Full wwPDB X-ray Structure Validation Report ⓘ

Mar 10, 2026 – 11:15 AM UTC

PDB ID	:	2DM6 / pdb_00002dm6
Title	:	Crystal structure of anti-configuration of indomethacin and leukotriene B4 12 -hydroxydehydrogenase/15-oxo-prostaglandin 13-reductase complex
Authors	:	Hori, T.; Ishijima, J.; Yokomizo, T.; Ago, H.; Shimizu, T.; Miyano, M.; RIKEN Structural Genomics/Proteomics Initiative (RSGI)
Deposited on	:	2006-04-20
Resolution	:	2.00 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 ⓘ 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 ⓘ) were used in the production of this report:

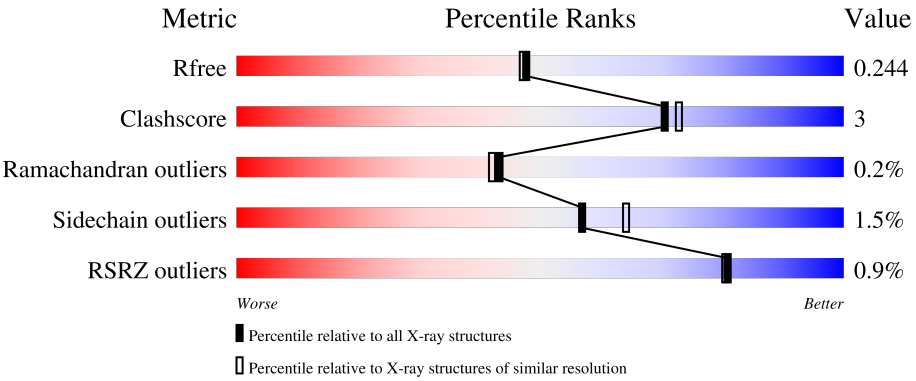
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal 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 (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 2.00 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	10052 (2.00-2.00)
Clashscore	190562	11152 (2.00-2.00)
Ramachandran outliers	187476	11031 (2.00-2.00)
Sidechain outliers	187428	11029 (2.00-2.00)
RSRZ outliers	180081	10067 (2.00-2.00)

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	333	2% 92% 6% ••
1	B	333	90% 10%

2 Entry composition (i)

There are 5 unique types of molecules in this entry. The entry contains 5811 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.

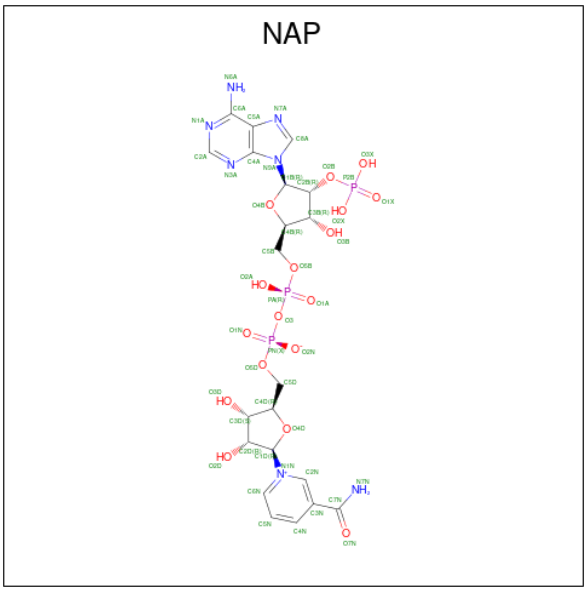
- Molecule 1 is a protein called NADP-dependent leukotriene B4 12-hydroxydehydrogenase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	331	Total	C	N	O	S	0	0	0
			2533	1633	420	466	14			
1	B	333	Total	C	N	O	S	0	0	0
			2546	1641	422	469	14			

There are 8 discrepancies between the modelled and reference sequences:

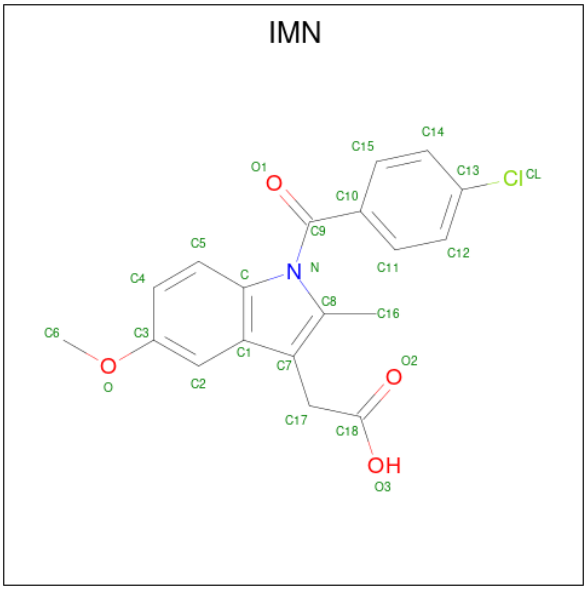
Chain	Residue	Modelled	Actual	Comment	Reference
A	-4	SER	-	cloning artifact	UNP Q9EQZ5
A	-3	PRO	-	cloning artifact	UNP Q9EQZ5
A	-2	GLU	-	cloning artifact	UNP Q9EQZ5
A	-1	PHE	-	cloning artifact	UNP Q9EQZ5
B	-4	SER	-	cloning artifact	UNP Q9EQZ5
B	-3	PRO	-	cloning artifact	UNP Q9EQZ5
B	-2	GLU	-	cloning artifact	UNP Q9EQZ5
B	-1	PHE	-	cloning artifact	UNP Q9EQZ5

- Molecule 2 is NADP NICOTINAMIDE-ADENINE-DINUCLEOTIDE PHOSPHATE (CCD ID: NAP) (formula: $C_{21}H_{28}N_7O_{17}P_3$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	P	0	0
			48	21	7	17	3		
2	B	1	Total	C	N	O	P	0	0
			48	21	7	17	3		

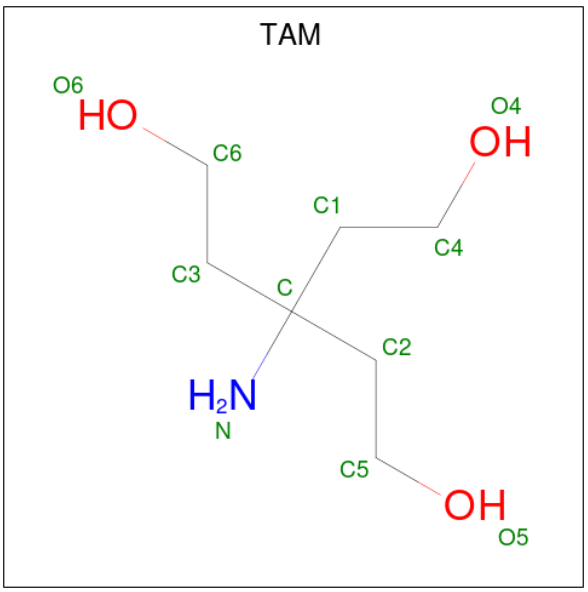
- Molecule 3 is INDOMETHACIN (CCD ID: IMN) (formula: $C_{19}H_{16}ClNO_4$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total	C	Cl	N	O	0	0
			25	19	1	1	4		

- Molecule 4 is TRIS(HYDROXYETHYL)AMINOMETHANE (CCD ID: TAM) (formula:

$C_7H_{17}NO_3$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
4	B	1	Total	C	N	O	0	0
			11	7	1	3		

- Molecule 5 is water.

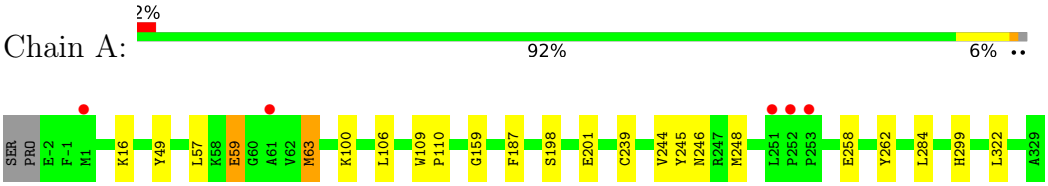
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	287	Total	O	0	0
			287	287		
5	B	313	Total	O	0	0
			313	313		

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.

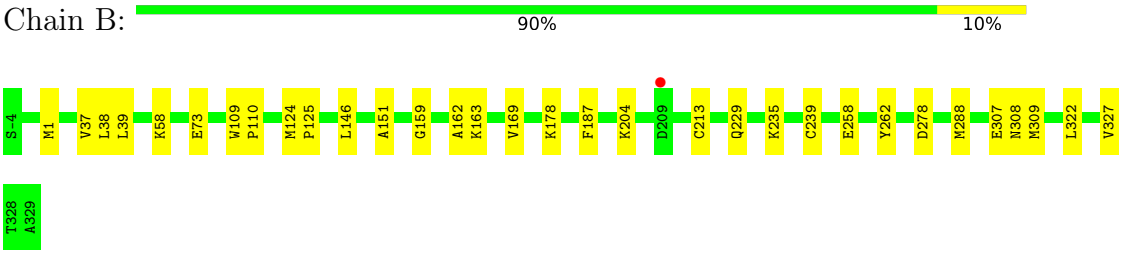
• Molecule 1: NADP-dependent leukotriene B4 12-hydroxydehydrogenase

Chain A:



• Molecule 1: NADP-dependent leukotriene B4 12-hydroxydehydrogenase

Chain B:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	58.25Å 76.08Å 79.65Å 90.00° 102.62° 90.00°	Depositor
Resolution (Å)	34.16 – 2.00 34.16 – 2.00	Depositor EDS
% Data completeness (in resolution range)	97.9 (34.16-2.00) 97.9 (34.16-2.00)	Depositor EDS
R_{merge}	0.07	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	7.07 (at 2.00Å)	Xtriage
Refinement program	REFMAC	Depositor
R, R_{free}	0.181 , 0.224 (Not available) , 0.244	Depositor DCC
R_{free} test set	2270 reflections (5.05%)	wwPDB-VP
Wilson B-factor (Å^2)	26.7	Xtriage
Anisotropy	0.484	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 40.9	EDS
L-test for twinning[2]	$< \|L\| > = 0.50$, $< L^2 > = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	5811	wwPDB-VP
Average B, all atoms (Å^2)	26.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.97% 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: NAP, IMN, TAM

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	0.47	0/2585	0.76	0/3487
1	B	0.49	0/2599	0.76	0/3507
All	All	0.48	0/5184	0.76	0/6994

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	2533	0	2585	14	0
1	B	2546	0	2597	20	0
2	A	48	0	25	1	0
2	B	48	0	25	1	0
3	A	25	0	15	5	0
4	B	11	0	17	3	0
5	A	287	0	0	0	0
5	B	313	0	0	1	0
All	All	5811	0	5264	36	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 3.

All (36) 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:B:178:LYS:HG2	1:B:322:LEU:HD23	1.76	0.67
1:A:198:SER:HB3	1:A:201:GLU:HG2	1.84	0.59
1:B:308:ASN:HD21	4:B:5000:TAM:H21	1.70	0.55
1:B:162:ALA:HB3	1:B:169:VAL:HG11	1.89	0.55
1:B:309:MET:HG3	1:B:327:VAL:HG21	1.89	0.54
1:A:59:GLU:H	1:A:59:GLU:CD	2.16	0.53
1:B:308:ASN:HD21	4:B:5000:TAM:C2	2.23	0.52
1:A:245:TYR:OH	3:A:1401:IMN:H14	2.11	0.51
1:B:109:TRP:CE3	1:B:288:MET:HE1	2.46	0.50
1:A:258:GLU:O	1:A:262:TYR:HB2	2.12	0.49
1:B:258:GLU:O	1:B:262:TYR:HB2	2.13	0.48
1:B:239:CYS:O	2:B:2400:NAP:H2N	2.15	0.46
1:A:299:HIS:HD2	1:A:322:LEU:O	1.98	0.46
1:B:124:MET:HB3	1:B:125:PRO:HD3	1.97	0.46
1:B:159:GLY:HA3	1:B:187:PHE:CZ	2.51	0.45
1:B:58:LYS:HE3	5:B:5170:HOH:O	2.15	0.45
1:A:57:LEU:HD12	1:A:63:MET:HE3	1.98	0.45
1:B:151:ALA:HB1	1:B:322:LEU:HD22	1.99	0.44
1:A:239:CYS:O	2:A:1400:NAP:H2N	2.17	0.44
1:B:37:VAL:HG23	1:B:39:LEU:CD2	2.47	0.44
1:B:38:LEU:HB3	1:B:73:GLU:HG3	2.00	0.43
1:A:244:VAL:O	1:A:248:MET:SD	2.76	0.43
1:B:109:TRP:HA	1:B:110:PRO:HD3	1.89	0.43
1:A:49:TYR:HB2	3:A:1401:IMN:H161	2.00	0.43
1:A:159:GLY:HA3	1:A:187:PHE:CZ	2.54	0.43
1:A:106:LEU:HD11	1:A:284:LEU:HB3	2.03	0.41
1:A:109:TRP:HA	1:A:110:PRO:HD3	1.89	0.41
1:B:163:LYS:HD2	1:B:163:LYS:HA	1.91	0.41
1:B:163:LYS:HD3	1:B:169:VAL:HG22	2.02	0.41
4:B:5000:TAM:HN2	4:B:5000:TAM:H61	1.82	0.41
3:A:1401:IMN:H12	1:B:258:GLU:HA	2.02	0.41
1:B:213:CYS:HA	1:B:235:LYS:O	2.21	0.41
1:A:16:LYS:HG2	1:A:246:ASN:ND2	2.36	0.41
1:A:245:TYR:HH	3:A:1401:IMN:H14	1.86	0.41
1:B:169:VAL:HG23	1:B:187:PHE:HA	2.03	0.40
3:A:1401:IMN:C16	3:A:1401:IMN:C10	2.99	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	329/333 (99%)	322 (98%)	6 (2%)	1 (0%)	36 35
1	B	331/333 (99%)	322 (97%)	9 (3%)	0	100 100
All	All	660/666 (99%)	644 (98%)	15 (2%)	1 (0%)	43 42

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	100	LYS

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	267/269 (99%)	265 (99%)	2 (1%)	76 82
1	B	269/269 (100%)	263 (98%)	6 (2%)	45 50
All	All	536/538 (100%)	528 (98%)	8 (2%)	57 64

All (8) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	59	GLU
1	A	63	MET
1	B	1	MET
1	B	146	LEU
1	B	204	LYS

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Mol	Chain	Res	Type
1	B	229	GLN
1	B	278	ASP
1	B	307	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (9) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	19	GLN
1	A	34	ASN
1	A	88	GLN
1	A	297	GLN
1	A	299	HIS
1	B	12	HIS
1	B	88	GLN
1	B	217	ASN
1	B	229	GLN

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 oligosaccharides in this entry.

5.6 Ligand geometry (i)

4 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
2	NAP	B	2400	-	50,52,52	1.67	5 (10%)	71,80,80	1.48	7 (9%)
2	NAP	A	1400	-	50,52,52	1.61	5 (10%)	71,80,80	1.45	8 (11%)
3	IMN	A	1401	-	27,27,27	2.77	6 (22%)	39,39,39	2.38	9 (23%)
4	TAM	B	5000	-	10,10,10	0.52	0	12,12,12	0.90	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	NAP	B	2400	-	-	8/35/67/67	0/5/5/5
2	NAP	A	1400	-	-	9/35/67/67	0/5/5/5
3	IMN	A	1401	-	-	4/14/14/14	0/3/3/3
4	TAM	B	5000	-	-	8/12/12/12	-

All (16) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	1401	IMN	C13-CL	-9.93	1.51	1.74
2	B	2400	NAP	O7N-C7N	8.63	1.40	1.24
2	A	1400	NAP	O7N-C7N	8.53	1.40	1.24
3	A	1401	IMN	C8-C7	6.44	1.49	1.36
3	A	1401	IMN	C1-C	5.68	1.48	1.41
3	A	1401	IMN	C-N	-3.54	1.35	1.41
2	B	2400	NAP	C2A-N3A	3.03	1.39	1.33
2	B	2400	NAP	PA-O3	2.80	1.62	1.59
2	B	2400	NAP	C2A-N1A	2.68	1.38	1.33
2	A	1400	NAP	C2A-N1A	2.68	1.38	1.33
2	A	1400	NAP	C2A-N3A	2.56	1.38	1.33
2	A	1400	NAP	PA-O3	2.36	1.62	1.59
2	B	2400	NAP	C8A-N7A	2.27	1.36	1.31
3	A	1401	IMN	C8-N	-2.20	1.36	1.40
3	A	1401	IMN	C1-C7	2.13	1.48	1.44
2	A	1400	NAP	C8A-N7A	2.07	1.35	1.31

All (24) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A	1401	IMN	C-N-C8	9.77	115.76	107.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	2400	NAP	N3A-C2A-N1A	-6.04	119.43	128.58
2	A	1400	NAP	N3A-C2A-N1A	-5.82	119.78	128.58
3	A	1401	IMN	C16-C8-N	5.16	129.81	122.07
2	B	2400	NAP	C5A-C4A-N3A	-4.63	120.34	126.72
2	A	1400	NAP	C5A-C4A-N3A	-4.53	120.47	126.72
3	A	1401	IMN	C5-C-C1	-4.41	117.03	121.95
2	B	2400	NAP	C2A-N3A-C4A	3.63	120.71	111.83
2	A	1400	NAP	C2A-N3A-C4A	3.51	120.40	111.83
3	A	1401	IMN	C1-C7-C8	-3.45	105.12	108.13
2	A	1400	NAP	N9A-C8A-N7A	-3.44	109.05	113.94
2	B	2400	NAP	N9A-C8A-N7A	-3.38	109.13	113.94
3	A	1401	IMN	C5-C-N	3.28	137.14	130.65
2	A	1400	NAP	C5A-N7A-C8A	3.19	108.46	103.45
2	B	2400	NAP	N3A-C4A-N9A	3.06	132.36	127.17
2	B	2400	NAP	C5A-N7A-C8A	3.04	108.23	103.45
2	A	1400	NAP	N3A-C4A-N9A	2.86	132.03	127.17
3	A	1401	IMN	C16-C8-C7	-2.74	123.78	128.07
2	A	1400	NAP	C3N-C7N-N7N	2.66	121.01	117.74
3	A	1401	IMN	C7-C8-N	-2.56	106.41	108.85
3	A	1401	IMN	C18-C17-C7	-2.48	107.13	113.73
2	B	2400	NAP	C3N-C7N-N7N	2.33	120.61	117.74
2	A	1400	NAP	C4A-C5A-N7A	-2.30	107.96	110.58
3	A	1401	IMN	C5-C4-C3	2.19	122.23	119.73

There are no chirality outliers.

All (29) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	1400	NAP	O4D-C1D-N1N-C6N
2	B	2400	NAP	O4D-C1D-N1N-C6N
4	B	5000	TAM	C3-C-C2-C5
4	B	5000	TAM	C1-C-C3-C6
4	B	5000	TAM	C2-C-C3-C6
4	B	5000	TAM	N-C-C3-C6
4	B	5000	TAM	C-C3-C6-O6
4	B	5000	TAM	C-C2-C5-O5
3	A	1401	IMN	C4-C3-O-C6
3	A	1401	IMN	C2-C3-O-C6
2	A	1400	NAP	C4B-C5B-O5B-PA
2	B	2400	NAP	C4B-C5B-O5B-PA
2	A	1400	NAP	C1B-C2B-O2B-P2B
2	A	1400	NAP	PA-O3-PN-O1N

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Mol	Chain	Res	Type	Atoms
2	B	2400	NAP	PA-O3-PN-O1N
3	A	1401	IMN	C7-C17-C18-O3
2	A	1400	NAP	C3B-C2B-O2B-P2B
2	A	1400	NAP	O4B-C4B-C5B-O5B
2	B	2400	NAP	O4B-C4B-C5B-O5B
4	B	5000	TAM	N-C-C2-C5
2	A	1400	NAP	O4D-C1D-N1N-C2N
2	B	2400	NAP	O4D-C1D-N1N-C2N
3	A	1401	IMN	C7-C17-C18-O2
2	A	1400	NAP	PA-O3-PN-O2N
2	B	2400	NAP	C3B-C4B-C5B-O5B
2	B	2400	NAP	PA-O3-PN-O2N
2	A	1400	NAP	C3B-C4B-C5B-O5B
2	B	2400	NAP	C2B-O2B-P2B-O1X
4	B	5000	TAM	C1-C-C2-C5

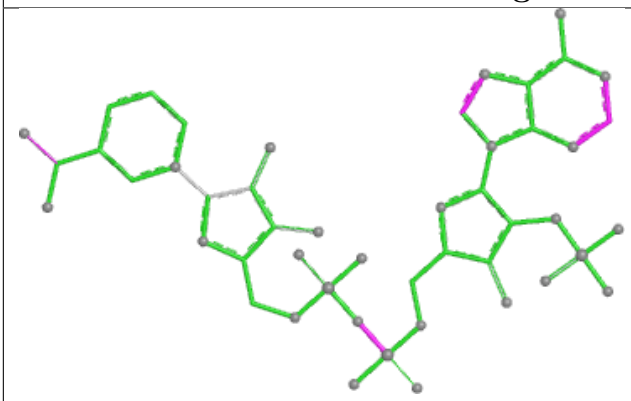
There are no ring outliers.

4 monomers are involved in 10 short contacts:

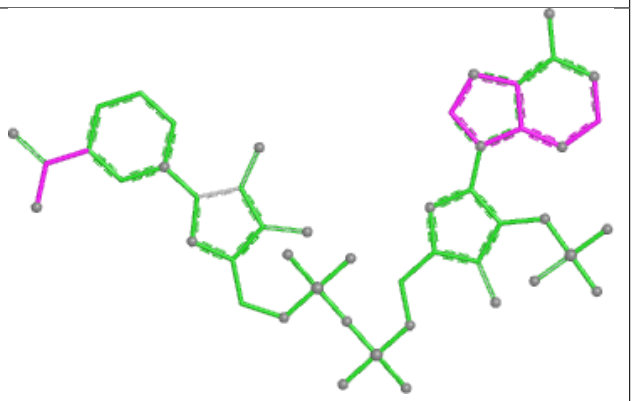
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	2400	NAP	1	0
2	A	1400	NAP	1	0
3	A	1401	IMN	5	0
4	B	5000	TAM	3	0

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.

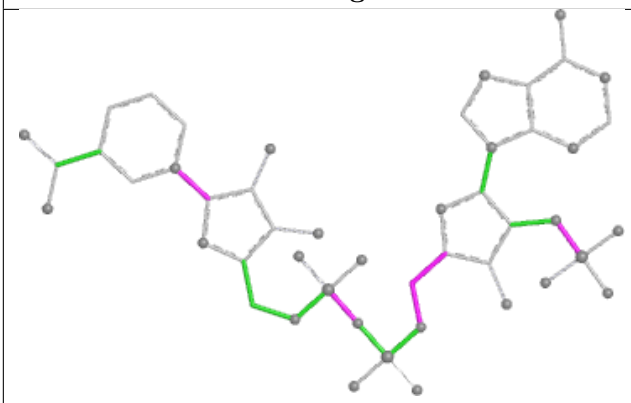
Ligand NAP B 2400



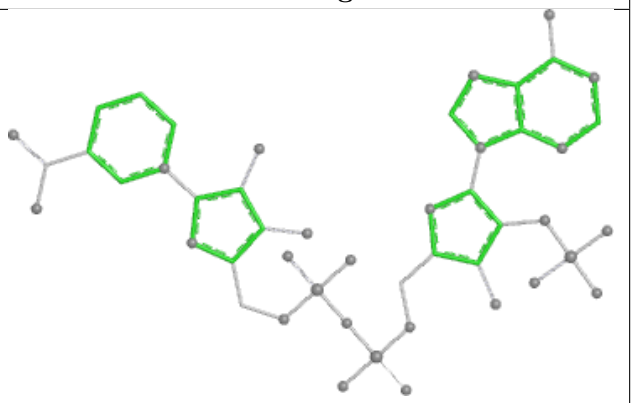
Bond lengths



Bond angles

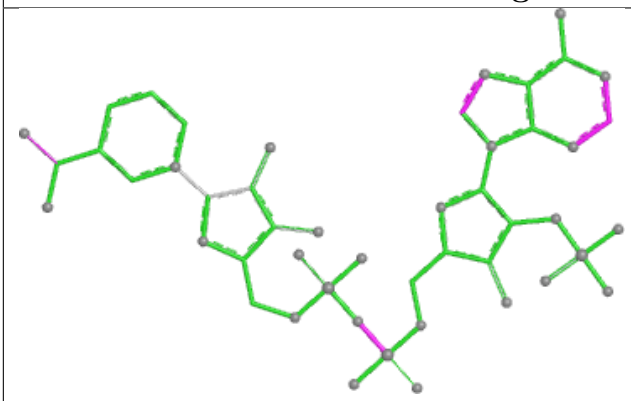


Torsions

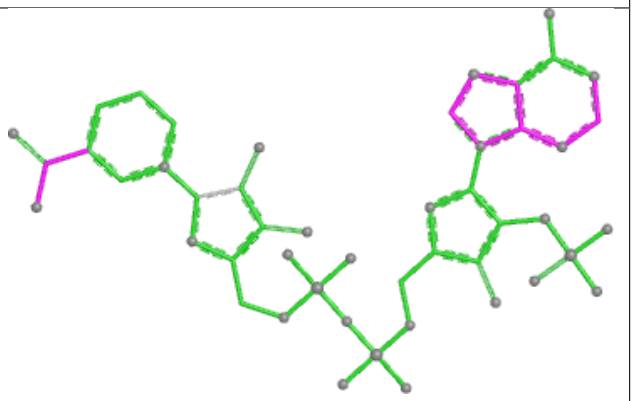


Rings

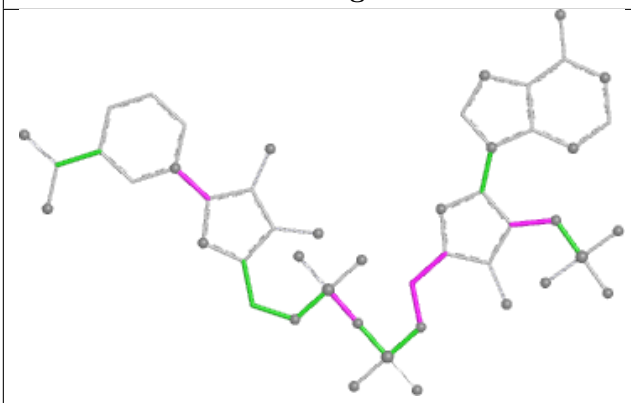
Ligand NAP A 1400



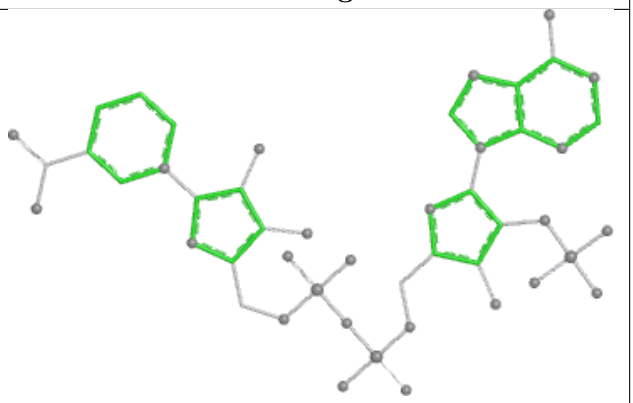
Bond lengths



Bond angles

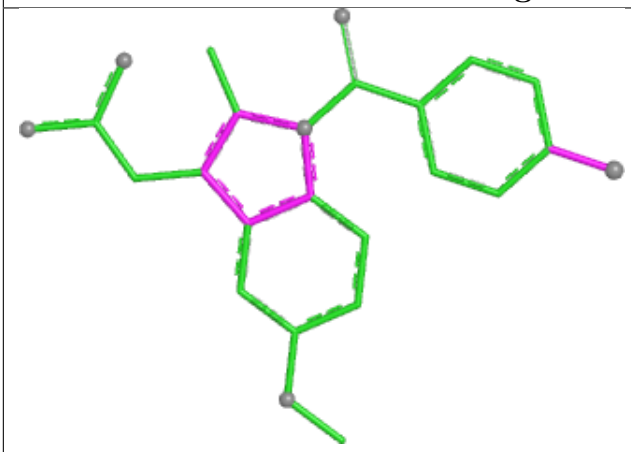


Torsions

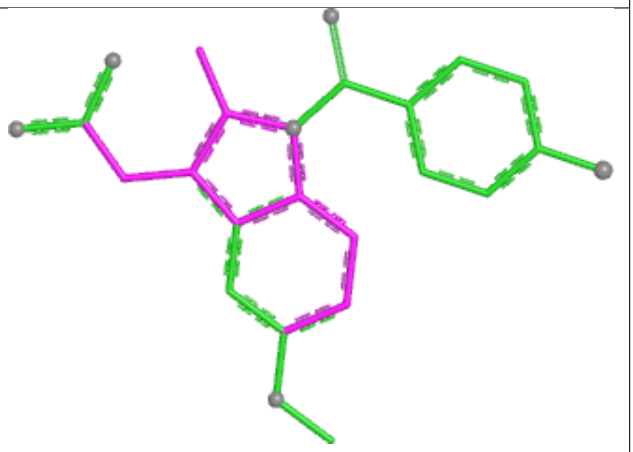


Rings

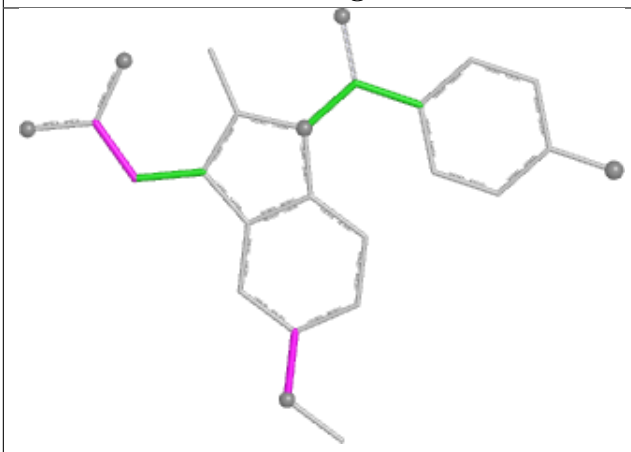
Ligand IMN A 1401



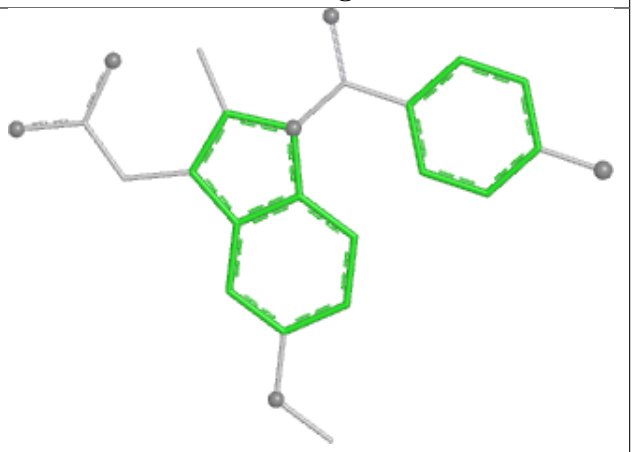
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

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	331/333 (99%)	-0.07	5 (1%)	72	71	11, 23, 46, 60	0
1	B	333/333 (100%)	-0.24	1 (0%)	90	89	12, 22, 41, 46	0
All	All	664/666 (99%)	-0.15	6 (0%)	81	80	11, 23, 43, 60	0

All (6) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	251	LEU	2.5
1	A	61	ALA	2.5
1	A	253	PRO	2.4
1	A	1	MET	2.2
1	A	252	PRO	2.1
1	B	209	ASP	2.0

6.2 Non-standard residues in protein, DNA, RNA chains

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates

There are no oligosaccharides in this entry.

6.4 Ligands

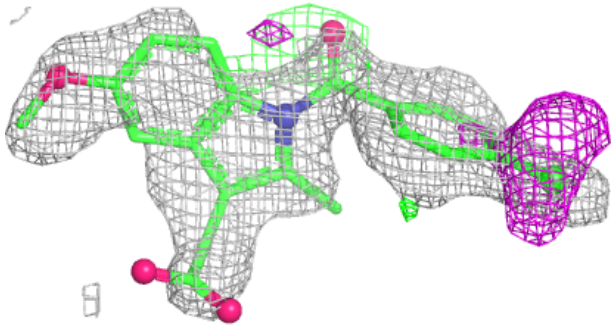
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9'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

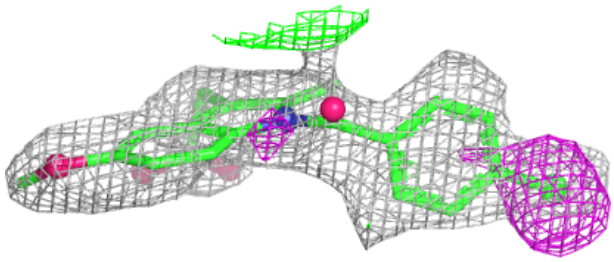
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	IMN	A	1401	25/25	0.71	0.17	43,59,68,73	0
4	TAM	B	5000	11/11	0.74	0.15	42,44,47,52	0
2	NAP	A	1400	48/48	0.97	0.06	15,22,28,29	0
2	NAP	B	2400	48/48	0.98	0.05	13,18,23,27	0

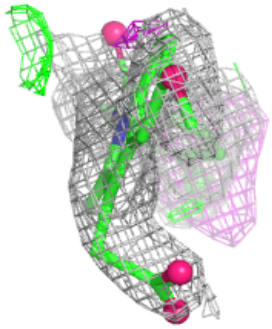
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around IMN A 1401:

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

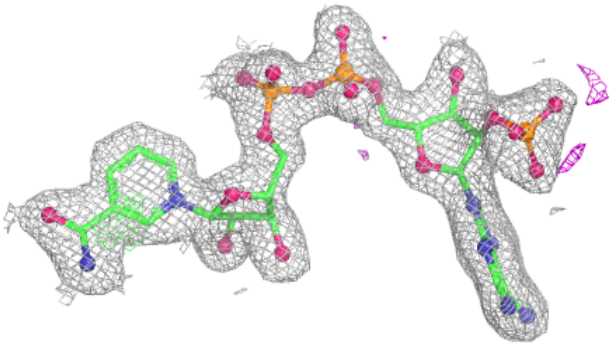


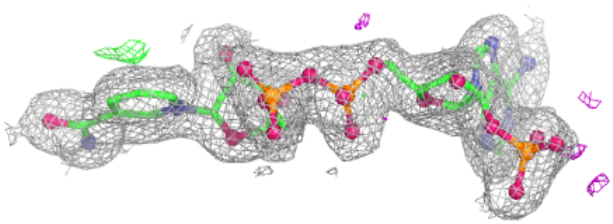


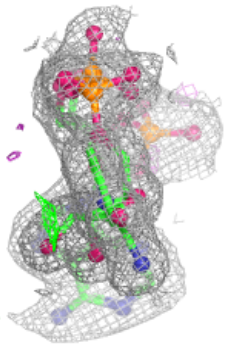


Electron density around NAP A 1400:

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

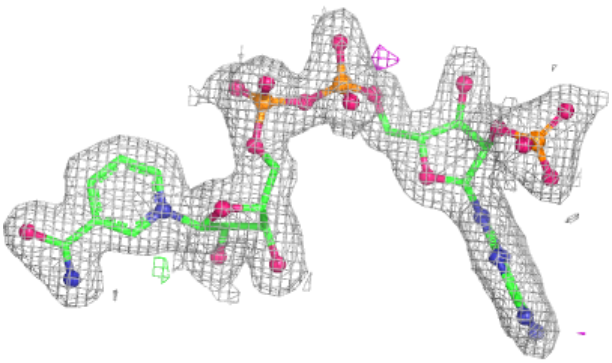


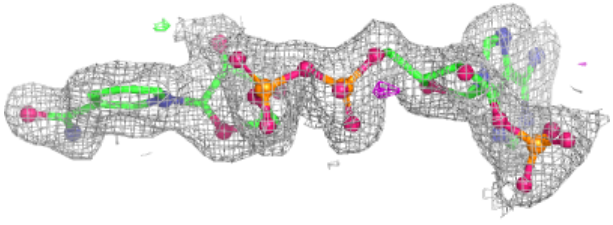


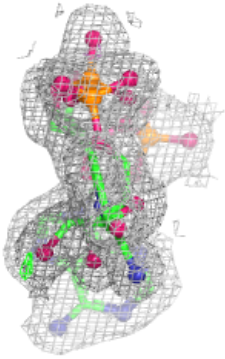


Electron density around NAP B 2400:

$2mF_o$-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.