WORLDWIDE PDB PROTEIN DATA BANK

Full wwPDB X-ray Structure Validation Report ⓘ

Jun 13, 2022 – 04:29 pm BST

PDB ID	:	7OQ1
Title	:	NaK S-ELM mutant with Na+ and K+
Authors	:	Minniberger, S.; Plested, A.J.R.
Deposited on	:	2021-06-02
Resolution	:	1.85 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 following versions of software and data (see references ⓘ) were used in the production of this report:

|		
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.28.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0267
CCP4	:	7.1.010 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.28.1

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 1.85 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	Percentile Ranks	Value
Rfree		0.186
Clashscore		2
Ramachandran outliers		0
Sidechain outliers		0
RSRZ outliers		1.1%

Worse   *Better*

▮ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution
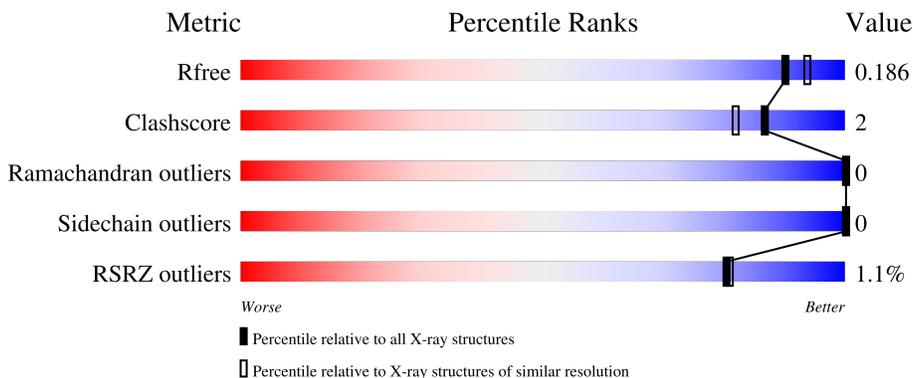
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	2469 (1.86-1.86)
Clashscore	141614	2625 (1.86-1.86)
Ramachandran outliers	138981	2592 (1.86-1.86)
Sidechain outliers	138945	2592 (1.86-1.86)
RSRZ outliers	127900	2436 (1.86-1.86)

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	96	2% 97% ..
1	B	96	95% ..
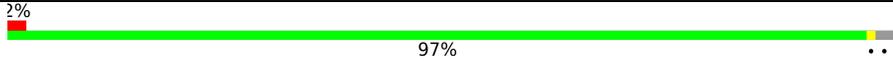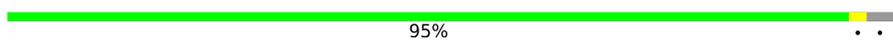
2 Entry composition ⓘ

There are 8 unique types of molecules in this entry. The entry contains 3389 atoms, of which 1726 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 Potassium channel protein.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	94	Total	C	H	N	O	S	0	5	0
			1548	510	793	111	133	1			
1	B	93	Total	C	H	N	O	S	0	3	0
			1533	505	785	111	131	1			

There are 20 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	18	MET	-	initiating methionine	UNP Q81HW2
A	66	SER	ASP	engineered mutation	UNP Q81HW2
A	?	-	GLY	deletion	UNP Q81HW2
A	67	GLU	ASN	engineered mutation	UNP Q81HW2
A	68	LEU	PHE	engineered mutation	UNP Q81HW2
A	69	MET	SER	engineered mutation	UNP Q81HW2
A	110	LEU	-	expression tag	UNP Q81HW2
A	111	VAL	-	expression tag	UNP Q81HW2
A	112	PRO	-	expression tag	UNP Q81HW2
A	113	ARG	-	expression tag	UNP Q81HW2
B	18	MET	-	initiating methionine	UNP Q81HW2
B	66	SER	ASP	engineered mutation	UNP Q81HW2
B	?	-	GLY	deletion	UNP Q81HW2
B	67	GLU	ASN	engineered mutation	UNP Q81HW2
B	68	LEU	PHE	engineered mutation	UNP Q81HW2
B	69	MET	SER	engineered mutation	UNP Q81HW2
B	110	LEU	-	expression tag	UNP Q81HW2
B	111	VAL	-	expression tag	UNP Q81HW2
B	112	PRO	-	expression tag	UNP Q81HW2
B	113	ARG	-	expression tag	UNP Q81HW2

- Molecule 2 is (4S)-2-METHYL-2,4-PENTANEDIOL (three-letter code: MPD) (formula: $C_6H_{14}O_2$).

MPD

O4
OH

C1

C5

C4(S)

C2
CM

C3

OH
O2
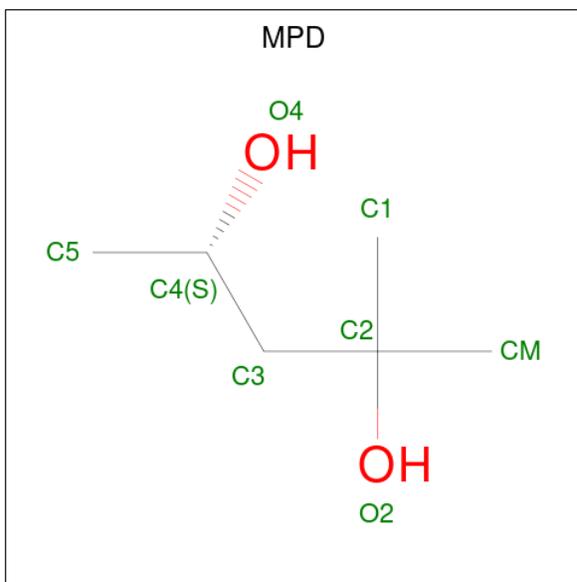
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
2	A	1	Total 22	C 6	H 14	O 2	0	0
2	A	1	Total 22	C 6	H 14	O 2	0	0
2	A	1	Total 22	C 6	H 14	O 2	0	0
2	A	1	Total 22	C 6	H 14	O 2	0	0
2	A	1	Total 22	C 6	H 14	O 2	0	0
2	B	1	Total 22	C 6	H 14	O 2	0	0
2	B	1	Total 22	C 6	H 14	O 2	0	0

- Molecule 3 is POTASSIUM ION (three-letter code: K) (formula: K) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	2	Total 2	K 2	0	0
3	B	1	Total 1	K 1	0	0

- Molecule 4 is ACETATE ION (three-letter code: ACT) (formula: $C_2H_3O_2$).

ACT

OXT

O⁻

C

CH3

O

O
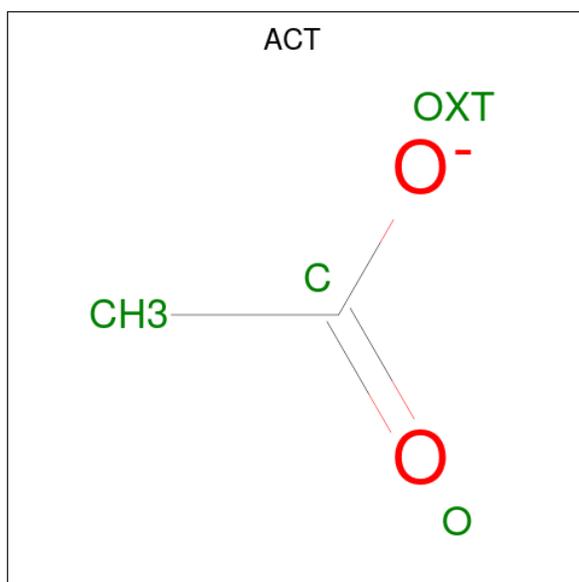
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
4	A	1	Total 7	C 2	H 3	O 2	0	0
4	A	1	Total 7	C 2	H 3	O 2	0	0
4	A	1	Total 7	C 2	H 3	O 2	0	0
4	A	1	Total 7	C 2	H 3	O 2	0	0
4	A	1	Total 7	C 2	H 3	O 2	0	0
4	A	1	Total 7	C 2	H 3	O 2	0	0
4	B	1	Total 7	C 2	H 3	O 2	0	0
4	B	1	Total 7	C 2	H 3	O 2	0	0
4	B	1	Total 7	C 2	H 3	O 2	0	0
4	B	1	Total 7	C 2	H 3	O 2	0	0
4	B	1	Total 7	C 2	H 3	O 2	0	0
4	B	1	Total 7	C 2	H 3	O 2	0	0

- Molecule 5 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

W O R L D W I D E
PDB
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	1	Total Cl 1 1		0	0

- Molecule 6 is (4R)-2-METHYLPENTANE-2,4-DIOL (three-letter code: MRD) (formula: $C_6H_{14}O_2$).

MRD
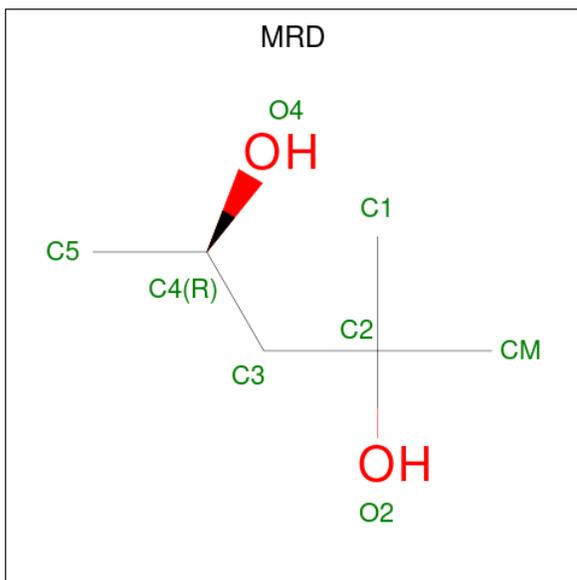
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
6	A	1	Total C H O 22 6 14 2				0	0

- Molecule 7 is SODIUM ION (three-letter code: NA) (formula: Na) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	B	2	Total Na 2 2		0	0

- Molecule 8 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
8	A	20	Total O 20 20		0	0
8	B	22	Total O 22 22		0	0

3 Residue-property plots ⓘ

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: Potassium channel protein

Chain A:

• Molecule 1: Potassium channel protein

Chain B:

4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α, β, γ	81.21Å 87.28Å 48.98Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	59.45 – 1.85 59.45 – 1.85	Depositor EDS
% Data completeness (in resolution range)	99.1 (59.45-1.85) 99.1 (59.45-1.85)	Depositor EDS
R_{merge}	0.03	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.69 (at 1.86Å)	Xtriage
Refinement program	PHENIX 1.19_4092	Depositor
R, R_{free}	0.160 , 0.186 0.159 , 0.186	Depositor DCC
R_{free} test set	1516 reflections (10.04%)	wwPDB-VP
Wilson B-factor (Å^2)	24.9	Xtriage
Anisotropy	0.490	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	(Not available) , (Not available)	EDS
L-test for twinning[2]	$< |L| > = 0.51, < L^2 > = 0.34$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.97	EDS
Total number of atoms	3389	wwPDB-VP
Average B, all atoms (Å^2)	36.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 8.98% of the height of the origin peak. No significant pseudotranslation is detected.*

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[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: K, MRD, CL, MPD, ACT, NA

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	0.55	0/793	0.55	0/1081
1	B	0.57	0/769	0.56	0/1047
All	All	0.56	0/1562	0.56	0/2128

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	755	793	774	1	0
1	B	748	785	780	1	0
2	A	40	70	70	4	0
2	B	16	28	28	3	0
3	A	2	0	0	0	0
3	B	1	0	0	0	0
4	A	24	18	18	0	0
4	B	24	18	18	0	0
5	A	1	0	0	0	0
6	A	8	14	14	0	0
7	B	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	A	20	0	0	0	1
8	B	22	0	0	0	1
All	All	1663	1726	1702	7	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 2.

All (7) 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)
2:A:205:MPD:H13	2:B:202:MPD:HM2	1.75	0.67
2:A:205:MPD:C1	2:B:202:MPD:HM2	2.34	0.58
2:A:205:MPD:H12	2:A:205:MPD:O4	2.14	0.46
2:A:202:MPD:O4	2:A:202:MPD:O2	2.26	0.41
1:A:111:VAL:O	1:A:111:VAL:HG23	2.20	0.41
2:B:202:MPD:H52	2:B:202:MPD:HM1	2.02	0.41
1:B:103:LEU:HB3	1:B:104:PRO:HD3	2.02	0.41

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)
8:A:308:HOH:O	8:B:304:HOH:O[3_554]	2.15	0.05

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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	97/96 (101%)	96 (99%)	1 (1%)	0	100	100
1	B	94/96 (98%)	94 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
All	All	191/192 (100%)	190 (100%)	1 (0%)	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	89/87 (102%)	89 (100%)	0	100 100
1	B	86/87 (99%)	86 (100%)	0	100 100
All	All	175/174 (101%)	175 (100%)	0	100 100

There are no protein residues with a non-rotameric sidechain to report.

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

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 ⓘ

There are no monosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 26 ligands modelled in this entry, 6 are monoatomic - leaving 20 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	#$|Z| > 2$
4	ACT	A	210	-	1,3,3	3.10	1 (100%)	0,3,3	-	-
6	MRD	A	215	-	7,7,7	1.21	1 (14%)	9,10,10	0.52	0
4	ACT	B	205	-	1,3,3	2.22	1 (100%)	0,3,3	-	-
2	MPD	A	202	-	7,7,7	1.08	1 (14%)	9,10,10	0.74	0
4	ACT	A	211	-	1,3,3	1.67	0	0,3,3	-	-
4	ACT	B	207	-	1,3,3	2.44	1 (100%)	0,3,3	-	-
2	MPD	A	201	-	7,7,7	0.86	0	9,10,10	0.71	0
2	MPD	A	204	-	7,7,7	1.17	1 (14%)	9,10,10	0.89	0
4	ACT	B	206	-	1,3,3	1.90	0	0,3,3	-	-
2	MPD	B	201	-	7,7,7	1.15	1 (14%)	9,10,10	0.73	0
2	MPD	B	202	-	7,7,7	0.81	0	9,10,10	0.93	1 (11%)
4	ACT	A	213	-	1,3,3	1.99	0	0,3,3	-	-
4	ACT	A	209	-	1,3,3	1.66	0	0,3,3	-	-
4	ACT	A	212	-	1,3,3	2.81	1 (100%)	0,3,3	-	-
4	ACT	B	204	-	1,3,3	1.95	0	0,3,3	-	-
4	ACT	A	208	-	1,3,3	2.41	1 (100%)	0,3,3	-	-
4	ACT	B	208	-	1,3,3	3.65	1 (100%)	0,3,3	-	-
4	ACT	B	209	-	1,3,3	2.72	1 (100%)	0,3,3	-	-
2	MPD	A	203	-	7,7,7	0.82	0	9,10,10	0.53	0
2	MPD	A	205	-	7,7,7	0.81	0	9,10,10	0.66	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	MPD	A	202	-	-	2/5/5/5	-
2	MPD	B	201	-	-	3/5/5/5	-
6	MRD	A	215	-	-	0/5/5/5	-
2	MPD	B	202	-	-	2/5/5/5	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	MPD	A	201	-	-	0/5/5/5	-
2	MPD	A	204	-	-	0/5/5/5	-
2	MPD	A	203	-	-	0/5/5/5	-
2	MPD	A	205	-	-	2/5/5/5	-

All (11) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	B	208	ACT	CH3-C	3.65	1.53	1.48
4	A	210	ACT	CH3-C	3.10	1.52	1.48
4	A	212	ACT	CH3-C	2.81	1.52	1.48
4	B	209	ACT	CH3-C	2.72	1.52	1.48
2	B	201	MPD	O2-C2	-2.49	1.38	1.44
4	B	207	ACT	CH3-C	2.44	1.51	1.48
4	A	208	ACT	CH3-C	2.41	1.51	1.48
2	A	204	MPD	O2-C2	-2.35	1.38	1.44
4	B	205	ACT	CH3-C	2.22	1.51	1.48
2	A	202	MPD	O2-C2	-2.20	1.39	1.44
6	A	215	MRD	CM-C2	-2.11	1.45	1.52

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	202	MPD	CM-C2-C1	-2.17	106.06	110.57

There are no chirality outliers.

All (9) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	B	202	MPD	C2-C3-C4-C5
2	A	205	MPD	C2-C3-C4-O4
2	A	202	MPD	CM-C2-C3-C4
2	B	201	MPD	C1-C2-C3-C4
2	B	201	MPD	CM-C2-C3-C4
2	B	202	MPD	CM-C2-C3-C4
2	B	201	MPD	O2-C2-C3-C4
2	A	205	MPD	C2-C3-C4-C5
2	A	202	MPD	C2-C3-C4-O4

There are no ring outliers.

3 monomers are involved in 5 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	202	MPD	1	0
2	B	202	MPD	3	0
2	A	205	MPD	3	0

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, 95th 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	94/96 (97%)	-0.42	2 (2%)	63	63	17, 26, 66, 92	0
1	B	93/96 (96%)	-0.57	0	100	100	17, 26, 50, 72	0
All	All	187/192 (97%)	-0.50	2 (1%)	80	81	17, 26, 59, 92	0

All (2) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	111	VAL	3.9
1	A	68	LEU	3.4

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 monosaccharides 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, 95th 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	ACT	A	212	4/4	0.74	0.16	55,60,66,66	0
4	ACT	A	210	4/4	0.75	0.13	52,63,71,71	0
4	ACT	B	207	4/4	0.78	0.16	57,58,70,70	0

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| Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
4	ACT	A	208	4/4	0.79	0.17	59,67,73,75	0
4	ACT	B	208	4/4	0.80	0.18	60,70,72,76	0
4	ACT	A	211	4/4	0.82	0.17	61,66,73,73	0
2	MPD	A	205	8/8	0.82	0.23	40,60,74,83	0
2	MPD	A	203	8/8	0.85	0.30	55,68,72,76	0
3	K	B	203	1/1	0.85	0.23	84,84,84,84	1
7	NA	B	211	1/1	0.85	0.08	62,62,62,62	1
2	MPD	B	202	8/8	0.86	0.21	40,51,60,66	0
4	ACT	A	213	4/4	0.88	0.11	53,60,63,64	0
2	MPD	A	202	8/8	0.88	0.22	50,60,68,71	0
4	ACT	B	209	4/4	0.90	0.12	51,55,61,61	7
4	ACT	B	206	4/4	0.90	0.11	52,60,63,63	0
2	MPD	A	204	8/8	0.91	0.25	52,64,77,77	0
4	ACT	A	209	4/4	0.92	0.09	52,62,68,68	0
7	NA	B	210	1/1	0.93	0.16	47,47,47,47	1
4	ACT	B	204	4/4	0.94	0.11	64,73,87,87	0
4	ACT	B	205	4/4	0.94	0.11	63,65,76,76	0
2	MPD	A	201	8/8	0.94	0.23	45,57,70,70	0
2	MPD	B	201	8/8	0.94	0.19	35,48,59,60	0
5	CL	A	214	1/1	0.96	0.07	35,35,35,35	0
6	MRD	A	215	8/8	0.96	0.09	24,32,39,39	0
3	K	A	207	1/1	0.99	0.07	19,19,19,19	1
3	K	A	206	1/1	1.00	0.12	19,19,19,19	1

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 K B 203:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
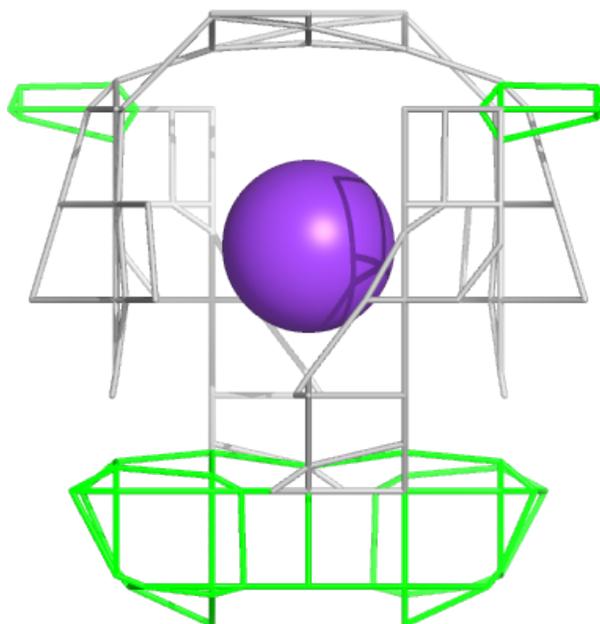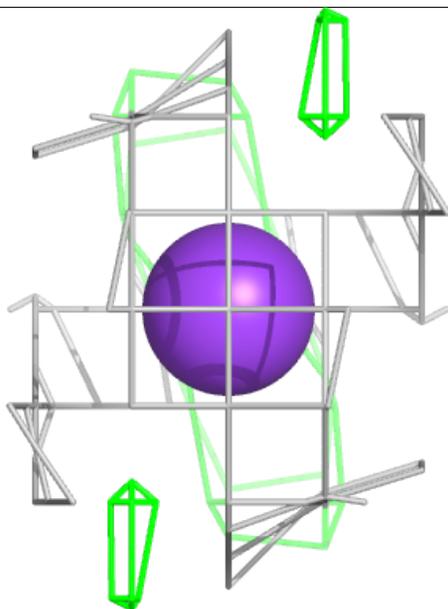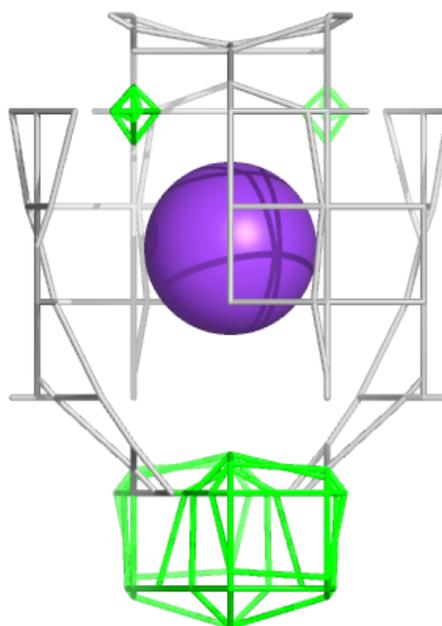
Electron density around NA B 211:

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

Electron density around NA B 210:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
and green (positive)
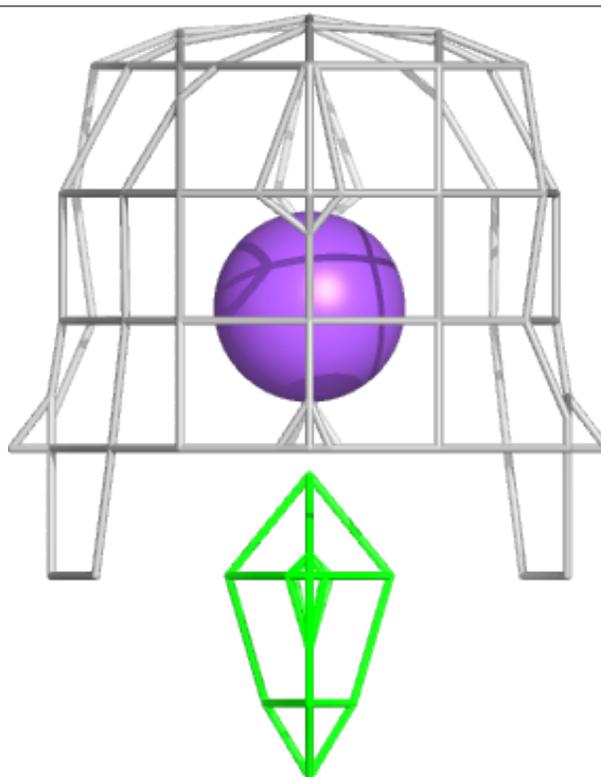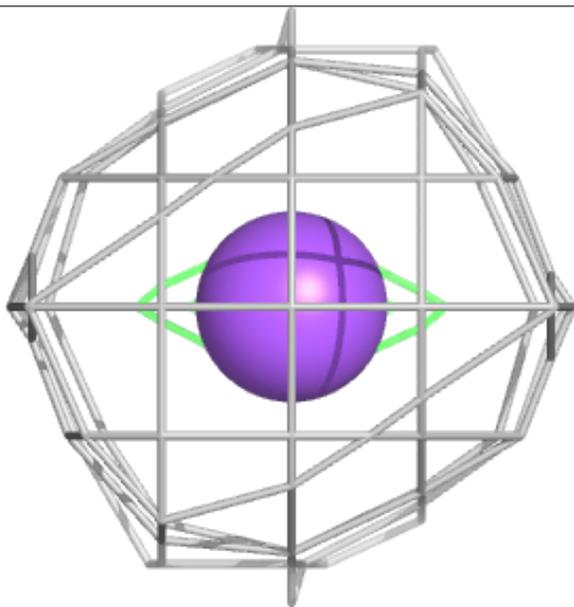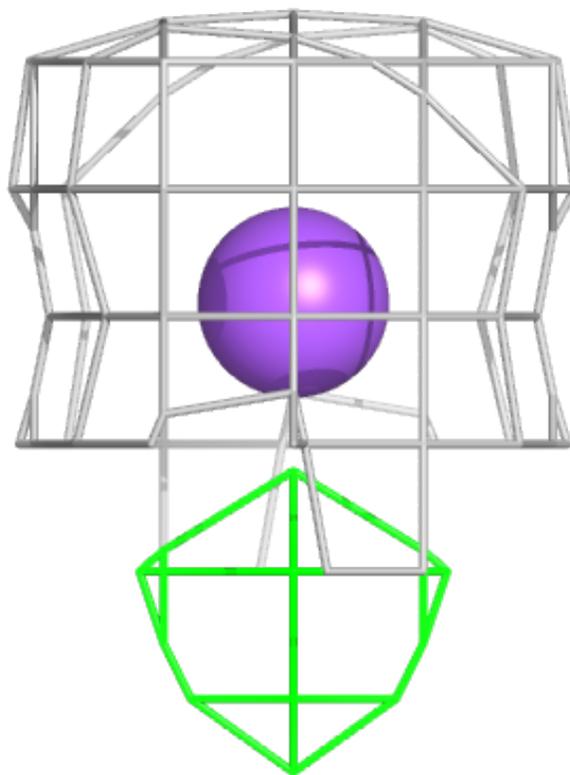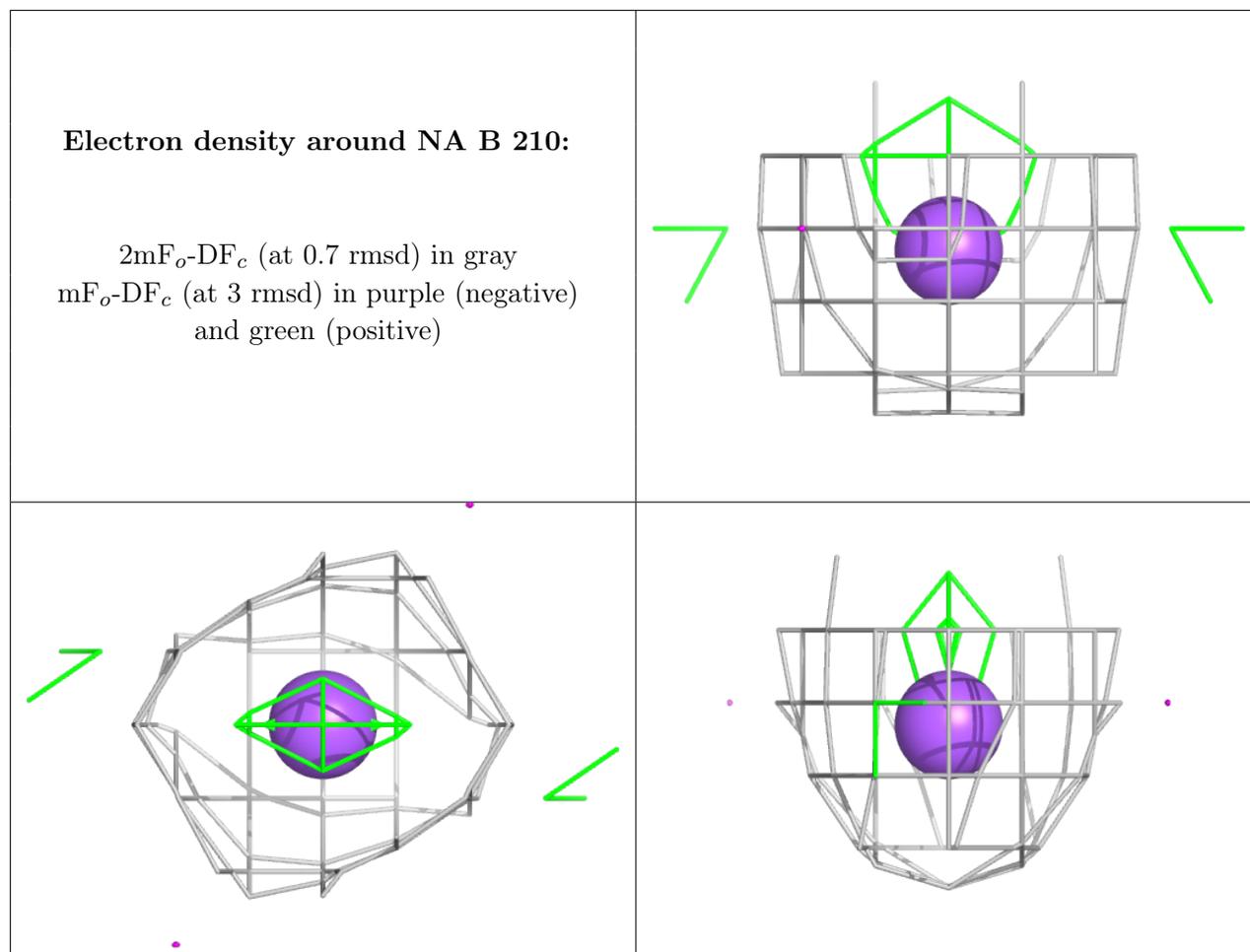
Electron density around K A 207:

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

Electron density around K A 206:

$2mF_o$-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.