



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 9, 2026 – 06:03 AM UTC

PDB ID : 5LS6 / pdb_00005ls6
Title : Structure of Human Polycomb Repressive Complex 2 (PRC2) with inhibitor
Authors : Zhang, Y.; Justin, N.; Chen, S.; Wilson, J.; Gamblin, S.
Deposited on : 2016-08-22
Resolution : 3.47 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

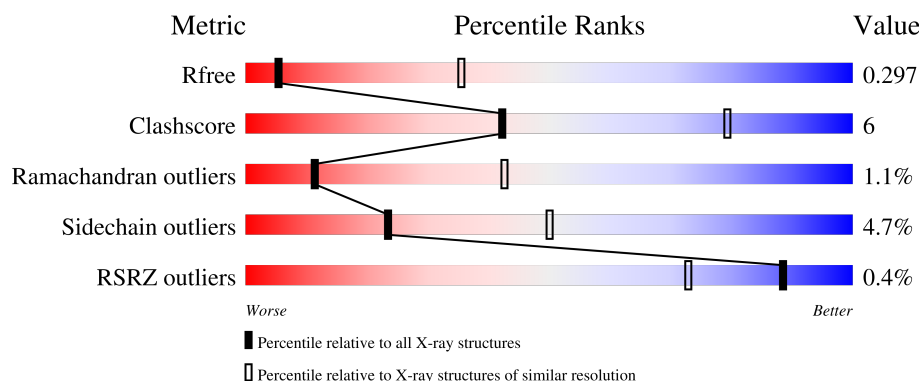
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.47 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}	180053	1083 (3.52-3.44)
Clashscore	190562	1139 (3.52-3.44)
Ramachandran outliers	187476	1111 (3.52-3.44)
Sidechain outliers	187428	1112 (3.52-3.44)
RSRZ outliers	180081	1082 (3.52-3.44)

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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	695	
1	D	695	
1	G	695	
1	J	695	
2	B	367	

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Mol	Chain	Length	Quality of chain
2	E	367	
2	H	367	
2	K	367	
3	C	129	
3	F	129	
3	I	129	
3	L	129	
4	Q	11	
4	R	11	
4	S	11	
4	T	11	

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
5	ZN	A	801	-	-	X	-
5	ZN	G	802	-	-	X	-
5	ZN	G	806	-	-	X	-
5	ZN	J	806	-	-	X	-
6	74D	A	809	X	-	-	-
6	74D	D	809	X	-	-	-
6	74D	G	809	X	-	-	-
6	74D	J	809	X	-	-	-

2 Entry composition

There are 6 unique types of molecules in this entry. The entry contains 34891 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 Histone-lysine N-methyltransferase EZH2,Histone-lysine N-methyltransferase EZH2,Histone-lysine N-methyltransferase EZH2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	570	Total	C	N	O	S	0	0	0
			4588	2878	813	855	42			
1	D	570	Total	C	N	O	S	0	0	0
			4588	2878	813	855	42			
1	G	572	Total	C	N	O	S	0	0	0
			4603	2886	816	859	42			
1	J	570	Total	C	N	O	S	0	0	0
			4588	2878	813	855	42			

There are 52 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-9	GLU	-	expression tag	UNP Q15910
A	-8	THR	-	expression tag	UNP Q15910
A	-7	SER	-	expression tag	UNP Q15910
A	-6	LEU	-	expression tag	UNP Q15910
A	-5	ALA	-	expression tag	UNP Q15910
A	-4	GLU	-	expression tag	UNP Q15910
A	-3	GLU	-	expression tag	UNP Q15910
A	-2	LYS	-	expression tag	UNP Q15910
A	-1	LEU	-	expression tag	UNP Q15910
A	0	THR	-	expression tag	UNP Q15910
A	249	GLN	GLU	conflict	UNP Q15910
A	419	PRO	-	linker	UNP Q15910
A	420	GLY	-	linker	UNP Q15910
D	-9	GLU	-	expression tag	UNP Q15910
D	-8	THR	-	expression tag	UNP Q15910
D	-7	SER	-	expression tag	UNP Q15910
D	-6	LEU	-	expression tag	UNP Q15910
D	-5	ALA	-	expression tag	UNP Q15910
D	-4	GLU	-	expression tag	UNP Q15910
D	-3	GLU	-	expression tag	UNP Q15910

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Chain	Residue	Modelled	Actual	Comment	Reference
D	-2	LYS	-	expression tag	UNP Q15910
D	-1	LEU	-	expression tag	UNP Q15910
D	0	THR	-	expression tag	UNP Q15910
D	249	GLN	GLU	conflict	UNP Q15910
D	419	PRO	-	linker	UNP Q15910
D	420	GLY	-	linker	UNP Q15910
G	-9	GLU	-	expression tag	UNP Q15910
G	-8	THR	-	expression tag	UNP Q15910
G	-7	SER	-	expression tag	UNP Q15910
G	-6	LEU	-	expression tag	UNP Q15910
G	-5	ALA	-	expression tag	UNP Q15910
G	-4	GLU	-	expression tag	UNP Q15910
G	-3	GLU	-	expression tag	UNP Q15910
G	-2	LYS	-	expression tag	UNP Q15910
G	-1	LEU	-	expression tag	UNP Q15910
G	0	THR	-	expression tag	UNP Q15910
G	249	GLN	GLU	conflict	UNP Q15910
G	419	PRO	-	linker	UNP Q15910
G	420	GLY	-	linker	UNP Q15910
J	-9	GLU	-	expression tag	UNP Q15910
J	-8	THR	-	expression tag	UNP Q15910
J	-7	SER	-	expression tag	UNP Q15910
J	-6	LEU	-	expression tag	UNP Q15910
J	-5	ALA	-	expression tag	UNP Q15910
J	-4	GLU	-	expression tag	UNP Q15910
J	-3	GLU	-	expression tag	UNP Q15910
J	-2	LYS	-	expression tag	UNP Q15910
J	-1	LEU	-	expression tag	UNP Q15910
J	0	THR	-	expression tag	UNP Q15910
J	249	GLN	GLU	conflict	UNP Q15910
J	419	PRO	-	linker	UNP Q15910
J	420	GLY	-	linker	UNP Q15910

- Molecule 2 is a protein called Polycomb protein EED.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	365	Total	C	N	O	S	0	0	0
			2959	1873	521	543	22			
2	E	365	Total	C	N	O	S	0	0	0
			2959	1873	521	543	22			
2	H	365	Total	C	N	O	S	0	0	0
			2959	1873	521	543	22			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	K	365	Total	C	N	O	S	0	0	0
			2959	1873	521	543	22			

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	75	GLY	-	expression tag	UNP O75530
B	76	SER	-	expression tag	UNP O75530
E	75	GLY	-	expression tag	UNP O75530
E	76	SER	-	expression tag	UNP O75530
H	75	GLY	-	expression tag	UNP O75530
H	76	SER	-	expression tag	UNP O75530
K	75	GLY	-	expression tag	UNP O75530
K	76	SER	-	expression tag	UNP O75530

- Molecule 3 is a protein called Polycomb protein SUZ12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	125	Total	C	N	O	S	0	0	0
			1042	657	180	193	12			
3	F	125	Total	C	N	O	S	0	0	0
			1042	657	180	193	12			
3	I	125	Total	C	N	O	S	0	0	0
			1042	657	180	193	12			
3	L	125	Total	C	N	O	S	0	0	0
			1042	657	180	193	12			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	557	GLY	-	expression tag	UNP Q15022
F	557	GLY	-	expression tag	UNP Q15022
I	557	GLY	-	expression tag	UNP Q15022
L	557	GLY	-	expression tag	UNP Q15022

- Molecule 4 is a protein called Jarid2 K116me3.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
4	Q	10	Total	C	N	O	0	0	0
			85	54	17	14			
4	R	10	Total	C	N	O	0	0	0
			85	54	17	14			

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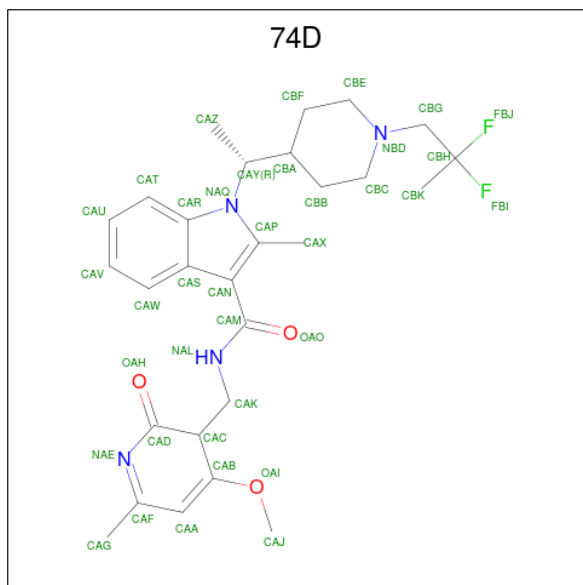
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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
4	S	10	Total	C	N	O	0	0	0
			85	54	17	14			
4	T	10	Total	C	N	O	0	0	0
			85	54	17	14			

- Molecule 5 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	8	Total	Zn	0	0
			8	8		
5	D	8	Total	Zn	0	0
			8	8		
5	G	8	Total	Zn	0	0
			8	8		
5	J	8	Total	Zn	0	0
			8	8		

- Molecule 6 is 1-[(1 {R})-1-[1-[2,2-bis(fluoranyl)propyl]piperidin-4-yl]ethyl]- {N}-[(4-methoxy-6-methyl-2-oxidanylidene-3 {H}-pyridin-3-yl)methyl]-2-methyl-indole-3-carboxamide (CCD ID: 74D) (formula: C₂₈H₃₆F₂N₄O₃).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
6	A	1	Total	C	F	N	O	0
			37	28	2	4	3	0
6	D	1	Total	C	F	N	O	0
			37	28	2	4	3	0

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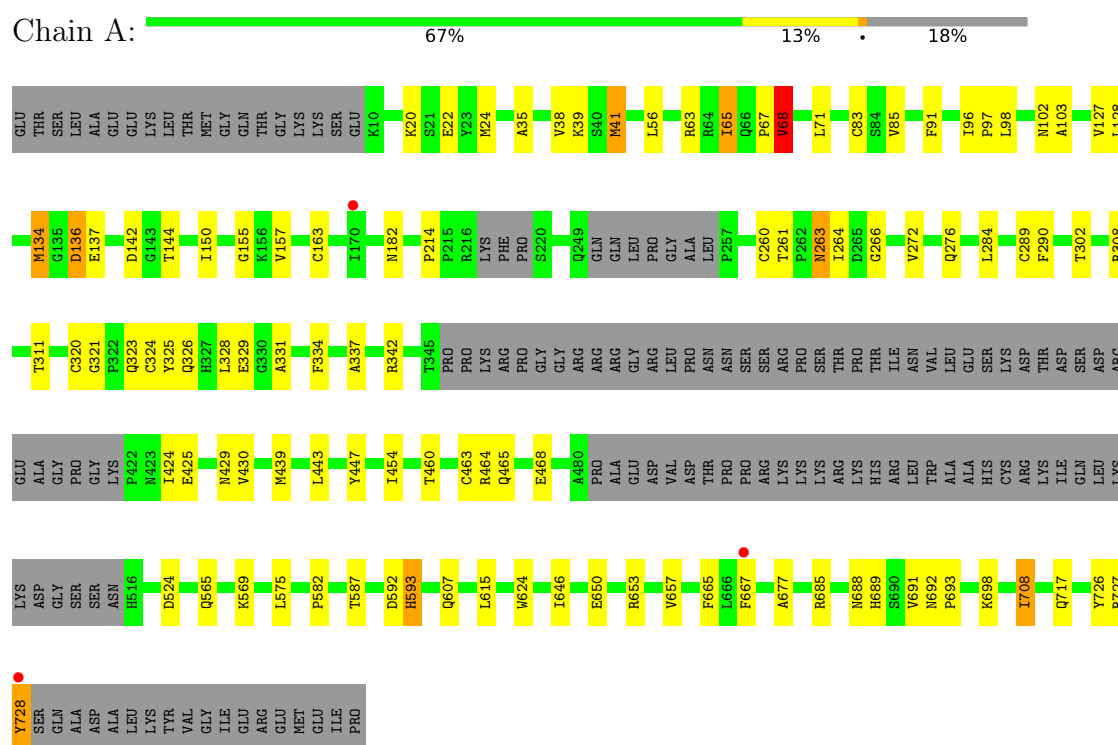
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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
6	G	1	Total	C	F	N	O	0	0
			37	28	2	4	3		
6	J	1	Total	C	F	N	O	0	0
			37	28	2	4	3		

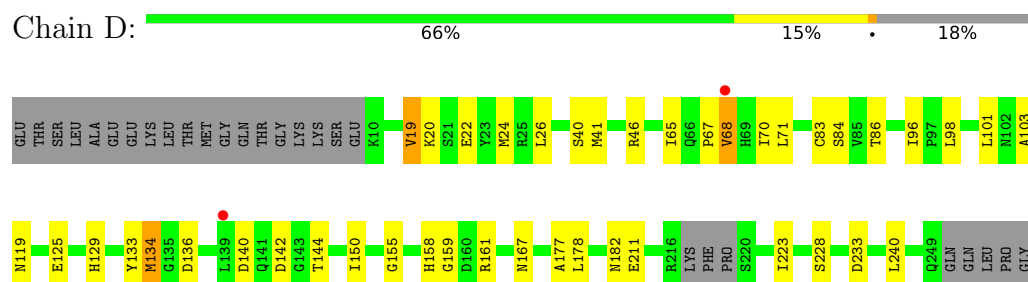
3 Residue-property plots

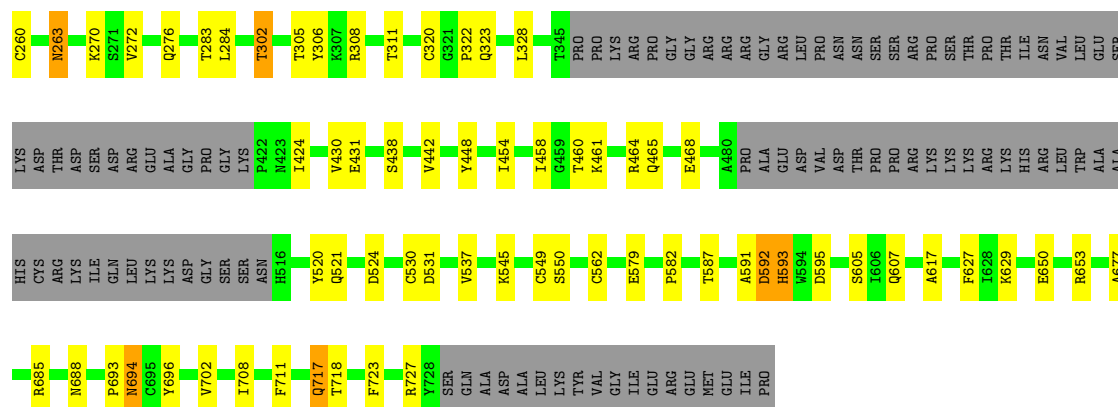
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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: Histone-lysine N-methyltransferase EZH2,Histone-lysine N-methyltransferase EZH2,Histone-lysine N-methyltransferase EZH2



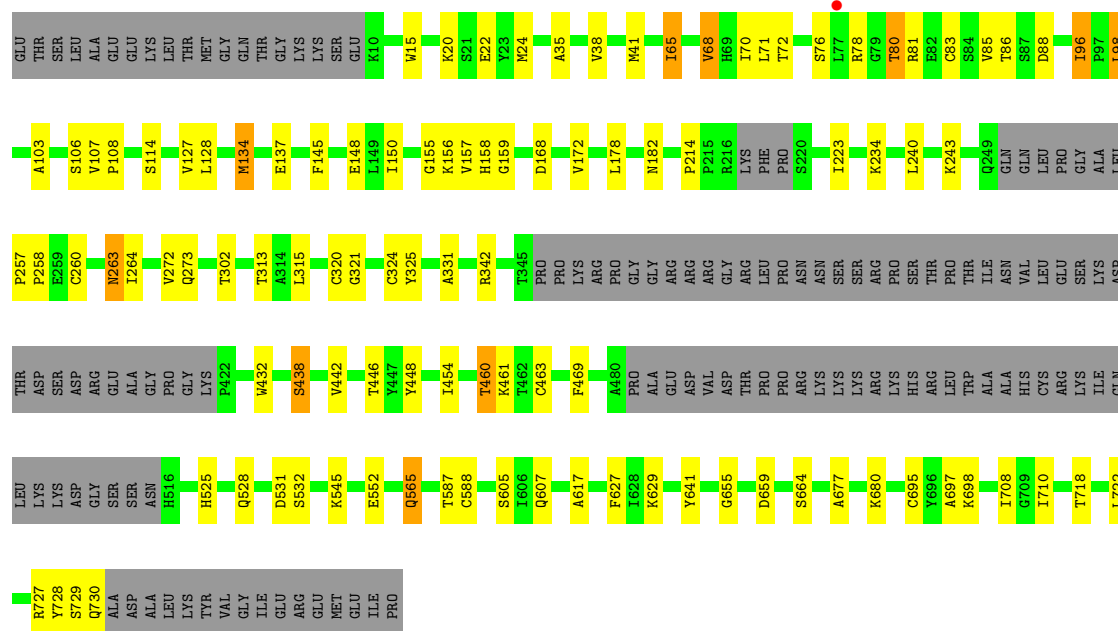
- Molecule 1: Histone-lysine N-methyltransferase EZH2,Histone-lysine N-methyltransferase EZH2,Histone-lysine N-methyltransferase EZH2





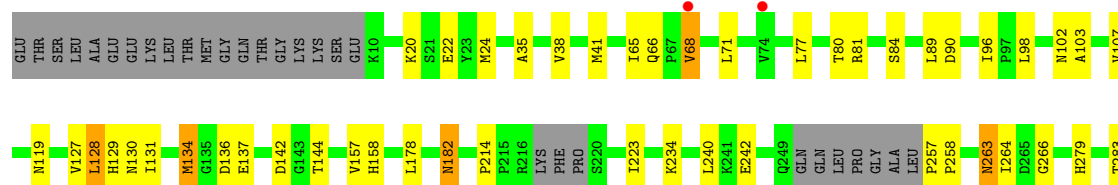
- Molecule 1: Histone-lysine N-methyltransferase EZH2,Histone-lysine N-methyltransferase EZH2,Histone-lysine N-methyltransferase EZH2

Chain G: 67% 14% 18%

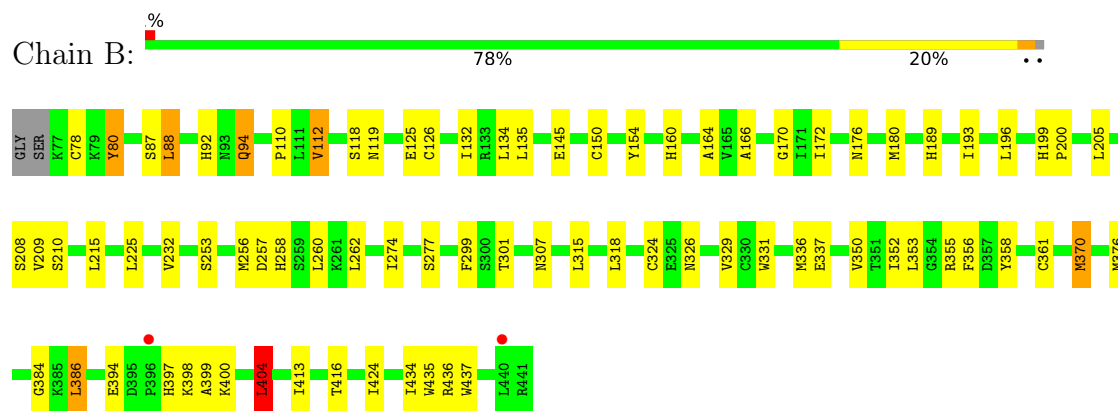


- Molecule 1: Histone-lysine N-methyltransferase EZH2,Histone-lysine N-methyltransferase EZH2,Histone-lysine N-methyltransferase EZH2

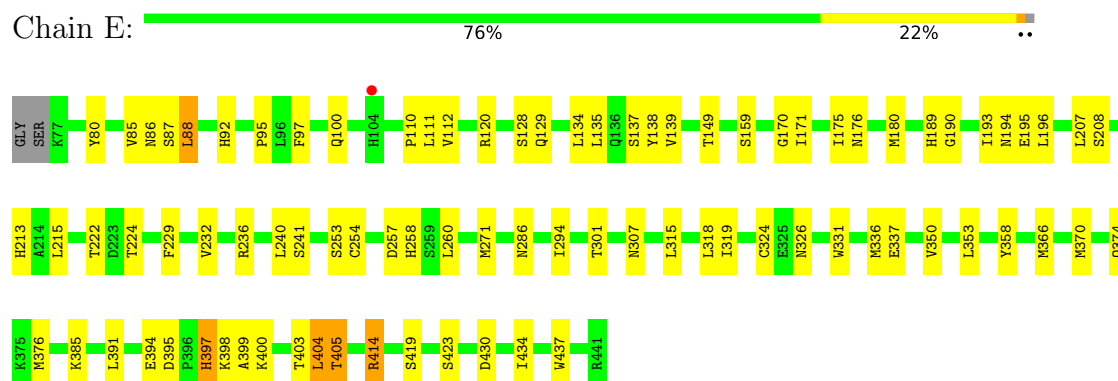
Chain J: 69% 12% 18%



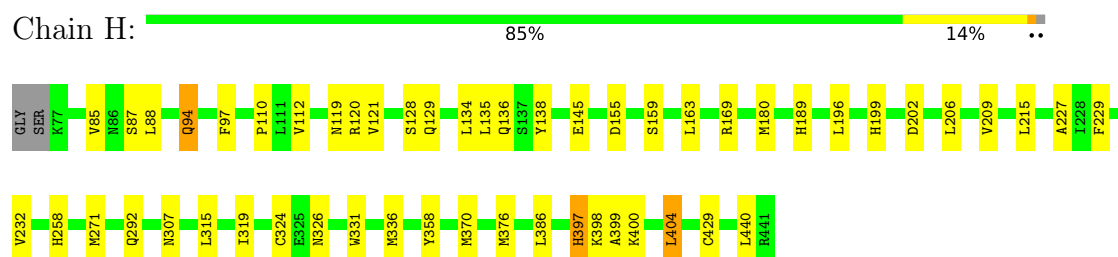
- Molecule 2: Polycomb protein EED



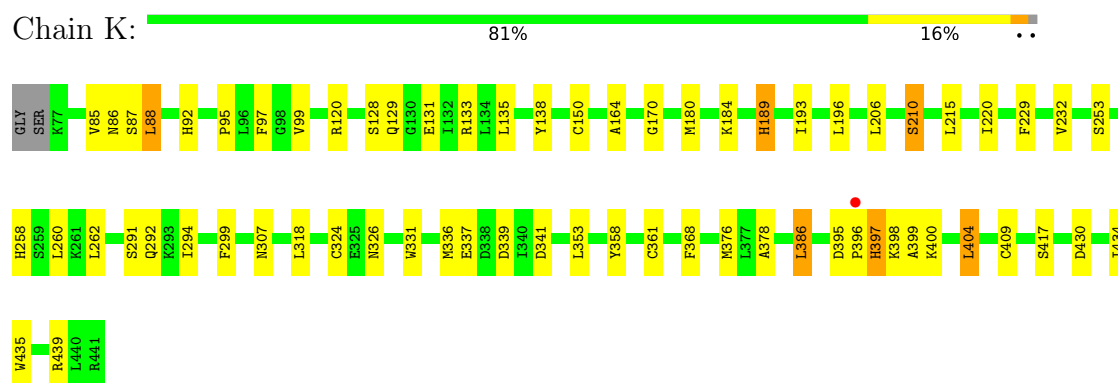
- Molecule 2: Polycomb protein EED



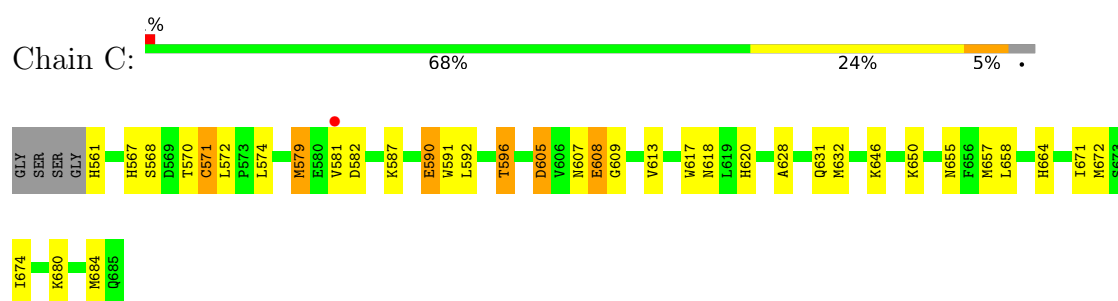
- Molecule 2: Polycomb protein EED



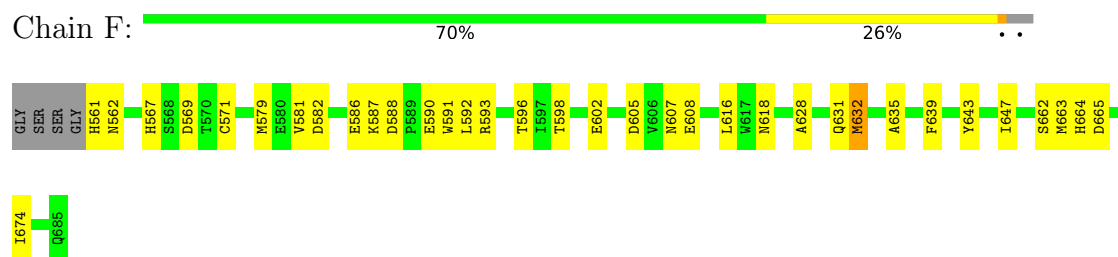
- Molecule 2: Polycomb protein EED



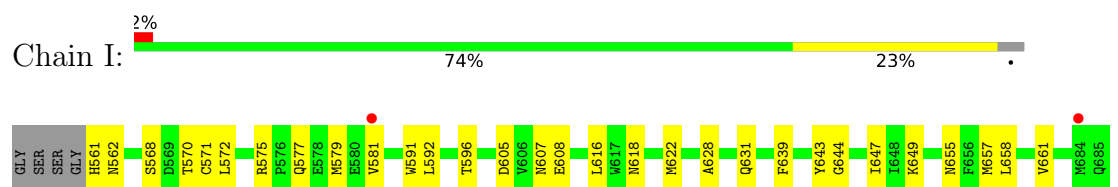
- Molecule 3: Polycomb protein SUZ12



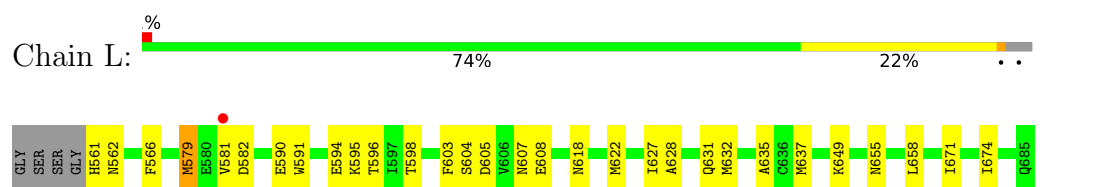
- Molecule 3: Polycomb protein SUZ12



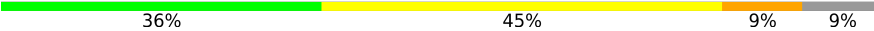
- Molecule 3: Polycomb protein SUZ12



- Molecule 3: Polycomb protein SUZ12

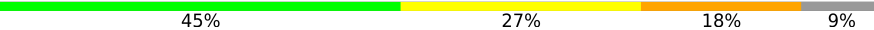


- Molecule 4: Jarid2 K116me3

Chain Q:  36% 45% 9% 9%

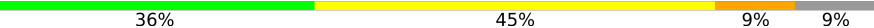


- Molecule 4: Jarid2 K116me3

Chain R:  45% 27% 18% 9%

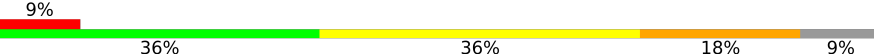


- Molecule 4: Jarid2 K116me3

Chain S:  36% 45% 9% 9%



- Molecule 4: Jarid2 K116me3

Chain T:  9% 36% 36% 18% 9%



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	131.31Å 170.27Å 275.54Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	68.84 – 3.47 68.84 – 3.47	Depositor EDS
% Data completeness (in resolution range)	99.9 (68.84-3.47) 99.9 (68.84-3.47)	Depositor EDS
R_{merge}	0.30	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.92 (at 3.49Å)	Xtriage
Refinement program	REFMAC 5.8.0135	Depositor
R, R_{free}	0.229 , 0.299 0.231 , 0.297	Depositor DCC
R_{free} test set	3952 reflections (4.90%)	wwPDB-VP
Wilson B-factor (Å ²)	78.0	Xtriage
Anisotropy	0.722	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.33 , 65.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.42$, $\langle L^2 \rangle = 0.25$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	34891	wwPDB-VP
Average B, all atoms (Å ²)	105.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 34.62 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 6.6281e-04. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: M3L, ZN, 74D

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	0.72	0/4691	0.98	7/6327 (0.1%)
1	D	0.70	0/4691	0.96	2/6327 (0.0%)
1	G	0.73	0/4706	1.00	8/6347 (0.1%)
1	J	0.75	1/4691 (0.0%)	1.00	6/6327 (0.1%)
2	B	0.71	0/3034	0.92	3/4107 (0.1%)
2	E	0.70	0/3034	0.93	3/4107 (0.1%)
2	H	0.71	0/3034	0.95	3/4107 (0.1%)
2	K	0.70	0/3034	0.92	3/4107 (0.1%)
3	C	0.72	0/1063	1.07	1/1427 (0.1%)
3	F	0.68	0/1063	1.06	2/1427 (0.1%)
3	I	0.66	0/1063	1.01	1/1427 (0.1%)
3	L	0.66	0/1063	1.05	1/1427 (0.1%)
4	Q	0.86	0/73	1.30	0/96
4	R	0.95	0/73	0.91	0/96
4	S	0.97	0/73	1.19	1/96 (1.0%)
4	T	1.00	0/73	1.34	0/96
All	All	0.71	1/35459 (0.0%)	0.98	41/47848 (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	3
1	D	0	3
1	G	0	2
1	J	0	2
3	C	0	3
3	F	0	1
3	L	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
All	All	0	16

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	J	182	ASN	C-O	5.01	1.33	1.23

All (41) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	608	GLU	N-CA-C	11.19	124.80	111.82
3	F	608	GLU	N-CA-C	10.01	122.19	111.28
3	L	608	GLU	N-CA-C	7.79	119.46	110.97
2	E	423	SER	N-CA-C	6.78	119.25	111.11
2	H	429	CYS	N-CA-C	6.66	119.54	109.41
1	G	302	THR	N-CA-C	6.49	124.15	109.81
1	J	525	HIS	CA-C-N	6.45	127.90	119.84
1	J	525	HIS	C-N-CA	6.45	127.90	119.84
1	A	592	ASP	N-CA-C	6.32	118.71	110.43
1	A	214	PRO	N-CA-C	6.32	118.41	110.70
1	J	130	ASN	CA-C-N	-6.30	118.05	122.59
1	J	130	ASN	C-N-CA	-6.30	118.05	122.59
1	G	65	ILE	N-CA-C	6.25	118.91	112.90
1	G	214	PRO	N-CA-C	6.17	118.22	110.70
1	D	302	THR	N-CA-C	6.15	123.40	109.81
2	B	92	HIS	N-CA-C	6.00	117.82	111.28
1	A	302	THR	N-CA-C	5.99	123.05	109.81
1	G	565	GLN	N-CA-C	5.98	123.55	110.80
2	K	92	HIS	N-CA-C	5.92	118.51	111.71
1	J	214	PRO	N-CA-C	5.88	117.87	110.70
2	H	94	GLN	CA-C-N	5.86	125.88	119.90
2	H	94	GLN	C-N-CA	5.86	125.88	119.90
2	B	210	SER	N-CA-C	5.84	117.66	108.96
1	J	302	THR	N-CA-C	5.73	122.47	109.81
1	G	448	TYR	N-CA-C	5.72	117.60	110.91
2	K	210	SER	N-CA-C	5.68	117.70	109.07
3	I	608	GLU	N-CA-C	5.64	117.90	111.02
1	G	698	LYS	N-CA-C	-5.58	100.31	109.40
1	A	266	GLY	CA-C-N	5.51	125.21	119.64
1	A	266	GLY	C-N-CA	5.51	125.21	119.64
1	G	80	THR	N-CA-C	-5.44	100.90	109.50
1	G	96	ILE	CB-CA-C	5.32	114.54	109.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	91	PHE	N-CA-C	-5.28	103.12	109.72
3	F	632	MET	N-CA-C	5.25	118.79	112.38
2	E	92	HIS	N-CA-C	5.24	118.45	111.75
1	A	65	ILE	N-CA-C	5.23	117.20	112.29
2	E	337	GLU	N-CA-C	5.21	116.96	111.28
4	S	3	GLN	N-CA-C	5.05	117.48	109.50
2	B	404	LEU	N-CA-C	5.04	116.98	108.02
2	K	439	ARG	N-CA-C	5.02	117.64	109.86
1	D	458	ILE	N-CA-C	-5.00	105.52	110.62

There are no chirality outliers.

All (16) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	134	MET	Peptide
1	A	311	THR	Peptide
1	A	326	GLN	Peptide
3	C	561	HIS	Peptide
3	C	579	MET	Peptide
3	C	587	LYS	Peptide
1	D	134	MET	Peptide
1	D	595	ASP	Peptide
1	D	67	PRO	Peptide
3	F	579	MET	Peptide
1	G	134	MET	Peptide
1	G	525	HIS	Peptide
1	J	134	MET	Peptide
1	J	525	HIS	Peptide
3	L	579	MET	Peptide
3	L	603	PHE	Peptide

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	4588	0	4445	81	0
1	D	4588	0	4442	57	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	G	4603	0	4457	55	0
1	J	4588	0	4447	39	0
2	B	2959	0	2881	54	0
2	E	2959	0	2881	50	0
2	H	2959	0	2881	35	0
2	K	2959	0	2881	38	0
3	C	1042	0	1021	26	0
3	F	1042	0	1021	21	0
3	I	1042	0	1021	18	0
3	L	1042	0	1021	18	0
4	Q	85	0	90	6	0
4	R	85	0	90	3	0
4	S	85	0	90	5	0
4	T	85	0	90	5	0
5	A	8	0	0	2	0
5	D	8	0	0	0	0
5	G	8	0	0	4	0
5	J	8	0	0	2	0
6	A	37	0	0	4	0
6	D	37	0	0	0	0
6	G	37	0	0	0	0
6	J	37	0	0	0	0
All	All	34891	0	33759	433	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 6.

All (433) 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:667:PHE:CD2	1:A:708:ILE:HD12	1.39	1.55
1:A:667:PHE:CD2	1:A:708:ILE:CD1	2.00	1.41
1:A:667:PHE:CE2	1:A:708:ILE:CD1	2.07	1.36
1:A:667:PHE:CE2	1:A:708:ILE:HD13	1.72	1.22
1:A:667:PHE:CE2	1:A:708:ILE:HD12	1.76	1.12
1:A:667:PHE:HD2	1:A:708:ILE:CD1	1.53	1.05
1:A:667:PHE:HE2	1:A:708:ILE:HD13	1.02	1.04
1:J:588:CYS:SG	5:J:806:ZN:ZN	1.51	0.97
1:G:588:CYS:HG	5:G:806:ZN:ZN	0.59	0.93
1:G:463:CYS:HG	5:G:802:ZN:ZN	0.71	0.88
1:A:667:PHE:CD2	1:A:708:ILE:HD11	2.11	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:665:PHE:CZ	6:A:809:74D:CAJ	2.59	0.85
1:A:667:PHE:HE2	1:A:708:ILE:CD1	1.68	0.84
1:G:234:LYS:HB3	1:G:240:LEU:HD21	1.58	0.83
1:A:667:PHE:HD2	1:A:708:ILE:HD12	1.00	0.79
2:E:232:VAL:HG21	3:F:591:TRP:CE3	2.20	0.77
1:J:41:MET:HG3	2:K:336:MET:HE2	1.68	0.76
1:G:697:ALA:HB3	1:G:728:TYR:OH	1.86	0.75
2:H:324:CYS:SG	4:S:5:GLN:NE2	2.60	0.74
1:A:289:CYS:SG	5:A:801:ZN:ZN	1.75	0.74
1:G:263:ASN:HA	3:I:607:ASN:HD21	1.54	0.73
1:A:689:HIS:HB2	1:A:726:TYR:CE1	2.24	0.73
1:D:430:VAL:HG21	1:D:465:GLN:HE21	1.54	0.72
1:D:150:ILE:HG22	1:D:155:GLY:HA2	1.71	0.71
1:A:150:ILE:HG22	1:A:155:GLY:HA2	1.72	0.70
1:G:71:LEU:HB3	2:H:180:MET:HE1	1.72	0.70
2:K:326:ASN:HA	2:K:358:TYR:CE1	2.26	0.70
2:H:326:ASN:HA	2:H:358:TYR:CE1	2.26	0.70
1:A:667:PHE:HD2	1:A:708:ILE:HD11	1.50	0.70
2:B:125:GLU:HB2	2:B:135:LEU:HD11	1.73	0.69
4:Q:9:ALA:HB1	4:Q:10:GLN:HB2	1.74	0.68
1:A:67:PRO:O	1:A:68:VAL:HG12	1.94	0.68
1:A:68:VAL:HG11	2:B:110:PRO:CG	2.23	0.68
1:D:328:LEU:HD23	1:D:424:ILE:HG23	1.76	0.68
2:E:170:GLY:HA2	2:E:193:ILE:HD12	1.75	0.67
1:G:697:ALA:HB2	1:G:710:ILE:HD13	1.77	0.66
1:A:263:ASN:HA	3:C:607:ASN:HD21	1.61	0.66
1:D:20:LYS:HE2	1:D:24:MET:HE2	1.78	0.66
1:D:263:ASN:HA	3:F:607:ASN:HD21	1.60	0.64
1:D:272:VAL:HG12	1:D:276:GLN:HB2	1.79	0.64
2:K:258:HIS:CE1	2:K:307:ASN:HA	2.32	0.64
1:A:650:GLU:OE1	1:A:653:ARG:NH1	2.31	0.64
1:D:617:ALA:HB3	1:D:627:PHE:CE1	2.33	0.64
1:G:41:MET:HG3	2:H:336:MET:HE2	1.81	0.63
2:E:326:ASN:HA	2:E:358:TYR:CE1	2.35	0.62
1:J:588:CYS:HG	5:J:806:ZN:ZN	0.35	0.61
1:A:63:ARG:HB3	1:A:65:ILE:HD11	1.82	0.61
1:D:650:GLU:OE1	1:D:653:ARG:NH1	2.34	0.61
1:D:83:CYS:HB2	1:D:98:LEU:HD13	1.83	0.61
1:D:464:ARG:NH1	1:D:468:GLU:OE2	2.34	0.60
1:A:665:PHE:CE2	6:A:809:74D:CAJ	2.85	0.60
1:D:531:ASP:O	1:D:537:VAL:HG21	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:629:LYS:O	1:J:718:THR:HG23	2.02	0.60
4:T:6:ARG:HD3	4:T:9:ALA:HB2	1.83	0.60
1:A:142:ASP:HB3	1:A:144:THR:HG22	1.84	0.59
2:K:399:ALA:HB1	2:K:400:LYS:HB2	1.85	0.59
3:L:596:THR:HG21	3:L:618:ASN:HD22	1.68	0.59
3:I:575:ARG:NH2	3:I:577:GLN:OE1	2.35	0.59
2:E:258:HIS:CE1	2:E:307:ASN:HA	2.37	0.59
1:G:460:THR:O	1:G:461:LYS:HD2	2.03	0.59
2:B:80:TYR:CD1	2:B:376:MET:HE2	2.38	0.58
1:D:106:SER:HA	2:E:171:ILE:HD11	1.84	0.58
1:A:264:ILE:HD12	3:C:658:LEU:HD11	1.83	0.58
1:D:460:THR:O	1:D:461:LYS:HD2	2.04	0.58
1:G:150:ILE:HG22	1:G:155:GLY:HA2	1.84	0.58
1:J:323:GLN:NE2	1:J:462:THR:HG21	2.19	0.58
2:H:258:HIS:CE1	2:H:307:ASN:HA	2.38	0.58
1:A:272:VAL:HG12	1:A:276:GLN:HB2	1.86	0.58
1:D:65:ILE:HG22	1:D:65:ILE:O	2.04	0.58
1:A:83:CYS:HB2	1:A:98:LEU:HD13	1.86	0.57
2:E:318:LEU:HD13	2:E:353:LEU:HD12	1.87	0.57
1:J:71:LEU:HB3	2:K:180:MET:HE1	1.86	0.57
2:B:352:ILE:HG21	2:B:355:ARG:NH1	2.20	0.56
1:D:41:MET:HG3	2:E:336:MET:HE2	1.85	0.56
1:D:142:ASP:HB3	1:D:144:THR:HG22	1.88	0.56
1:G:128:LEU:HD21	1:G:157:VAL:HG22	1.87	0.56
2:K:215:LEU:HB2	2:K:229:PHE:HB2	1.88	0.56
1:D:694:ASN:OD1	1:D:694:ASN:N	2.39	0.56
1:A:328:LEU:HD23	1:A:424:ILE:CG2	2.35	0.56
3:I:616:LEU:HD22	3:I:643:TYR:CD2	2.41	0.56
1:J:264:ILE:HD12	3:L:658:LEU:HD11	1.87	0.56
1:A:677:ALA:O	1:A:685:ARG:NH2	2.39	0.55
2:B:397:HIS:HA	2:B:398:LYS:C	2.31	0.55
2:B:404:LEU:HB2	2:B:437:TRP:CZ3	2.42	0.55
2:B:232:VAL:HG21	3:C:591:TRP:CE3	2.42	0.55
1:J:234:LYS:HB3	1:J:240:LEU:HD21	1.87	0.55
1:G:320:CYS:HB3	1:G:321:GLY:HA2	1.88	0.55
1:A:68:VAL:HG11	2:B:110:PRO:HG3	1.88	0.55
3:L:604:SER:O	3:L:605:ASP:CG	2.50	0.54
1:G:65:ILE:HG22	1:G:65:ILE:O	2.06	0.54
1:A:56:LEU:HD21	2:B:200:PRO:HB2	1.90	0.54
2:H:232:VAL:HG21	3:I:591:TRP:CE3	2.43	0.54
1:J:618:PRO:HD3	3:L:566:PHE:CE1	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:136:ASP:OD2	4:R:7:M3L:N	2.39	0.54
1:G:263:ASN:HD21	3:I:655:ASN:HD21	1.54	0.54
2:B:150:CYS:HA	2:B:164:ALA:O	2.08	0.54
2:B:326:ASN:HA	2:B:358:TYR:CE1	2.43	0.54
2:B:260:LEU:HD13	2:B:331:TRP:CZ2	2.43	0.54
3:F:628:ALA:HB3	3:F:631:GLN:HG3	1.90	0.54
1:D:26:LEU:HD11	1:D:177:ALA:HB3	1.90	0.53
3:L:596:THR:OG1	3:L:622:MET:HE1	2.08	0.53
2:B:88:LEU:HD12	2:B:434:ILE:HD12	1.89	0.53
3:C:596:THR:HG21	3:C:618:ASN:HD22	1.73	0.53
1:A:41:MET:HG3	2:B:336:MET:HE2	1.90	0.53
1:G:432:TRP:CZ2	1:G:469:PHE:HB2	2.44	0.53
1:G:588:CYS:SG	5:G:806:ZN:ZN	1.77	0.53
3:C:664:HIS:HB2	3:C:674:ILE:HD11	1.91	0.53
2:B:125:GLU:CB	2:B:135:LEU:HD21	2.39	0.52
2:E:149:THR:HG21	2:E:195:GLU:HA	1.90	0.52
2:B:126:CYS:SG	2:B:424:ILE:HD13	2.49	0.52
1:G:85:VAL:CG2	2:H:134:LEU:HD22	2.39	0.52
1:A:71:LEU:CB	2:B:180:MET:HE1	2.40	0.52
1:A:430:VAL:HG21	1:A:465:GLN:HE21	1.75	0.52
2:K:318:LEU:HD13	2:K:353:LEU:HD12	1.92	0.52
1:A:320:CYS:HB3	1:A:321:GLY:HA2	1.91	0.52
1:A:65:ILE:HG22	1:A:65:ILE:O	2.10	0.51
1:G:20:LYS:HE2	1:G:24:MET:HE2	1.92	0.51
1:J:128:LEU:HD21	1:J:157:VAL:HG22	1.92	0.51
3:F:616:LEU:HD22	3:F:643:TYR:HD2	1.76	0.51
1:A:263:ASN:HA	3:C:607:ASN:ND2	2.25	0.51
1:D:68:VAL:HG11	2:E:110:PRO:CG	2.40	0.51
1:J:35:ALA:HA	1:J:38:VAL:HG22	1.91	0.51
2:K:260:LEU:HD13	2:K:331:TRP:CZ2	2.45	0.51
2:B:170:GLY:HA2	2:B:193:ILE:HD12	1.92	0.51
2:H:196:LEU:HD22	2:H:206:LEU:HD11	1.93	0.51
1:A:430:VAL:HG21	1:A:465:GLN:NE2	2.26	0.51
2:B:118:SER:OG	2:B:119:ASN:N	2.39	0.51
1:J:328:LEU:HD23	1:J:424:ILE:HG23	1.93	0.51
2:B:258:HIS:CE1	2:B:307:ASN:HA	2.46	0.50
2:B:358:TYR:CE1	2:B:361:CYS:HB3	2.46	0.50
1:D:306:TYR:O	3:F:665:ASP:HB3	2.11	0.50
2:B:125:GLU:HB3	2:B:135:LEU:HD21	1.94	0.50
2:E:111:LEU:HD22	2:E:419:SER:HB2	1.93	0.50
1:G:264:ILE:HD12	3:I:658:LEU:HD11	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:97:PHE:CE1	4:T:7:M3L:HM12	2.46	0.50
2:H:209:VAL:HG12	2:H:215:LEU:HD23	1.94	0.50
1:J:65:ILE:O	1:J:65:ILE:HG22	2.11	0.50
2:B:399:ALA:HB1	2:B:400:LYS:HB2	1.94	0.50
1:A:320:CYS:HB2	1:A:324:CYS:SG	2.52	0.50
1:A:615:LEU:HD21	3:C:581:VAL:HG11	1.94	0.50
1:D:270:LYS:O	1:D:272:VAL:HG23	2.11	0.50
3:F:588:ASP:OD2	3:F:593:ARG:NH1	2.44	0.50
3:L:628:ALA:HB3	3:L:631:GLN:HG3	1.93	0.50
3:C:570:THR:O	3:C:572:LEU:N	2.45	0.49
2:B:315:LEU:HD13	2:B:370:MET:HE1	1.93	0.49
2:H:315:LEU:HD13	2:H:370:MET:HE1	1.92	0.49
1:G:697:ALA:CB	1:G:710:ILE:HD13	2.42	0.49
1:D:71:LEU:HB2	2:E:180:MET:HE1	1.94	0.49
1:G:463:CYS:SG	5:G:802:ZN:ZN	1.85	0.49
1:A:71:LEU:HB3	2:B:180:MET:HE1	1.93	0.49
1:A:128:LEU:CD2	1:A:157:VAL:HG22	2.43	0.49
1:A:689:HIS:CB	1:A:726:TYR:CE1	2.94	0.49
2:B:94:GLN:HE21	2:B:94:GLN:CA	2.26	0.49
2:E:301:THR:HG21	2:E:350:VAL:HG11	1.95	0.49
1:D:520:TYR:CD1	1:D:520:TYR:C	2.91	0.49
1:A:727:ARG:C	1:A:728:TYR:CG	2.91	0.49
3:I:570:THR:O	3:I:572:LEU:N	2.45	0.49
1:G:83:CYS:HB2	1:G:98:LEU:HD13	1.94	0.48
1:A:68:VAL:HG11	2:B:110:PRO:HG2	1.94	0.48
2:B:132:ILE:HD11	2:B:436:ARG:HB2	1.95	0.48
2:E:80:TYR:CD1	2:E:376:MET:HE2	2.48	0.48
3:I:561:HIS:HB2	3:I:562:ASN:HA	1.95	0.48
3:F:664:HIS:HB2	3:F:674:ILE:HD11	1.95	0.48
1:G:438:SER:O	1:G:442:VAL:HG23	2.13	0.48
1:G:641:TYR:HB2	1:G:710:ILE:HD11	1.95	0.48
1:G:320:CYS:HB2	1:G:324:CYS:SG	2.54	0.48
1:J:650:GLU:OE1	1:J:653:ARG:NH1	2.46	0.48
1:A:328:LEU:HD23	1:A:424:ILE:HG23	1.94	0.48
4:Q:9:ALA:CB	4:Q:10:GLN:HB2	2.41	0.48
1:A:569:LYS:HB3	1:A:575:LEU:HD13	1.96	0.48
3:F:639:PHE:CE2	3:F:647:ILE:HD11	2.48	0.48
2:K:150:CYS:HA	2:K:164:ALA:O	2.14	0.48
2:K:324:CYS:SG	4:T:5:GLN:NE2	2.87	0.48
4:T:6:ARG:CD	4:T:9:ALA:HB2	2.43	0.48
1:A:320:CYS:SG	1:A:463:CYS:HB2	2.54	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:582:PRO:HB2	3:L:628:ALA:HB2	1.96	0.48
1:A:85:VAL:HG11	2:B:88:LEU:HD13	1.95	0.48
1:D:524:ASP:O	1:D:524:ASP:CG	2.56	0.48
2:E:385:LYS:HG3	2:E:405:THR:HG22	1.95	0.48
1:J:20:LYS:HE2	1:J:24:MET:HE2	1.94	0.48
3:C:680:LYS:O	3:C:684:MET:HE3	2.13	0.48
2:E:215:LEU:HB2	2:E:229:PHE:HB2	1.96	0.48
2:E:397:HIS:HA	2:E:398:LYS:C	2.40	0.47
1:G:68:VAL:HG21	2:H:110:PRO:HG2	1.96	0.47
1:A:261:THR:HG23	1:A:272:VAL:HG21	1.97	0.47
1:G:240:LEU:HD23	1:G:243:LYS:HD3	1.96	0.47
2:B:329:VAL:HG22	2:B:355:ARG:HG2	1.96	0.47
2:E:336:MET:HE3	2:E:336:MET:HA	1.95	0.47
2:K:97:PHE:CZ	4:T:7:M3L:HM12	2.50	0.47
2:K:215:LEU:HD21	2:K:253:SER:HB3	1.95	0.47
3:F:596:THR:HG21	3:F:618:ASN:HD22	1.80	0.47
2:H:399:ALA:HB1	2:H:400:LYS:HB2	1.96	0.47
1:A:142:ASP:CB	1:A:144:THR:HG22	2.45	0.47
2:E:176:ASN:O	2:E:180:MET:N	2.47	0.47
3:I:657:MET:O	3:I:661:VAL:HG23	2.13	0.47
1:J:178:LEU:HD21	1:J:223:ILE:HB	1.97	0.47
1:A:328:LEU:O	1:A:329:GLU:C	2.57	0.47
1:A:464:ARG:NH1	1:A:468:GLU:OE2	2.48	0.47
2:B:324:CYS:HB2	4:Q:5:GLN:OE1	2.14	0.47
2:E:232:VAL:HG21	3:F:591:TRP:CZ3	2.49	0.47
1:J:128:LEU:CD2	1:J:157:VAL:HG22	2.44	0.47
2:K:232:VAL:HG21	3:L:591:TRP:CE3	2.49	0.47
2:K:262:LEU:HB3	2:K:299:PHE:HB3	1.96	0.47
2:B:262:LEU:HB3	2:B:299:PHE:HB3	1.97	0.47
1:A:150:ILE:CG2	1:A:155:GLY:HA2	2.43	0.47
1:A:439:MET:HE3	1:A:443:LEU:HG	1.97	0.46
1:A:691:VAL:O	1:A:693:PRO:HD3	2.16	0.46
1:D:98:LEU:HD12	2:E:137:SER:O	2.16	0.46
1:G:68:VAL:HG11	2:H:110:PRO:HG2	1.97	0.46
2:K:170:GLY:HA2	2:K:193:ILE:HD12	1.97	0.46
1:D:438:SER:O	1:D:442:VAL:HG23	2.16	0.46
2:H:121:VAL:HG21	2:H:163:LEU:CD2	2.45	0.46
1:J:430:VAL:HG21	1:J:465:GLN:HE21	1.81	0.46
3:F:632:MET:HA	3:F:635:ALA:HB3	1.98	0.46
1:G:35:ALA:HA	1:G:38:VAL:HG22	1.98	0.46
1:J:129:HIS:HA	1:J:158:HIS:HB3	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:579:MET:HG3	3:C:581:VAL:HG12	1.98	0.46
3:C:646:LYS:O	3:C:650:LYS:HG3	2.15	0.46
1:A:615:LEU:HD21	3:C:581:VAL:CG1	2.46	0.46
2:H:97:PHE:CZ	4:S:7:M3L:HM12	2.51	0.46
3:C:579:MET:HA	3:C:581:VAL:N	2.31	0.46
1:G:15:TRP:CZ3	1:G:223:ILE:HG22	2.51	0.46
2:K:189:HIS:CD2	2:K:210:SER:HB3	2.51	0.46
1:A:290:PHE:CD2	3:C:632:MET:HE3	2.51	0.46
2:B:172:ILE:HD11	2:B:208:SER:HB3	1.98	0.46
3:I:628:ALA:HB3	3:I:631:GLN:HG3	1.96	0.46
2:K:368:PHE:HB2	2:K:378:ALA:O	2.16	0.46
4:S:9:ALA:HB1	4:S:10:GLN:HB2	1.97	0.46
1:A:96:ILE:HG13	2:B:134:LEU:HG	1.98	0.46
2:B:87:SER:HB3	2:B:435:TRP:CE3	2.50	0.46
2:E:399:ALA:HB1	2:E:400:LYS:HB2	1.96	0.46
2:E:404:LEU:HB2	2:E:437:TRP:CZ3	2.51	0.46
2:H:120:ARG:HB2	2:H:138:TYR:O	2.16	0.45
1:G:68:VAL:HG11	2:H:110:PRO:CG	2.46	0.45
1:A:289:CYS:HG	5:A:801:ZN:ZN	1.26	0.45
2:B:274:ILE:O	2:B:277:SER:OG	2.26	0.45
1:D:431:GLU:O	1:D:461:LYS:NZ	2.50	0.45
2:E:88:LEU:CD1	2:E:434:ILE:HD12	2.46	0.45
2:H:128:SER:HA	2:H:129:GLN:HA	1.78	0.45
1:J:567:ASN:OD1	1:J:567:ASN:N	2.49	0.45
1:D:263:ASN:HA	3:F:607:ASN:ND2	2.31	0.45
3:I:579:MET:HG3	3:I:581:VAL:HG12	1.99	0.45
3:L:596:THR:CG2	3:L:618:ASN:HD22	2.29	0.45
2:B:215:LEU:HD21	2:B:253:SER:CB	2.47	0.45
1:D:46:ARG:NH1	2:E:374:GLN:O	2.49	0.45
2:E:95:PRO:HB3	2:E:430:ASP:HA	1.99	0.45
2:E:324:CYS:SG	4:R:5:GLN:NE2	2.90	0.45
1:G:617:ALA:HB3	1:G:627:PHE:CE1	2.51	0.45
1:A:136:ASP:OD2	4:Q:7:M3L:N	2.50	0.45
1:D:167:ASN:ND2	2:E:350:VAL:O	2.49	0.45
1:D:592:ASP:O	1:D:593:HIS:C	2.60	0.45
2:E:319:ILE:HG21	2:E:331:TRP:CZ2	2.52	0.45
2:K:88:LEU:HD12	2:K:434:ILE:HD12	1.97	0.45
1:D:579:GLU:HB2	1:D:702:VAL:HG22	1.98	0.45
2:H:324:CYS:SG	4:S:5:GLN:CD	3.00	0.45
2:H:324:CYS:HB2	4:S:5:GLN:OE1	2.16	0.45
1:J:127:VAL:O	1:J:127:VAL:HG23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:63:ARG:NE	2:B:154:TYR:OH	2.47	0.45
1:A:727:ARG:O	1:A:728:TYR:CG	2.70	0.45
2:H:155:ASP:O	2:H:159:SER:N	2.50	0.45
2:H:227:ALA:HA	2:H:292:GLN:O	2.17	0.45
2:K:409:CYS:HA	2:K:435:TRP:CZ2	2.52	0.45
1:A:582:PRO:HB2	3:C:628:ALA:HB2	1.99	0.45
2:E:260:LEU:HD13	2:E:331:TRP:CZ2	2.52	0.45
1:G:85:VAL:HG23	2:H:134:LEU:HD22	1.98	0.45
1:A:260:CYS:SG	3:C:605:ASP:HA	2.57	0.44
1:D:582:PRO:O	1:D:591:ALA:HB2	2.16	0.44
3:F:596:THR:CG2	3:F:618:ASN:HD22	2.31	0.44
3:F:598:THR:O	3:F:602:GLU:HG2	2.16	0.44
1:G:697:ALA:HB2	1:G:710:ILE:CD1	2.46	0.44
1:D:430:VAL:HG12	1:D:431:GLU:N	2.33	0.44
3:I:579:MET:HA	3:I:581:VAL:N	2.32	0.44
1:A:727:ARG:O	1:A:728:TYR:CD1	2.70	0.44
1:D:178:LEU:HD21	1:D:223:ILE:HB	1.99	0.44
2:H:386:LEU:HB2	2:H:404:LEU:HD12	1.99	0.44
2:K:395:ASP:O	2:K:397:HIS:ND1	2.50	0.44
1:A:308:ARG:HD3	3:C:664:HIS:CE1	2.53	0.44
2:B:384:GLY:C	2:B:413:ILE:HD11	2.42	0.44
3:I:596:THR:OG1	3:I:622:MET:HE1	2.17	0.44
2:K:128:SER:HA	2:K:129:GLN:HA	1.84	0.44
2:E:97:PHE:HA	2:E:414:ARG:HG3	2.00	0.44
1:J:89:LEU:O	1:J:90:ASP:HB3	2.17	0.44
1:A:447:TYR:CE1	3:C:671:ILE:HD11	2.53	0.44
1:A:624:TRP:O	6:A:809:74D:CAG	2.66	0.44
1:D:19:VAL:HG22	1:D:178:LEU:HD22	1.99	0.44
1:D:582:PRO:HB2	3:F:628:ALA:HB2	1.99	0.44
3:F:561:HIS:HB2	3:F:562:ASN:HA	1.99	0.44
2:K:294:ILE:HD12	2:K:294:ILE:N	2.33	0.44
3:C:628:ALA:HB3	3:C:631:GLN:HG3	2.00	0.44
1:D:530:CYS:SG	1:D:549:CYS:CB	3.06	0.44
1:G:70:ILE:HG12	2:H:135:LEU:HD22	1.99	0.44
1:G:313:THR:HG23	1:G:315:LEU:HB2	2.00	0.44
2:H:336:MET:HE3	2:H:336:MET:HA	1.99	0.44
3:L:579:MET:HA	3:L:581:VAL:N	2.33	0.44
2:B:324:CYS:SG	4:Q:5:GLN:NE2	2.91	0.43
1:D:70:ILE:HG12	2:E:135:LEU:HD22	1.99	0.43
1:D:109:ILE:HA	2:E:190:GLY:O	2.18	0.43
2:E:315:LEU:HD13	2:E:370:MET:HE1	1.98	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:161:ARG:NH2	1:D:233:ASP:OD2	2.51	0.43
2:E:253:SER:O	2:E:260:LEU:HA	2.18	0.43
2:H:397:HIS:HA	2:H:398:LYS:C	2.43	0.43
2:K:184:LYS:NZ	2:K:220:ILE:O	2.46	0.43
2:K:358:TYR:CE1	2:K:361:CYS:HB3	2.53	0.43
2:B:318:LEU:HD13	2:B:353:LEU:HD12	2.01	0.43
1:D:688:ASN:HB2	1:D:723:PHE:CD2	2.53	0.43
2:K:386:LEU:HB3	2:K:404:LEU:CD1	2.48	0.43
3:I:639:PHE:CE2	3:I:647:ILE:HD11	2.52	0.43
2:K:189:HIS:CD2	2:K:210:SER:CB	3.02	0.43
2:B:88:LEU:CD1	2:B:434:ILE:HD12	2.48	0.43
2:B:94:GLN:HE21	2:B:94:GLN:HA	1.83	0.43
2:E:241:SER:HB3	2:E:254:CYS:SG	2.58	0.43
2:B:301:THR:HG21	2:B:350:VAL:HG11	2.01	0.43
2:E:207:LEU:HD11	2:E:215:LEU:HB3	2.00	0.43
1:G:263:ASN:HA	3:I:607:ASN:ND2	2.26	0.43
3:F:567:HIS:HB3	3:F:569:ASP:OD1	2.17	0.43
3:F:586:GLU:HB3	3:F:587:LYS:HB2	2.00	0.43
3:C:567:HIS:CE1	3:C:574:LEU:HD12	2.53	0.43
2:H:136:GLN:HE22	2:H:180:MET:HB3	1.84	0.43
3:L:632:MET:HA	3:L:635:ALA:HB3	2.01	0.43
1:G:263:ASN:ND2	3:I:655:ASN:HD21	2.15	0.43
2:K:95:PRO:HB3	2:K:430:ASP:HA	2.00	0.43
1:D:629:LYS:O	1:D:718:THR:HG23	2.18	0.42
1:G:158:HIS:HA	1:G:159:GLY:HA2	1.89	0.42
2:H:121:VAL:HG21	2:H:163:LEU:HD21	2.01	0.42
2:B:125:GLU:HB2	2:B:135:LEU:HD21	2.01	0.42
2:B:386:LEU:HD21	2:B:416:THR:HG21	2.01	0.42
3:C:608:GLU:N	3:C:609:GLY:HA3	2.34	0.42
1:D:133:TYR:CE1	1:D:136:ASP:HB2	2.54	0.42
1:D:308:ARG:CD	3:F:664:HIS:CE1	3.03	0.42
1:G:531:ASP:OD1	1:G:531:ASP:C	2.62	0.42
2:H:440:LEU:HD23	2:H:440:LEU:C	2.43	0.42
1:A:20:LYS:HE2	1:A:24:MET:HE2	2.01	0.42
1:G:677:ALA:HA	1:G:680:LYS:O	2.19	0.42
3:I:644:GLY:HA2	3:I:647:ILE:HD12	2.01	0.42
1:J:450:ASN:O	1:J:454:ILE:HD12	2.18	0.42
1:G:629:LYS:O	1:G:718:THR:HG23	2.19	0.42
1:A:524:ASP:O	1:A:524:ASP:CG	2.62	0.42
1:D:328:LEU:HD23	1:D:424:ILE:CG2	2.45	0.42
1:G:145:PHE:HA	1:G:148:GLU:HG2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:257:PRO:N	1:G:258:PRO:CD	2.82	0.42
1:G:655:GLY:O	1:G:659:ASP:N	2.48	0.42
2:H:119:ASN:HB3	2:H:145:GLU:O	2.20	0.42
2:H:199:HIS:HB3	2:H:202:ASP:O	2.19	0.42
3:L:581:VAL:HA	3:L:582:ASP:HA	1.88	0.42
1:A:439:MET:HE2	3:C:657:MET:SD	2.60	0.42
1:G:695:CYS:SG	1:G:722:LEU:HD22	2.60	0.42
2:E:120:ARG:HB2	2:E:138:TYR:O	2.19	0.42
1:G:325:TYR:CG	1:G:325:TYR:O	2.72	0.42
1:J:263:ASN:HB3	1:J:266:GLY:HA3	2.02	0.42
1:J:640:GLU:HG3	1:J:708:ILE:O	2.20	0.42
3:L:671:ILE:HA	3:L:674:ILE:CD1	2.49	0.42
3:C:613:VAL:HG11	3:C:655:ASN:HB3	2.02	0.42
1:D:228:SER:HB3	1:D:240:LEU:HD12	2.02	0.42
2:E:149:THR:HG21	2:E:195:GLU:CA	2.50	0.42
2:E:366:MET:SD	2:E:414:ARG:NH2	2.93	0.42
2:K:291:SER:O	2:K:292:GLN:C	2.62	0.42
2:K:339:ASP:OD1	2:K:341:ASP:N	2.53	0.42
1:A:689:HIS:HB2	1:A:726:TYR:CD1	2.55	0.42
2:B:166:ALA:HB2	2:B:196:LEU:HD11	2.00	0.42
2:E:370:MET:HE2	2:E:391:LEU:CD1	2.49	0.42
3:C:570:THR:C	3:C:572:LEU:H	2.27	0.42
1:D:125:GLU:OE1	2:E:236:ARG:NH2	2.53	0.42
1:D:101:LEU:N	2:E:139:VAL:O	2.51	0.41
2:E:128:SER:HA	2:E:129:GLN:HA	1.88	0.41
2:H:215:LEU:HB2	2:H:229:PHE:HB2	2.02	0.41
3:L:579:MET:HG3	3:L:581:VAL:HG12	2.02	0.41
1:A:325:TYR:CG	1:A:325:TYR:O	2.73	0.41
2:E:196:LEU:HD23	2:E:208:SER:HA	2.02	0.41
2:H:319:ILE:HG21	2:H:331:TRP:CZ2	2.56	0.41
1:J:68:VAL:HG13	1:J:68:VAL:O	2.21	0.41
1:J:313:THR:O	1:J:314:ALA:HB3	2.19	0.41
1:J:328:LEU:HD23	1:J:424:ILE:CG2	2.50	0.41
2:E:86:ASN:OD1	2:E:87:SER:N	2.53	0.41
2:E:194:ASN:ND2	2:E:240:LEU:HD23	2.34	0.41
1:D:129:HIS:HA	1:D:158:HIS:HB3	2.02	0.41
1:G:72:THR:O	1:G:72:THR:HG22	2.20	0.41
1:G:168:ASP:O	1:G:172:VAL:HG23	2.21	0.41
1:J:667:PHE:HZ	1:J:726:TYR:CE2	2.38	0.41
1:A:328:LEU:HD22	1:A:425:GLU:HB2	2.02	0.41
1:D:158:HIS:HA	1:D:159:GLY:HA2	1.77	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:160:HIS:HB3	2:B:176:ASN:HD21	1.86	0.41
2:E:138:TYR:CE1	2:E:175:ILE:HG21	2.55	0.41
1:J:430:VAL:HG12	1:J:431:GLU:H	1.84	0.41
1:J:552:GLU:HG3	1:J:552:GLU:O	2.20	0.41
1:A:334:PHE:HA	1:A:337:ALA:HB3	2.03	0.41
1:D:677:ALA:O	1:D:685:ARG:NH2	2.50	0.41
2:K:99:VAL:HG13	2:K:417:SER:HB2	2.03	0.41
3:L:594:GLU:O	3:L:598:THR:HG23	2.20	0.41
4:R:3:GLN:HE22	4:R:6:ARG:HH22	1.69	0.41
2:B:215:LEU:N	2:B:215:LEU:HD12	2.35	0.41
1:D:696:TYR:CE1	1:D:711:PHE:HB2	2.56	0.41
1:G:178:LEU:HD23	1:G:223:ILE:HD13	2.03	0.41
2:K:397:HIS:HA	2:K:399:ALA:N	2.36	0.41
1:A:39:LYS:HE3	2:B:394:GLU:HB2	2.01	0.41
1:G:127:VAL:HG12	1:G:156:LYS:CB	2.50	0.41
1:J:263:ASN:ND2	3:L:655:ASN:HD21	2.18	0.41
1:J:330:GLY:HA2	1:J:334:PHE:HB2	2.02	0.41
4:Q:9:ALA:CA	4:Q:10:GLN:HB2	2.50	0.41
1:A:688:ASN:OD1	6:A:809:74D:CAG	2.69	0.41
1:D:717:GLN:HE21	1:D:717:GLN:HB2	1.71	0.41
2:E:294:ILE:N	2:E:294:ILE:HD12	2.36	0.41
1:G:106:SER:HB2	2:H:169:ARG:NH1	2.35	0.41
2:K:396:PRO:HA	2:K:397:HIS:CG	2.56	0.41
3:L:561:HIS:HB2	3:L:562:ASN:HA	2.02	0.41
2:B:356:PHE:CE1	2:B:397:HIS:CD2	3.09	0.40
1:D:96:ILE:HG13	2:E:134:LEU:HG	2.02	0.40
3:I:596:THR:HG21	3:I:618:ASN:HD22	1.86	0.40
1:J:257:PRO:N	1:J:258:PRO:CD	2.84	0.40
1:A:35:ALA:HA	1:A:38:VAL:HG22	2.01	0.40
1:A:96:ILE:HG22	1:A:97:PRO:O	2.21	0.40
1:A:128:LEU:HD21	1:A:157:VAL:HG22	2.02	0.40
3:F:632:MET:SD	3:F:663:MET:HE1	2.61	0.40
1:G:272:VAL:HG12	1:G:273:GLN:N	2.35	0.40
1:J:263:ASN:HA	3:L:607:ASN:HD21	1.86	0.40
2:K:86:ASN:OD1	2:K:87:SER:N	2.54	0.40
2:K:131:GLU:OE1	2:K:133:ARG:NH2	2.54	0.40
1:A:68:VAL:HG23	2:B:112:VAL:HG22	2.03	0.40
1:A:727:ARG:O	1:A:728:TYR:CB	2.69	0.40
2:B:256:MET:C	2:B:258:HIS:H	2.29	0.40
3:C:617:TRP:O	3:C:620:HIS:N	2.55	0.40
1:D:302:THR:HG22	1:D:305:THR:HB	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:222:THR:O	2:E:224:THR:HG23	2.22	0.40
1:J:142:ASP:CB	1:J:144:THR:HG22	2.51	0.40
3:C:581:VAL:HA	3:C:582:ASP:HA	1.87	0.40
1:G:107:VAL:HG22	1:G:108:PRO:HD2	2.02	0.40
1:G:528:GLN:OE1	1:G:528:GLN:N	2.55	0.40
2:K:87:SER:HB2	2:K:435:TRP:CE3	2.57	0.40
2:K:120:ARG:HB2	2:K:138:TYR:O	2.22	0.40
2:B:199:HIS:HB2	2:B:205:LEU:HB2	2.04	0.40
3:F:581:VAL:HA	3:F:582:ASP:HA	1.84	0.40
1:J:279:HIS:O	1:J:283:THR:HG22	2.21	0.40
1:J:644:GLU:O	1:J:675:VAL:HA	2.22	0.40
2:K:196:LEU:HD22	2:K:206:LEU:HD11	2.03	0.40

There are no symmetry-related clashes.

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	558/695 (80%)	501 (90%)	51 (9%)	6 (1%)	11	42
1	D	558/695 (80%)	504 (90%)	44 (8%)	10 (2%)	6	33
1	G	560/695 (81%)	513 (92%)	41 (7%)	6 (1%)	11	42
1	J	558/695 (80%)	501 (90%)	50 (9%)	7 (1%)	9	39
2	B	363/367 (99%)	330 (91%)	31 (8%)	2 (1%)	21	53
2	E	363/367 (99%)	331 (91%)	27 (7%)	5 (1%)	9	38
2	H	363/367 (99%)	346 (95%)	16 (4%)	1 (0%)	36	67
2	K	363/367 (99%)	334 (92%)	27 (7%)	2 (1%)	21	53
3	C	123/129 (95%)	113 (92%)	8 (6%)	2 (2%)	7	36
3	F	123/129 (95%)	112 (91%)	10 (8%)	1 (1%)	16	49

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	I	123/129 (95%)	118 (96%)	4 (3%)	1 (1%)	16	49
3	L	123/129 (95%)	113 (92%)	10 (8%)	0	100	100
4	Q	7/11 (64%)	6 (86%)	0	1 (14%)	0	3
4	R	7/11 (64%)	7 (100%)	0	0	100	100
4	S	7/11 (64%)	7 (100%)	0	0	100	100
4	T	7/11 (64%)	4 (57%)	2 (29%)	1 (14%)	0	3
All	All	4206/4808 (88%)	3840 (91%)	321 (8%)	45 (1%)	11	42

All (45) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	68	VAL
1	A	103	ALA
2	B	257	ASP
1	D	103	ALA
1	J	103	ALA
4	T	9	ALA
1	A	323	GLN
1	A	331	ALA
1	A	565	GLN
3	C	571	CYS
1	D	119	ASN
1	D	323	GLN
1	D	545	LYS
2	E	414	ARG
1	G	103	ALA
1	G	331	ALA
1	G	545	LYS
1	G	565	GLN
3	I	571	CYS
1	J	423	ASN
1	J	545	LYS
4	Q	10	GLN
1	A	593	HIS
2	B	145	GLU
1	D	550	SER
1	D	562	CYS
2	E	213	HIS
2	K	397	HIS
3	C	590	GLU

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Mol	Chain	Res	Type
1	D	693	PRO
3	F	571	CYS
1	J	331	ALA
1	J	593	HIS
2	K	398	LYS
2	E	257	ASP
2	E	397	HIS
1	G	532	SER
2	H	397	HIS
1	D	448	TYR
1	J	119	ASN
2	E	395	ASP
1	G	68	VAL
1	D	68	VAL
1	J	68	VAL
1	D	322	PRO

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	511/618 (83%)	485 (95%)	26 (5%)	21	48
1	D	511/618 (83%)	484 (95%)	27 (5%)	20	47
1	G	513/618 (83%)	484 (94%)	29 (6%)	18	45
1	J	511/618 (83%)	481 (94%)	30 (6%)	18	45
2	B	328/329 (100%)	316 (96%)	12 (4%)	30	56
2	E	328/329 (100%)	316 (96%)	12 (4%)	30	56
2	H	328/329 (100%)	319 (97%)	9 (3%)	39	62
2	K	328/329 (100%)	320 (98%)	8 (2%)	43	64
3	C	119/121 (98%)	112 (94%)	7 (6%)	18	45
3	F	119/121 (98%)	115 (97%)	4 (3%)	32	58
3	I	119/121 (98%)	115 (97%)	4 (3%)	32	58

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	L	119/121 (98%)	114 (96%)	5 (4%)	26	52
4	Q	7/8 (88%)	5 (71%)	2 (29%)	0	2
4	R	7/8 (88%)	4 (57%)	3 (43%)	0	0
4	S	7/8 (88%)	5 (71%)	2 (29%)	0	2
4	T	7/8 (88%)	4 (57%)	3 (43%)	0	0
All	All	3862/4304 (90%)	3679 (95%)	183 (5%)	23	50

All (183) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	22	GLU
1	A	41	MET
1	A	68	VAL
1	A	102	ASN
1	A	127	VAL
1	A	134	MET
1	A	136	ASP
1	A	137	GLU
1	A	163	CYS
1	A	182	ASN
1	A	263	ASN
1	A	284	LEU
1	A	342	ARG
1	A	429	ASN
1	A	454	ILE
1	A	460	THR
1	A	587	THR
1	A	593	HIS
1	A	607	GLN
1	A	646	ILE
1	A	657	VAL
1	A	692	ASN
1	A	698	LYS
1	A	708	ILE
1	A	717	GLN
1	A	728	TYR
2	B	78	CYS
2	B	80	TYR
2	B	88	LEU
2	B	94	GLN

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Mol	Chain	Res	Type
2	B	112	VAL
2	B	189	HIS
2	B	209	VAL
2	B	225	LEU
2	B	337	GLU
2	B	370	MET
2	B	386	LEU
2	B	404	LEU
3	C	568	SER
3	C	571	CYS
3	C	590	GLU
3	C	592	LEU
3	C	596	THR
3	C	605	ASP
3	C	672	MET
1	D	19	VAL
1	D	22	GLU
1	D	40	SER
1	D	84	SER
1	D	86	THR
1	D	134	MET
1	D	140	ASP
1	D	182	ASN
1	D	211	GLU
1	D	259	GLU
1	D	260	CYS
1	D	263	ASN
1	D	283	THR
1	D	284	LEU
1	D	311	THR
1	D	320	CYS
1	D	454	ILE
1	D	521	GLN
1	D	587	THR
1	D	592	ASP
1	D	593	HIS
1	D	605	SER
1	D	607	GLN
1	D	694	ASN
1	D	708	ILE
1	D	717	GLN
1	D	727	ARG

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Mol	Chain	Res	Type
2	E	85	VAL
2	E	88	LEU
2	E	100	GLN
2	E	112	VAL
2	E	159	SER
2	E	189	HIS
2	E	271	MET
2	E	286	ASN
2	E	394	GLU
2	E	403	THR
2	E	404	LEU
2	E	405	THR
3	F	590	GLU
3	F	592	LEU
3	F	605	ASP
3	F	662	SER
1	G	22	GLU
1	G	76	SER
1	G	78	ARG
1	G	80	THR
1	G	81	ARG
1	G	86	THR
1	G	88	ASP
1	G	96	ILE
1	G	98	LEU
1	G	114	SER
1	G	134	MET
1	G	137	GLU
1	G	182	ASN
1	G	260	CYS
1	G	263	ASN
1	G	342	ARG
1	G	438	SER
1	G	446	THR
1	G	454	ILE
1	G	460	THR
1	G	552	GLU
1	G	587	THR
1	G	605	SER
1	G	607	GLN
1	G	664	SER
1	G	708	ILE

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Mol	Chain	Res	Type
1	G	727	ARG
1	G	729	SER
1	G	730	GLN
2	H	85	VAL
2	H	87	SER
2	H	88	LEU
2	H	94	GLN
2	H	112	VAL
2	H	189	HIS
2	H	271	MET
2	H	376	MET
2	H	404	LEU
3	I	568	SER
3	I	592	LEU
3	I	605	ASP
3	I	649	LYS
1	J	22	GLU
1	J	66	GLN
1	J	77	LEU
1	J	80	THR
1	J	81	ARG
1	J	84	SER
1	J	96	ILE
1	J	98	LEU
1	J	102	ASN
1	J	107	VAL
1	J	128	LEU
1	J	131	ILE
1	J	134	MET
1	J	136	ASP
1	J	137	GLU
1	J	182	ASN
1	J	242	GLU
1	J	263	ASN
1	J	284	LEU
1	J	311	THR
1	J	317	ASN
1	J	342	ARG
1	J	454	ILE
1	J	460	THR
1	J	565	GLN
1	J	567	ASN

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Mol	Chain	Res	Type
1	J	597	LYS
1	J	607	GLN
1	J	705	ASP
1	J	708	ILE
2	K	85	VAL
2	K	88	LEU
2	K	135	LEU
2	K	189	HIS
2	K	337	GLU
2	K	376	MET
2	K	386	LEU
2	K	404	LEU
3	L	590	GLU
3	L	595	LYS
3	L	627	ILE
3	L	637	MET
3	L	649	LYS
4	Q	2	LEU
4	Q	3	GLN
4	R	3	GLN
4	R	5	GLN
4	R	11	SER
4	S	2	LEU
4	S	3	GLN
4	T	2	LEU
4	T	5	GLN
4	T	10	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (82) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	130	ASN
1	A	167	ASN
1	A	323	GLN
1	A	555	ASN
1	A	603	ASN
1	A	635	ASN
1	A	706	HIS
1	A	717	GLN
2	B	94	GLN
2	B	100	GLN
2	B	160	HIS

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Mol	Chain	Res	Type
2	B	176	ASN
2	B	258	HIS
2	B	349	ASN
2	B	374	GLN
3	C	607	ASN
3	C	642	ASN
3	C	667	ASN
1	D	58	GLN
1	D	326	GLN
1	D	555	ASN
1	D	603	ASN
1	D	689	HIS
1	D	717	GLN
2	E	94	GLN
2	E	100	GLN
2	E	102	ASN
2	E	127	HIS
2	E	204	ASN
2	E	219	ASN
2	E	258	HIS
2	E	349	ASN
2	E	374	GLN
2	E	407	HIS
3	F	624	HIS
3	F	642	ASN
3	F	651	ASN
3	F	655	ASN
1	G	152	ASN
1	G	180	GLN
1	G	182	ASN
1	G	279	HIS
1	G	282	HIS
1	G	429	ASN
1	G	555	ASN
1	G	607	GLN
1	G	703	ASN
1	G	717	GLN
2	H	94	GLN
2	H	100	GLN
2	H	136	GLN
2	H	258	HIS
2	H	286	ASN

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Mol	Chain	Res	Type
2	H	349	ASN
2	H	406	HIS
3	I	607	ASN
3	I	633	ASN
3	I	634	HIS
3	I	642	ASN
3	I	655	ASN
1	J	47	GLN
1	J	66	GLN
1	J	182	ASN
1	J	555	ASN
1	J	607	GLN
1	J	668	ASN
2	K	160	HIS
2	K	189	HIS
2	K	221	GLN
2	K	258	HIS
2	K	286	ASN
2	K	349	ASN
2	K	360	GLN
3	L	607	ASN
3	L	633	ASN
3	L	642	ASN
3	L	645	GLN
3	L	655	ASN
4	Q	3	GLN
4	R	3	GLN
4	S	3	GLN
4	S	5	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

4 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
4	M3L	T	7	4	10,11,12	0.55	0	9,14,16	0.47	0
4	M3L	Q	7	4	10,11,12	0.65	0	9,14,16	0.53	0
4	M3L	R	7	4	10,11,12	0.83	0	9,14,16	0.55	0
4	M3L	S	7	4	10,11,12	0.65	0	9,14,16	0.61	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
4	M3L	T	7	4	-	0/9/10/12	-
4	M3L	Q	7	4	-	0/9/10/12	-
4	M3L	R	7	4	-	1/9/10/12	-
4	M3L	S	7	4	-	1/9/10/12	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	S	7	M3L	O-C-CA-CB
4	R	7	M3L	N-CA-CB-CG

There are no ring outliers.

4 monomers are involved in 5 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	T	7	M3L	2	0
4	Q	7	M3L	1	0
4	R	7	M3L	1	0
4	S	7	M3L	1	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 36 ligands modelled in this entry, 32 are monoatomic - leaving 4 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
6	74D	D	809	-	36,40,40	2.62	11 (30%)	47,59,59	2.67	12 (25%)
6	74D	G	809	-	36,40,40	2.71	12 (33%)	47,59,59	2.95	19 (40%)
6	74D	J	809	-	36,40,40	2.72	11 (30%)	47,59,59	2.73	14 (29%)
6	74D	A	809	-	36,40,40	2.84	11 (30%)	47,59,59	2.32	11 (23%)

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
6	74D	D	809	-	1/1/9/11	11/24/50/50	0/4/4/4
6	74D	G	809	-	1/1/9/11	12/24/50/50	0/4/4/4
6	74D	J	809	-	1/1/9/11	13/24/50/50	0/4/4/4
6	74D	A	809	-	1/1/9/11	10/24/50/50	0/4/4/4

All (45) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	A	809	74D	CAC-CAB	-8.87	1.39	1.50
6	D	809	74D	CAC-CAB	-8.45	1.39	1.50
6	G	809	74D	CAS-CAR	7.58	1.51	1.41
6	D	809	74D	CAG-CAF	-7.19	1.38	1.50
6	J	809	74D	CAC-CAB	-7.00	1.41	1.50
6	G	809	74D	CAC-CAB	-6.96	1.41	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	A	809	74D	CAS-CAR	6.96	1.50	1.41
6	A	809	74D	CAG-CAF	-6.49	1.39	1.50
6	J	809	74D	CAS-CAR	6.47	1.49	1.41
6	G	809	74D	CAG-CAF	-6.41	1.39	1.50
6	J	809	74D	CAG-CAF	-6.35	1.39	1.50
6	A	809	74D	CAN-CAM	-6.26	1.33	1.49
6	J	809	74D	CAN-CAM	-5.56	1.34	1.49
6	J	809	74D	CAF-NAE	4.97	1.40	1.33
6	D	809	74D	CAN-CAM	-4.97	1.36	1.49
6	G	809	74D	CAF-NAE	4.87	1.40	1.33
6	A	809	74D	CAF-NAE	4.84	1.40	1.33
6	D	809	74D	CAF-NAE	4.60	1.40	1.33
6	G	809	74D	CAN-CAM	-4.54	1.37	1.49
6	D	809	74D	FBI-CBH	-3.93	1.27	1.38
6	J	809	74D	CAX-CAP	3.74	1.55	1.49
6	G	809	74D	CAR-NAQ	3.71	1.47	1.40
6	D	809	74D	CAX-CAP	3.25	1.54	1.49
6	G	809	74D	CAS-CAN	-3.20	1.38	1.46
6	D	809	74D	CBG-NBD	3.20	1.50	1.47
6	J	809	74D	CBB-CBA	3.17	1.60	1.53
6	J	809	74D	CAS-CAN	-2.99	1.39	1.46
6	A	809	74D	CAR-NAQ	2.87	1.46	1.40
6	A	809	74D	CAS-CAN	-2.85	1.39	1.46
6	J	809	74D	CAR-NAQ	2.80	1.46	1.40
6	D	809	74D	CAS-CAN	-2.79	1.39	1.46
6	D	809	74D	CAR-NAQ	2.63	1.45	1.40
6	J	809	74D	CBA-CAY	2.62	1.60	1.53
6	A	809	74D	CAK-CAC	-2.60	1.39	1.52
6	D	809	74D	CAS-CAR	2.58	1.44	1.41
6	A	809	74D	FBJ-CBH	-2.39	1.31	1.38
6	A	809	74D	FBI-CBH	-2.39	1.31	1.38
6	G	809	74D	FBJ-CBH	2.38	1.44	1.38
6	G	809	74D	CBB-CBA	2.34	1.58	1.53
6	A	809	74D	CAX-CAP	2.32	1.53	1.49
6	G	809	74D	CAM-NAL	2.29	1.37	1.33
6	G	809	74D	CAX-CAP	2.29	1.53	1.49
6	J	809	74D	CBG-NBD	2.19	1.49	1.47
6	G	809	74D	CBG-NBD	2.13	1.49	1.47
6	D	809	74D	CAK-CAC	-2.01	1.42	1.52

All (56) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	809	74D	CAK-CAC-CAD	12.90	123.11	108.89
6	G	809	74D	CAK-CAC-CAD	11.94	122.05	108.89
6	J	809	74D	CAK-CAC-CAD	11.94	122.05	108.89
6	A	809	74D	CAK-CAC-CAD	9.95	119.85	108.89
6	J	809	74D	OAI-CAB-CAA	-6.82	119.94	126.02
6	D	809	74D	CAC-CAK-NAL	-5.98	101.57	112.18
6	A	809	74D	CAX-CAP-CAN	-5.78	120.05	130.30
6	G	809	74D	CBC-NBD-CBE	5.50	120.69	108.84
6	G	809	74D	CAN-CAP-NAQ	5.09	115.18	109.07
6	G	809	74D	CAX-CAP-CAN	-4.86	121.68	130.30
6	G	809	74D	OAI-CAB-CAA	-4.78	121.76	126.02
6	J	809	74D	CAX-CAP-CAN	-4.73	121.91	130.30
6	D	809	74D	CAX-CAP-CAN	-4.58	122.18	130.30
6	A	809	74D	OAI-CAB-CAA	-4.47	122.03	126.02
6	A	809	74D	CAJ-OAI-CAB	-4.44	109.20	116.53
6	A	809	74D	CAN-CAP-NAQ	4.01	113.89	109.07
6	D	809	74D	CAN-CAP-NAQ	3.92	113.77	109.07
6	G	809	74D	CAC-CAK-NAL	-3.89	105.28	112.18
6	J	809	74D	CBA-CAY-NAQ	-3.82	104.12	111.53
6	G	809	74D	CAM-CAN-CAP	3.63	132.47	125.16
6	J	809	74D	CAN-CAP-NAQ	3.55	113.33	109.07
6	G	809	74D	CAS-CAR-NAQ	-3.54	103.04	108.45
6	G	809	74D	CAA-CAF-NAE	-3.46	119.30	122.71
6	G	809	74D	CAR-CAS-CAN	3.45	110.30	106.92
6	J	809	74D	CAC-CAK-NAL	-3.42	106.10	112.18
6	J	809	74D	CAA-CAF-NAE	-3.21	119.54	122.71
6	G	809	74D	CAR-NAQ-CAP	-3.21	106.14	108.99
6	J	809	74D	CAS-CAR-NAQ	-3.15	103.64	108.45
6	J	809	74D	CAG-CAF-NAE	3.07	120.26	116.84
6	A	809	74D	CAS-CAR-NAQ	-3.06	103.78	108.45
6	D	809	74D	CAR-CAS-CAN	2.98	109.83	106.92
6	A	809	74D	CAR-NAQ-CAP	-2.95	106.37	108.99
6	D	809	74D	CAG-CAF-NAE	2.88	120.05	116.84
6	J	809	74D	CBE-NBD-CBG	-2.86	106.70	111.91
6	G	809	74D	CBB-CBA-CBF	-2.82	104.60	109.43
6	G	809	74D	CBE-NBD-CBG	2.81	117.03	111.91
6	D	809	74D	CAS-CAR-NAQ	-2.80	104.19	108.45
6	G	809	74D	CBF-CBE-NBD	2.80	115.60	111.08
6	A	809	74D	CAA-CAF-NAE	-2.78	119.97	122.71
6	A	809	74D	CAG-CAF-NAE	2.76	119.91	116.84
6	D	809	74D	CAR-NAQ-CAP	-2.73	106.57	108.99
6	G	809	74D	CBC-NBD-CBG	2.55	116.55	111.91
6	D	809	74D	CBC-CBB-CBA	-2.55	103.85	109.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	J	809	74D	CAZ-CAY-CBA	2.51	118.64	113.47
6	A	809	74D	CAT-CAR-CAS	-2.43	119.23	121.95
6	D	809	74D	CAA-CAF-NAE	-2.41	120.33	122.71
6	G	809	74D	CAK-NAL-CAM	2.39	125.65	122.06
6	G	809	74D	CAG-CAF-NAE	2.27	119.37	116.84
6	J	809	74D	CBB-CBC-NBD	-2.25	107.44	111.08
6	D	809	74D	CBC-NBD-CBE	2.19	113.57	108.84
6	G	809	74D	CAT-CAR-NAQ	2.19	135.03	130.55
6	G	809	74D	CBC-CBB-CBA	-2.13	104.77	109.53
6	J	809	74D	CAT-CAR-NAQ	2.12	134.91	130.55
6	D	809	74D	CAM-CAN-CAP	2.08	129.35	125.16
6	J	809	74D	CAR-NAQ-CAP	-2.03	107.18	108.99
6	A	809	74D	CAZ-CAY-CBA	-2.01	109.33	113.47

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
6	A	809	74D	CAC
6	D	809	74D	CAC
6	G	809	74D	CAC
6	J	809	74D	CAC

All (46) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
6	A	809	74D	NBD-CBG-CBH-CBK
6	A	809	74D	NBD-CBG-CBH-FBI
6	A	809	74D	CAZ-CAY-NAQ-CAP
6	A	809	74D	CAZ-CAY-NAQ-CAR
6	A	809	74D	CAC-CAB-OAI-CAJ
6	A	809	74D	CAA-CAB-OAI-CAJ
6	D	809	74D	NBD-CBG-CBH-CBK
6	D	809	74D	CBH-CBG-NBD-CBC
6	D	809	74D	CAD-CAC-CAK-NAL
6	D	809	74D	CAC-CAB-OAI-CAJ
6	D	809	74D	CAA-CAB-OAI-CAJ
6	G	809	74D	NBD-CBG-CBH-CBK
6	G	809	74D	NBD-CBG-CBH-FBI
6	G	809	74D	CAZ-CAY-CBA-CBF
6	G	809	74D	NAQ-CAY-CBA-CBF
6	G	809	74D	NAQ-CAY-CBA-CBB
6	G	809	74D	CAZ-CAY-NAQ-CAP

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Mol	Chain	Res	Type	Atoms
6	G	809	74D	CAZ-CAY-NAQ-CAR
6	G	809	74D	CAD-CAC-CAK-NAL
6	G	809	74D	CAC-CAB-OAI-CAJ
6	G	809	74D	CAA-CAB-OAI-CAJ
6	J	809	74D	NBD-CBG-CBH-CBK
6	J	809	74D	NBD-CBG-CBH-FBI
6	J	809	74D	NBD-CBG-CBH-FBJ
6	J	809	74D	CAZ-CAY-CBA-CBF
6	J	809	74D	NAQ-CAY-CBA-CBF
6	J	809	74D	CAZ-CAY-CBA-CBB
6	J	809	74D	NAQ-CAY-CBA-CBB
6	J	809	74D	CAD-CAC-CAK-NAL
6	J	809	74D	CAC-CAB-OAI-CAJ
6	J	809	74D	CAA-CAB-OAI-CAJ
6	D	809	74D	NBD-CBG-CBH-FBI
6	G	809	74D	CAZ-CAY-CBA-CBB
6	D	809	74D	CAZ-CAY-NAQ-CAR
6	D	809	74D	OAD-CAM-CAN-CAS
6	J	809	74D	OAD-CAM-CAN-CAS
6	A	809	74D	CBH-CBG-NBD-CBE
6	A	809	74D	NBD-CBG-CBH-FBJ
6	D	809	74D	OAD-CAM-NAL-CAK
6	A	809	74D	CBH-CBG-NBD-CBC
6	J	809	74D	CAZ-CAY-NAQ-CAR
6	A	809	74D	CAB-CAC-CAK-NAL
6	D	809	74D	CAZ-CAY-NAQ-CAP
6	D	809	74D	NAL-CAM-CAN-CAS
6	G	809	74D	NAL-CAM-CAN-CAS
6	J	809	74D	NAL-CAM-CAN-CAS

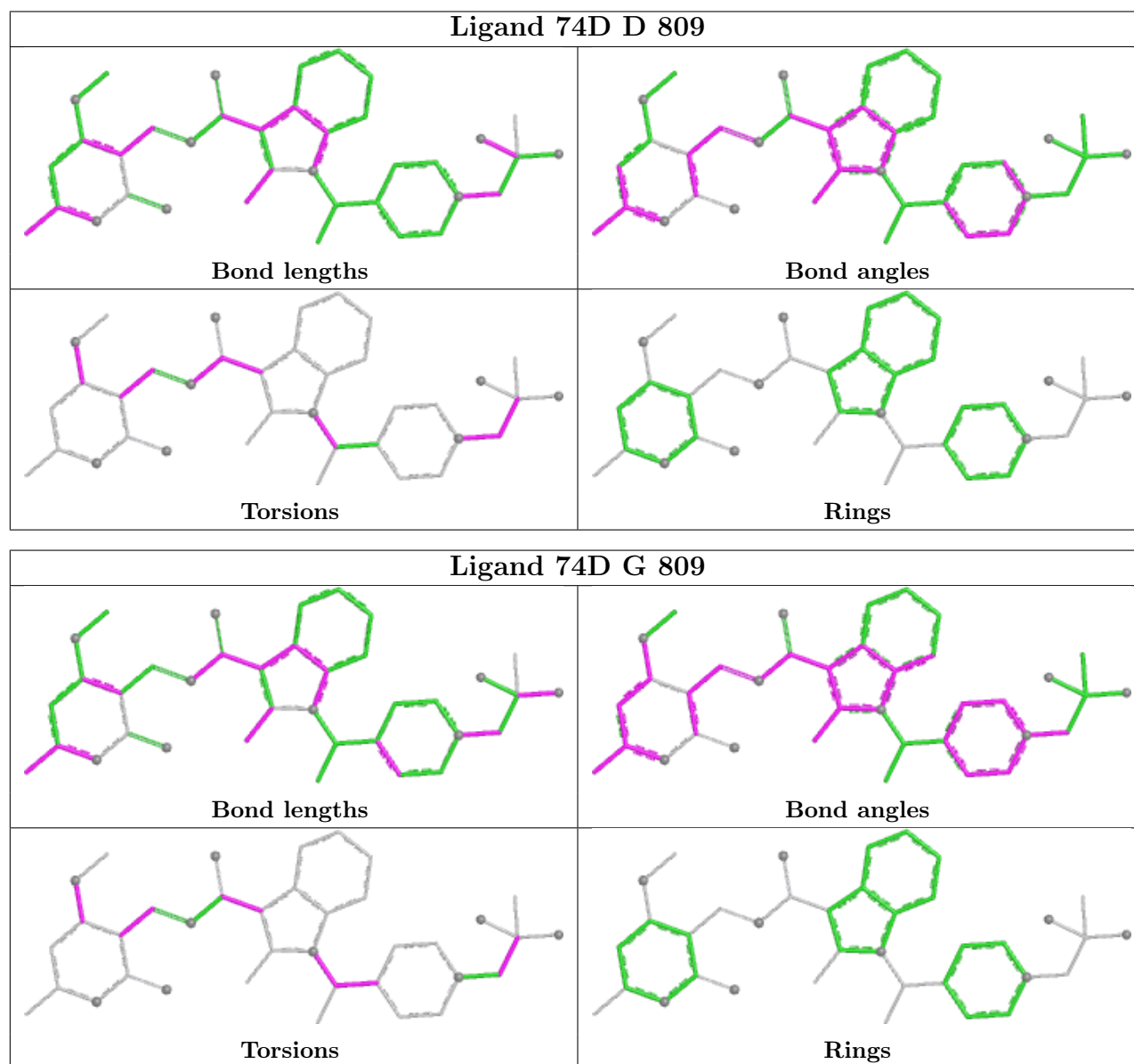
There are no ring outliers.

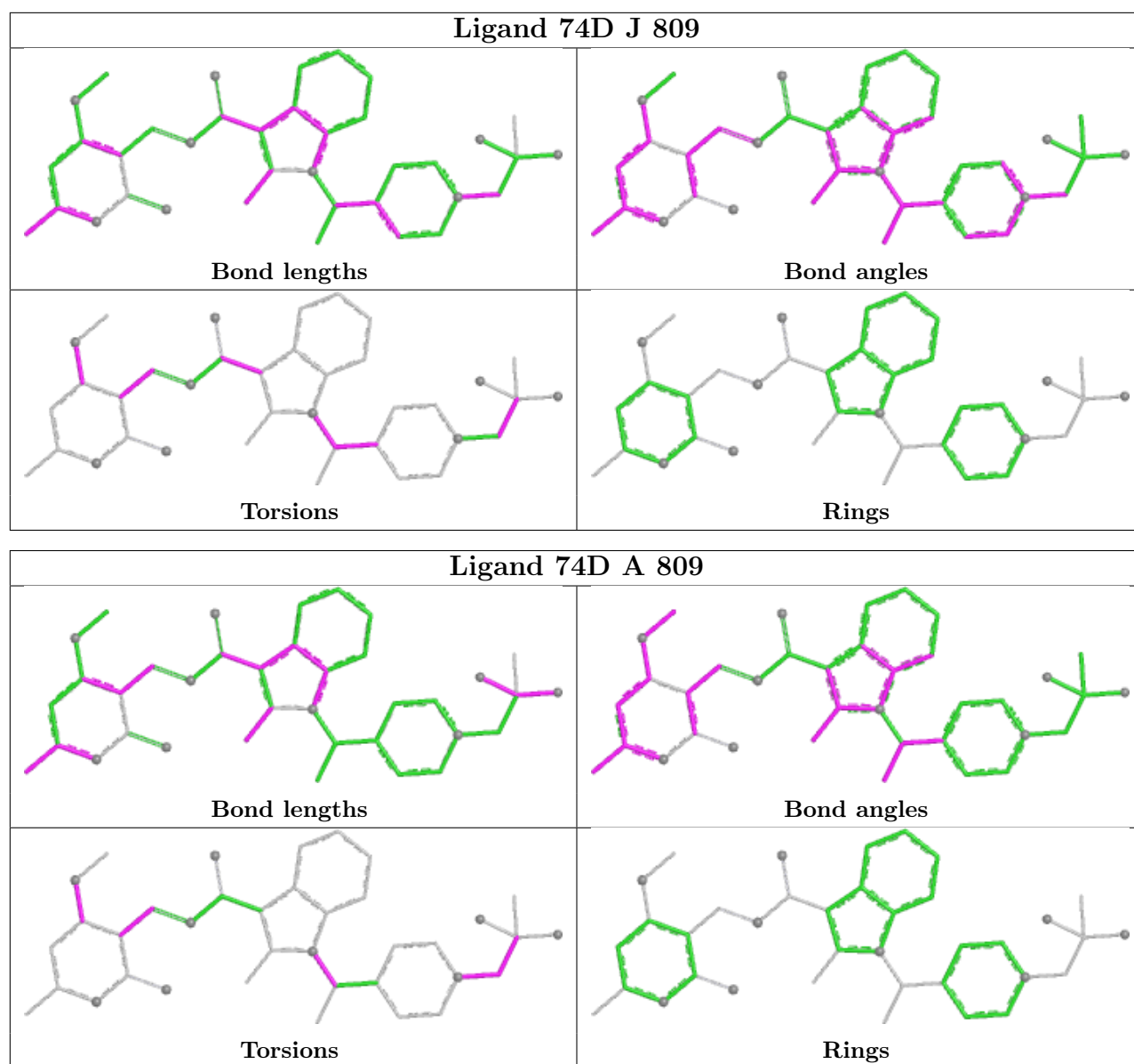
1 monomer is involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
6	A	809	74D	4	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be

highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	A	1
1	G	1
1	D	1
1	J	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A	182:ASN	C	211:GLU	N	6.31
1	G	182:ASN	C	211:GLU	N	5.74
1	D	182:ASN	C	211:GLU	N	5.71
1	J	182:ASN	C	211:GLU	N	5.36

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	570/695 (82%)	-0.17	3 (0%) 87 69	51, 108, 183, 239	0
1	D	570/695 (82%)	-0.24	2 (0%) 88 73	54, 100, 177, 259	0
1	G	572/695 (82%)	-0.13	1 (0%) 91 82	47, 106, 192, 252	0
1	J	570/695 (82%)	-0.14	3 (0%) 87 69	52, 107, 203, 254	0
2	B	365/367 (99%)	-0.18	2 (0%) 87 69	54, 94, 139, 213	0
2	E	365/367 (99%)	-0.26	1 (0%) 90 77	57, 92, 137, 198	0
2	H	365/367 (99%)	-0.40	0 100 100	49, 79, 120, 216	0
2	K	365/367 (99%)	-0.49	1 (0%) 90 77	46, 74, 118, 208	0
3	C	125/129 (96%)	-0.12	1 (0%) 82 61	67, 100, 168, 233	0
3	F	125/129 (96%)	-0.29	0 100 100	58, 92, 161, 219	0
3	I	125/129 (96%)	-0.08	2 (1%) 70 46	72, 103, 163, 202	0
3	L	125/129 (96%)	-0.11	1 (0%) 82 61	69, 113, 163, 229	0
4	Q	9/11 (81%)	0.16	0 100 100	77, 101, 126, 131	0
4	R	9/11 (81%)	0.30	0 100 100	77, 95, 135, 138	0
4	S	9/11 (81%)	0.48	0 100 100	93, 119, 136, 139	0
4	T	9/11 (81%)	0.58	1 (11%) 10 8	101, 117, 159, 165	0
All	All	4278/4808 (88%)	-0.22	18 (0%) 88 73	46, 95, 181, 259	0

All (18) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	170	ILE	3.4
1	A	667	PHE	2.6
4	T	2	LEU	2.6
2	K	396	PRO	2.6
1	D	68	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
3	L	581	VAL	2.5
2	B	440	LEU	2.5
1	G	77	LEU	2.4
1	J	74	VAL	2.4
2	B	396	PRO	2.4
3	I	581	VAL	2.2
2	E	104	HIS	2.2
3	I	684	MET	2.2
1	J	68	VAL	2.1
1	J	314	ALA	2.1
3	C	581	VAL	2.0
1	A	728	TYR	2.0
1	D	139	LEU	2.0

6.2 Non-standard residues in protein, DNA, RNA chains [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, 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	M3L	R	7	12/13	0.95	0.14	50,57,84,84	0
4	M3L	S	7	12/13	0.95	0.12	60,71,87,89	0
4	M3L	T	7	12/13	0.96	0.10	67,74,83,87	0
4	M3L	Q	7	12/13	0.97	0.12	55,63,83,84	0

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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
6	74D	A	809	37/37	0.94	0.10	62,78,86,91	0

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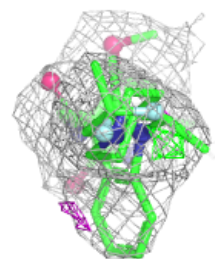
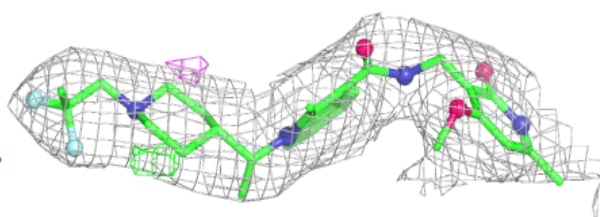
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
6	74D	D	809	37/37	0.95	0.09	61,70,89,93	0
6	74D	J	809	37/37	0.95	0.10	65,77,87,89	0
6	74D	G	809	37/37	0.96	0.08	61,69,76,77	0
5	ZN	A	802	1/1	0.98	0.03	132,132,132,132	0
5	ZN	J	802	1/1	0.98	0.04	147,147,147,147	0
5	ZN	G	804	1/1	0.99	0.02	70,70,70,70	0
5	ZN	G	802	1/1	0.99	0.03	146,146,146,146	0
5	ZN	D	801	1/1	1.00	0.01	68,68,68,68	0
5	ZN	D	802	1/1	1.00	0.01	84,84,84,84	0
5	ZN	D	803	1/1	1.00	0.01	59,59,59,59	0
5	ZN	D	804	1/1	1.00	0.02	61,61,61,61	0
5	ZN	D	805	1/1	1.00	0.01	65,65,65,65	0
5	ZN	D	806	1/1	1.00	0.01	58,58,58,58	0
5	ZN	D	807	1/1	1.00	0.01	66,66,66,66	0
5	ZN	D	808	1/1	1.00	0.01	56,56,56,56	0
5	ZN	G	801	1/1	1.00	0.01	71,71,71,71	0
5	ZN	A	801	1/1	1.00	0.01	70,70,70,70	0
5	ZN	G	803	1/1	1.00	0.01	73,73,73,73	0
5	ZN	A	803	1/1	1.00	0.02	65,65,65,65	0
5	ZN	G	805	1/1	1.00	0.01	72,72,72,72	0
5	ZN	G	806	1/1	1.00	0.01	61,61,61,61	0
5	ZN	G	807	1/1	1.00	0.02	59,59,59,59	0
5	ZN	G	808	1/1	1.00	0.03	49,49,49,49	0
5	ZN	J	801	1/1	1.00	0.01	68,68,68,68	0
5	ZN	A	804	1/1	1.00	0.01	56,56,56,56	0
5	ZN	J	803	1/1	1.00	0.01	89,89,89,89	0
5	ZN	J	804	1/1	1.00	0.02	94,94,94,94	0
5	ZN	J	805	1/1	1.00	0.02	80,80,80,80	0
5	ZN	J	806	1/1	1.00	0.01	75,75,75,75	0
5	ZN	J	807	1/1	1.00	0.02	71,71,71,71	0
5	ZN	J	808	1/1	1.00	0.01	49,49,49,49	0
5	ZN	A	805	1/1	1.00	0.01	66,66,66,66	0
5	ZN	A	806	1/1	1.00	0.01	53,53,53,53	0
5	ZN	A	807	1/1	1.00	0.02	55,55,55,55	0
5	ZN	A	808	1/1	1.00	0.02	55,55,55,55	0

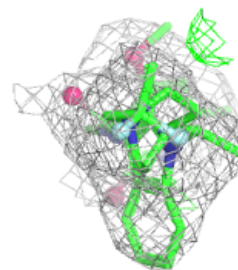
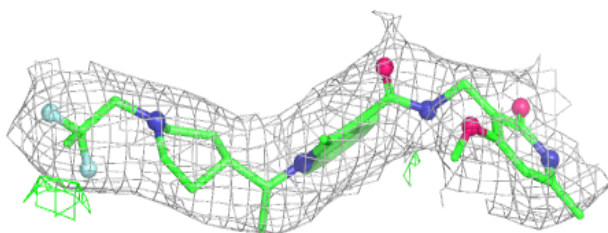
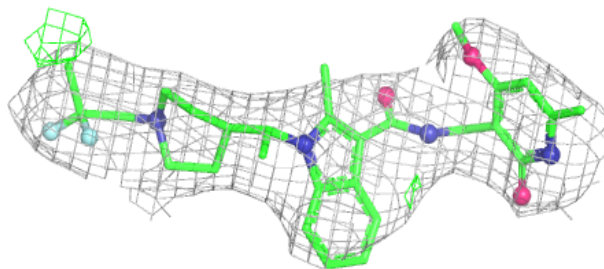
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around 74D A 809:

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

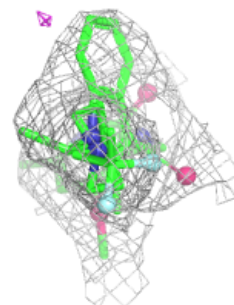
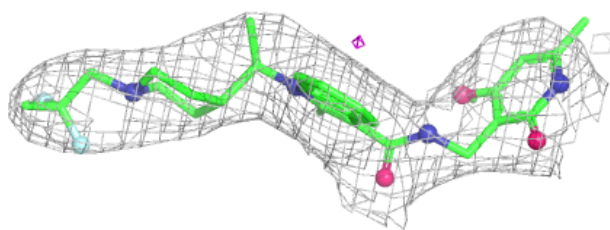
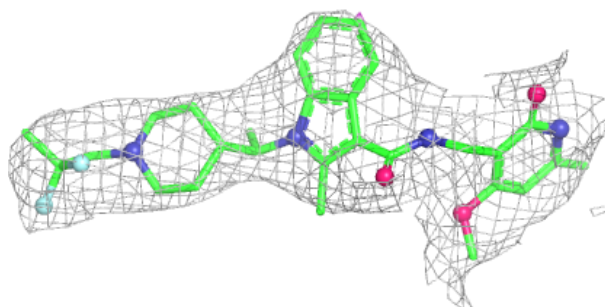
**Electron density around 74D D 809:**

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

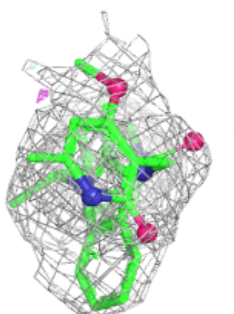
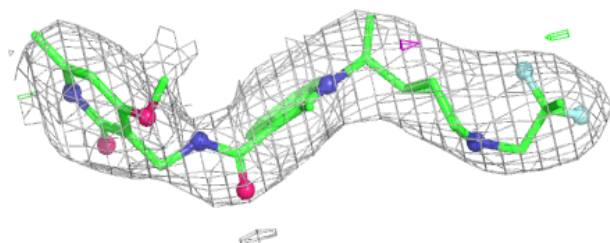
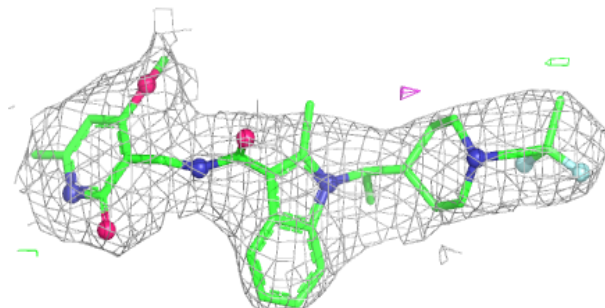


Electron density around 74D J 809:

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

**Electron density around 74D G 809:**

$2mF_o-DF_c$ (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.