDB X-ray Structure Validation Report (i)

Feb 17, 2024 – 05:24 PM EST

PDB ID	:	3TE5
Title	:	structure of the regulatory fragment of sacchromyces cerevisiae ampk in complex with NADH
Authors	:	Mayer, F.V.; Heath, R.; Underwood, E.; Sanders, M.J.; Carmena, D.; McCartney, R.; Leiper, F.C.; Xiao, B.; Jing, C.; Walker, P.A.; Haire, L.F.; Ogrodowicz, R.; Martin, S.R.; Schmidt, M.C.; Gamblin, S.J.; Carling, D.
Deposited on	:	2011-08-12
Resolution	:	2.50 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
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 (1)) were used in the production of this report:

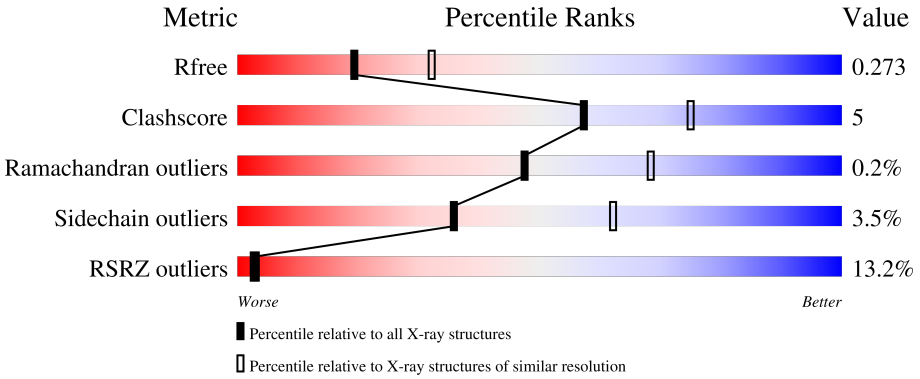
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

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 2.50 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}	130704	4661 (2.50-2.50)
Clashscore	141614	5346 (2.50-2.50)
Ramachandran outliers	138981	5231 (2.50-2.50)
Sidechain outliers	138945	5233 (2.50-2.50)
RSRZ outliers	127900	4559 (2.50-2.50)

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 >=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	179	13% 68% 9% 23%
2	B	113	28% 82% 8% • 9%
3	C	323	6% 83% 12% • •

2 Entry composition (i)

There are 5 unique types of molecules in this entry. The entry contains 4623 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 Carbon catabolite-derepressing protein kinase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	138	Total	C	N	O	S	0	0	0
			1102	722	184	191	5			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	455	GLY	-	expression tag	UNP P06782
A	456	PRO	-	expression tag	UNP P06782

- Molecule 2 is a protein called SNF1 protein kinase subunit beta-2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	103	Total	C	N	O	S	0	0	0
			825	536	133	154	2			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	303	MET	-	expression tag	UNP P34164

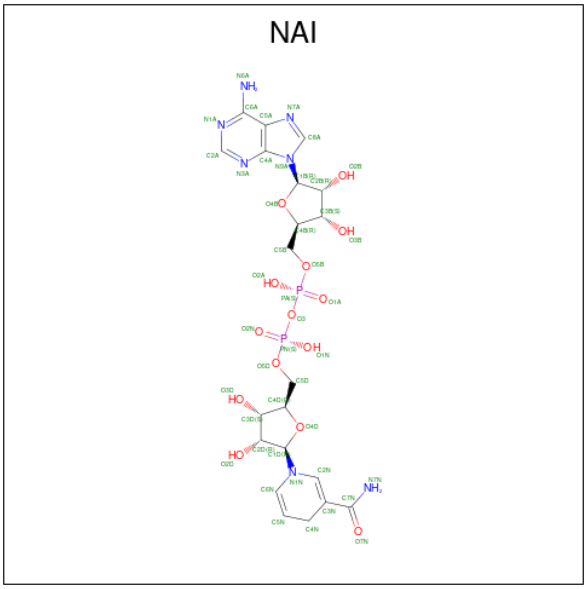
- Molecule 3 is a protein called Nuclear protein SNF4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	313	Total	C	N	O	S	0	0	0
			2438	1555	412	461	10			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	1	MET	-	expression tag	UNP P12904
C	2	ALA	-	expression tag	UNP P12904

- Molecule 4 is 1,4-DIHYDRONICOTINAMIDE ADENINE DINUCLEOTIDE (three-letter code: NAI) (formula: $C_{21}H_{29}N_7O_{14}P_2$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	C	1	Total	C	N	O	P	0	0
			44	21	7	14	2		

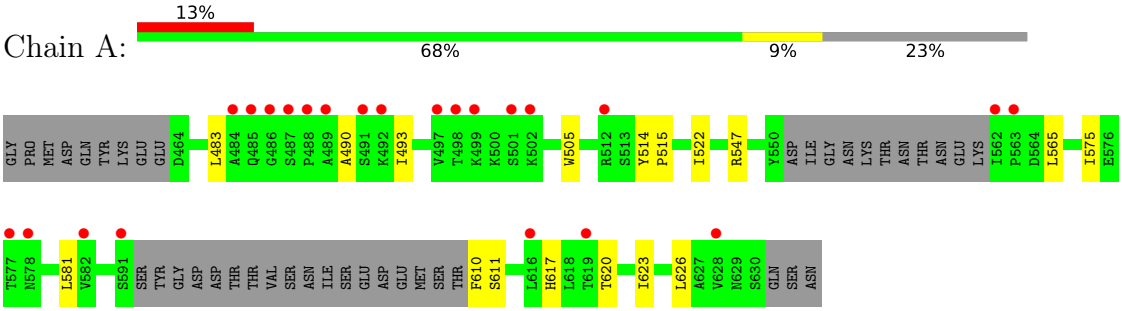
- Molecule 5 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	38	Total	O	0	0
			38	38		
5	B	40	Total	O	0	0
			40	40		
5	C	136	Total	O	0	0
			136	136		

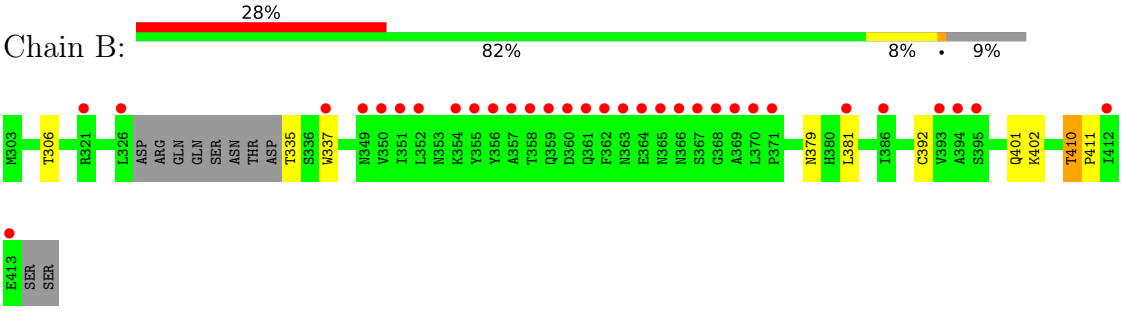
3 Residue-property plots (i)

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.

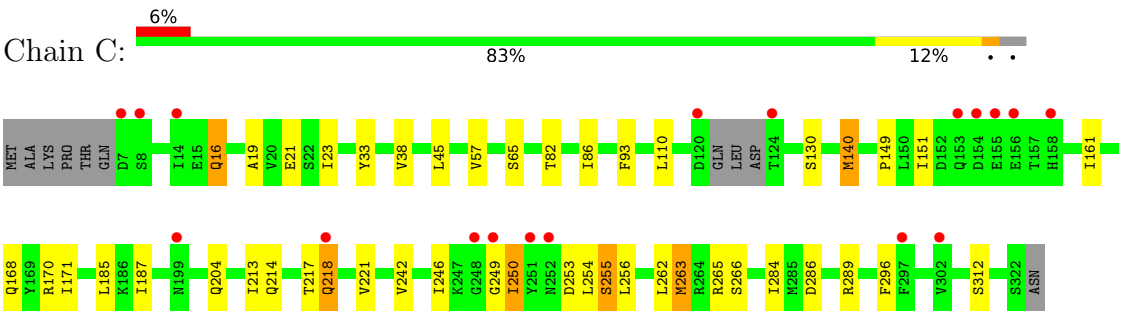
• Molecule 1: Carbon catabolite-derepressing protein kinase



• Molecule 2: SNF1 protein kinase subunit beta-2



• Molecule 3: Nuclear protein SNF4



4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α, β, γ	95.73Å 240.24Å 79.18Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	25.00 – 2.50 24.71 – 2.50	Depositor EDS
% Data completeness (in resolution range)	99.8 (25.00-2.50) 99.9 (24.71-2.50)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.96 (at 2.50Å)	Xtriage
Refinement program	REFMAC 5.5.0109	Depositor
R, R_{free}	0.241 , 0.281 0.234 , 0.273	Depositor DCC
R_{free} test set	1617 reflections (5.06%)	wwPDB-VP
Wilson B-factor (Å^2)	48.1	Xtriage
Anisotropy	0.028	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.35 , 44.6	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	4623	wwPDB-VP
Average B, all atoms (Å^2)	48.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.00% 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: NAI

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	0.33	0/1131	0.47	0/1533
2	B	0.36	0/848	0.52	0/1167
3	C	0.36	0/2472	0.53	0/3353
All	All	0.35	0/4451	0.51	0/6053

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

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	1102	0	1113	14	0
2	B	825	0	807	7	0
3	C	2438	0	2487	30	0
4	C	44	0	27	3	0
5	A	38	0	0	1	0
5	B	40	0	0	0	0
5	C	136	0	0	2	0
All	All	4623	0	4434	43	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 (43) 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)
3:C:16:GLN:HG3	3:C:187:ILE:HG13	1.72	0.71
3:C:242:VAL:O	3:C:246:ILE:HG22	1.98	0.63
3:C:93:PHE:HD1	3:C:254:LEU:HD13	1.64	0.62
1:A:611:SER:HB2	3:C:161:ILE:CG2	2.35	0.56
3:C:250:ILE:CG2	3:C:253:ASP:HB2	2.37	0.54
3:C:253:ASP:HA	3:C:256:LEU:HD13	1.91	0.52
1:A:505:TRP:HH2	2:B:392:CYS:HG	1.58	0.52
3:C:93:PHE:CD1	3:C:254:LEU:HD13	2.45	0.52
1:A:575:ILE:HD11	1:A:581:LEU:HB2	1.93	0.51
3:C:16:GLN:HG2	3:C:185:LEU:HA	1.93	0.51
2:B:402:LYS:HD2	3:C:38:VAL:HA	1.94	0.50
2:B:335:THR:HG23	2:B:337:TRP:CD1	2.47	0.49
3:C:82:THR:O	3:C:86:ILE:HG12	2.12	0.49
3:C:149:PRO:HB2	3:C:151:ILE:CD1	2.42	0.49
3:C:250:ILE:HG23	3:C:253:ASP:HB2	1.94	0.49
3:C:19:ALA:O	3:C:23:ILE:HG12	2.12	0.49
1:A:483:LEU:HG	1:A:490:ALA:HB1	1.94	0.49
2:B:410:THR:HG22	2:B:411:PRO:HD2	1.96	0.48
3:C:140:MET:HE1	3:C:171:ILE:HD12	1.96	0.48
1:A:493:ILE:CG2	3:C:263:MET:HB2	2.45	0.47
3:C:214:GLN:O	3:C:218:GLN:HB2	2.14	0.47
1:A:610:PHE:N	5:A:38:HOH:O	2.47	0.47
1:A:623:ILE:HD11	2:B:381:LEU:HD21	1.98	0.46
3:C:286:ASP:OD1	3:C:289:ARG:NH2	2.46	0.46
2:B:402:LYS:HG2	3:C:33:TYR:CE1	2.51	0.45
1:A:610:PHE:HZ	2:B:379:ASN:OD1	2.00	0.45
3:C:246:ILE:HA	5:C:435:HOH:O	2.17	0.45
1:A:522:ILE:HA	1:A:626:LEU:HD21	1.99	0.45
1:A:547:ARG:HG2	1:A:565:LEU:HB3	1.99	0.44
1:A:617:HIS:O	1:A:620:THR:HB	2.18	0.44
3:C:284:ILE:HG23	3:C:296:PHE:CE2	2.53	0.44
3:C:16:GLN:NE2	5:C:409:HOH:O	2.51	0.44
1:A:514:TYR:HB3	1:A:515:PRO:HD2	1.99	0.43
3:C:168:GLN:HE22	3:C:312:SER:HB3	1.82	0.43
1:A:611:SER:HB2	3:C:161:ILE:HG21	2.01	0.43
1:A:611:SER:HB2	3:C:161:ILE:HG22	2.01	0.42
3:C:254:LEU:HD12	3:C:255:SER:N	2.35	0.41
3:C:312:SER:HB3	4:C:324:NAI:H52N	2.02	0.41
3:C:221:VAL:HG12	4:C:324:NAI:H51A	2.02	0.41
3:C:86:ILE:HG23	3:C:213:ILE:HG23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:262:LEU:O	3:C:265:ARG:HB2	2.20	0.41
4:C:324:NAI:H8A	4:C:324:NAI:O2A	2.20	0.41
3:C:45:LEU:HD21	3:C:57:VAL:HG11	2.03	0.41

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	132/179 (74%)	128 (97%)	4 (3%)	0	100	100
2	B	99/113 (88%)	96 (97%)	3 (3%)	0	100	100
3	C	309/323 (96%)	303 (98%)	5 (2%)	1 (0%)	41	61
All	All	540/615 (88%)	527 (98%)	12 (2%)	1 (0%)	47	68

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	C	249	GLY

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	119/162 (74%)	119 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	B	94/108 (87%)	91 (97%)	3 (3%)	39 65
3	C	277/297 (93%)	263 (95%)	14 (5%)	24 45
All	All	490/567 (86%)	473 (96%)	17 (4%)	36 62

All (17) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	B	306	THR
2	B	401	GLN
2	B	410	THR
3	C	16	GLN
3	C	21	GLU
3	C	65	SER
3	C	110	LEU
3	C	130	SER
3	C	140	MET
3	C	170	ARG
3	C	204	GLN
3	C	217	THR
3	C	218	GLN
3	C	250	ILE
3	C	255	SER
3	C	263	MET
3	C	266	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (5) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	485	GLN
2	B	359	GLN
3	C	168	GLN
3	C	178	ASN
3	C	183	HIS

5.3.3 RNA

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)

1 ligand is 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	NAI	C	324	-	42,48,48	1.88	10 (23%)	47,73,73	1.56	6 (12%)

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	NAI	C	324	-	-	6/25/72/72	0/5/5/5

All (10) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	C	324	NAI	C2A-N3A	4.74	1.39	1.32
4	C	324	NAI	C4N-C3N	-4.69	1.40	1.49
4	C	324	NAI	C6N-C5N	3.84	1.40	1.33
4	C	324	NAI	O4B-C1B	3.78	1.46	1.41
4	C	324	NAI	C7N-C3N	-3.65	1.40	1.48
4	C	324	NAI	C2A-N1A	3.43	1.40	1.33
4	C	324	NAI	C4N-C5N	-3.27	1.40	1.48
4	C	324	NAI	C5A-C4A	-2.48	1.34	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	C	324	NAI	C6A-C5A	-2.48	1.34	1.43
4	C	324	NAI	C2N-C3N	2.00	1.40	1.34

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	C	324	NAI	N3A-C2A-N1A	-7.14	117.52	128.68
4	C	324	NAI	O4D-C1D-N1N	3.12	114.16	108.06
4	C	324	NAI	C1B-N9A-C4A	-3.05	121.28	126.64
4	C	324	NAI	PN-O3-PA	-2.35	124.75	132.83
4	C	324	NAI	C5A-C6A-N6A	-2.34	116.80	120.35
4	C	324	NAI	O4D-C1D-C2D	-2.01	102.26	106.64

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	C	324	NAI	C5B-O5B-PA-O1A
4	C	324	NAI	C5D-O5D-PN-O2N
4	C	324	NAI	O4B-C4B-C5B-O5B
4	C	324	NAI	O4D-C1D-N1N-C2N
4	C	324	NAI	C5D-O5D-PN-O3
4	C	324	NAI	C3B-C4B-C5B-O5B

There are no ring outliers.

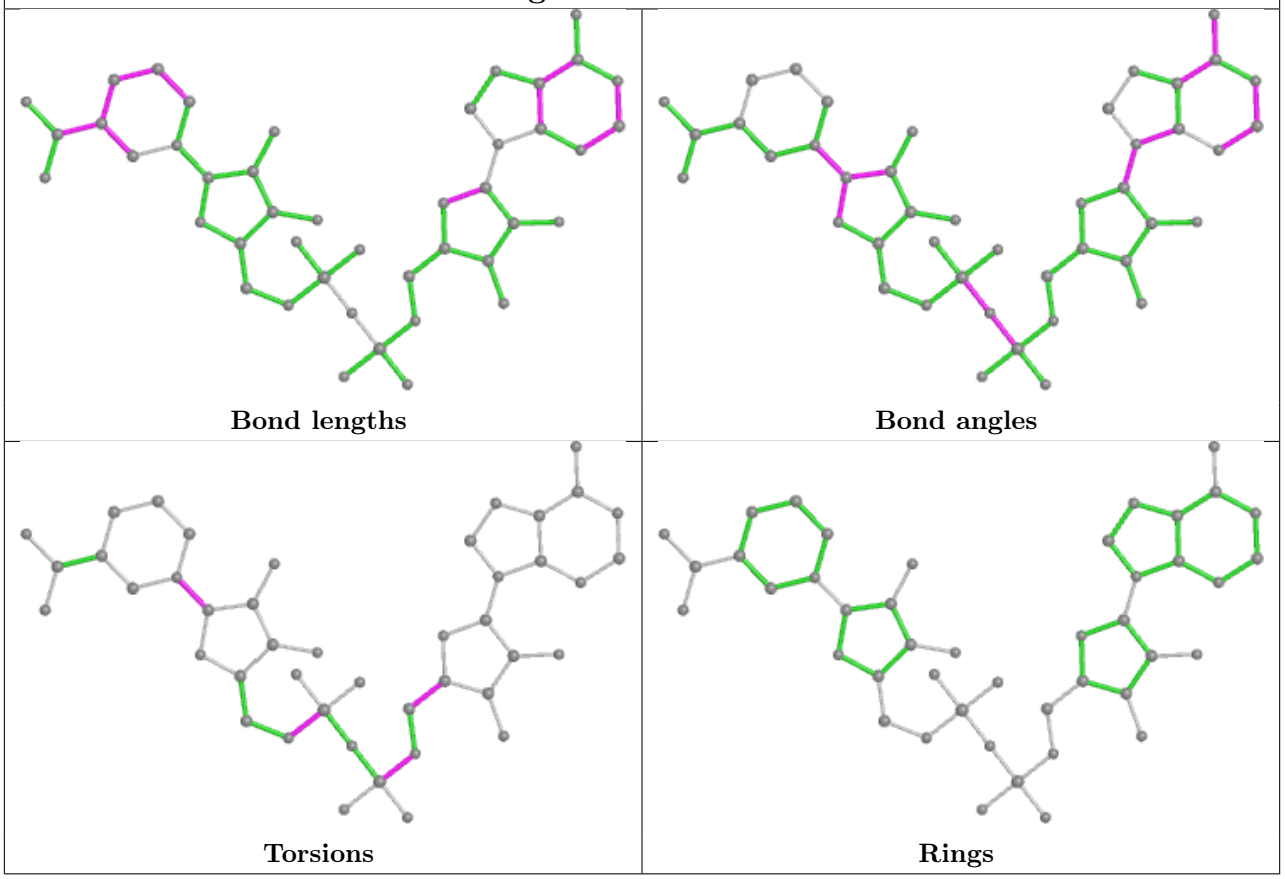
1 monomer is involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	C	324	NAI	3	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 NAI C 324



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	138/179 (77%)	1.00	23 (16%) 1 1	32, 58, 77, 78	0
2	B	103/113 (91%)	1.52	32 (31%) 0 0	34, 60, 86, 89	0
3	C	313/323 (96%)	0.25	18 (5%) 23 24	26, 40, 60, 72	0
All	All	554/615 (90%)	0.67	73 (13%) 3 3	26, 45, 77, 89	0

All (73) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	B	368	GLY	11.5
2	B	358	THR	8.2
2	B	369	ALA	8.1
3	C	7	ASP	6.0
2	B	365	ASN	5.8
1	A	488	PRO	5.8
2	B	326	LEU	5.6
2	B	366	ASN	5.6
1	A	562	ILE	5.4
2	B	367	SER	5.3
1	A	497	VAL	5.2
1	A	502	LYS	5.0
1	A	501	SER	5.0
3	C	248	GLY	5.0
2	B	362	PHE	4.7
3	C	251	TYR	4.6
2	B	359	GLN	4.4
1	A	491	SER	4.4
1	A	487	SER	4.4
3	C	155	GLU	4.1
1	A	499	LYS	4.1
3	C	158	HIS	4.0
1	A	591	SER	3.9

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Mol	Chain	Res	Type	RSRZ
2	B	337	TRP	3.8
1	A	628	VAL	3.7
1	A	498	THR	3.7
2	B	355	TYR	3.7
2	B	354	LYS	3.6
2	B	370	LEU	3.6
3	C	153	GLN	3.6
3	C	8	SER	3.5
2	B	356	TYR	3.5
1	A	577	THR	3.4
1	A	486	GLY	3.4
1	A	563	PRO	3.4
1	A	616	LEU	3.3
2	B	363	ASN	3.2
3	C	249	GLY	3.2
1	A	578	ASN	3.1
2	B	364	GLU	3.0
3	C	14	ILE	3.0
2	B	371	PRO	2.9
3	C	218	GLN	2.9
2	B	361	GLN	2.7
1	A	582	VAL	2.7
3	C	120	ASP	2.7
2	B	386	ILE	2.7
1	A	619	THR	2.7
2	B	350	VAL	2.7
1	A	512	ARG	2.7
2	B	412	ILE	2.6
2	B	413	GLU	2.6
3	C	156	GLU	2.5
2	B	321	ARG	2.5
3	C	199	ASN	2.4
2	B	351	ILE	2.4
1	A	492	LYS	2.3
2	B	360	ASP	2.3
3	C	252	ASN	2.3
3	C	154	ASP	2.2
2	B	357	ALA	2.2
1	A	485	GLN	2.2
1	A	489	ALA	2.2
2	B	393	VAL	2.1
3	C	302	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
2	B	352	LEU	2.1
2	B	381	LEU	2.1
3	C	124	THR	2.1
1	A	484	ALA	2.1
2	B	394	ALA	2.1
2	B	349	ASN	2.1
2	B	395	SER	2.0
3	C	297	PHE	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 monosaccharides in this entry.

6.4 Ligands (i)

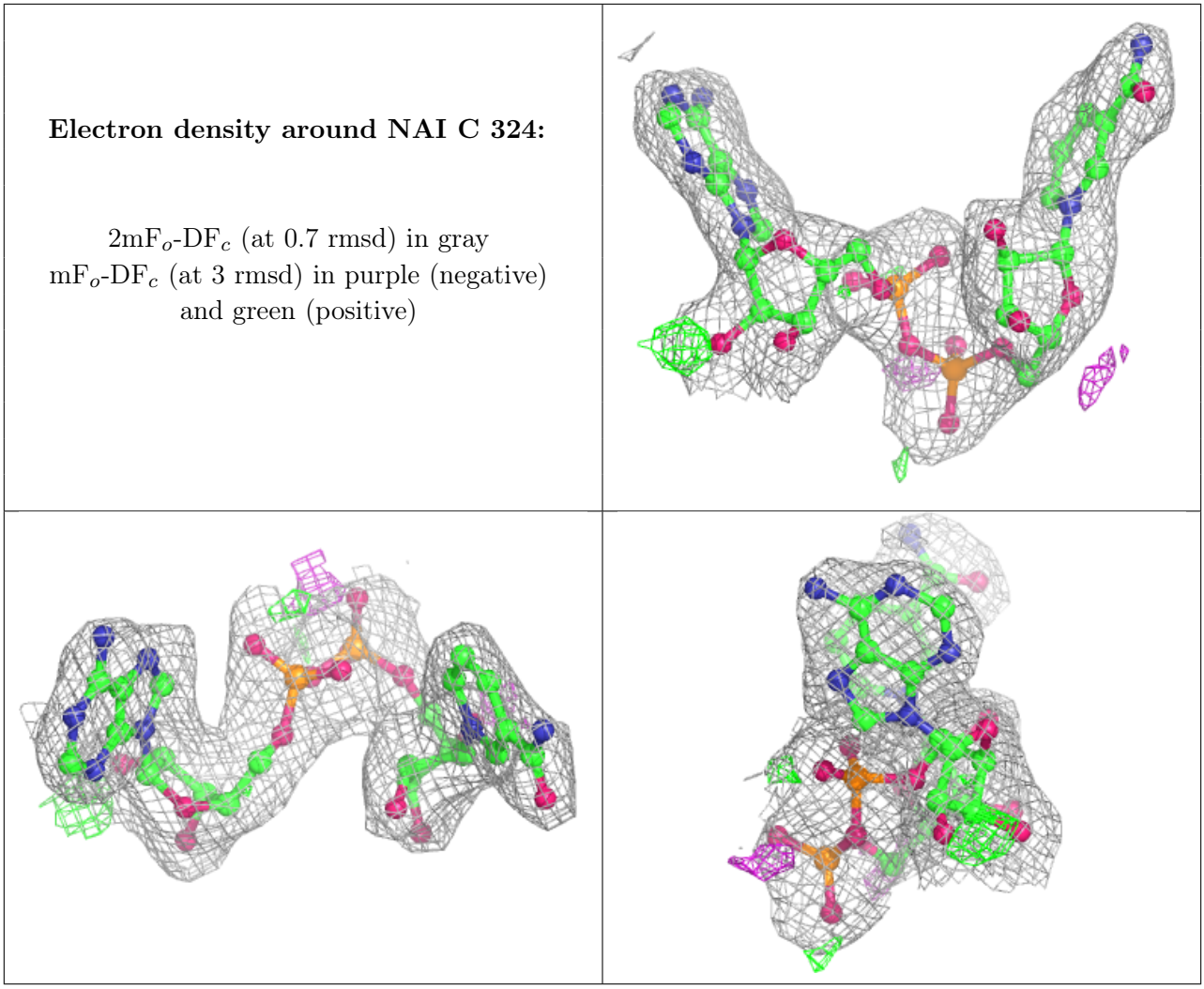
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9'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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
4	NAI	C	324	44/44	0.93	0.15	40,42,43,43	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 NAI C 324:

$2mF_o$-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.