



Full wwPDB X-ray Structure Validation Report ⓘ

Oct 8, 2026 – 10:31 AM EDT

PDB ID : 14CR / pdb_000014cr
Title : Structure of liver pyruvate kinase in complex with allosteric activator 8d
Authors : Lulla, A.; Rodriguez Rivero, A.; Grotli, M.; Hyvonen, M.
Deposited on : 2026-04-28
Resolution : 2.55 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 Phenix2.2
Mogul : 2022.3.0, CSD as543be (2022)
Xtriage (Phenix) : 2.2
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 : 9.0.015 (Gargrove)
Density-Fitness : 1.0.12
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.51

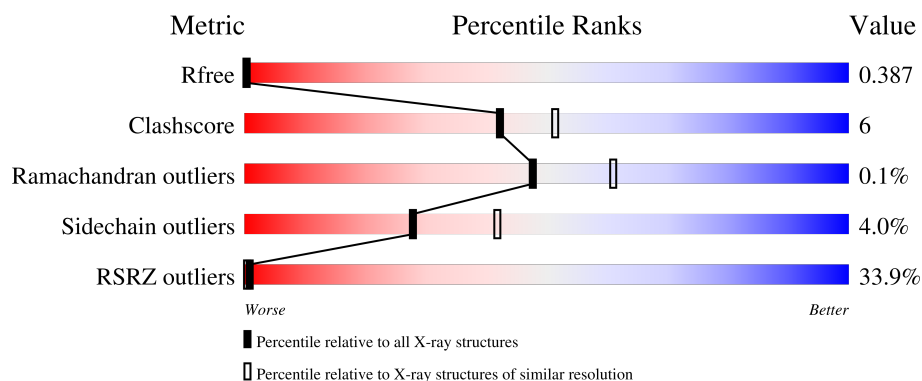
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.55 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	1091 (2.54-2.54)
Clashscore	190562	1120 (2.54-2.54)
Ramachandran outliers	187476	1106 (2.54-2.54)
Sidechain outliers	187428	1106 (2.54-2.54)
RSRZ outliers	180081	1091 (2.54-2.54)

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	447	64% 78% 15% • 6%
1	B	447	20% 81% 15% • •
1	C	447	37% 78% 16% • 5%
1	D	447	9% 78% 15% • 5%
1	E	447	62% 77% 15% • 6%

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Mol	Chain	Length	Quality of chain
1	F	447	
1	G	447	
1	H	447	

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
3	OXL	A	502	-	X	-	-
3	OXL	B	502	-	X	-	-
3	OXL	C	502	-	X	-	-
3	OXL	D	502	-	X	-	-
3	OXL	E	502	-	X	-	-
3	OXL	G	502	-	X	-	-
3	OXL	H	502	-	X	-	-

2 Entry composition

There are 7 unique types of molecules in this entry. The entry contains 26902 atoms, of which 56 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 Isoform L-type of Pyruvate kinase PKLR.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	422	Total	C	N	O	S	0	6	0
			3236	2034	585	597	20			
1	B	436	Total	C	N	O	S	0	4	0
			3329	2090	604	615	20			
1	C	425	Total	C	N	O	S	0	4	0
			3247	2040	585	603	19			
1	D	425	Total	C	N	O	S	0	6	0
			3252	2042	590	601	19			
1	E	419	Total	C	N	O	S	0	5	0
			3210	2018	579	593	20			
1	F	432	Total	C	N	O	S	0	7	0
			3321	2090	597	614	20			
1	G	421	Total	C	N	O	S	0	6	0
			3231	2031	581	600	19			
1	H	425	Total	C	N	O	S	0	4	0
			3251	2040	594	598	19			

There are 48 discrepancies between the modelled and reference sequences:

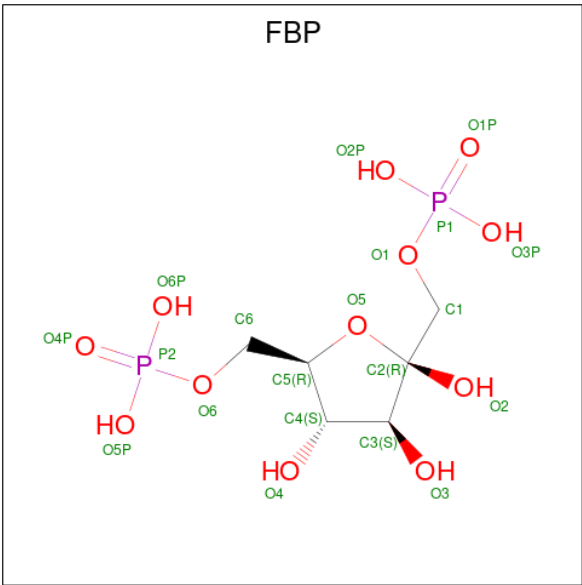
Chain	Residue	Modelled	Actual	Comment	Reference
A	-1	GLY	-	expression tag	UNP P30613
A	0	SER	-	expression tag	UNP P30613
A	12	ASP	SER	conflict	UNP P30613
A	130	GLY	-	linker	UNP P30613
A	131	SER	-	linker	UNP P30613
A	132	GLY	-	linker	UNP P30613
B	-1	GLY	-	expression tag	UNP P30613
B	0	SER	-	expression tag	UNP P30613
B	12	ASP	SER	conflict	UNP P30613
B	130	GLY	-	linker	UNP P30613
B	131	SER	-	linker	UNP P30613
B	132	GLY	-	linker	UNP P30613
C	-1	GLY	-	expression tag	UNP P30613

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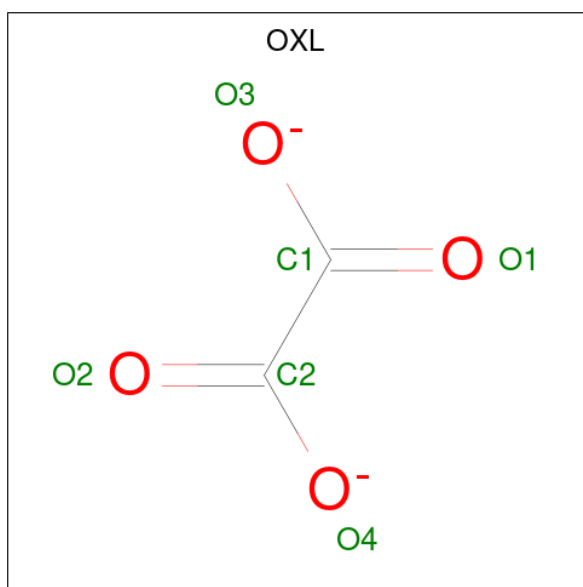
Chain	Residue	Modelled	Actual	Comment	Reference
C	0	SER	-	expression tag	UNP P30613
C	12	ASP	SER	conflict	UNP P30613
C	130	GLY	-	linker	UNP P30613
C	131	SER	-	linker	UNP P30613
C	132	GLY	-	linker	UNP P30613
D	-1	GLY	-	expression tag	UNP P30613
D	0	SER	-	expression tag	UNP P30613
D	12	ASP	SER	conflict	UNP P30613
D	130	GLY	-	linker	UNP P30613
D	131	SER	-	linker	UNP P30613
D	132	GLY	-	linker	UNP P30613
E	-1	GLY	-	expression tag	UNP P30613
E	0	SER	-	expression tag	UNP P30613
E	12	ASP	SER	conflict	UNP P30613
E	130	GLY	-	linker	UNP P30613
E	131	SER	-	linker	UNP P30613
E	132	GLY	-	linker	UNP P30613
F	-1	GLY	-	expression tag	UNP P30613
F	0	SER	-	expression tag	UNP P30613
F	12	ASP	SER	conflict	UNP P30613
F	130	GLY	-	linker	UNP P30613
F	131	SER	-	linker	UNP P30613
F	132	GLY	-	linker	UNP P30613
G	-1	GLY	-	expression tag	UNP P30613
G	0	SER	-	expression tag	UNP P30613
G	12	ASP	SER	conflict	UNP P30613
G	130	GLY	-	linker	UNP P30613
G	131	SER	-	linker	UNP P30613
G	132	GLY	-	linker	UNP P30613
H	-1	GLY	-	expression tag	UNP P30613
H	0	SER	-	expression tag	UNP P30613
H	12	ASP	SER	conflict	UNP P30613
H	130	GLY	-	linker	UNP P30613
H	131	SER	-	linker	UNP P30613
H	132	GLY	-	linker	UNP P30613

- Molecule 2 is 1,6-di-O-phosphono-beta-D-fructofuranose (CCD ID: FBP) (formula: $C_6H_{14}O_{12}P_2$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
2	A	1	Total	C	O	P	0	0
			20	6	12	2		
2	B	1	Total	C	O	P	0	0
			20	6	12	2		
2	C	1	Total	C	O	P	0	0
			20	6	12	2		
2	D	1	Total	C	O	P	0	0
			20	6	12	2		
2	E	1	Total	C	O	P	0	0
			20	6	12	2		
2	F	1	Total	C	O	P	0	0
			20	6	12	2		
2	G	1	Total	C	O	P	0	0
			20	6	12	2		
2	H	1	Total	C	O	P	0	0
			20	6	12	2		

- Molecule 3 is OXALATE ION (CCD ID: OXL) (formula: C₂O₄).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	A	1	Total	C	O	0	0
			6	2	4		
3	B	1	Total	C	O	0	0
			6	2	4		
3	C	1	Total	C	O	0	0
			6	2	4		
3	D	1	Total	C	O	0	0
			6	2	4		
3	E	1	Total	C	O	0	0
			6	2	4		
3	F	1	Total	C	O	0	0
			6	2	4		
3	G	1	Total	C	O	0	0
			6	2	4		
3	H	1	Total	C	O	0	0
			6	2	4		

- Molecule 4 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	1	Total	Mg	0	0
			1	1		
4	B	1	Total	Mg	0	0
			1	1		
4	C	1	Total	Mg	0	0
			1	1		
4	D	1	Total	Mg	0	0
			1	1		

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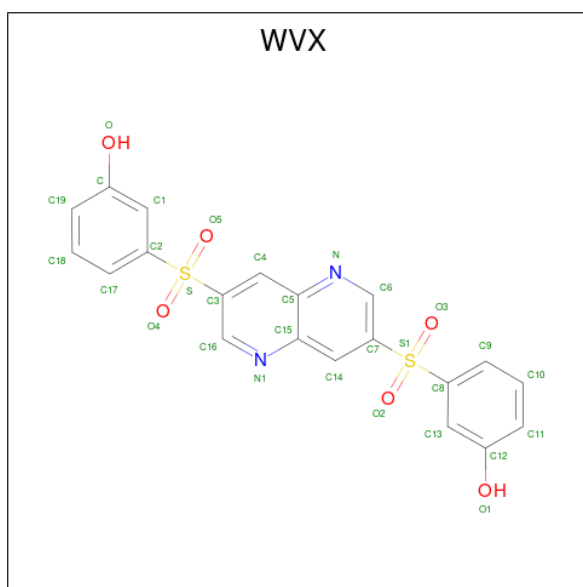
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	E	1	Total 1	Mg 1	0	0
4	F	1	Total 1	Mg 1	0	0
4	G	1	Total 1	Mg 1	0	0
4	H	1	Total 1	Mg 1	0	0

- Molecule 5 is POTASSIUM ION (CCD ID: K) (formula: K).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	1	Total 1	K 1	0	0
5	B	1	Total 1	K 1	0	0
5	C	1	Total 1	K 1	0	0
5	D	1	Total 1	K 1	0	0
5	E	1	Total 1	K 1	0	0
5	F	1	Total 1	K 1	0	0
5	G	1	Total 1	K 1	0	0
5	H	1	Total 1	K 1	0	0

- Molecule 6 is 3,3'-(1,5-naphthyridine-3,7-diyldisulfonyl)diphenol (CCD ID: WVX) (formula: C₂₀H₁₄N₂O₆S₂) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms						ZeroOcc	AltConf
6	A	1	Total 44	C 20	H 14	N 2	O 6	S 2	14	0
6	B	1	Total 44	C 20	H 14	N 2	O 6	S 2	14	0
6	E	1	Total 44	C 20	H 14	N 2	O 6	S 2	14	0
6	F	1	Total 44	C 20	H 14	N 2	O 6	S 2	14	0

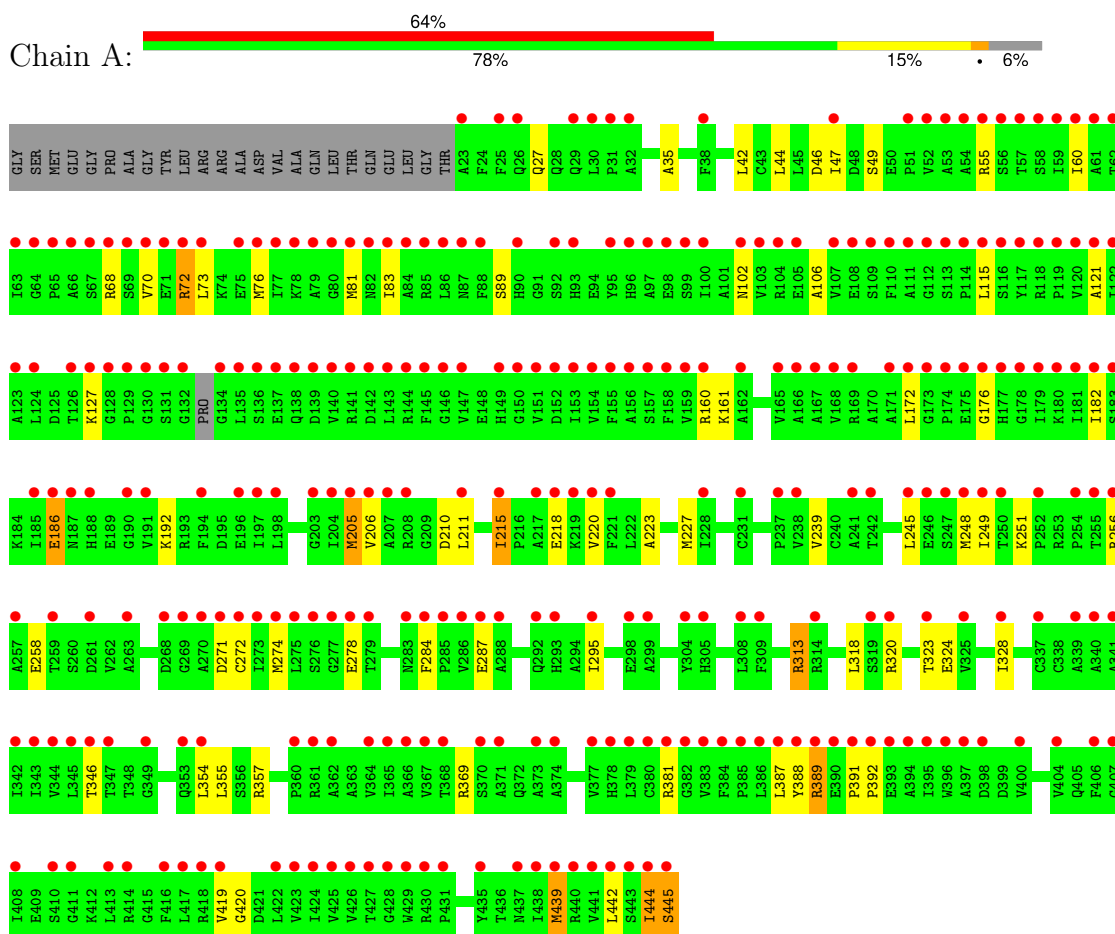
- Molecule 7 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	A	36	Total	O	0	0
			36	36		
7	B	62	Total	O	0	0
			62	62		
7	C	45	Total	O	0	0
			45	45		
7	D	70	Total	O	0	0
			70	70		
7	E	28	Total	O	0	0
			28	28		
7	F	60	Total	O	0	0
			60	60		
7	G	52	Total	O	0	0
			52	52		
7	H	72	Total	O	0	0
			72	72		

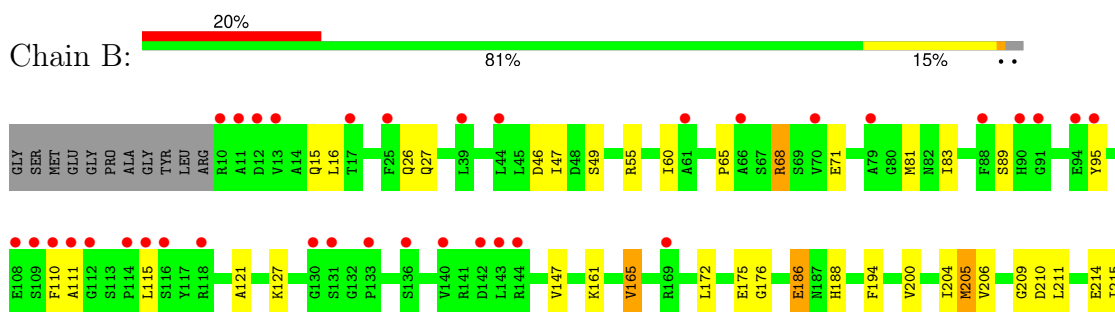
3 Residue-property plots

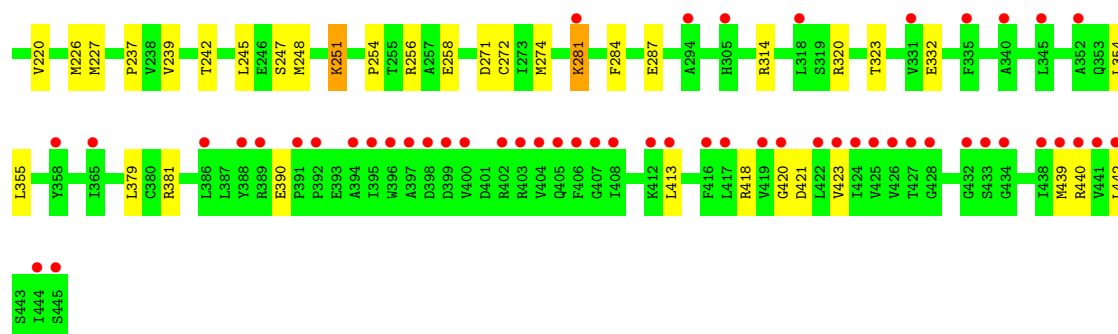
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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: Isoform L-type of Pyruvate kinase PKLR

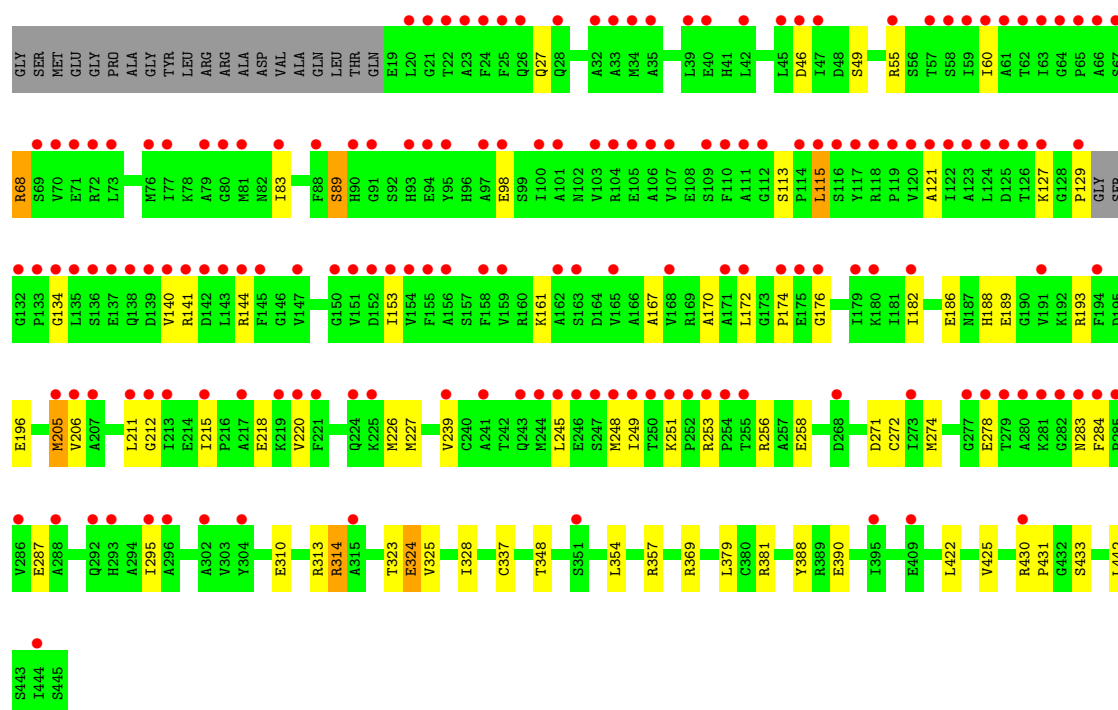
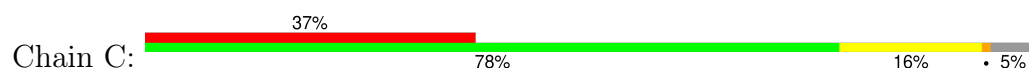


- Molecule 1: Isoform L-type of Pyruvate kinase PKLR

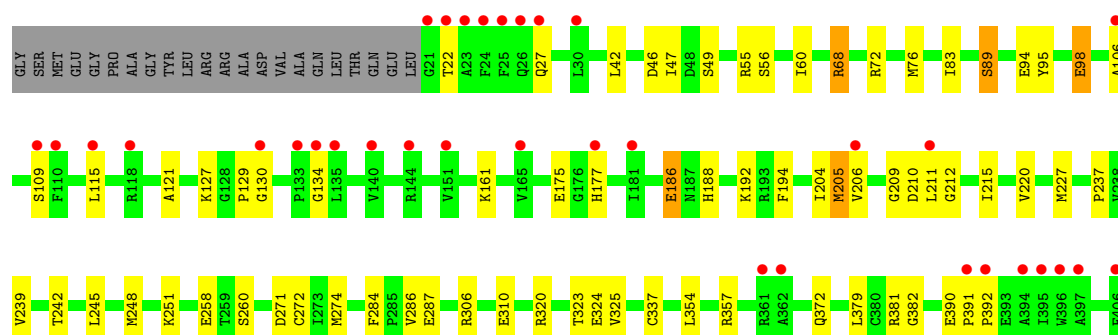
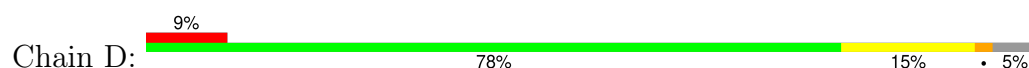


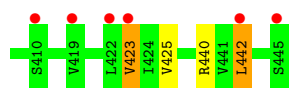


• Molecule 1: Isoform L-type of Pyruvate kinase PKLR

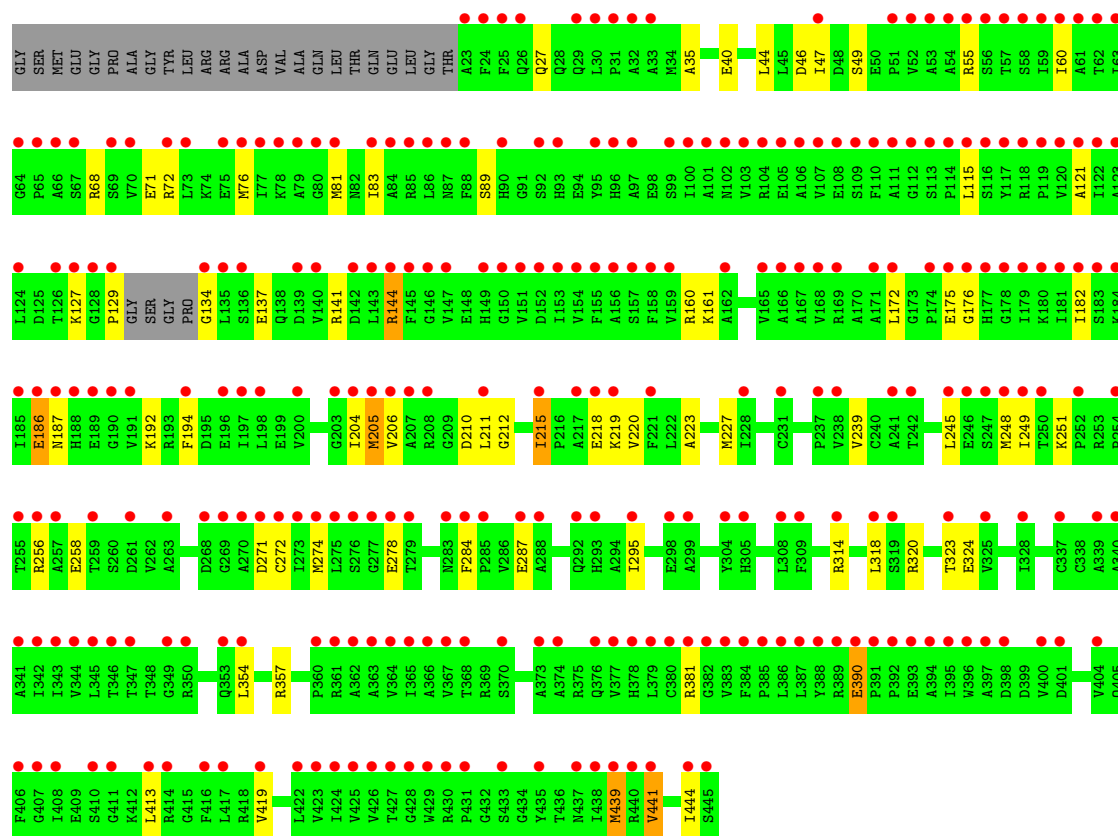
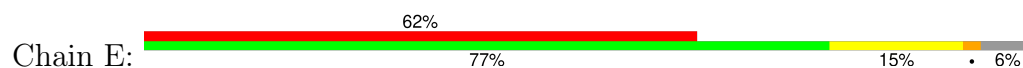


• Molecule 1: Isoform L-type of Pyruvate kinase PKLR

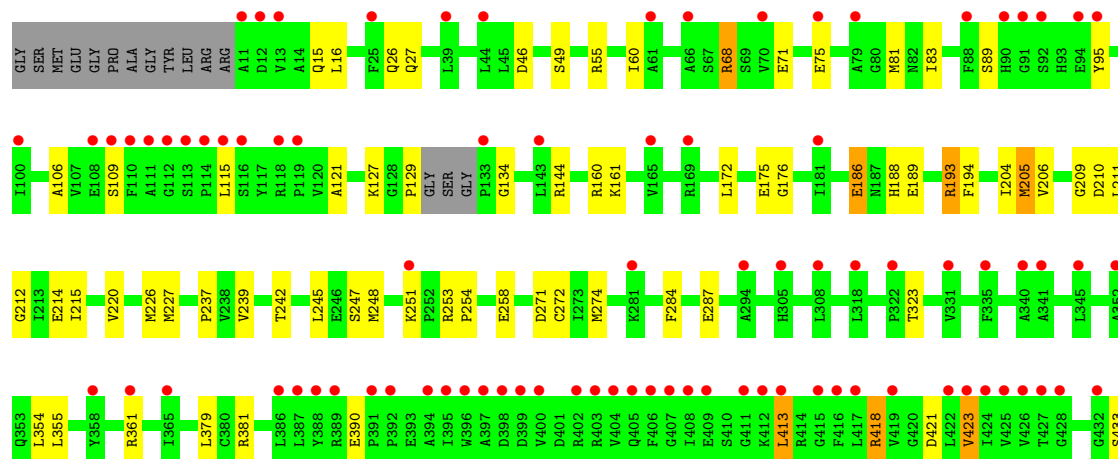
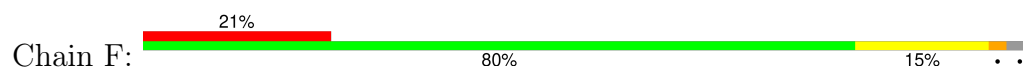




• Molecule 1: Isoform L-type of Pyruvate kinase PKLR

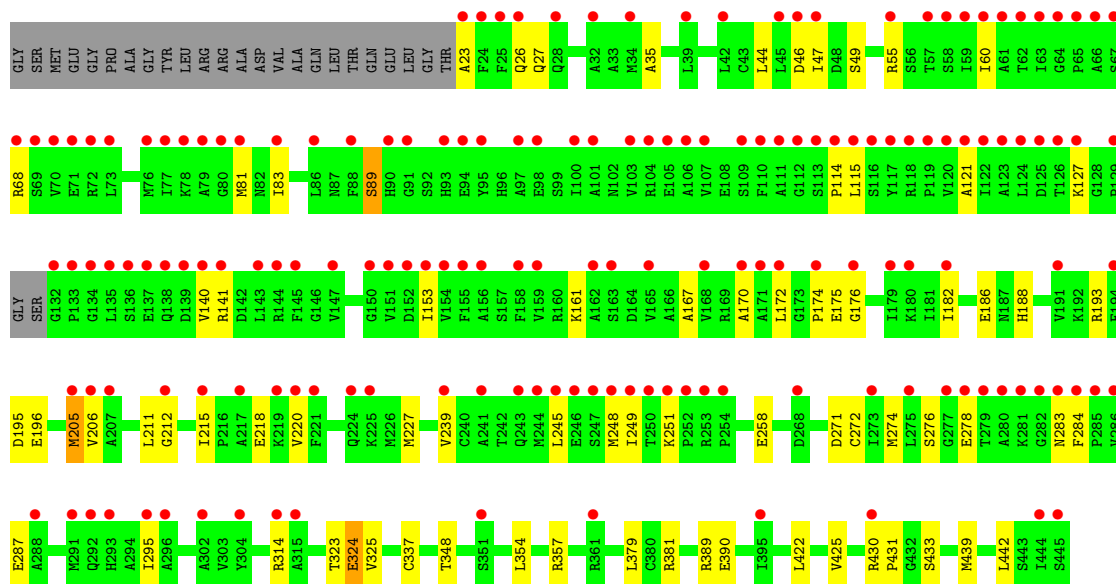
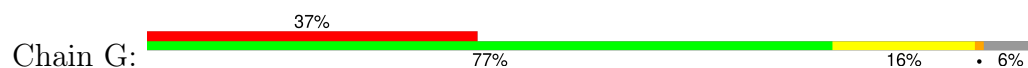


• Molecule 1: Isoform L-type of Pyruvate kinase PKLR

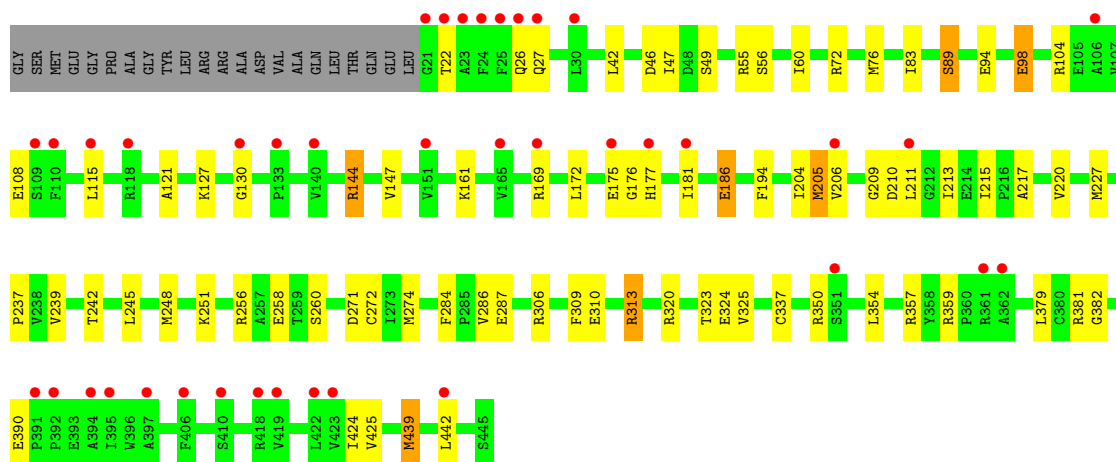
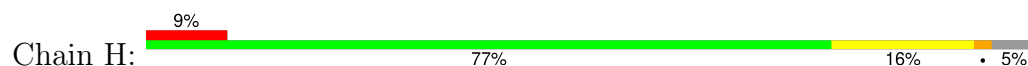




• Molecule 1: Isoform L-type of Pyruvate kinase PKLR



• Molecule 1: Isoform L-type of Pyruvate kinase PKLR



4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	203.09Å 112.22Å 184.65Å 90.00° 94.06° 90.00°	Depositor
Resolution (Å)	98.16 – 2.55 98.16 – 2.55	Depositor EDS
% Data completeness (in resolution range)	62.0 (98.16-2.55) 62.0 (98.16-2.55)	Depositor EDS
R_{merge}	0.19	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.68 (at 2.55Å)	Xtriage
Refinement program	BUSTER 2.10.4	Depositor
R, R_{free}	0.371 , 0.397 0.358 , 0.387	Depositor DCC
R_{free} test set	4110 reflections (3.05%)	wwPDB-VP
Wilson B-factor (Å ²)	47.8	Xtriage
Anisotropy	0.049	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.34 , 69.0	EDS
L-test for twinning ²	$\langle L \rangle = 0.38$, $\langle L^2 \rangle = 0.21$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	26902	wwPDB-VP
Average B, all atoms (Å ²)	63.0	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 96.67 % 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 4.2303e-10. 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: WVX, OXL, MG, K, FBP

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	0.65	1/3307 (0.0%)	1.10	6/4469 (0.1%)
1	B	0.69	0/3396	1.10	11/4592 (0.2%)
1	C	0.68	0/3313	1.08	2/4479 (0.0%)
1	D	0.72	0/3326	1.11	3/4497 (0.1%)
1	E	0.65	1/3278 (0.0%)	1.08	3/4430 (0.1%)
1	F	0.69	0/3396	1.09	4/4591 (0.1%)
1	G	0.68	0/3303	1.09	4/4465 (0.1%)
1	H	0.72	0/3316	1.10	4/4483 (0.1%)
All	All	0.68	2/26635 (0.0%)	1.09	37/36006 (0.1%)

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	215	ILE	CA-C	5.88	1.57	1.52
1	A	215	ILE	CA-C	5.13	1.56	1.52

All (37) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	444	ILE	CA-C-N	10.05	139.78	121.70
1	A	444	ILE	C-N-CA	10.05	139.78	121.70
1	B	115	LEU	CA-C-N	6.02	129.47	119.35
1	B	115	LEU	C-N-CA	6.02	129.47	119.35
1	G	27	GLN	CA-C-N	5.79	130.62	122.46
1	G	27	GLN	C-N-CA	5.79	130.62	122.46
1	B	27	GLN	CA-C-N	5.75	130.57	122.46
1	B	27	GLN	C-N-CA	5.75	130.57	122.46
1	F	27	GLN	CA-C-N	5.74	130.55	122.46
1	F	27	GLN	C-N-CA	5.74	130.55	122.46
1	G	23	ALA	CA-C-N	5.72	128.51	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	23	ALA	C-N-CA	5.72	128.51	120.28
1	H	27	GLN	CA-C-N	5.70	130.49	122.46
1	H	27	GLN	C-N-CA	5.70	130.49	122.46
1	E	27	GLN	CA-C-N	5.68	130.47	122.46
1	E	27	GLN	C-N-CA	5.68	130.47	122.46
1	C	27	GLN	CA-C-N	5.66	130.44	122.46
1	C	27	GLN	C-N-CA	5.66	130.44	122.46
1	B	355	LEU	CA-C-N	5.65	127.85	120.28
1	B	355	LEU	C-N-CA	5.65	127.85	120.28
1	D	27	GLN	CA-C-N	5.64	130.41	122.46
1	D	27	GLN	C-N-CA	5.64	130.41	122.46
1	A	355	LEU	CA-C-N	5.59	127.78	120.28
1	A	355	LEU	C-N-CA	5.59	127.78	120.28
1	A	27	GLN	CA-C-N	5.59	130.34	122.46
1	A	27	GLN	C-N-CA	5.59	130.34	122.46
1	B	111	ALA	CA-C-N	5.59	126.31	119.99
1	B	111	ALA	C-N-CA	5.59	126.31	119.99
1	F	355	LEU	CA-C-N	5.59	127.77	120.28
1	F	355	LEU	C-N-CA	5.59	127.77	120.28
1	E	441	VAL	N-CA-CB	5.35	118.42	111.67
1	B	111	ALA	N-CA-C	5.32	117.83	111.71
1	B	110	PHE	CA-C-N	5.27	127.87	120.28
1	B	110	PHE	C-N-CA	5.27	127.87	120.28
1	H	324	GLU	CB-CG-CD	5.25	121.52	112.60
1	H	313	ARG	CA-CB-CG	5.08	124.25	114.10
1	D	324	GLU	CB-CG-CD	5.02	121.14	112.60

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	3236	0	3300	54	0
1	B	3329	0	3394	44	0
1	C	3247	0	3300	59	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	D	3252	0	3311	41	0
1	E	3210	0	3271	46	0
1	F	3321	0	3393	43	1
1	G	3231	0	3285	54	0
1	H	3251	0	3307	49	0
2	A	20	0	10	1	0
2	B	20	0	10	0	0
2	C	20	0	10	0	0
2	D	20	0	10	0	0
2	E	20	0	10	0	0
2	F	20	0	10	0	0
2	G	20	0	10	0	0
2	H	20	0	10	0	0
3	A	6	0	0	0	0
3	B	6	0	0	0	0
3	C	6	0	0	0	0
3	D	6	0	0	0	0
3	E	6	0	0	0	0
3	F	6	0	0	0	0
3	G	6	0	0	0	0
3	H	6	0	0	0	0
4	A	1	0	0	0	0
4	B	1	0	0	0	0
4	C	1	0	0	0	0
4	D	1	0	0	0	0
4	E	1	0	0	0	0
4	F	1	0	0	0	0
4	G	1	0	0	0	0
4	H	1	0	0	0	0
5	A	1	0	0	0	0
5	B	1	0	0	0	0
5	C	1	0	0	0	0
5	D	1	0	0	0	0
5	E	1	0	0	0	0
5	F	1	0	0	0	0
5	G	1	0	0	0	0
5	H	1	0	0	0	0
6	A	30	14	0	0	0
6	B	30	14	0	0	0
6	E	30	14	0	0	0
6	F	30	14	0	0	0
7	A	36	0	0	4	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	B	62	0	0	0	0
7	C	45	0	0	2	0
7	D	70	0	0	0	0
7	E	28	0	0	1	0
7	F	60	0	0	1	0
7	G	52	0	0	3	0
7	H	72	0	0	3	0
All	All	26846	56	26641	333	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 6.

All (333) 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:E:60:ILE:HB	1:E:274:MET:HG3	1.52	0.92
1:A:60:ILE:HB	1:A:274:MET:HG3	1.52	0.89
1:G:60:ILE:HB	1:G:274:MET:HG3	1.55	0.89
1:H:60:ILE:HB	1:H:274:MET:HG3	1.55	0.88
1:C:60:ILE:HB	1:C:274:MET:HG3	1.54	0.88
1:H:89:SER:HA	1:H:127:LYS:HG3	1.57	0.86
1:F:60:ILE:HB	1:F:274:MET:HG3	1.54	0.86
1:B:65:PRO:HG2	1:B:281:LYS:HG2	1.55	0.86
1:B:60:ILE:HB	1:B:274:MET:HG3	1.54	0.86
1:C:348:THR:HA	1:G:174:PRO:HG3	1.59	0.85
1:D:60:ILE:HB	1:D:274:MET:HG3	1.56	0.85
1:D:89:SER:HA	1:D:127:LYS:HG3	1.57	0.85
1:F:89:SER:HA	1:F:127:LYS:HG3	1.59	0.85
1:C:174:PRO:HG3	1:G:348:THR:HA	1.59	0.85
1:B:89:SER:HA	1:B:127:LYS:HG3	1.58	0.84
1:G:89:SER:HA	1:G:127:LYS:HG3	1.60	0.83
1:C:89:SER:HA	1:C:127:LYS:HG3	1.61	0.82
1:C:140:VAL:HG11	1:G:431:PRO:HB2	1.61	0.81
1:A:106:ALA:HB2	7:A:601:HOH:O	1.80	0.80
1:A:89:SER:HA	1:A:127:LYS:HG3	1.63	0.80
1:E:89:SER:HA	1:E:127:LYS:HG3	1.63	0.80
1:C:431:PRO:HB2	1:G:140:VAL:HG11	1.63	0.80
1:C:113:SER:HB2	1:C:115:LEU:HG	1.66	0.78
1:A:320[B]:ARG:NH2	1:B:420:GLY:O	2.21	0.74
1:C:310:GLU:HG2	1:C:313:ARG:HH22	1.56	0.70
1:F:423:VAL:HB	1:F:444[B]:ILE:HD11	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:205:MET:HG2	1:F:239:VAL:HB	1.74	0.69
1:E:218:GLU:HB2	1:G:295:ILE:HA	1.74	0.69
1:G:283:ASN:HB2	7:G:601:HOH:O	1.91	0.69
1:C:283:ASN:HB2	7:C:601:HOH:O	1.93	0.69
1:A:70:VAL:HA	7:A:601:HOH:O	1.94	0.68
1:F:284:PHE:HB3	1:F:287:GLU:HB2	1.76	0.68
1:C:425:VAL:HG21	1:C:442:LEU:HD12	1.74	0.68
1:D:425:VAL:HG21	1:D:442:LEU:HD22	1.74	0.68
1:B:205:MET:HG2	1:B:239:VAL:HB	1.75	0.67
1:F:160:ARG:O	1:F:193:ARG:HG3	1.93	0.67
1:B:46:ASP:HB3	1:B:49:SER:HB2	1.77	0.67
1:A:218:GLU:HB2	1:C:295:ILE:HA	1.77	0.66
1:F:46:ASP:HB3	1:F:49:SER:HB2	1.76	0.66
1:A:102:ASN:O	7:A:601:HOH:O	2.12	0.66
1:B:284:PHE:HB3	1:B:287:GLU:HB2	1.77	0.66
1:E:47:ILE:HD12	1:G:188:HIS:CD2	2.30	0.66
1:A:205:MET:HG2	1:A:239:VAL:HB	1.78	0.66
1:E:205:MET:HG2	1:E:239:VAL:HB	1.78	0.64
1:H:205:MET:HG2	1:H:239:VAL:HB	1.77	0.64
1:C:205:MET:HG2	1:C:239:VAL:HB	1.79	0.64
1:A:47:ILE:HD12	1:C:188:HIS:CD2	2.33	0.64
1:D:205:MET:HG2	1:D:239:VAL:HB	1.78	0.64
1:G:425:VAL:HG21	1:G:442:LEU:HD12	1.80	0.63
1:G:205:MET:HG2	1:G:239:VAL:HB	1.79	0.63
1:H:424:ILE:HG23	1:H:439:MET:HE3	1.81	0.62
1:H:284:PHE:HB3	1:H:287:GLU:HB2	1.82	0.62
1:C:140:VAL:HG21	1:G:431:PRO:HG2	1.81	0.61
1:C:249:ILE:O	7:C:601:HOH:O	2.16	0.61
1:H:169[A]:ARG:HE	1:H:181:ILE:HD12	1.65	0.61
1:A:47:ILE:HD12	1:C:188:HIS:HD2	1.65	0.61
1:C:431:PRO:HG2	1:G:140:VAL:HG21	1.83	0.61
1:D:284:PHE:HB3	1:D:287:GLU:HB2	1.82	0.61
1:D:423:VAL:HG12	1:D:442:LEU:HB3	1.82	0.61
1:A:284:PHE:HB3	1:A:287:GLU:HB2	1.84	0.60
1:C:323:THR:HG22	1:C:354:LEU:HD12	1.83	0.60
1:G:284:PHE:HB3	1:G:287:GLU:HB2	1.83	0.60
1:C:284:PHE:HB3	1:C:287:GLU:HB2	1.83	0.60
1:E:47:ILE:HD12	1:G:188:HIS:HD2	1.65	0.60
1:D:94:GLU:O	1:D:98:GLU:HG3	2.02	0.59
1:E:284:PHE:HB3	1:E:287:GLU:HB2	1.83	0.59
1:E:211:LEU:HD23	1:E:220:VAL:HG13	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:211:LEU:HD23	1:G:220:VAL:HG13	1.83	0.59
1:C:211:LEU:HD23	1:C:220:VAL:HG13	1.83	0.58
1:B:165:VAL:HG11	1:B:200:VAL:HG23	1.86	0.58
1:G:195:ASP:HB2	7:G:645:HOH:O	2.03	0.58
1:H:425:VAL:HG21	1:H:442:LEU:HD22	1.85	0.58
1:H:271:ASP:HA	1:H:381:ARG:HB2	1.86	0.58
1:A:211:LEU:HD23	1:A:220:VAL:HG13	1.86	0.58
1:A:318:LEU:CB	1:B:16:LEU:HD22	2.35	0.57
1:B:211:LEU:HD23	1:B:220:VAL:HG13	1.86	0.57
1:E:323:THR:HG22	1:E:354:LEU:HD12	1.86	0.57
1:G:323:THR:HG22	1:G:354:LEU:HD12	1.85	0.57
1:F:211:LEU:HD23	1:F:220:VAL:HG13	1.87	0.57
1:A:323:THR:HG22	1:A:354:LEU:HD12	1.86	0.56
1:H:46:ASP:HB3	1:H:49:SER:HB2	1.87	0.56
1:E:144:ARG:NH1	1:E:175:GLU:OE2	2.39	0.56
1:E:320:ARG:HG3	1:F:16:LEU:HD11	1.88	0.56
1:D:46:ASP:HB3	1:D:49:SER:HB2	1.88	0.55
1:F:271:ASP:HA	1:F:381:ARG:HB2	1.88	0.55
1:E:318:LEU:HB2	1:F:16:LEU:HD22	1.87	0.55
1:A:318:LEU:HB2	1:B:16:LEU:HD22	1.89	0.55
1:B:271:ASP:HA	1:B:381:ARG:HB2	1.88	0.55
1:A:73:LEU:HB2	7:A:601:HOH:O	2.07	0.54
1:C:253:ARG:HH22	1:C:256:ARG:HH22	1.54	0.54
1:D:271:ASP:HA	1:D:381:ARG:HB2	1.87	0.54
1:E:318:LEU:CB	1:F:16:LEU:HD22	2.37	0.54
1:E:271:ASP:HA	1:E:381:ARG:HB2	1.90	0.54
1:A:324:GLU:HG2	1:A:354:LEU:HD13	1.90	0.54
1:E:324:GLU:HG2	1:E:354:LEU:HD13	1.90	0.54
1:G:249:ILE:O	7:G:601:HOH:O	2.19	0.54
1:E:160:ARG:HG2	1:E:187:ASN:HD21	1.73	0.53
1:G:83:ILE:HG12	1:G:121:ALA:HB3	1.90	0.53
1:D:323:THR:HG22	1:D:354:LEU:HD12	1.91	0.53
1:C:83:ILE:HG12	1:C:121:ALA:HB3	1.90	0.53
1:B:239:VAL:HG22	1:B:272:CYS:HB2	1.91	0.53
1:E:46:ASP:HB3	1:E:49:SER:HB2	1.91	0.53
1:A:271:ASP:HA	1:A:381:ARG:HB2	1.89	0.53
1:C:433:SER:O	1:G:170:ALA:HB1	2.09	0.53
1:H:211:LEU:O	1:H:215:ILE:HG12	2.09	0.53
1:E:83:ILE:HG12	1:E:121:ALA:HB3	1.91	0.53
1:E:212:GLY:HA2	7:E:601:HOH:O	2.07	0.53
1:F:239:VAL:HG22	1:F:272:CYS:HB2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:323:THR:HG22	1:H:354:LEU:HD12	1.90	0.53
1:G:271:ASP:HA	1:G:381:ARG:HB2	1.90	0.52
1:A:83:ILE:HG12	1:A:121:ALA:HB3	1.91	0.52
1:A:320[A]:ARG:HG3	1:B:16:LEU:HD11	1.90	0.52
1:A:46:ASP:HB3	1:A:49:SER:HB2	1.92	0.52
1:G:245:LEU:HD23	1:G:258:GLU:HB3	1.90	0.52
1:H:94:GLU:O	1:H:98:GLU:HG2	2.10	0.52
1:A:419:VAL:HG13	1:A:445:SER:HB2	1.91	0.52
1:C:245:LEU:HD23	1:C:258:GLU:HB3	1.91	0.52
1:H:169[A]:ARG:NE	1:H:181:ILE:HD12	2.23	0.51
1:C:271:ASP:HA	1:C:381:ARG:HB2	1.90	0.51
1:C:313:ARG:HG3	1:C:328:ILE:HD11	1.93	0.51
1:D:211:LEU:O	1:D:215:ILE:HG12	2.09	0.51
1:D:211:LEU:HD23	1:D:220:VAL:HG13	1.93	0.51
1:H:169[B]:ARG:NH1	1:H:176:GLY:O	2.43	0.51
1:H:83:ILE:HG12	1:H:121:ALA:HB3	1.92	0.51
1:C:313:ARG:NH2	1:D:310:GLU:HG2	2.26	0.51
1:A:245:LEU:HD23	1:A:258:GLU:HB3	1.93	0.51
1:B:83:ILE:HG12	1:B:121:ALA:HB3	1.94	0.50
1:G:422:LEU:HD12	1:H:320:ARG:HD2	1.94	0.50
1:C:211:LEU:O	1:C:215:ILE:HG12	2.12	0.50
1:C:324[A]:GLU:HG3	1:C:354:LEU:HD13	1.93	0.50
1:G:439:MET:HE3	1:H:439:MET:HG2	1.94	0.50
1:H:144:ARG:NH2	1:H:175:GLU:OE2	2.44	0.50
1:D:83:ILE:HG12	1:D:121:ALA:HB3	1.92	0.50
1:A:239:VAL:HG22	1:A:272:CYS:HB2	1.94	0.49
1:H:211:LEU:HD23	1:H:220:VAL:HG13	1.93	0.49
1:F:211:LEU:O	1:F:215:ILE:HG12	2.12	0.49
1:A:192:LYS:HE2	1:A:192:LYS:HA	1.94	0.49
1:F:144:ARG:NH1	1:F:175:GLU:OE2	2.46	0.49
1:C:170:ALA:HB1	1:G:433:SER:O	2.13	0.49
1:E:245:LEU:HD23	1:E:258:GLU:HB3	1.93	0.49
1:A:313:ARG:HD2	1:B:332:GLU:OE1	2.12	0.49
1:D:245:LEU:HD23	1:D:258:GLU:HB3	1.95	0.49
1:B:211:LEU:O	1:B:215:ILE:HG12	2.12	0.49
1:E:239:VAL:HG22	1:E:272:CYS:HB2	1.94	0.49
1:G:211:LEU:O	1:G:215:ILE:HG12	2.12	0.49
1:E:295:ILE:HA	1:G:218:GLU:HB2	1.94	0.48
1:F:83:ILE:HG12	1:F:121:ALA:HB3	1.95	0.48
1:H:245:LEU:HD23	1:H:258:GLU:HB3	1.95	0.48
1:H:248:MET:HA	1:H:251:LYS:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:245:LEU:HD23	1:B:258:GLU:HB3	1.95	0.48
1:E:192:LYS:HE2	1:E:192:LYS:HA	1.94	0.48
1:F:253:ARG:HH21	1:H:217:ALA:HB2	1.79	0.48
1:G:172:LEU:HB3	1:G:176:GLY:HA3	1.96	0.48
1:D:206:VAL:HG22	1:D:227:MET:HE3	1.96	0.48
1:F:245:LEU:HD23	1:F:258:GLU:HB3	1.95	0.48
1:D:248:MET:HA	1:D:251:LYS:O	2.13	0.48
1:F:189:GLU:O	1:F:193:ARG:HG2	2.13	0.48
1:H:206:VAL:HG22	1:H:227:MET:HE3	1.96	0.48
1:C:314:ARG:HH21	1:D:306:ARG:HH21	1.61	0.47
1:G:46:ASP:HB3	1:G:49:SER:HB2	1.96	0.47
1:G:248:MET:HA	1:G:251:LYS:O	2.14	0.47
1:F:323:THR:HG22	1:F:354:LEU:HD12	1.97	0.47
1:A:206:VAL:HG22	1:A:227:MET:HE3	1.97	0.47
1:A:211:LEU:O	1:A:215:ILE:HG12	2.15	0.47
1:C:337:CYS:HB3	1:D:325:VAL:HG21	1.97	0.47
1:B:323:THR:HG22	1:B:354:LEU:HD12	1.97	0.47
1:G:324[A]:GLU:HG3	1:G:354:LEU:HD13	1.96	0.47
1:B:440:ARG:HD2	1:B:442[A]:LEU:HD21	1.97	0.47
1:A:295:ILE:HA	1:C:218:GLU:HB2	1.95	0.46
1:D:106:ALA:O	1:D:109:SER:OG	2.26	0.46
1:G:239:VAL:HG22	1:G:272:CYS:HB2	1.97	0.46
1:H:72:ARG:O	1:H:76[A]:MET:HG3	2.15	0.46
1:B:210:ASP:O	1:B:214:GLU:HG2	2.16	0.46
1:D:194:PHE:HE1	1:D:204:ILE:HG21	1.80	0.46
1:E:206:VAL:HG22	1:E:227:MET:HE3	1.96	0.46
1:F:361:ARG:NE	7:F:604:HOH:O	2.48	0.46
1:B:248:MET:HA	1:B:251:LYS:O	2.15	0.46
1:C:46:ASP:HB3	1:C:49:SER:HB2	1.97	0.46
1:D:72:ARG:O	1:D:76[A]:MET:HG3	2.15	0.46
1:E:47:ILE:CD1	1:G:188:HIS:CD2	2.99	0.46
1:G:314:ARG:HD2	1:H:310:GLU:OE2	2.15	0.46
1:A:248:MET:HA	1:A:251:LYS:O	2.15	0.46
1:F:210:ASP:O	1:F:214:GLU:HG2	2.16	0.46
1:C:248:MET:HA	1:C:251:LYS:O	2.15	0.46
1:H:194:PHE:HE1	1:H:204:ILE:HG21	1.80	0.46
1:H:359:ARG:HD3	7:H:614:HOH:O	2.15	0.46
1:A:172:LEU:HB3	1:A:176:GLY:HA3	1.97	0.46
1:D:94:GLU:O	1:D:98:GLU:CG	2.64	0.46
1:F:248:MET:HA	1:F:251:LYS:O	2.15	0.45
1:C:206:VAL:HG22	1:C:227:MET:HE3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:239:VAL:HG22	1:C:272:CYS:HB2	1.98	0.45
1:D:239:VAL:HG22	1:D:272:CYS:HB2	1.98	0.45
1:E:248:MET:HA	1:E:251:LYS:O	2.15	0.45
1:E:211:LEU:O	1:E:215:ILE:HG12	2.17	0.45
1:C:325:VAL:HG21	1:D:337:CYS:HB3	1.99	0.45
1:G:206:VAL:HG22	1:G:227:MET:HE3	1.99	0.45
1:F:172:LEU:HB3	1:F:176:GLY:HA3	1.99	0.45
1:A:318:LEU:HB3	1:B:16:LEU:HD22	1.98	0.45
1:C:249:ILE:HG12	1:C:278:GLU:HA	1.98	0.45
1:F:68:ARG:NE	1:F:95:TYR:CE1	2.85	0.45
1:G:249:ILE:HG12	1:G:278:GLU:HA	1.98	0.45
1:A:387:LEU:HD21	1:A:389:ARG:HE	1.82	0.44
1:C:172:LEU:HB3	1:C:176:GLY:HA3	1.99	0.44
1:F:209:GLY:CA	1:F:242:THR:HG21	2.47	0.44
1:C:354:LEU:O	1:C:357:ARG:HG2	2.18	0.44
1:D:56:SER:HB2	1:D:382:GLY:HA2	2.00	0.44
1:H:94:GLU:O	1:H:98:GLU:CG	2.66	0.44
1:B:68:ARG:NE	1:B:95:TYR:CE1	2.85	0.44
1:B:172:LEU:HB3	1:B:176:GLY:HA3	1.99	0.44
1:D:68:ARG:NE	1:D:95:TYR:CE1	2.86	0.44
1:G:314:ARG:NH2	1:H:306:ARG:HD3	2.33	0.44
1:F:440:ARG:HD2	1:F:442[A]:LEU:HD21	1.98	0.44
1:H:26:GLN:O	1:H:49:SER:OG	2.36	0.44
1:H:56:SER:HB2	1:H:382:GLY:HA2	1.99	0.44
1:A:81:MET:HE2	1:A:81:MET:HB3	1.91	0.44
1:A:215:ILE:HD11	1:A:220:VAL:HA	2.00	0.44
1:E:182:ILE:HG22	1:E:205:MET:HB2	2.00	0.44
1:A:182:ILE:HG22	1:A:205:MET:HB2	2.00	0.44
1:A:439[B]:MET:HE3	1:B:439[B]:MET:HE3	2.00	0.44
1:B:209:GLY:CA	1:B:242:THR:HG21	2.48	0.44
1:G:337:CYS:HB3	1:H:325:VAL:HG21	1.99	0.44
1:E:172:LEU:HB3	1:E:176:GLY:HA3	2.00	0.43
1:F:418:ARG:O	1:F:421:ASP:HB2	2.18	0.43
1:G:354:LEU:O	1:G:357:ARG:HG2	2.18	0.43
1:H:354:LEU:O	1:H:357:ARG:HG2	2.18	0.43
1:B:237:PRO:HB3	1:B:379:LEU:O	2.19	0.43
1:D:192:LYS:HA	1:D:192:LYS:HE2	2.00	0.43
1:H:169[B]:ARG:HA	1:H:169[B]:ARG:HD3	1.89	0.43
1:B:188:HIS:CD2	1:D:47:ILE:HD11	2.53	0.43
1:E:249:ILE:HG12	1:E:278:GLU:HA	2.01	0.43
1:G:81:MET:HE2	1:G:81:MET:HB3	1.93	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:113:SER:HB2	1:C:115:LEU:CG	2.43	0.43
1:D:354:LEU:O	1:D:357:ARG:HG2	2.18	0.43
1:C:422:LEU:HD12	1:D:320:ARG:HD2	2.01	0.43
1:F:206:VAL:HG22	1:F:227:MET:HE3	2.01	0.43
1:G:314:ARG:HG2	7:H:665:HOH:O	2.19	0.43
1:C:189:GLU:HG2	1:C:193:ARG:HD2	2.01	0.43
1:E:35:ALA:HB1	1:E:40[A]:GLU:HB3	2.01	0.43
1:H:186:GLU:HB3	1:H:210:ASP:HB2	2.01	0.43
1:B:206:VAL:HG22	1:B:227:MET:HE3	2.01	0.43
1:H:239:VAL:HG22	1:H:272:CYS:HB2	1.99	0.43
1:C:167:ALA:CB	1:G:430:ARG:HH12	2.32	0.43
1:A:47:ILE:CD1	1:C:188:HIS:CD2	2.99	0.42
1:A:60:ILE:HB	1:A:274:MET:CG	2.37	0.42
1:E:256:ARG:NE	1:G:212:GLY:HA3	2.34	0.42
1:H:350:ARG:HD3	7:H:620:HOH:O	2.19	0.42
1:F:81:MET:HE2	1:F:81:MET:HB3	1.91	0.42
1:B:247:SER:OG	1:B:254:PRO:HA	2.20	0.42
1:C:182:ILE:HG22	1:C:205:MET:HB2	2.01	0.42
1:E:439[B]:MET:HE3	1:F:439[B]:MET:HE3	2.00	0.42
1:C:144:ARG:HD2	1:C:144:ARG:HA	1.88	0.42
1:A:346:THR:OG1	2:A:501:FBP:O4P	2.37	0.42
1:A:391:PRO:HA	1:A:392:PRO:HD3	1.93	0.42
1:D:186:GLU:HB3	1:D:210:ASP:HB2	2.00	0.42
1:G:182:ILE:HG22	1:G:205:MET:HB2	2.01	0.42
1:G:325:VAL:HG21	1:H:337:CYS:HB3	2.00	0.42
1:H:76[B]:MET:HG2	1:H:286:VAL:HG22	2.01	0.42
1:B:186:GLU:HB3	1:B:210:ASP:HB2	2.02	0.42
1:B:215:ILE:HD11	1:B:220:VAL:HA	2.01	0.42
1:F:188:HIS:CD2	1:H:47:ILE:HD11	2.54	0.42
1:A:256:ARG:NE	1:C:212:GLY:HA3	2.34	0.42
1:B:60:ILE:HB	1:B:274:MET:CG	2.39	0.42
1:D:237:PRO:HB3	1:D:379:LEU:O	2.19	0.42
1:E:137:GLU:O	1:E:141:ARG:HD3	2.18	0.42
1:H:209:GLY:CA	1:H:242:THR:HG21	2.49	0.42
1:E:35:ALA:HB2	1:E:44:LEU:HD12	2.00	0.42
1:E:72:ARG:O	1:E:76[A]:MET:HG3	2.20	0.42
1:F:60:ILE:HB	1:F:274:MET:CG	2.39	0.42
1:G:141:ARG:HA	1:G:141:ARG:HD3	1.80	0.42
1:A:186:GLU:HB3	1:A:210:ASP:HB2	2.01	0.42
1:A:420:GLY:O	1:B:320:ARG:NH2	2.53	0.42
1:D:129:PRO:HB3	1:D:134:GLY:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:209:GLY:CA	1:D:242:THR:HG21	2.50	0.42
1:B:147:VAL:HG11	1:B:175:GLU:HG2	2.02	0.42
1:F:194:PHE:HE1	1:F:204:ILE:HG21	1.85	0.42
1:E:223:ALA:O	1:E:227:MET:HG3	2.20	0.41
1:G:153:ILE:HG12	1:G:379:LEU:HD11	2.02	0.41
1:A:354:LEU:O	1:A:357:ARG:HG2	2.20	0.41
1:C:215:ILE:HD11	1:C:220:VAL:HA	2.02	0.41
1:G:114:PRO:HB3	1:G:389:ARG:HE	1.85	0.41
1:D:76[B]:MET:HG2	1:D:286:VAL:HG22	2.02	0.41
1:E:219:LYS:HB3	1:G:47:ILE:HG22	2.02	0.41
1:F:237:PRO:HB3	1:F:379:LEU:O	2.20	0.41
1:G:35:ALA:HB2	1:G:44:LEU:HD12	2.02	0.41
1:H:237:PRO:HB3	1:H:379:LEU:O	2.20	0.41
1:F:71:GLU:O	1:F:75[A]:GLU:HG3	2.21	0.41
1:G:215:ILE:HD11	1:G:220:VAL:HA	2.02	0.41
1:A:72:ARG:O	1:A:76[A]:MET:HG3	2.21	0.41
1:A:223:ALA:O	1:A:227:MET:HG3	2.20	0.41
1:A:249:ILE:HG12	1:A:278:GLU:HA	2.01	0.41
1:A:419:VAL:HA	1:A:444:ILE:HG22	2.02	0.41
1:B:256:ARG:NE	1:D:212:GLY:HA3	2.35	0.41
1:E:215:ILE:HD11	1:E:220:VAL:HA	2.02	0.41
1:E:354:LEU:O	1:E:357:ARG:HG2	2.20	0.41
1:H:175:GLU:CD	1:H:175:GLU:H	2.28	0.41
1:A:35:ALA:HB2	1:A:44:LEU:HD12	2.01	0.41
1:B:418:ARG:O	1:B:421:ASP:HB2	2.20	0.41
1:C:129:PRO:HB3	1:C:134:GLY:O	2.21	0.41
1:C:141:ARG:HD3	1:C:141:ARG:HA	1.82	0.41
1:D:391:PRO:HA	1:D:392:PRO:HD3	1.94	0.41
1:F:129:PRO:HB3	1:F:134:GLY:O	2.21	0.41
1:H:309:PHE:O	1:H:313:ARG:HG3	2.21	0.41
1:C:68:ARG:HH22	1:C:98:GLU:HB3	1.86	0.41
1:F:247:SER:OG	1:F:254:PRO:HA	2.20	0.41
1:H:172:LEU:HB3	1:H:176:GLY:HA3	2.02	0.41
1:B:226:MET:HA	1:D:42:LEU:O	2.21	0.41
1:C:60:ILE:HB	1:C:274:MET:CG	2.38	0.41
1:C:153:ILE:HG12	1:C:379:LEU:HD11	2.01	0.41
1:C:430:ARG:HH12	1:G:167:ALA:CB	2.34	0.41
1:E:194:PHE:HE1	1:E:204:ILE:HG21	1.86	0.41
1:E:390:GLU:H	1:E:390:GLU:HG2	1.64	0.41
1:E:419:VAL:HA	1:E:444:ILE:HG22	2.03	0.41
1:B:81:MET:HE2	1:B:81:MET:HB3	1.91	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:194:PHE:HE1	1:B:204:ILE:HG21	1.85	0.41
1:E:129:PRO:HB3	1:E:134:GLY:O	2.21	0.41
1:G:193:ARG:O	1:G:196:GLU:HG2	2.20	0.41
1:B:47:ILE:HD12	1:D:188:HIS:HD2	1.86	0.40
1:E:186:GLU:HB3	1:E:210:ASP:HB2	2.02	0.40
1:F:226:MET:HA	1:H:42:LEU:O	2.20	0.40
1:A:42:LEU:O	1:C:226:MET:HA	2.21	0.40
1:A:320[B]:ARG:HG3	1:B:16:LEU:HD11	2.03	0.40
1:B:188:HIS:HD2	1:D:47:ILE:HD12	1.87	0.40
1:C:193:ARG:O	1:C:196:GLU:HG2	2.21	0.40
1:F:186:GLU:HB3	1:F:210:ASP:HB2	2.03	0.40
1:A:387:LEU:CD2	1:A:389:ARG:HE	2.33	0.40
1:C:369:ARG:NH2	1:C:388:TYR:HE2	2.20	0.40
1:F:106:ALA:O	1:F:109:SER:OG	2.30	0.40
1:F:215:ILE:HD11	1:F:220:VAL:HA	2.01	0.40
1:A:369:ARG:NH2	1:A:388:TYR:HE2	2.20	0.40
1:E:81:MET:HE2	1:E:81:MET:HB3	1.90	0.40
1:F:212:GLY:HA3	1:H:256:ARG:HE	1.85	0.40
1:H:104:ARG:O	1:H:108:GLU:HG2	2.22	0.40
1:H:147:VAL:HG11	1:H:175:GLU:HG2	2.02	0.40

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)
1:F:413:LEU:O	1:F:413:LEU:O[2_656]	2.19	0.01

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	424/447 (95%)	409 (96%)	15 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	438/447 (98%)	422 (96%)	16 (4%)	0	100	100
1	C	425/447 (95%)	412 (97%)	13 (3%)	0	100	100
1	D	429/447 (96%)	415 (97%)	13 (3%)	1 (0%)	43	56
1	E	420/447 (94%)	406 (97%)	14 (3%)	0	100	100
1	F	435/447 (97%)	419 (96%)	16 (4%)	0	100	100
1	G	423/447 (95%)	410 (97%)	13 (3%)	0	100	100
1	H	427/447 (96%)	415 (97%)	11 (3%)	1 (0%)	43	56
All	All	3421/3576 (96%)	3308 (97%)	111 (3%)	2 (0%)	48	61

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	D	130	GLY
1	H	130	GLY

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	340/352 (97%)	325 (96%)	15 (4%)	25	38
1	B	349/352 (99%)	334 (96%)	15 (4%)	26	39
1	C	341/352 (97%)	330 (97%)	11 (3%)	34	51
1	D	342/352 (97%)	324 (95%)	18 (5%)	20	31
1	E	338/352 (96%)	324 (96%)	14 (4%)	27	41
1	F	350/352 (99%)	336 (96%)	14 (4%)	28	42
1	G	340/352 (97%)	326 (96%)	14 (4%)	27	41
1	H	340/352 (97%)	325 (96%)	15 (4%)	25	38
All	All	2740/2816 (97%)	2624 (96%)	116 (4%)	28	40

All (116) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	55	ARG
1	A	68	ARG
1	A	72	ARG
1	A	115	LEU
1	A	160	ARG
1	A	161	LYS
1	A	186	GLU
1	A	205	MET
1	A	313	ARG
1	A	328	ILE
1	A	389	ARG
1	A	439[A]	MET
1	A	439[B]	MET
1	A	442	LEU
1	A	445	SER
1	B	15	GLN
1	B	26	GLN
1	B	55	ARG
1	B	68	ARG
1	B	71	GLU
1	B	161	LYS
1	B	165	VAL
1	B	186	GLU
1	B	205	MET
1	B	251	LYS
1	B	281	LYS
1	B	314	ARG
1	B	390	GLU
1	B	413	LEU
1	B	423	VAL
1	C	55	ARG
1	C	68	ARG
1	C	89	SER
1	C	115	LEU
1	C	161	LYS
1	C	186	GLU
1	C	205	MET
1	C	314	ARG
1	C	324[A]	GLU
1	C	324[B]	GLU
1	C	390	GLU
1	D	22	THR
1	D	55	ARG

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Mol	Chain	Res	Type
1	D	68	ARG
1	D	89	SER
1	D	98	GLU
1	D	115	LEU
1	D	161	LYS
1	D	175	GLU
1	D	177[A]	HIS
1	D	177[B]	HIS
1	D	186	GLU
1	D	205	MET
1	D	260	SER
1	D	372	GLN
1	D	390	GLU
1	D	423	VAL
1	D	440	ARG
1	D	442	LEU
1	E	55	ARG
1	E	68	ARG
1	E	71	GLU
1	E	115	LEU
1	E	144	ARG
1	E	161	LYS
1	E	186	GLU
1	E	205	MET
1	E	314	ARG
1	E	390	GLU
1	E	413	LEU
1	E	439[A]	MET
1	E	439[B]	MET
1	E	441	VAL
1	F	15	GLN
1	F	26	GLN
1	F	55	ARG
1	F	68	ARG
1	F	115	LEU
1	F	161	LYS
1	F	186	GLU
1	F	193	ARG
1	F	205	MET
1	F	390	GLU
1	F	413	LEU
1	F	418	ARG

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Mol	Chain	Res	Type
1	F	423	VAL
1	F	433	SER
1	G	26	GLN
1	G	55	ARG
1	G	68	ARG
1	G	89	SER
1	G	115	LEU
1	G	161	LYS
1	G	175	GLU
1	G	186	GLU
1	G	205	MET
1	G	276[A]	SER
1	G	276[B]	SER
1	G	324[A]	GLU
1	G	324[B]	GLU
1	G	390	GLU
1	H	22	THR
1	H	55	ARG
1	H	89	SER
1	H	98	GLU
1	H	115	LEU
1	H	144	ARG
1	H	161	LYS
1	H	177[A]	HIS
1	H	177[B]	HIS
1	H	186	GLU
1	H	205	MET
1	H	213	ILE
1	H	260	SER
1	H	390	GLU
1	H	439	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (7) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	188	HIS
1	B	283	ASN
1	D	138	GLN
1	F	188	HIS
1	F	283	ASN
1	G	177	HIS
1	H	138	GLN

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 oligosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 36 ligands modelled in this entry, 16 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$
2	FBP	G	501	-	18,20,20	0.37	0	21,32,32	0.57	0
6	WVX	B	505	-	33,33,33	2.31	9 (27%)	46,50,50	1.78	12 (26%)
3	OXL	G	502	-	5,5,5	1.92	2 (40%)	6,6,6	2.30	3 (50%)
2	FBP	D	501	-	18,20,20	0.50	0	21,32,32	0.57	0
3	OXL	H	502	4	5,5,5	2.08	2 (40%)	6,6,6	1.35	1 (16%)
2	FBP	H	501	-	18,20,20	0.41	0	21,32,32	0.63	0
3	OXL	E	502	4	5,5,5	2.12	2 (40%)	6,6,6	1.63	2 (33%)
3	OXL	D	502	4	5,5,5	2.00	2 (40%)	6,6,6	2.33	3 (50%)
2	FBP	E	501	-	18,20,20	0.35	0	21,32,32	0.61	0
6	WVX	E	505	-	33,33,33	2.66	9 (27%)	46,50,50	1.48	8 (17%)
3	OXL	A	502	-	5,5,5	2.02	2 (40%)	6,6,6	1.84	2 (33%)
3	OXL	C	502	-	5,5,5	2.18	2 (40%)	6,6,6	1.26	1 (16%)
3	OXL	B	502	4	5,5,5	2.11	2 (40%)	6,6,6	1.34	1 (16%)
2	FBP	B	501	-	18,20,20	0.45	0	21,32,32	0.63	0
2	FBP	F	501	-	18,20,20	0.37	0	21,32,32	0.67	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	FBP	C	501	-	18,20,20	0.33	0	21,32,32	0.85	2 (9%)
2	FBP	A	501	-	18,20,20	0.35	0	21,32,32	0.73	0
3	OXL	F	502	4	5,5,5	1.94	2 (40%)	6,6,6	1.49	1 (16%)
6	WVX	A	505	-	33,33,33	2.61	8 (24%)	46,50,50	1.51	8 (17%)
6	WVX	F	505	-	33,33,33	2.27	9 (27%)	46,50,50	1.72	9 (19%)

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	FBP	G	501	-	-	8/13/32/32	0/1/1/1
6	WVX	B	505	-	-	0/24/24/24	0/4/4/4
3	OXL	G	502	-	-	4/4/4/4	-
2	FBP	D	501	-	-	8/13/32/32	0/1/1/1
3	OXL	H	502	4	-	4/4/4/4	-
2	FBP	H	501	-	-	7/13/32/32	0/1/1/1
3	OXL	E	502	4	-	4/4/4/4	-
3	OXL	D	502	4	-	4/4/4/4	-
2	FBP	E	501	-	-	7/13/32/32	0/1/1/1
6	WVX	E	505	-	-	1/24/24/24	0/4/4/4
3	OXL	A	502	-	-	4/4/4/4	-
3	OXL	C	502	-	-	4/4/4/4	-
3	OXL	B	502	4	-	4/4/4/4	-
2	FBP	B	501	-	-	8/13/32/32	0/1/1/1
2	FBP	F	501	-	-	7/13/32/32	0/1/1/1
2	FBP	C	501	-	-	8/13/32/32	0/1/1/1
2	FBP	A	501	-	-	6/13/32/32	0/1/1/1
3	OXL	F	502	4	-	0/4/4/4	-
6	WVX	A	505	-	-	1/24/24/24	0/4/4/4
6	WVX	F	505	-	-	0/24/24/24	0/4/4/4

All (51) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	E	505	WVX	C8-S1	-7.57	1.65	1.77
6	E	505	WVX	C7-S1	-6.88	1.66	1.77

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	E	505	WVX	C2-S	-6.70	1.66	1.77
6	A	505	WVX	C3-S	-6.69	1.66	1.77
6	A	505	WVX	C2-S	-6.68	1.66	1.77
6	A	505	WVX	C8-S1	-6.51	1.67	1.77
6	B	505	WVX	C3-S	-5.73	1.68	1.77
6	B	505	WVX	C7-S1	-5.42	1.68	1.77
6	F	505	WVX	C2-S	-5.34	1.68	1.77
6	F	505	WVX	C7-S1	-5.17	1.69	1.77
6	F	505	WVX	C3-S	-5.13	1.69	1.77
6	B	505	WVX	C2-S	-4.94	1.69	1.77
6	B	505	WVX	C8-S1	-4.92	1.69	1.77
6	A	505	WVX	C7-S1	-4.81	1.69	1.77
6	F	505	WVX	C8-S1	-4.63	1.69	1.77
6	E	505	WVX	C3-S	-4.59	1.69	1.77
6	E	505	WVX	C16-C3	4.51	1.45	1.38
6	A	505	WVX	C6-C7	4.42	1.45	1.38
3	C	502	OXL	O2-C2	3.87	1.32	1.22
6	A	505	WVX	C16-C3	3.76	1.44	1.38
3	A	502	OXL	O2-C2	3.69	1.31	1.22
3	H	502	OXL	O2-C2	3.65	1.31	1.22
6	F	505	WVX	C6-C7	3.60	1.44	1.38
6	B	505	WVX	C6-C7	3.59	1.44	1.38
3	E	502	OXL	O2-C2	3.59	1.31	1.22
3	D	502	OXL	O2-C2	3.50	1.31	1.22
3	F	502	OXL	O2-C2	3.39	1.30	1.22
3	B	502	OXL	O4-C2	-3.31	1.21	1.30
6	F	505	WVX	C9-C8	3.30	1.44	1.38
6	E	505	WVX	C6-C7	3.24	1.43	1.38
6	F	505	WVX	C17-C2	3.23	1.43	1.38
6	B	505	WVX	C9-C8	3.20	1.43	1.38
6	B	505	WVX	C16-C3	3.19	1.43	1.38
3	G	502	OXL	O2-C2	3.18	1.30	1.22
6	B	505	WVX	C17-C2	3.12	1.43	1.38
3	B	502	OXL	O2-C2	3.11	1.30	1.22
6	F	505	WVX	C16-C3	3.01	1.43	1.38
3	E	502	OXL	O4-C2	-2.97	1.22	1.30
6	E	505	WVX	C17-C2	2.95	1.43	1.38
3	C	502	OXL	O4-C2	-2.90	1.22	1.30
3	H	502	OXL	O4-C2	-2.80	1.22	1.30
6	A	505	WVX	C11-C12	2.78	1.44	1.39
6	A	505	WVX	C9-C8	2.78	1.43	1.38
3	D	502	OXL	O4-C2	-2.72	1.23	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	F	502	OXL	O4-C2	-2.70	1.23	1.30
3	G	502	OXL	O4-C2	-2.69	1.23	1.30
6	B	505	WVX	C11-C12	2.57	1.43	1.39
3	A	502	OXL	O4-C2	-2.55	1.23	1.30
6	E	505	WVX	C9-C8	2.36	1.42	1.38
6	F	505	WVX	C11-C12	2.32	1.43	1.39
6	E	505	WVX	C11-C12	2.21	1.43	1.39

All (53) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	505	WVX	C3-S-C2	-4.44	96.23	104.37
6	F	505	WVX	C4-C3-S	4.39	124.97	119.14
6	B	505	WVX	O3-S1-C8	4.38	113.34	107.96
6	F	505	WVX	C3-S-C2	-4.26	96.57	104.37
3	G	502	OXL	O4-C2-C1	4.00	120.59	112.83
6	B	505	WVX	C4-C3-S	3.80	124.20	119.14
3	D	502	OXL	O4-C2-C1	3.75	120.10	112.83
3	A	502	OXL	O4-C2-C1	3.56	119.75	112.83
6	E	505	WVX	C15-C5-N	3.56	124.21	121.00
6	A	505	WVX	C5-C15-N1	3.48	124.14	121.00
3	D	502	OXL	O3-C1-C2	3.23	119.10	112.83
6	F	505	WVX	C5-C15-N1	3.23	123.92	121.00
6	A	505	WVX	C4-C3-S	3.13	123.30	119.14
6	B	505	WVX	C5-C15-N1	3.12	123.82	121.00
3	F	502	OXL	O4-C2-C1	3.07	118.79	112.83
6	F	505	WVX	O5-S-C2	3.05	111.71	107.96
6	F	505	WVX	C9-C8-S1	3.03	123.44	119.49
3	E	502	OXL	O4-C2-C1	2.93	118.52	112.83
3	G	502	OXL	O3-C1-C2	2.93	118.52	112.83
6	E	505	WVX	C18-C17-C2	2.93	121.94	118.95
6	A	505	WVX	C10-C9-C8	2.91	121.92	118.95
6	B	505	WVX	O4-S-C2	2.88	111.50	107.96
3	H	502	OXL	O4-C2-C1	2.77	118.20	112.83
6	F	505	WVX	C10-C9-C8	2.75	121.75	118.95
6	F	505	WVX	O3-S1-C8	2.74	111.33	107.96
6	F	505	WVX	C18-C17-C2	2.70	121.71	118.95
6	B	505	WVX	C10-C9-C8	2.65	121.66	118.95
6	A	505	WVX	C9-C8-S1	2.58	122.86	119.49
2	C	501	FBP	O1-P1-O1P	2.54	113.31	106.44
6	E	505	WVX	C10-C9-C8	2.52	121.53	118.95
3	B	502	OXL	O4-C2-C1	2.49	117.67	112.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	E	505	WVX	C5-C15-N1	2.46	123.22	121.00
6	B	505	WVX	C18-C17-C2	2.45	121.45	118.95
6	E	505	WVX	C9-C8-S1	2.43	122.65	119.49
3	C	502	OXL	O4-C2-C1	2.42	117.52	112.83
3	G	502	OXL	O2-C2-C1	-2.40	115.62	120.63
6	F	505	WVX	C9-C8-C13	-2.38	117.74	120.68
6	B	505	WVX	C9-C8-C13	-2.35	117.77	120.68
3	E	502	OXL	O3-C1-C2	2.30	117.30	112.83
6	A	505	WVX	O2-S1-C7	2.30	110.78	107.96
3	D	502	OXL	O2-C2-C1	-2.28	115.87	120.63
6	B	505	WVX	C9-C8-S1	2.28	122.46	119.49
6	A	505	WVX	C15-C5-N	2.28	123.06	121.00
6	B	505	WVX	O-C-C1	-2.23	114.01	119.85
2	C	501	FBP	O6-P2-O4P	2.14	112.21	106.44
6	B	505	WVX	C7-S1-C8	-2.13	100.48	104.37
6	B	505	WVX	C17-C2-C1	-2.12	118.05	120.68
6	A	505	WVX	C18-C17-C2	2.12	121.11	118.95
6	A	505	WVX	O-C-C1	-2.09	114.38	119.85
6	E	505	WVX	C4-C3-S	2.08	121.90	119.14
6	E	505	WVX	C14-C7-S1	2.07	121.89	119.14
3	A	502	OXL	O2-C2-C1	-2.06	116.33	120.63
6	E	505	WVX	O4-S-C2	2.05	110.47	107.96

There are no chirality outliers.

All (89) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	501	FBP	O1-C1-C2-O5
2	B	501	FBP	C1-O1-P1-O2P
2	B	501	FBP	O1-C1-C2-O5
2	C	501	FBP	O1-C1-C2-C3
2	C	501	FBP	O1-C1-C2-O5
2	D	501	FBP	C1-O1-P1-O2P
2	D	501	FBP	C1-O1-P1-O3P
2	D	501	FBP	O1-C1-C2-O2
2	D	501	FBP	O1-C1-C2-C3
2	D	501	FBP	O1-C1-C2-O5
2	E	501	FBP	C1-O1-P1-O2P
2	E	501	FBP	O1-C1-C2-O5
2	F	501	FBP	O1-C1-C2-O5
2	G	501	FBP	C1-O1-P1-O3P
2	G	501	FBP	O1-C1-C2-C3

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Mol	Chain	Res	Type	Atoms
2	G	501	FBP	O1-C1-C2-O5
2	H	501	FBP	C1-O1-P1-O2P
2	H	501	FBP	C1-O1-P1-O3P
2	H	501	FBP	O1-C1-C2-O2
2	H	501	FBP	O1-C1-C2-C3
2	H	501	FBP	O1-C1-C2-O5
2	A	501	FBP	C4-C5-C6-O6
2	B	501	FBP	C4-C5-C6-O6
2	C	501	FBP	C4-C5-C6-O6
2	D	501	FBP	C4-C5-C6-O6
2	E	501	FBP	C4-C5-C6-O6
2	F	501	FBP	C4-C5-C6-O6
2	G	501	FBP	C4-C5-C6-O6
2	H	501	FBP	C4-C5-C6-O6
2	A	501	FBP	O5-C5-C6-O6
2	B	501	FBP	O5-C5-C6-O6
2	C	501	FBP	O5-C5-C6-O6
2	D	501	FBP	O5-C5-C6-O6
2	E	501	FBP	O5-C5-C6-O6
2	F	501	FBP	O5-C5-C6-O6
2	G	501	FBP	O5-C5-C6-O6
2	H	501	FBP	O5-C5-C6-O6
2	B	501	FBP	C1-O1-P1-O1P
2	D	501	FBP	C1-O1-P1-O1P
2	E	501	FBP	C1-O1-P1-O1P
2	G	501	FBP	C1-O1-P1-O1P
6	A	505	WVX	C6-C7-S1-O3
6	E	505	WVX	C16-C3-S-O4
2	A	501	FBP	C1-O1-P1-O2P
2	B	501	FBP	C1-O1-P1-O3P
2	C	501	FBP	C1-O1-P1-O2P
2	C	501	FBP	C1-O1-P1-O3P
2	E	501	FBP	C1-O1-P1-O3P
2	F	501	FBP	C1-O1-P1-O2P
2	G	501	FBP	C1-O1-P1-O2P
3	G	502	OXL	O3-C1-C2-O4
3	A	502	OXL	O3-C1-C2-O4
3	B	502	OXL	O3-C1-C2-O4
3	D	502	OXL	O3-C1-C2-O4
3	E	502	OXL	O3-C1-C2-O4
3	H	502	OXL	O3-C1-C2-O4
3	A	502	OXL	O1-C1-C2-O2

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Mol	Chain	Res	Type	Atoms
3	B	502	OXL	O1-C1-C2-O2
3	C	502	OXL	O1-C1-C2-O2
3	D	502	OXL	O1-C1-C2-O2
3	E	502	OXL	O1-C1-C2-O2
3	G	502	OXL	O1-C1-C2-O2
3	H	502	OXL	O1-C1-C2-O2
3	C	502	OXL	O3-C1-C2-O4
2	B	501	FBP	O1-C1-C2-O2
2	C	501	FBP	O1-C1-C2-O2
2	F	501	FBP	O1-C1-C2-O2
2	G	501	FBP	O1-C1-C2-O2
2	A	501	FBP	C1-O1-P1-O1P
2	C	501	FBP	C1-O1-P1-O1P
2	F	501	FBP	C1-O1-P1-O1P
2	A	501	FBP	O1-C1-C2-C3
2	B	501	FBP	O1-C1-C2-C3
2	E	501	FBP	O1-C1-C2-C3
2	F	501	FBP	O1-C1-C2-C3
3	B	502	OXL	O1-C1-C2-O4
3	G	502	OXL	O3-C1-C2-O2
3	A	502	OXL	O1-C1-C2-O4
3	D	502	OXL	O1-C1-C2-O4
3	E	502	OXL	O3-C1-C2-O2
3	G	502	OXL	O1-C1-C2-O4
3	H	502	OXL	O3-C1-C2-O2
3	A	502	OXL	O3-C1-C2-O2
3	C	502	OXL	O1-C1-C2-O4
3	D	502	OXL	O3-C1-C2-O2
3	E	502	OXL	O1-C1-C2-O4
3	H	502	OXL	O1-C1-C2-O4
3	B	502	OXL	O3-C1-C2-O2
3	C	502	OXL	O3-C1-C2-O2

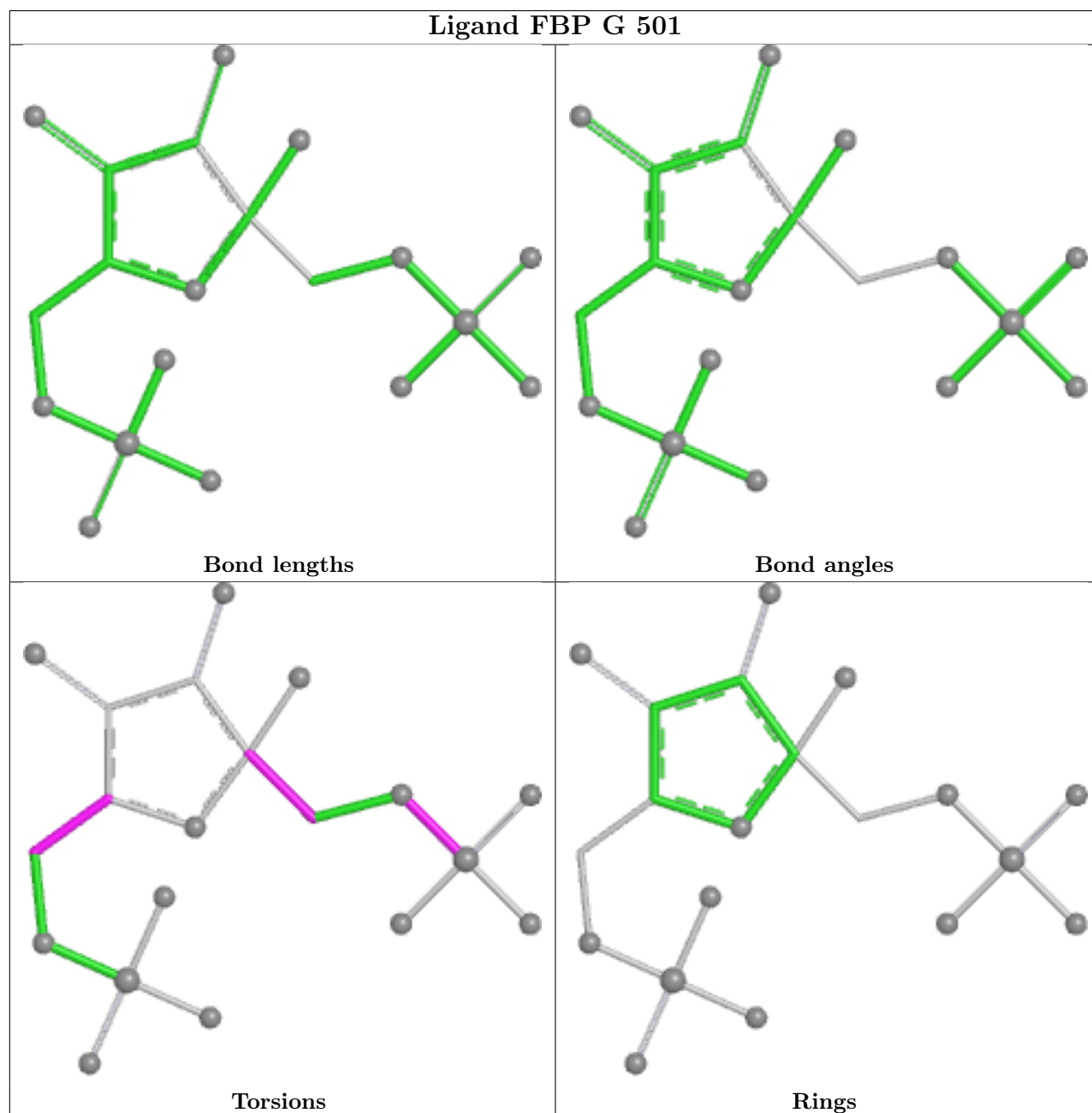
There are no ring outliers.

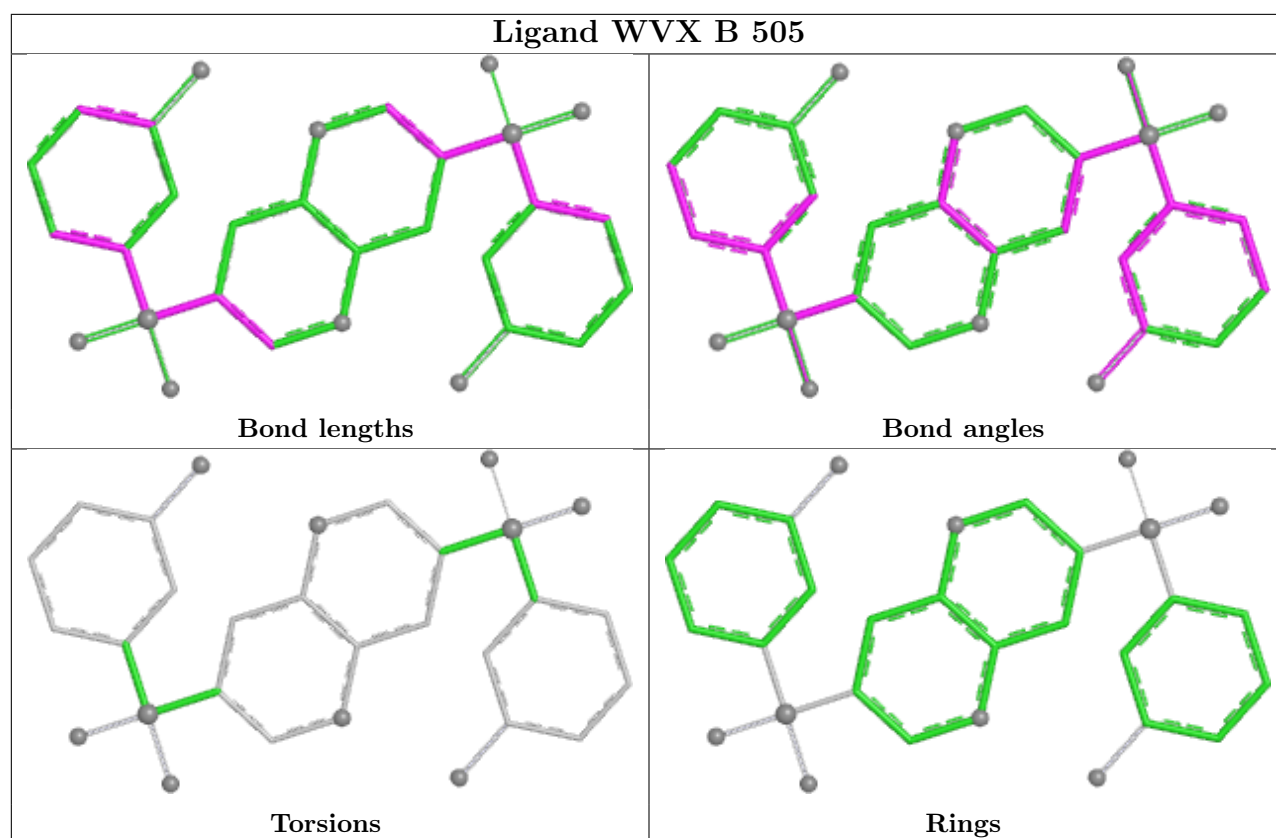
1 monomer is involved in 1 short contact:

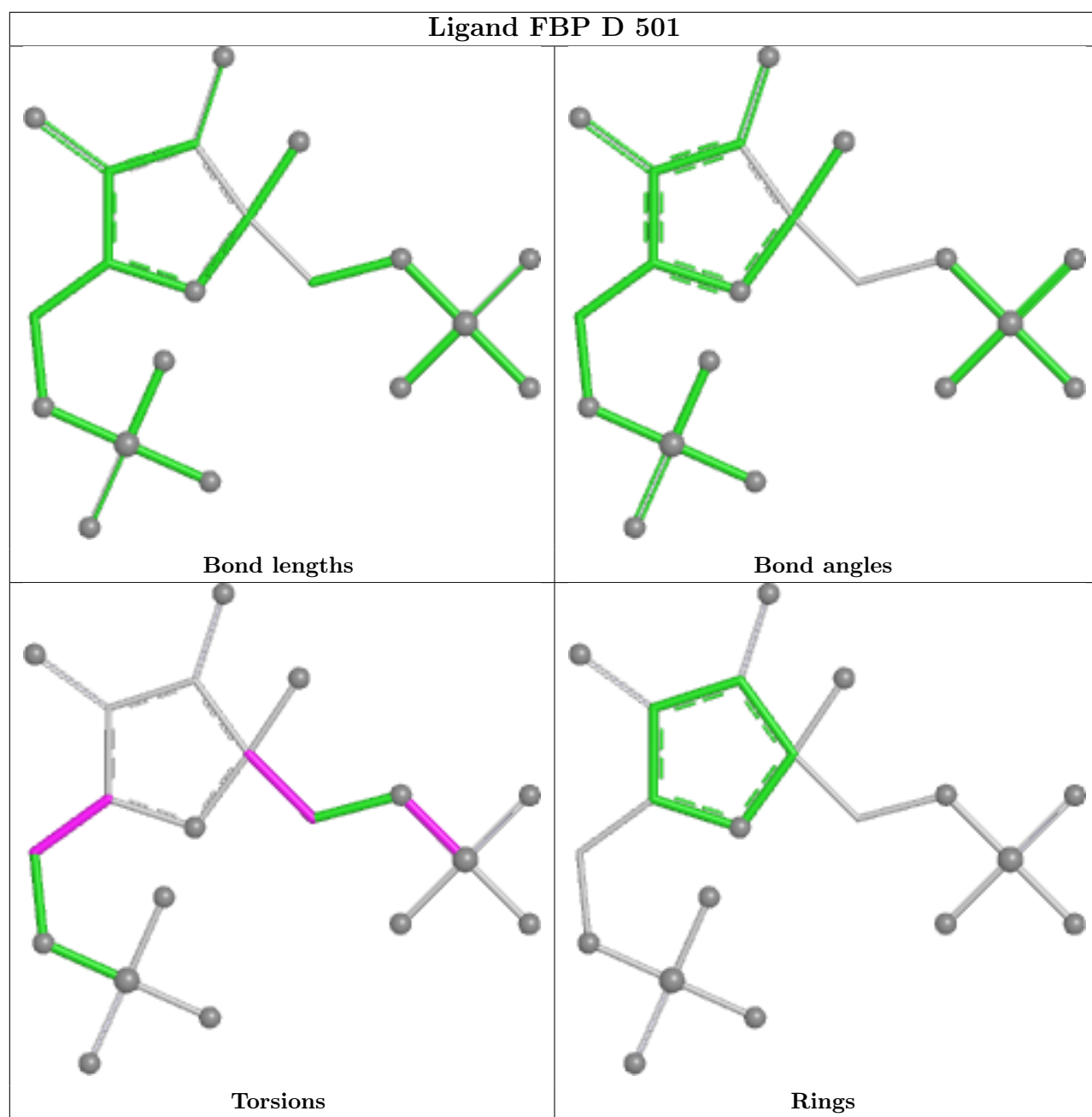
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	501	FBP	1	0

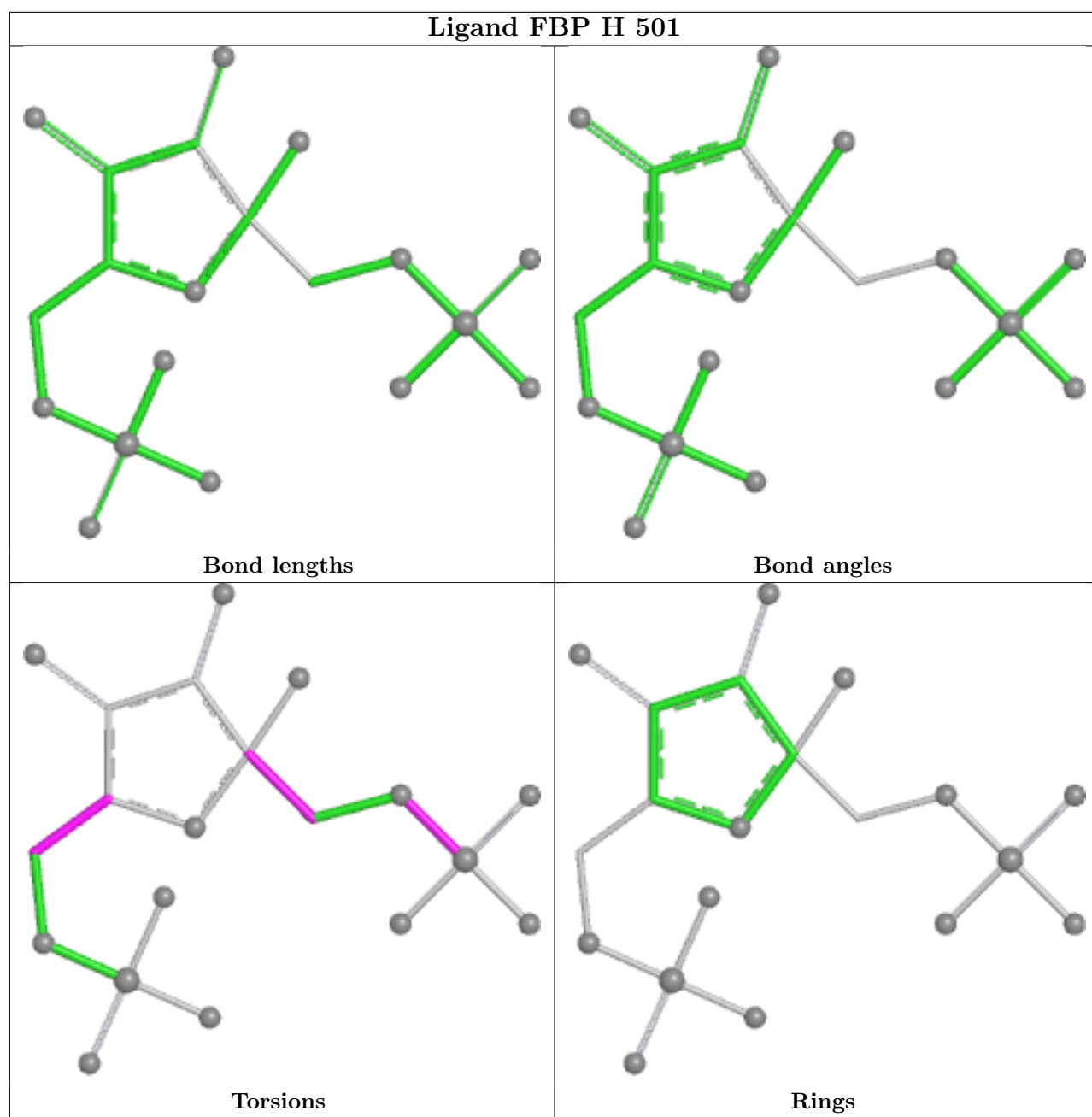
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will

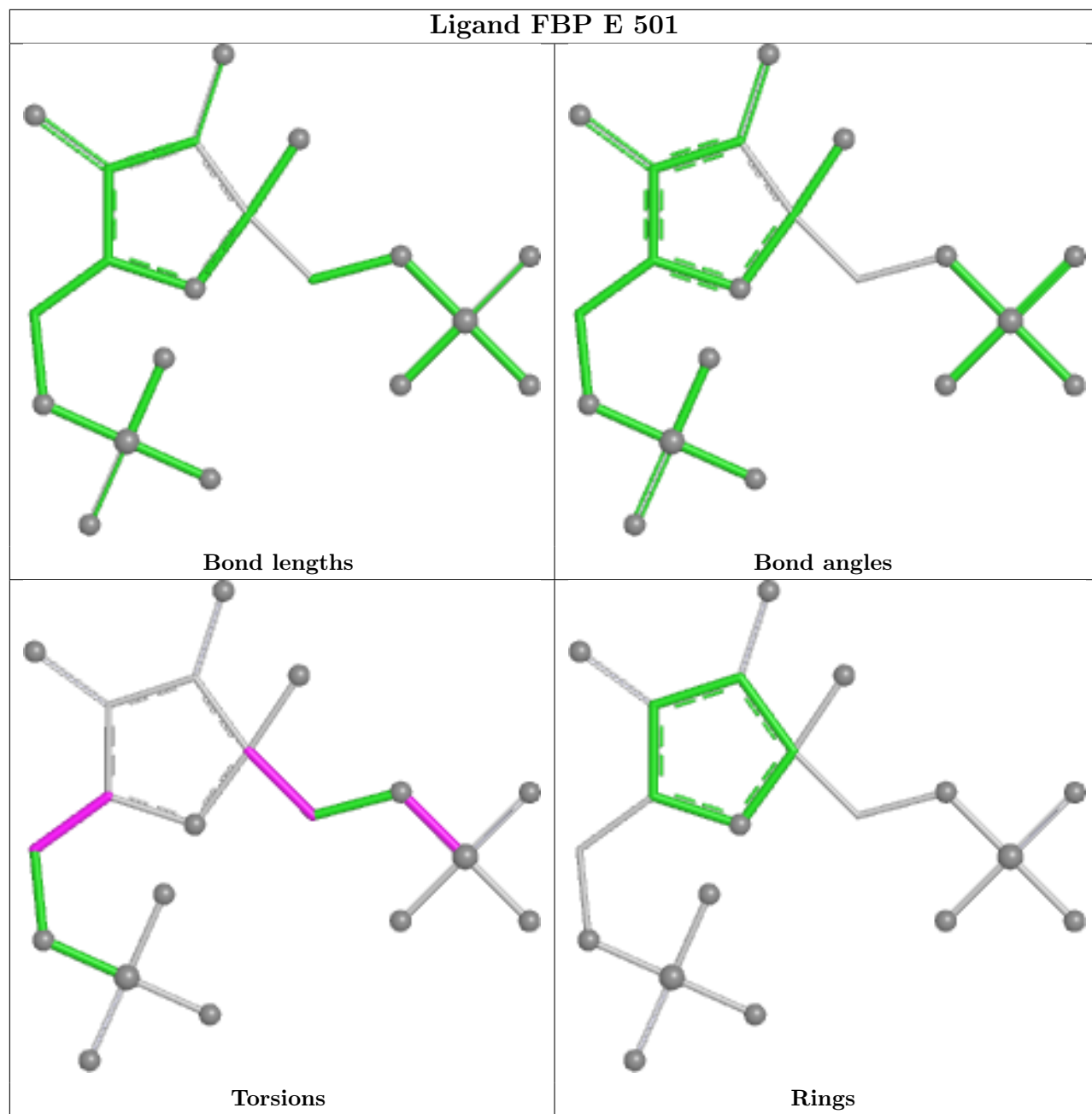
also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted 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.

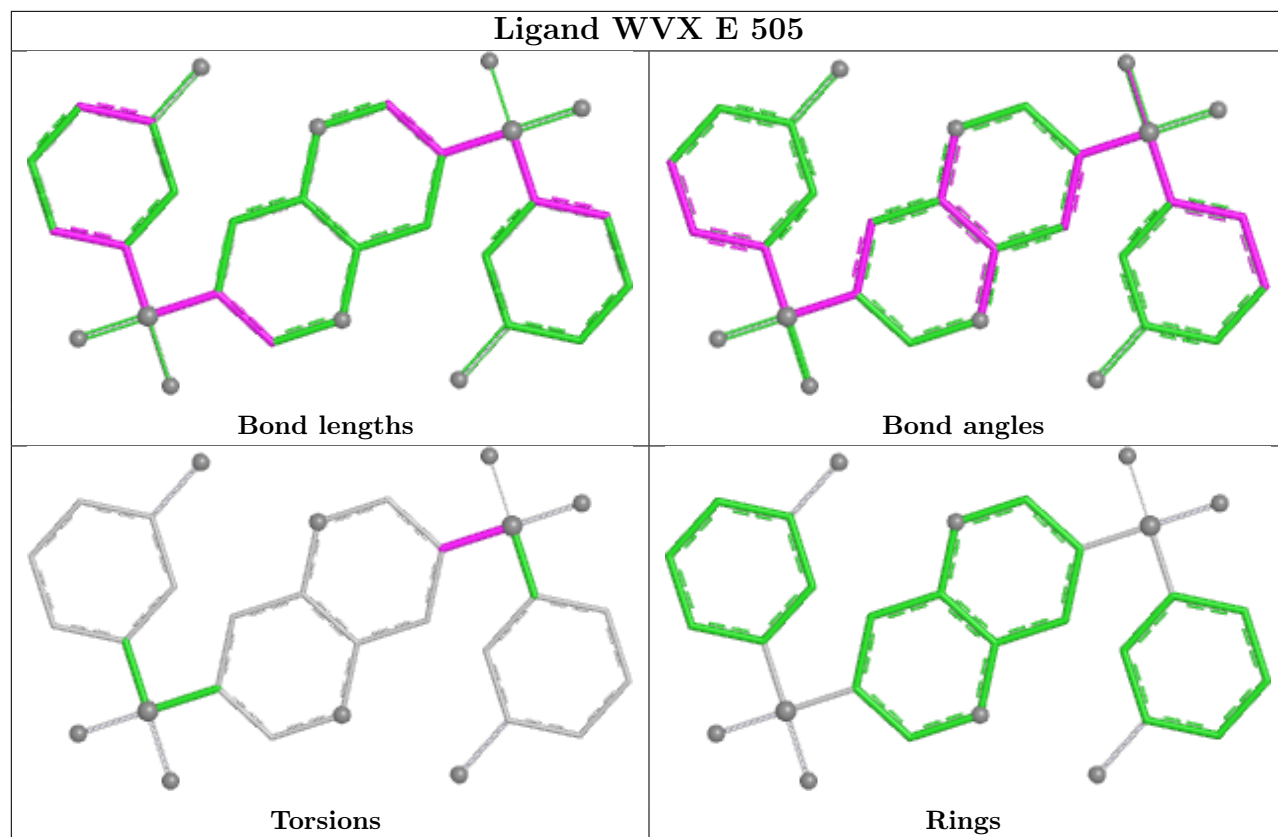


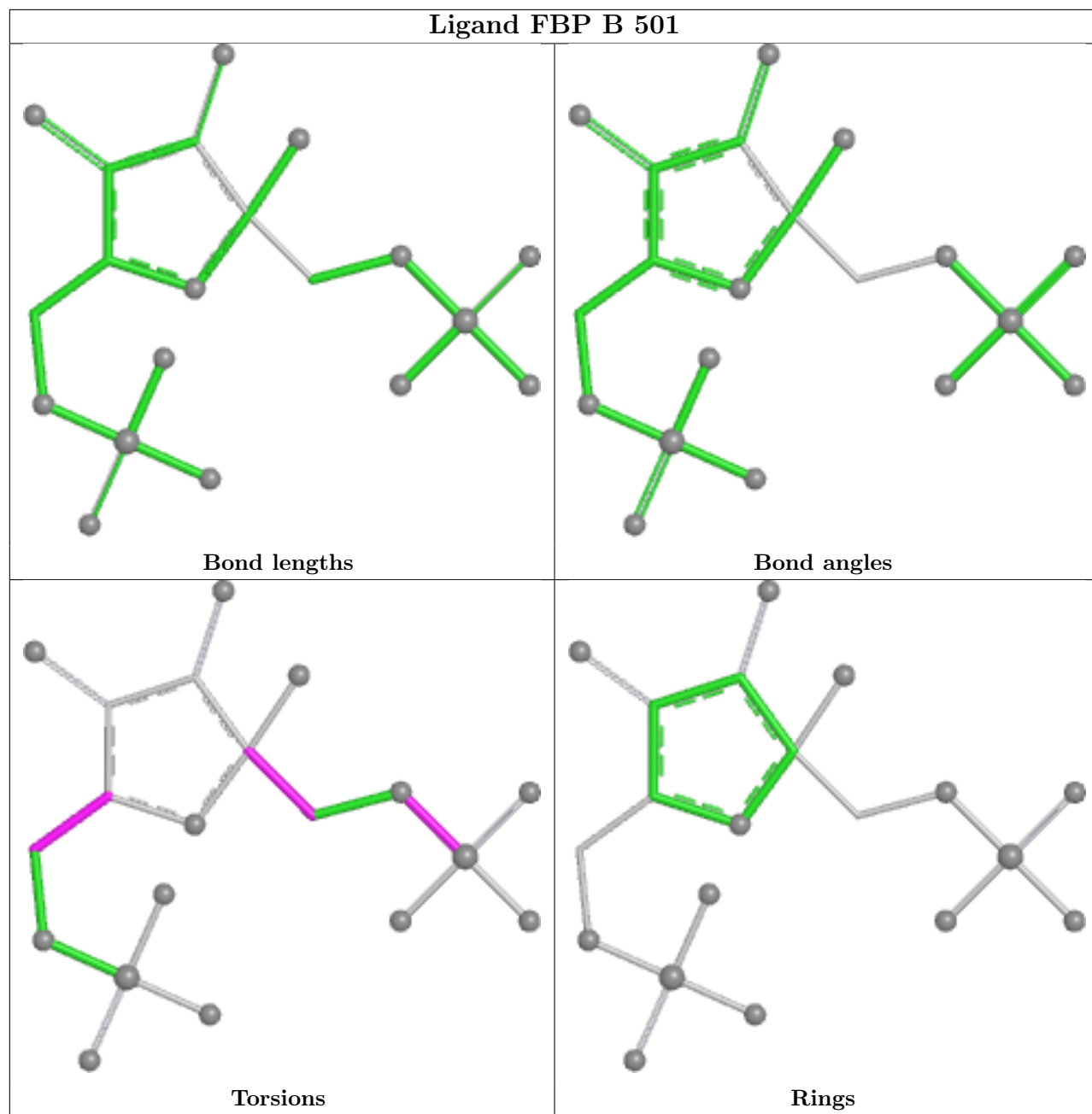




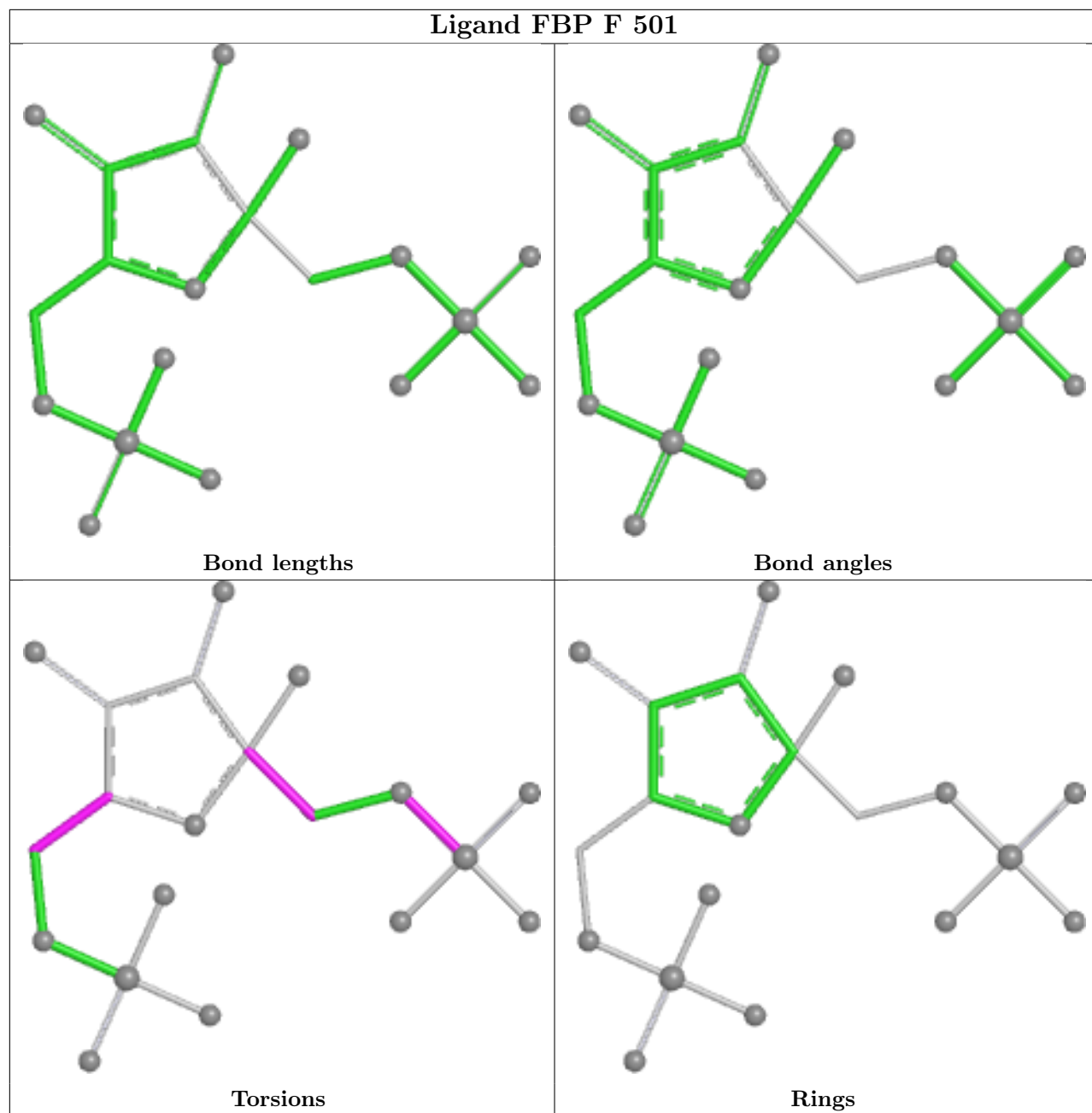


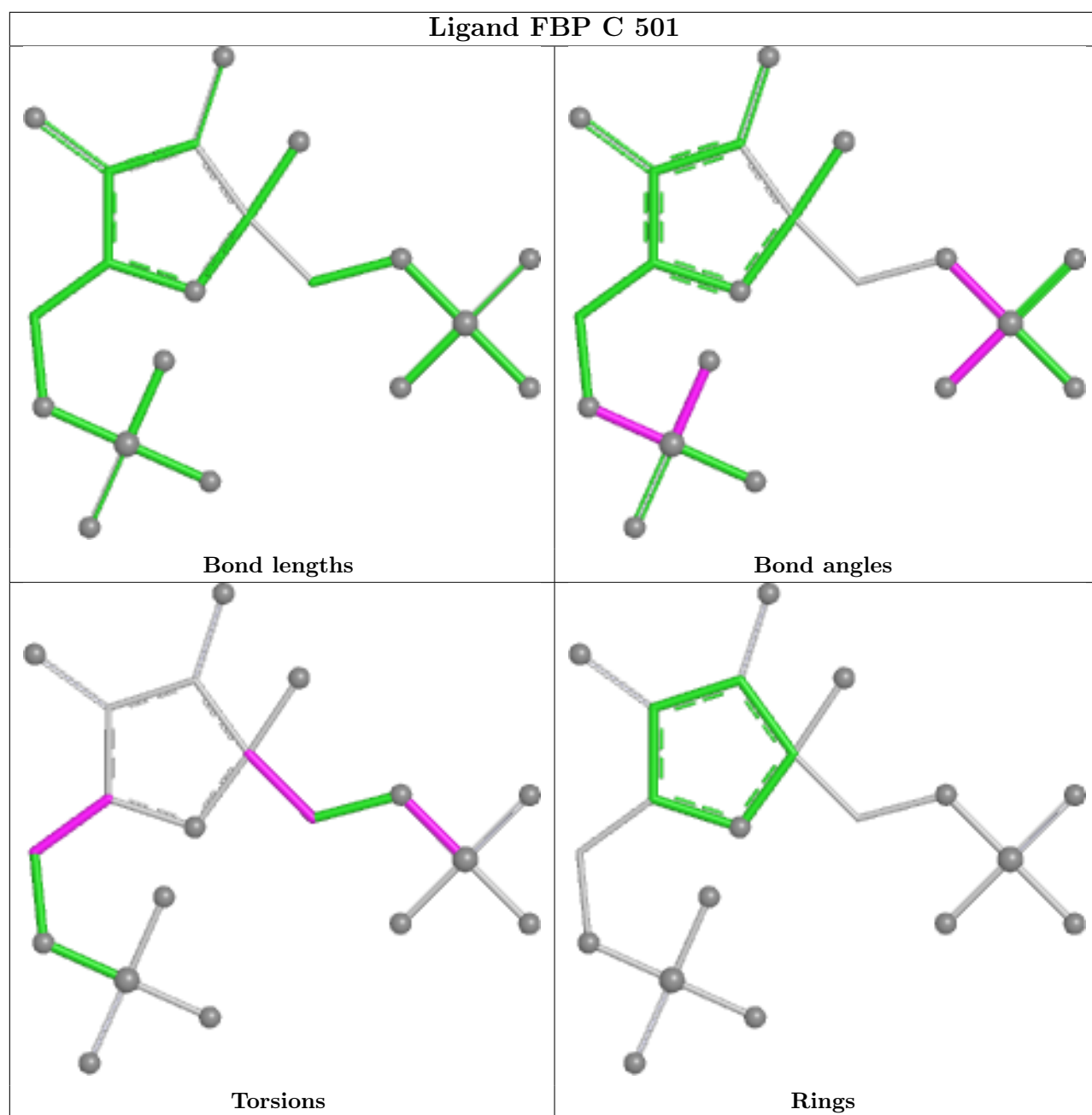


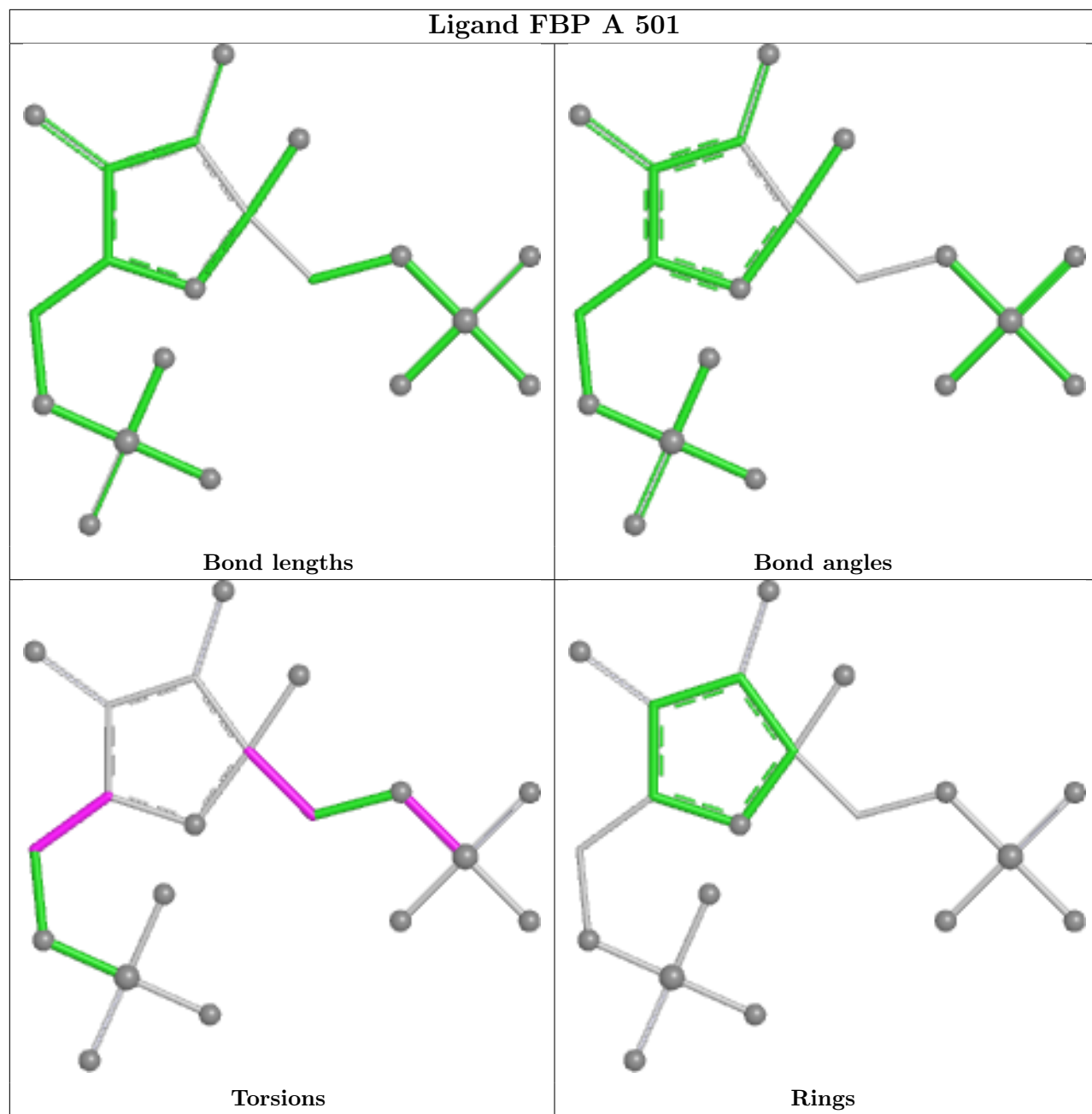


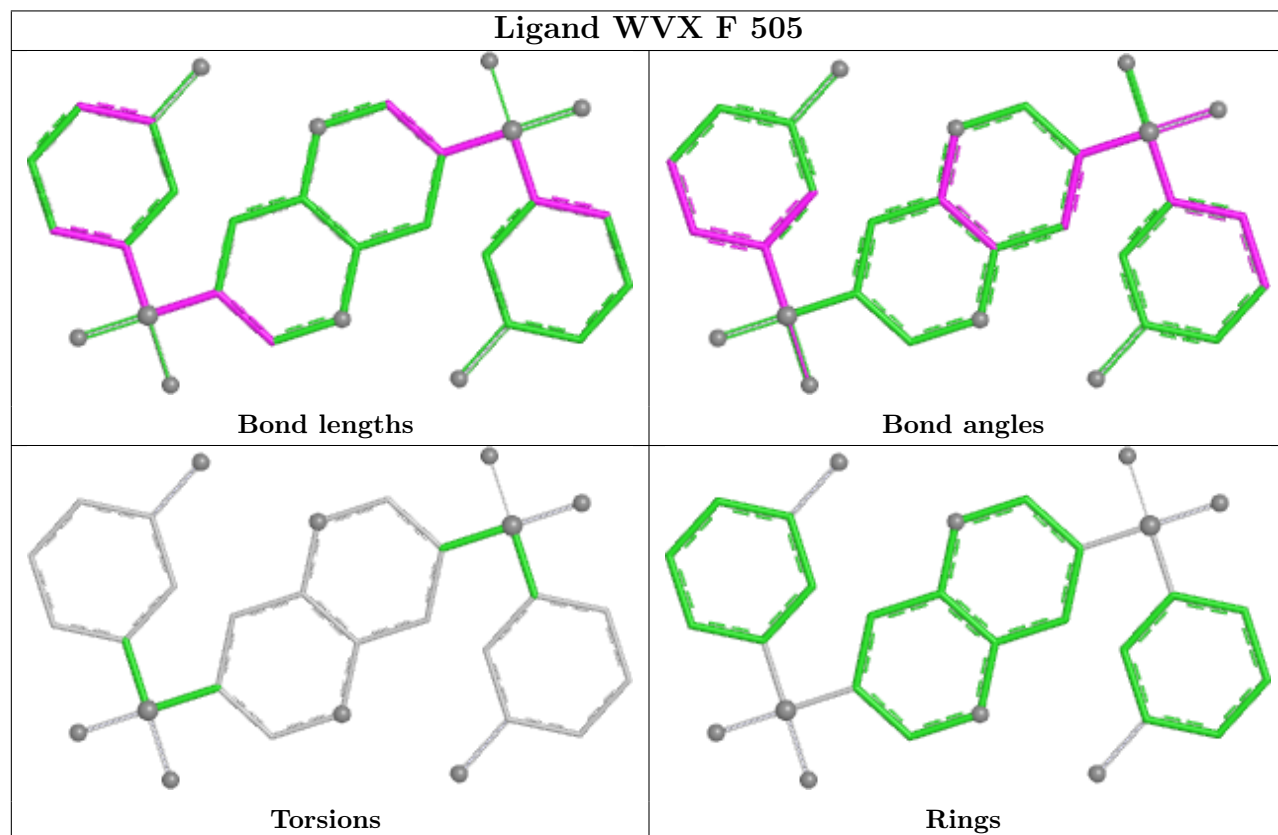
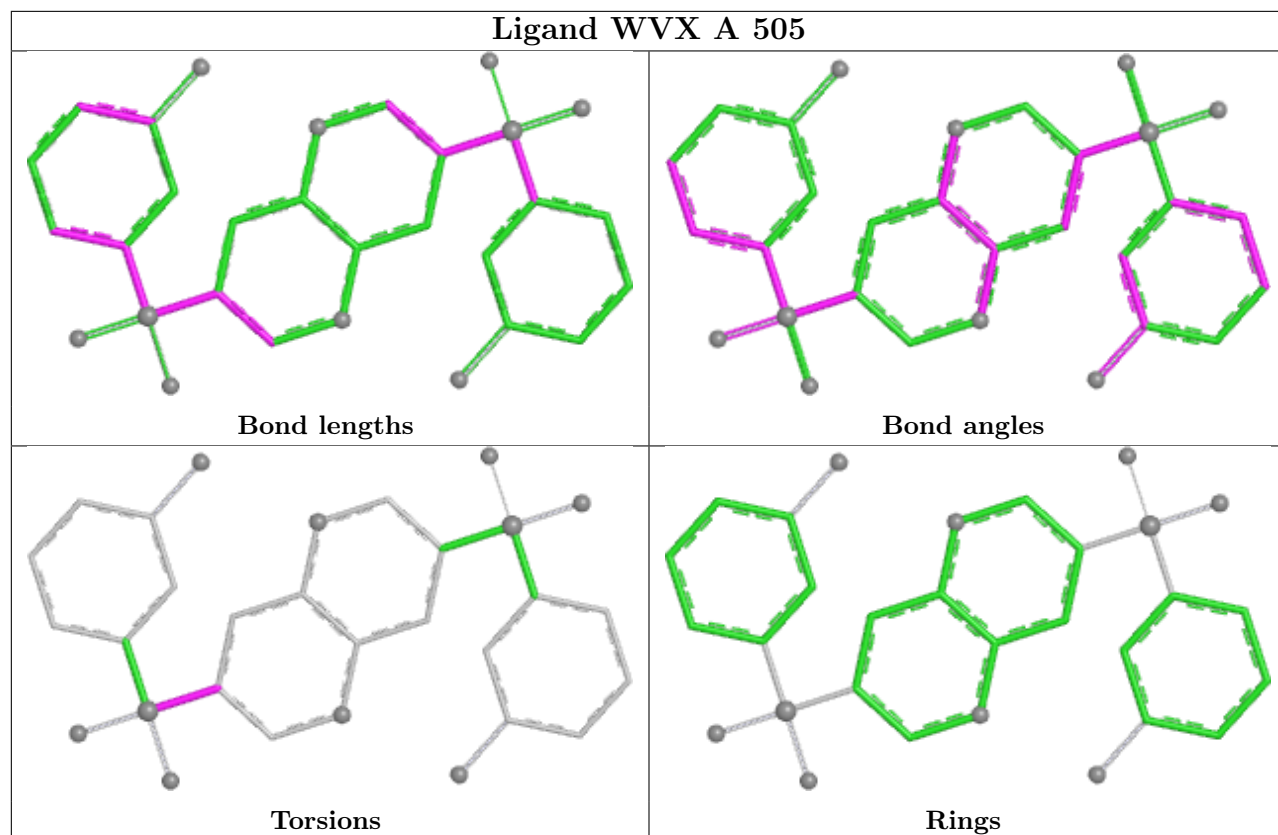


Ligand FBP F 501









5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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	422/447 (94%)	2.61	285 (67%) 0 0	38, 83, 127, 141	6 (1%)
1	B	436/447 (97%)	1.23	88 (20%) 3 2	29, 52, 88, 104	4 (0%)
1	C	425/447 (95%)	1.87	166 (39%) 1 0	24, 63, 101, 114	4 (0%)
1	D	425/447 (95%)	0.78	40 (9%) 14 13	22, 41, 68, 100	6 (1%)
1	E	419/447 (93%)	2.61	278 (66%) 0 0	34, 83, 124, 141	5 (1%)
1	F	432/447 (96%)	1.24	94 (21%) 2 2	28, 52, 87, 99	7 (1%)
1	G	421/447 (94%)	1.90	164 (38%) 1 0	23, 62, 101, 113	7 (1%)
1	H	425/447 (95%)	0.78	39 (9%) 14 14	24, 41, 68, 101	4 (0%)
All	All	3405/3576 (95%)	1.62	1154 (33%) 1 0	22, 59, 112, 141	43 (1%)

All (1154) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	G	115	LEU	9.4
1	G	114	PRO	7.1
1	A	115	LEU	6.7
1	E	115	LEU	6.6
1	A	103	VAL	6.6
1	E	103	VAL	6.6
1	C	114	PRO	6.4
1	G	103	VAL	6.4
1	A	65	PRO	6.3
1	E	65	PRO	6.3
1	C	20	LEU	6.2
1	C	103	VAL	6.2
1	A	132	GLY	6.1
1	G	116	SER	6.1
1	A	143	LEU	6.0
1	E	143	LEU	6.0

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Mol	Chain	Res	Type	RSRZ
1	E	23	ALA	5.8
1	C	159	VAL	5.8
1	G	159	VAL	5.7
1	G	32	ALA	5.6
1	B	11	ALA	5.5
1	A	151	VAL	5.5
1	C	32	ALA	5.4
1	A	61	ALA	5.4
1	E	151	VAL	5.4
1	E	63	ILE	5.4
1	F	133	PRO	5.3
1	E	61	ALA	5.3
1	E	154	VAL	5.3
1	A	119	PRO	5.3
1	A	63	ILE	5.2
1	B	442[A]	LEU	5.2
1	F	442[A]	LEU	5.2
1	A	121	ALA	5.2
1	A	154	VAL	5.2
1	G	151	VAL	5.1
1	A	84	ALA	5.1
1	G	23	ALA	5.1
1	E	365	ILE	5.1
1	E	119	PRO	5.1
1	G	117	TYR	5.1
1	E	121	ALA	5.1
1	E	367	VAL	5.0
1	C	143	LEU	5.0
1	E	150	GLY	5.0
1	G	134	GLY	5.0
1	C	156	ALA	5.0
1	E	438	ILE	5.0
1	A	150	GLY	5.0
1	A	365	ILE	5.0
1	A	438	ILE	5.0
1	E	84	ALA	5.0
1	A	165	VAL	5.0
1	G	118	ARG	4.9
1	G	156	ALA	4.9
1	E	113	SER	4.9
1	E	165	VAL	4.9
1	G	120	VAL	4.9

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Mol	Chain	Res	Type	RSRZ
1	F	115	LEU	4.9
1	G	143	LEU	4.9
1	C	80	GLY	4.9
1	A	113	SER	4.9
1	A	367	VAL	4.9
1	D	24	PHE	4.9
1	C	120	VAL	4.9
1	A	288	ALA	4.8
1	G	119	PRO	4.8
1	E	245	LEU	4.8
1	G	172	LEU	4.8
1	C	134	GLY	4.8
1	A	123	ALA	4.8
1	B	422	LEU	4.8
1	E	288	ALA	4.8
1	E	129	PRO	4.8
1	C	119	PRO	4.7
1	A	134	GLY	4.7
1	E	83	ILE	4.7
1	E	185	ILE	4.7
1	A	114	PRO	4.7
1	A	245	LEU	4.7
1	F	422	LEU	4.7
1	F	423	VAL	4.7
1	E	123	ALA	4.7
1	C	172	LEU	4.7
1	E	117	TYR	4.7
1	C	151	VAL	4.6
1	C	286	VAL	4.6
1	A	185	ILE	4.6
1	H	24	PHE	4.6
1	B	423	VAL	4.6
1	A	83	ILE	4.6
1	E	299	ALA	4.6
1	G	107	VAL	4.6
1	G	286	VAL	4.6
1	G	245	LEU	4.6
1	E	114	PRO	4.5
1	G	80	GLY	4.5
1	A	122	ILE	4.5
1	E	182	ILE	4.5
1	C	245	LEU	4.5

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Mol	Chain	Res	Type	RSRZ
1	C	64	GLY	4.5
1	A	67	SER	4.5
1	E	215	ILE	4.5
1	G	59	ILE	4.5
1	E	445	SER	4.5
1	A	162	ALA	4.5
1	E	277	GLY	4.4
1	C	59	ILE	4.4
1	E	162	ALA	4.4
1	G	61	ALA	4.4
1	G	250	THR	4.4
1	G	64	GLY	4.4
1	A	158	PHE	4.4
1	A	299	ALA	4.4
1	A	362	ALA	4.4
1	E	122	ILE	4.4
1	E	140	VAL	4.4
1	E	275	LEU	4.4
1	C	174	PRO	4.3
1	A	182	ILE	4.3
1	A	275	LEU	4.3
1	C	61	ALA	4.3
1	A	389	ARG	4.3
1	G	174	PRO	4.3
1	A	60	ILE	4.3
1	E	147	VAL	4.3
1	E	187	ASN	4.3
1	A	111	ALA	4.3
1	E	67	SER	4.3
1	E	60	ILE	4.3
1	G	63	ILE	4.3
1	C	219	LYS	4.3
1	A	117	TYR	4.3
1	A	76[A]	MET	4.3
1	C	22	THR	4.3
1	E	362	ALA	4.3
1	C	252	PRO	4.2
1	E	81	MET	4.2
1	A	424	ILE	4.2
1	A	124	LEU	4.2
1	E	124	LEU	4.2
1	E	211	LEU	4.2

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Mol	Chain	Res	Type	RSRZ
1	A	118	ARG	4.2
1	A	128	GLY	4.2
1	G	219	LYS	4.2
1	E	344	VAL	4.2
1	E	255	THR	4.2
1	B	413	LEU	4.2
1	F	413	LEU	4.2
1	E	111	ALA	4.2
1	A	81	MET	4.2
1	E	76[A]	MET	4.2
1	C	129	PRO	4.2
1	G	129	PRO	4.2
1	A	277	GLY	4.2
1	C	63	ILE	4.2
1	A	255	THR	4.2
1	C	250	THR	4.2
1	A	140	VAL	4.2
1	C	107	VAL	4.2
1	A	135	LEU	4.2
1	E	135	LEU	4.2
1	A	53	ALA	4.2
1	A	66	ALA	4.2
1	E	53	ALA	4.2
1	B	130	GLY	4.1
1	E	424	ILE	4.1
1	G	122	ILE	4.1
1	E	259	THR	4.1
1	C	253	ARG	4.1
1	C	115	LEU	4.1
1	E	158	PHE	4.1
1	E	66	ALA	4.1
1	B	444	ILE	4.1
1	A	427	THR	4.1
1	E	379	LEU	4.1
1	E	54	ALA	4.1
1	A	259	THR	4.1
1	A	159	VAL	4.1
1	A	379	LEU	4.1
1	E	99	SER	4.1
1	E	118	ARG	4.1
1	E	77	ILE	4.1
1	F	419	VAL	4.1

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Mol	Chain	Res	Type	RSRZ
1	G	135	LEU	4.1
1	C	122	ILE	4.0
1	C	135	LEU	4.0
1	A	77	ILE	4.0
1	E	427	THR	4.0
1	A	120	VAL	4.0
1	A	344	VAL	4.0
1	A	416	PHE	4.0
1	A	54	ALA	4.0
1	A	187	ASN	4.0
1	C	176	GLY	4.0
1	G	176	GLY	4.0
1	C	116	SER	4.0
1	E	73	LEU	4.0
1	A	411	GLY	4.0
1	D	177[A]	HIS	4.0
1	G	155	PHE	3.9
1	F	397	ALA	3.9
1	G	76[A]	MET	3.9
1	C	100	ILE	3.9
1	B	419	VAL	3.9
1	E	107	VAL	3.9
1	C	155	PHE	3.9
1	E	110	PHE	3.9
1	G	110	PHE	3.9
1	E	441	VAL	3.9
1	A	155	PHE	3.9
1	E	416	PHE	3.9
1	D	21	GLY	3.9
1	A	215	ILE	3.9
1	E	159	VAL	3.9
1	A	384	PHE	3.9
1	A	394	ALA	3.9
1	E	382	GLY	3.9
1	G	100	ILE	3.9
1	A	345	LEU	3.9
1	E	345	LEU	3.9
1	B	427	THR	3.9
1	G	288	ALA	3.8
1	A	349	GLY	3.8
1	G	253	ARG	3.8
1	E	250	THR	3.8

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Mol	Chain	Res	Type	RSRZ
1	E	346	THR	3.8
1	G	126	THR	3.8
1	C	76[A]	MET	3.8
1	F	416	PHE	3.8
1	E	411	GLY	3.8
1	E	385	PRO	3.8
1	G	254	PRO	3.8
1	F	404	VAL	3.8
1	E	155	PHE	3.8
1	C	47	ILE	3.8
1	E	181	ILE	3.8
1	G	77	ILE	3.8
1	C	42	LEU	3.8
1	A	292	GLN	3.8
1	E	292	GLN	3.8
1	E	116	SER	3.8
1	A	377	VAL	3.8
1	E	377	VAL	3.8
1	C	288	ALA	3.8
1	E	349	GLY	3.8
1	H	21	GLY	3.8
1	A	181	ILE	3.8
1	A	211	LEU	3.8
1	E	298	GLU	3.8
1	G	248	MET	3.8
1	H	177[A]	HIS	3.7
1	E	166	ALA	3.7
1	E	128	GLY	3.7
1	A	73	LEU	3.7
1	B	115	LEU	3.7
1	C	77	ILE	3.7
1	E	75	GLU	3.7
1	G	42	LEU	3.7
1	E	368	THR	3.7
1	B	404	VAL	3.7
1	A	298	GLU	3.7
1	A	86	LEU	3.7
1	C	117	TYR	3.7
1	A	250	THR	3.7
1	A	346	THR	3.7
1	F	427	THR	3.7
1	A	166	ALA	3.7

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Mol	Chain	Res	Type	RSRZ
1	E	86	LEU	3.7
1	C	248	MET	3.7
1	E	157	SER	3.7
1	E	425	VAL	3.7
1	B	397	ALA	3.7
1	E	134	GLY	3.7
1	E	417	LEU	3.7
1	C	254	PRO	3.7
1	E	120	VAL	3.6
1	A	386	LEU	3.6
1	A	179	ILE	3.6
1	G	47	ILE	3.6
1	A	385	PRO	3.6
1	G	168	VAL	3.6
1	A	75	GLU	3.6
1	A	99	SER	3.6
1	B	416	PHE	3.6
1	A	87	ASN	3.6
1	A	107	VAL	3.6
1	A	206	VAL	3.6
1	A	157	SER	3.6
1	C	280	ALA	3.6
1	E	394	ALA	3.6
1	A	274	MET	3.6
1	E	197	ILE	3.6
1	E	395	ILE	3.6
1	F	441	VAL	3.6
1	G	239	VAL	3.6
1	C	58	SER	3.6
1	C	23	ALA	3.6
1	C	217	ALA	3.6
1	E	389	ARG	3.6
1	E	80	GLY	3.6
1	E	386	LEU	3.6
1	E	413	LEU	3.6
1	A	110	PHE	3.6
1	A	395	ILE	3.6
1	E	228	ILE	3.6
1	E	252	PRO	3.6
1	E	342	ILE	3.6
1	G	93	HIS	3.5
1	F	94	GLU	3.5

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Mol	Chain	Res	Type	RSRZ
1	A	383	VAL	3.5
1	B	400	VAL	3.5
1	C	126	THR	3.5
1	C	224	GLN	3.5
1	E	397	ALA	3.5
1	G	121	ALA	3.5
1	A	252	PRO	3.5
1	E	100	ILE	3.5
1	E	384	PHE	3.5
1	G	25	PHE	3.5
1	A	400	VAL	3.5
1	C	239	VAL	3.5
1	H	206	VAL	3.5
1	A	116	SER	3.5
1	E	79	ALA	3.5
1	F	39	LEU	3.5
1	G	113	SER	3.5
1	A	382	GLY	3.5
1	G	66	ALA	3.5
1	H	23	ALA	3.5
1	G	252	PRO	3.5
1	H	25	PHE	3.5
1	A	425	VAL	3.5
1	E	274	MET	3.5
1	E	383	VAL	3.5
1	F	400	VAL	3.5
1	A	417	LEU	3.5
1	D	130	GLY	3.5
1	A	100	ILE	3.5
1	A	228	ILE	3.5
1	E	25	PHE	3.5
1	E	87	ASN	3.5
1	C	168	VAL	3.5
1	G	224	GLN	3.5
1	B	433	SER	3.5
1	G	217	ALA	3.5
1	E	179	ILE	3.5
1	D	25	PHE	3.5
1	G	361	ARG	3.4
1	A	441	VAL	3.4
1	D	206	VAL	3.4
1	E	400	VAL	3.4

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Mol	Chain	Res	Type	RSRZ
1	B	39	LEU	3.4
1	B	417	LEU	3.4
1	A	130	GLY	3.4
1	A	197	ILE	3.4
1	B	131	SER	3.4
1	G	280	ALA	3.4
1	G	179	ILE	3.4
1	G	88	PHE	3.4
1	A	368	THR	3.4
1	E	206	VAL	3.4
1	E	404	VAL	3.4
1	A	198	LEU	3.4
1	A	392	PRO	3.4
1	A	80	GLY	3.4
1	A	79	ALA	3.4
1	A	374	ALA	3.4
1	F	11	ALA	3.4
1	A	342	ILE	3.4
1	G	98[A]	GLU	3.4
1	E	191	VAL	3.4
1	C	65	PRO	3.4
1	E	392	PRO	3.4
1	F	112	GLY	3.4
1	A	153	ILE	3.4
1	A	373	ALA	3.4
1	E	153	ILE	3.4
1	C	28	GLN	3.4
1	B	441	VAL	3.4
1	F	417	LEU	3.4
1	A	254	PRO	3.4
1	H	130	GLY	3.4
1	A	295	ILE	3.4
1	C	93	HIS	3.4
1	B	10	ARG	3.4
1	F	361	ARG	3.4
1	A	404	VAL	3.3
1	E	254	PRO	3.3
1	A	414	ARG	3.3
1	C	118	ARG	3.3
1	G	67	SER	3.3
1	A	168	VAL	3.3
1	E	423	VAL	3.3

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Mol	Chain	Res	Type	RSRZ
1	F	428	GLY	3.3
1	A	59	ILE	3.3
1	C	215	ILE	3.3
1	G	215	ILE	3.3
1	B	12	ASP	3.3
1	G	95	TYR	3.3
1	A	52	VAL	3.3
1	E	419	VAL	3.3
1	E	396	TRP	3.3
1	A	23	ALA	3.3
1	C	171	ALA	3.3
1	E	270	ALA	3.3
1	G	58	SER	3.3
1	E	414	ARG	3.3
1	C	147	VAL	3.3
1	E	52	VAL	3.3
1	E	168	VAL	3.3
1	E	177	HIS	3.3
1	E	278	GLU	3.3
1	C	21	GLY	3.3
1	E	428	GLY	3.3
1	A	270	ALA	3.3
1	C	79	ALA	3.3
1	C	67	SER	3.2
1	C	88	PHE	3.2
1	A	388	TYR	3.2
1	A	391	PRO	3.2
1	E	198	LEU	3.2
1	A	428	GLY	3.2
1	E	295	ILE	3.2
1	C	66	ALA	3.2
1	E	373	ALA	3.2
1	A	56	SER	3.2
1	C	145	PHE	3.2
1	E	56	SER	3.2
1	G	145	PHE	3.2
1	G	284	PHE	3.2
1	D	442	LEU	3.2
1	E	174	PRO	3.2
1	E	308	LEU	3.2
1	A	177	HIS	3.2
1	A	278	GLU	3.2

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Mol	Chain	Res	Type	RSRZ
1	A	390[A]	GLU	3.2
1	C	98	GLU	3.2
1	E	364	VAL	3.2
1	G	220	VAL	3.2
1	G	251	LYS	3.2
1	B	428	GLY	3.2
1	E	59	ILE	3.2
1	A	396	TRP	3.2
1	A	25	PHE	3.2
1	A	131	SER	3.2
1	C	110	PHE	3.2
1	A	152	ASP	3.2
1	C	268	ASP	3.2
1	A	308	LEU	3.2
1	A	413	LEU	3.2
1	E	391	PRO	3.2
1	H	115	LEU	3.2
1	E	388	TYR	3.2
1	A	397	ALA	3.2
1	F	111	ALA	3.2
1	A	353	GLN	3.2
1	A	183	SER	3.2
1	C	24	PHE	3.2
1	E	183	SER	3.2
1	A	268	ASP	3.2
1	A	71	GLU	3.2
1	A	360	PRO	3.2
1	C	179	ILE	3.2
1	E	204	ILE	3.2
1	C	123	ALA	3.1
1	G	123	ALA	3.1
1	G	241	ALA	3.1
1	E	104	ARG	3.1
1	H	169[A]	ARG	3.1
1	A	172	LEU	3.1
1	E	102	ASN	3.1
1	B	13	VAL	3.1
1	C	95	TYR	3.1
1	A	145	PHE	3.1
1	C	293	HIS	3.1
1	A	57	THR	3.1
1	A	204	ILE	3.1

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Mol	Chain	Res	Type	RSRZ
1	G	65	PRO	3.1
1	E	152	ASP	3.1
1	E	268	ASP	3.1
1	G	268	ASP	3.1
1	F	434	GLY	3.1
1	C	121	ALA	3.1
1	D	391	PRO	3.1
1	D	115	LEU	3.1
1	E	309	PHE	3.1
1	E	387	LEU	3.1
1	G	221	PHE	3.1
1	C	136	SER	3.1
1	A	104	ARG	3.1
1	B	434	GLY	3.1
1	C	220	VAL	3.1
1	H	151	VAL	3.1
1	C	251	LYS	3.0
1	G	292	GLN	3.0
1	C	241	ALA	3.0
1	E	156	ALA	3.0
1	E	374	ALA	3.0
1	F	95	TYR	3.0
1	E	175	GLU	3.0
1	E	360	PRO	3.0
1	C	221	PHE	3.0
1	C	284	PHE	3.0
1	E	172	LEU	3.0
1	E	78	LYS	3.0
1	A	191	VAL	3.0
1	A	419	VAL	3.0
1	E	353	GLN	3.0
1	C	207	ALA	3.0
1	G	111	ALA	3.0
1	C	137	GLU	3.0
1	C	409	GLU	3.0
1	G	94	GLU	3.0
1	A	174	PRO	3.0
1	E	145	PHE	3.0
1	B	118	ARG	3.0
1	E	343	ILE	3.0
1	F	396	TRP	3.0
1	G	147	VAL	3.0

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Mol	Chain	Res	Type	RSRZ
1	E	57	THR	3.0
1	H	106	ALA	3.0
1	G	133	PRO	3.0
1	F	12	ASP	3.0
1	C	69	SER	3.0
1	A	423	VAL	3.0
1	B	396	TRP	3.0
1	D	106	ALA	3.0
1	F	66	ALA	3.0
1	G	207	ALA	3.0
1	C	133	PRO	3.0
1	A	180	LYS	3.0
1	E	180	LYS	3.0
1	E	380	CYS	3.0
1	G	247	SER	3.0
1	E	146	GLY	3.0
1	E	178	GLY	3.0
1	A	343	ILE	2.9
1	A	426	VAL	2.9
1	G	71	GLU	2.9
1	A	279	THR	2.9
1	G	79	ALA	2.9
1	A	129	PRO	2.9
1	E	95	TYR	2.9
1	C	247	SER	2.9
1	F	445	SER	2.9
1	E	283	ASN	2.9
1	E	205	MET	2.9
1	A	147	VAL	2.9
1	A	364	VAL	2.9
1	G	105	GLU	2.9
1	E	279	THR	2.9
1	E	429	TRP	2.9
1	E	284	PHE	2.9
1	A	26	GLN	2.9
1	A	29	GLN	2.9
1	C	292	GLN	2.9
1	H	26	GLN	2.9
1	F	424	ILE	2.9
1	A	97	ALA	2.9
1	A	156	ALA	2.9
1	D	23	ALA	2.9

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Mol	Chain	Res	Type	RSRZ
1	E	167	ALA	2.9
1	H	442	LEU	2.9
1	B	358	TYR	2.9
1	F	358	TYR	2.9
1	H	406	PHE	2.9
1	C	71	GLU	2.9
1	A	328	ILE	2.9
1	E	361	ARG	2.9
1	A	387	LEU	2.9
1	E	398	ASP	2.9
1	A	205	MET	2.9
1	A	284	PHE	2.9
1	B	112	GLY	2.9
1	A	410	SER	2.8
1	F	116	SER	2.8
1	E	188	HIS	2.8
1	E	171	ALA	2.8
1	G	73	LEU	2.8
1	G	28	GLN	2.8
1	B	95	TYR	2.8
1	B	412	LYS	2.8
1	F	412	LYS	2.8
1	G	83	ILE	2.8
1	G	136	SER	2.8
1	G	293	HIS	2.8
1	B	426	VAL	2.8
1	D	151	VAL	2.8
1	A	167	ALA	2.8
1	A	380	CYS	2.8
1	F	352	ALA	2.8
1	A	398	ASP	2.8
1	E	218	GLU	2.8
1	A	85	ARG	2.8
1	A	208	ARG	2.8
1	D	406	PHE	2.8
1	A	95	TYR	2.8
1	A	146	GLY	2.8
1	B	395	ILE	2.8
1	E	426	VAL	2.8
1	H	391	PRO	2.8
1	B	352	ALA	2.8
1	E	97	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
1	F	318	LEU	2.8
1	A	78	LYS	2.8
1	A	309	PHE	2.8
1	B	406	PHE	2.8
1	C	212	GLY	2.8
1	C	60	ILE	2.8
1	E	328	ILE	2.8
1	G	60	ILE	2.8
1	E	410	SER	2.8
1	A	354	LEU	2.8
1	C	296	ALA	2.8
1	E	354	LEU	2.8
1	G	106	ALA	2.8
1	C	105	GLU	2.8
1	E	29	GLN	2.8
1	E	208	ARG	2.8
1	A	188	HIS	2.8
1	E	269	GLY	2.7
1	F	406	PHE	2.8
1	G	212	GLY	2.7
1	A	370	SER	2.7
1	C	206	VAL	2.7
1	F	425	VAL	2.7
1	F	426	VAL	2.7
1	A	171	ALA	2.7
1	C	106	ALA	2.7
1	G	171	ALA	2.7
1	C	225	LYS	2.7
1	A	190	GLY	2.7
1	G	24	PHE	2.7
1	E	249	ILE	2.7
1	A	283	ASN	2.7
1	E	51	PRO	2.7
1	E	276	SER	2.7
1	F	388	TYR	2.7
1	G	154	VAL	2.7
1	E	248	MET	2.7
1	A	72	ARG	2.7
1	E	246	GLU	2.7
1	E	190	GLY	2.7
1	F	110	PHE	2.7
1	G	150	GLY	2.7

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Mol	Chain	Res	Type	RSRZ
1	C	83	ILE	2.7
1	G	153	ILE	2.7
1	A	51	PRO	2.7
1	F	391	PRO	2.7
1	A	443	SER	2.7
1	D	410	SER	2.7
1	E	136	SER	2.7
1	F	109	SER	2.7
1	A	429	TRP	2.7
1	B	318	LEU	2.7
1	E	85	ARG	2.7
1	E	381	ARG	2.7
1	H	418	ARG	2.7
1	B	94	GLU	2.7
1	A	176	GLY	2.7
1	A	269	GLY	2.7
1	E	176	GLY	2.7
1	A	194	PHE	2.7
1	A	285	PRO	2.7
1	A	444	ILE	2.7
1	B	424	ILE	2.7
1	C	25	PHE	2.7
1	E	221	PHE	2.7
1	F	392	PRO	2.7
1	F	395	ILE	2.7
1	G	158	PHE	2.7
1	C	81	MET	2.7
1	C	154	VAL	2.7
1	E	370	SER	2.7
1	G	69	SER	2.7
1	H	165	VAL	2.7
1	H	410	SER	2.7
1	A	218	GLU	2.7
1	C	97	ALA	2.7
1	C	315	ALA	2.7
1	E	142	ASP	2.6
1	D	110	PHE	2.6
1	F	281	LYS	2.6
1	F	118	ARG	2.6
1	G	81	MET	2.6
1	A	339	ALA	2.6
1	B	394	ALA	2.6

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Mol	Chain	Res	Type	RSRZ
1	D	26	GLN	2.6
1	C	139	ASP	2.6
1	G	125	ASP	2.6
1	G	180	LYS	2.6
1	G	225	LYS	2.6
1	D	133	PRO	2.6
1	G	285	PRO	2.6
1	A	381	ARG	2.6
1	G	144	ARG	2.6
1	H	361	ARG	2.6
1	A	105	GLU	2.6
1	C	70	VAL	2.6
1	E	70	VAL	2.6
1	A	247	SER	2.6
1	A	276	SER	2.6
1	B	109	SER	2.6
1	G	296	ALA	2.6
1	E	96	HIS	2.6
1	F	251	LYS	2.6
1	A	142	ASP	2.6
1	B	392	PRO	2.6
1	A	439[A]	MET	2.6
1	C	249	ILE	2.6
1	E	194	PHE	2.6
1	A	246	GLU	2.6
1	C	94	GLU	2.6
1	G	206	VAL	2.6
1	A	136	SER	2.6
1	D	109	SER	2.6
1	E	92	SER	2.6
1	E	109	SER	2.6
1	E	247	SER	2.6
1	A	242	THR	2.6
1	E	293	HIS	2.6
1	C	180	LYS	2.6
1	B	440	ARG	2.6
1	C	282	GLY	2.6
1	E	256	ARG	2.6
1	G	314	ARG	2.6
1	A	249	ILE	2.6
1	C	158	PHE	2.6
1	C	73	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
1	G	137	GLU	2.6
1	D	22	THR	2.6
1	E	106	ALA	2.6
1	E	378	HIS	2.6
1	F	394	ALA	2.6
1	H	362	ALA	2.6
1	C	281	LYS	2.6
1	E	219	LYS	2.6
1	B	388	TYR	2.6
1	C	72	ARG	2.5
1	A	203	GLY	2.5
1	A	248	MET	2.5
1	B	391	PRO	2.5
1	E	285	PRO	2.5
1	F	408	ILE	2.5
1	E	105	GLU	2.5
1	B	44	LEU	2.5
1	F	143	LEU	2.5
1	G	45	LEU	2.5
1	A	102	ASN	2.5
1	B	425	VAL	2.5
1	E	26	GLN	2.5
1	E	238	VAL	2.5
1	A	378	HIS	2.5
1	A	92	SER	2.5
1	E	69	SER	2.5
1	H	109	SER	2.5
1	B	169[A]	ARG	2.5
1	E	314	ARG	2.5
1	E	435	TYR	2.5
1	G	34	MET	2.5
1	C	91	GLY	2.5
1	E	203	GLY	2.5
1	E	401	ASP	2.5
1	F	407	GLY	2.5
1	G	91	GLY	2.5
1	B	408	ILE	2.5
1	G	249	ILE	2.5
1	E	88	PHE	2.5
1	A	93	HIS	2.5
1	E	93	HIS	2.5
1	B	340	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
1	E	366	ALA	2.5
1	A	109	SER	2.5
1	A	337	CYS	2.5
1	C	144	ARG	2.5
1	A	435	TYR	2.5
1	A	178	GLY	2.5
1	C	153	ILE	2.5
1	E	390	GLU	2.5
1	E	393	GLU	2.5
1	D	30	LEU	2.5
1	G	124	LEU	2.5
1	A	238	VAL	2.5
1	B	70	VAL	2.5
1	F	90	HIS	2.5
1	G	70	VAL	2.5
1	F	340	ALA	2.5
1	G	72	ARG	2.5
1	A	445	SER	2.5
1	E	439[A]	MET	2.5
1	A	431	PRO	2.5
1	G	282	GLY	2.5
1	C	125	ASP	2.5
1	A	88	PHE	2.5
1	B	110	PHE	2.5
1	D	423	VAL	2.5
1	H	423	VAL	2.5
1	A	256	ARG	2.5
1	F	403	ARG	2.5
1	C	34	MET	2.5
1	G	279	THR	2.5
1	A	175	GLU	2.4
1	C	132	GLY	2.4
1	C	246	GLU	2.4
1	E	186	GLU	2.4
1	A	219	LYS	2.4
1	G	139	ASP	2.4
1	G	281	LYS	2.4
1	B	143	LEU	2.4
1	F	387	LEU	2.4
1	A	221	PHE	2.4
1	B	335	PHE	2.4
1	C	194	PHE	2.4

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Mol	Chain	Res	Type	RSRZ
1	A	144	ARG	2.4
1	F	440	ARG	2.4
1	A	70	VAL	2.4
1	C	191	VAL	2.4
1	G	165	VAL	2.4
1	C	111	ALA	2.4
1	C	279	THR	2.4
1	E	62	THR	2.4
1	E	242	THR	2.4
1	E	431	PRO	2.4
1	B	108	GLU	2.4
1	C	175	GLU	2.4
1	C	295	ILE	2.4
1	E	273	ILE	2.4
1	H	395	ILE	2.4
1	B	403	ARG	2.4
1	E	24	PHE	2.4
1	E	406	PHE	2.4
1	C	165	VAL	2.4
1	B	79	ALA	2.4
1	B	111	ALA	2.4
1	A	62	THR	2.4
1	A	108	GLU	2.4
1	A	393	GLU	2.4
1	B	432	GLY	2.4
1	G	112	GLY	2.4
1	G	132	GLY	2.4
1	G	277	GLY	2.4
1	A	273	ILE	2.4
1	C	182	ILE	2.4
1	C	124	LEU	2.4
1	D	135	LEU	2.4
1	A	293	HIS	2.4
1	B	90	HIS	2.4
1	C	90	HIS	2.4
1	C	430	ARG	2.4
1	E	440	ARG	2.4
1	F	169[A]	ARG	2.4
1	C	140	VAL	2.4
1	F	13	VAL	2.4
1	G	191	VAL	2.4
1	E	339	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
1	G	315	ALA	2.4
1	A	196	GLU	2.4
1	B	281	LYS	2.4
1	C	285	PRO	2.4
1	E	108	GLU	2.4
1	G	246	GLU	2.4
1	H	133	PRO	2.4
1	A	69	SER	2.4
1	E	58	SER	2.4
1	F	113	SER	2.4
1	G	295	ILE	2.4
1	A	96	HIS	2.4
1	B	305	HIS	2.4
1	C	45	LEU	2.4
1	E	72	ARG	2.4
1	F	305	HIS	2.4
1	H	110	PHE	2.4
1	A	325	VAL	2.4
1	D	165	VAL	2.4
1	E	437	ASN	2.4
1	C	101	ALA	2.4
1	G	97	ALA	2.4
1	C	62	THR	2.3
1	G	62	THR	2.3
1	A	58	SER	2.3
1	G	163	SER	2.3
1	C	277	GLY	2.3
1	A	47	ILE	2.3
1	D	181	ILE	2.3
1	D	211	LEU	2.3
1	E	408	ILE	2.3
1	G	182	ILE	2.3
1	F	398	ASP	2.3
1	G	90	HIS	2.3
1	H	30	LEU	2.3
1	A	231	CYS	2.3
1	B	439[A]	MET	2.3
1	F	88	PHE	2.3
1	A	127	LYS	2.3
1	G	140	VAL	2.3
1	H	140	VAL	2.3
1	A	241	ALA	2.3

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Mol	Chain	Res	Type	RSRZ
1	A	340	ALA	2.3
1	E	126	THR	2.3
1	A	141	ARG	2.3
1	E	55	ARG	2.3
1	G	109	SER	2.3
1	G	351	SER	2.3
1	E	64	GLY	2.3
1	C	138	GLN	2.3
1	A	422	LEU	2.3
1	E	30	LEU	2.3
1	F	438	ILE	2.3
1	A	271	ASP	2.3
1	A	272	CYS	2.3
1	B	88	PHE	2.3
1	E	231	CYS	2.3
1	G	194	PHE	2.3
1	B	140	VAL	2.3
1	C	304	TYR	2.3
1	A	186	GLU	2.3
1	B	61	ALA	2.3
1	B	294	ALA	2.3
1	C	162	ALA	2.3
1	E	241	ALA	2.3
1	E	363	ALA	2.3
1	A	169	ARG	2.3
1	A	407	GLY	2.3
1	B	445	SER	2.3
1	C	163	SER	2.3
1	E	319	SER	2.3
1	A	408	ILE	2.3
1	B	438	ILE	2.3
1	C	395	ILE	2.3
1	C	444	ILE	2.3
1	F	345	LEU	2.3
1	E	271	ASP	2.3
1	F	335	PHE	2.3
1	A	220	VAL	2.3
1	E	325	VAL	2.3
1	F	70	VAL	2.3
1	A	366	ALA	2.3
1	C	33	ALA	2.3
1	A	55	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
1	A	418	ARG	2.3
1	A	430	ARG	2.3
1	A	305	HIS	2.3
1	D	134	GLY	2.3
1	E	407	GLY	2.3
1	G	138	GLN	2.3
1	G	445	SER	2.3
1	E	422	LEU	2.3
1	E	444	ILE	2.3
1	F	386	LEU	2.3
1	F	439[A]	MET	2.3
1	G	46	ASP	2.3
1	G	127	LYS	2.3
1	E	196	GLU	2.3
1	D	140	VAL	2.3
1	F	331	VAL	2.3
1	A	440	ARG	2.3
1	E	272	CYS	2.3
1	E	337	CYS	2.3
1	G	104	ARG	2.3
1	C	35	ALA	2.2
1	D	397	ALA	2.2
1	G	162	ALA	2.2
1	A	323	THR	2.2
1	A	90	HIS	2.2
1	C	112	GLY	2.2
1	F	411	GLY	2.2
1	F	415	GLY	2.2
1	G	243	GLN	2.2
1	E	47	ILE	2.2
1	E	127	LYS	2.2
1	A	406	PHE	2.2
1	B	114	PRO	2.2
1	B	133	PRO	2.2
1	B	389	ARG	2.2
1	C	141	ARG	2.2
1	A	217	ALA	2.2
1	A	437	ASN	2.2
1	B	66	ALA	2.2
1	F	79	ALA	2.2
1	F	294	ALA	2.2
1	G	283	ASN	2.2

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Mol	Chain	Res	Type	RSRZ
1	H	394	ALA	2.2
1	A	347	THR	2.2
1	E	149	HIS	2.2
1	H	22	THR	2.2
1	C	127	LYS	2.2
1	E	112	GLY	2.2
1	F	44	LEU	2.2
1	B	116	SER	2.2
1	D	395	ILE	2.2
1	F	365	ILE	2.2
1	G	395	ILE	2.2
1	H	181	ILE	2.2
1	C	278	GLU	2.2
1	H	175	GLU	2.2
1	A	68	ARG	2.2
1	E	169	ARG	2.2
1	B	331	VAL	2.2
1	F	119	PRO	2.2
1	F	61	ALA	2.2
1	A	126	THR	2.2
1	H	211	LEU	2.2
1	F	444[A]	ILE	2.2
1	A	319	SER	2.2
1	B	398	ASP	2.2
1	C	46	ASP	2.2
1	A	287	GLU	2.2
1	A	160	ARG	2.2
1	B	402	ARG	2.2
1	G	430	ARG	2.2
1	D	392	PRO	2.2
1	F	25	PHE	2.2
1	A	149	HIS	2.2
1	E	340	ALA	2.2
1	E	341	ALA	2.2
1	B	405	GLN	2.2
1	G	57	THR	2.2
1	A	30	LEU	2.2
1	A	64	GLY	2.2
1	A	173	GLY	2.2
1	B	420	GLY	2.2
1	E	318	LEU	2.2
1	F	432	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
1	G	304	TYR	2.2
1	F	100	ILE	2.2
1	D	445	SER	2.2
1	C	142	ASP	2.2
1	E	139	ASP	2.2
1	F	402	ARG	2.2
1	G	78	LYS	2.2
1	A	32	ALA	2.1
1	A	371	ALA	2.1
1	C	26	GLN	2.1
1	E	33	ALA	2.1
1	E	90	HIS	2.1
1	E	263	ALA	2.1
1	H	397	ALA	2.1
1	B	386	LEU	2.1
1	D	422	LEU	2.1
1	E	347	THR	2.1
1	G	273	ILE	2.1
1	C	55	ARG	2.1
1	C	104	ARG	2.1
1	E	430	ARG	2.1
1	C	152	ASP	2.1
1	A	31	PRO	2.1
1	E	31	PRO	2.1
1	D	419	VAL	2.1
1	E	305	HIS	2.1
1	F	165	VAL	2.1
1	C	243	GLN	2.1
1	F	405	GLN	2.1
1	A	257	ALA	2.1
1	D	362	ALA	2.1
1	D	394	ALA	2.1
1	E	207	ALA	2.1
1	E	217	ALA	2.1
1	G	302	ALA	2.1
1	A	82	ASN	2.1
1	B	91	GLY	2.1
1	C	150	GLY	2.1
1	E	323	THR	2.1
1	G	86	LEU	2.1
1	A	98	GLU	2.1
1	A	304	TYR	2.1

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Mol	Chain	Res	Type	RSRZ
1	A	314	ARG	2.1
1	A	320[A]	ARG	2.1
1	F	389	ARG	2.1
1	F	409	GLU	2.1
1	G	55	ARG	2.1
1	G	68	ARG	2.1
1	G	278	GLU	2.1
1	C	351	SER	2.1
1	F	92	SER	2.1
1	F	114	PRO	2.1
1	C	302	ALA	2.1
1	G	101	ALA	2.1
1	C	283	ASN	2.1
1	A	112	GLY	2.1
1	B	345	LEU	2.1
1	B	407	GLY	2.1
1	F	91	GLY	2.1
1	G	39	LEU	2.1
1	D	144[A]	ARG	2.1
1	D	361	ARG	2.1
1	H	118	ARG	2.1
1	B	365	ILE	2.1
1	F	75[A]	GLU	2.1
1	F	108	GLU	2.1
1	E	184	LYS	2.1
1	E	237	PRO	2.1
1	C	205	MET	2.1
1	C	244	MET	2.1
1	A	138	GLN	2.1
1	B	25	PHE	2.1
1	D	27	GLN	2.1
1	H	27	GLN	2.1
1	E	200	VAL	2.1
1	A	207	ALA	2.1
1	A	341	ALA	2.1
1	E	32	ALA	2.1
1	E	101	ALA	2.1
1	A	442	LEU	2.1
1	E	144	ARG	2.1
1	H	422	LEU	2.1
1	C	57	THR	2.1
1	C	255	THR	2.1

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Mol	Chain	Res	Type	RSRZ
1	E	287	GLU	2.1
1	C	213	ILE	2.1
1	G	444	ILE	2.1
1	A	139	ASP	2.1
1	A	261	ASP	2.1
1	B	399	ASP	2.1
1	E	304	TYR	2.1
1	F	399	ASP	2.1
1	G	152	ASP	2.1
1	C	109	SER	2.1
1	G	244	MET	2.1
1	G	291	MET	2.1
1	H	419	VAL	2.0
1	F	341	ALA	2.0
1	G	141	ARG	2.0
1	G	170	ALA	2.0
1	C	39	LEU	2.0
1	C	40	GLU	2.0
1	B	17	THR	2.0
1	C	273	ILE	2.0
1	F	181	ILE	2.0
1	E	261	ASP	2.0
1	B	136	SER	2.0
1	H	392	PRO	2.0
1	G	205	MET	2.0
1	E	376	GLN	2.0
1	G	26	GLN	2.0
1	A	38	PHE	2.0
1	A	286	VAL	2.0
1	A	361	ARG	2.0
1	B	144	ARG	2.0
1	D	118	ARG	2.0
1	E	350	ARG	2.0
1	A	263	ALA	2.0
1	A	137	GLU	2.0
1	C	211	LEU	2.0
1	E	257	ALA	2.0
1	E	189	GLU	2.0
1	F	308	LEU	2.0
1	G	275	LEU	2.0
1	D	396	TRP	2.0
1	A	237	PRO	2.0

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Mol	Chain	Res	Type	RSRZ
1	B	142	ASP	2.0
1	F	322	PRO	2.0
1	E	433	SER	2.0
1	H	351	SER	2.0

6.2 Non-standard residues in protein, DNA, RNA chains [i](#)

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

6.3 Carbohydrates [i](#)

There are no 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($\text{\AA}^2$)	Q<0.9
3	OXL	E	502	6/6	0.66	0.14	67,67,67,67	0
3	OXL	A	502	6/6	0.72	0.13	66,66,67,67	0
2	FBP	A	501	20/20	0.74	0.17	104,105,105,106	0
2	FBP	E	501	20/20	0.74	0.17	105,105,106,107	0
5	K	F	504	1/1	0.75	0.11	75,75,75,75	0
5	K	B	504	1/1	0.77	0.11	76,76,76,76	0
4	MG	C	503	1/1	0.78	0.21	78,78,78,78	0
4	MG	G	503	1/1	0.79	0.22	80,80,80,80	0
3	OXL	C	502	6/6	0.81	0.15	52,52,53,53	0
3	OXL	F	502	6/6	0.81	0.12	39,40,41,41	0
3	OXL	G	502	6/6	0.82	0.15	51,51,52,52	0
5	K	C	504	1/1	0.84	0.11	87,87,87,87	0
3	OXL	H	502	6/6	0.84	0.11	56,56,57,57	0
5	K	G	504	1/1	0.84	0.11	89,89,89,89	0
6	WVX	E	505	30/30	0.85	0.14	60,63,63,64	14
6	WVX	A	505	30/30	0.86	0.13	60,60,61,62	14
3	OXL	D	502	6/6	0.88	0.11	57,57,58,59	0
5	K	A	504	1/1	0.89	0.07	87,87,87,87	0
5	K	E	504	1/1	0.89	0.07	86,86,86,86	0

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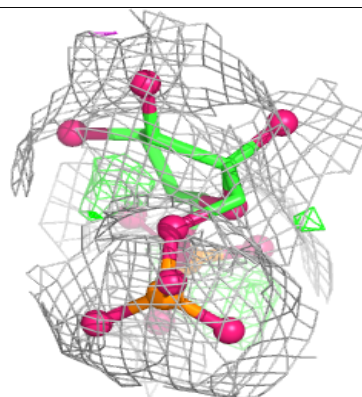
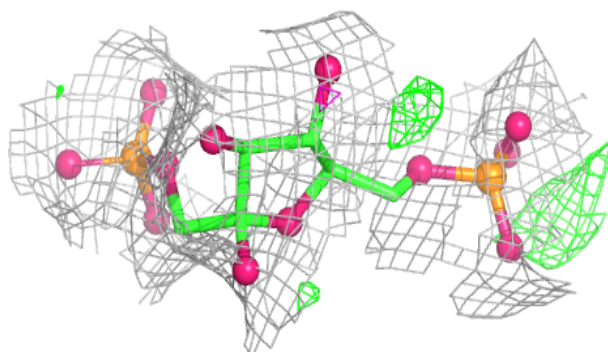
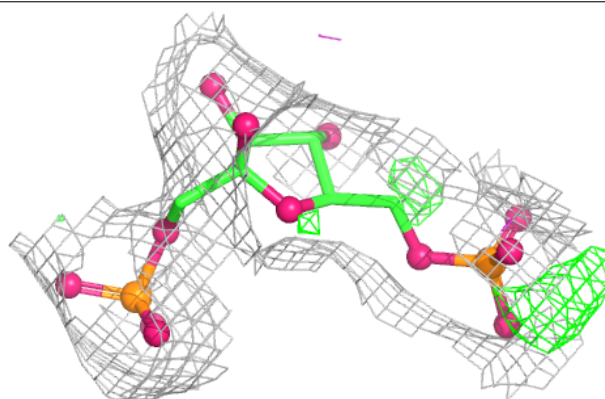
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
4	MG	B	503	1/1	0.89	0.13	67,67,67,67	0
2	FBP	B	501	20/20	0.90	0.11	62,62,63,64	0
2	FBP	F	501	20/20	0.90	0.11	62,63,65,65	0
4	MG	E	503	1/1	0.90	0.07	60,60,60,60	0
6	WVX	B	505	30/30	0.90	0.13	55,56,58,58	14
2	FBP	C	501	20/20	0.90	0.10	51,54,58,58	0
2	FBP	G	501	20/20	0.91	0.09	51,54,57,58	0
4	MG	A	503	1/1	0.92	0.07	60,60,60,60	0
3	OXL	B	502	6/6	0.92	0.08	37,37,38,38	0
6	WVX	F	505	30/30	0.92	0.12	55,56,58,59	14
2	FBP	H	501	20/20	0.94	0.07	29,30,32,32	0
4	MG	D	503	1/1	0.95	0.12	39,39,39,39	0
4	MG	H	503	1/1	0.95	0.13	43,43,43,43	0
2	FBP	D	501	20/20	0.95	0.07	30,31,33,33	0
4	MG	F	503	1/1	0.95	0.08	56,56,56,56	0
5	K	D	504	1/1	0.96	0.06	65,65,65,65	0
5	K	H	504	1/1	0.96	0.06	64,64,64,64	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.

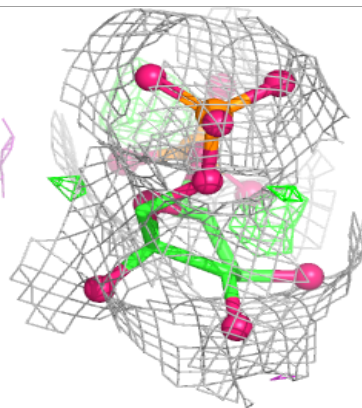
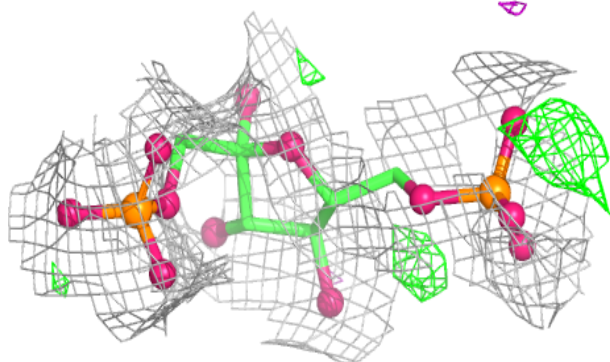
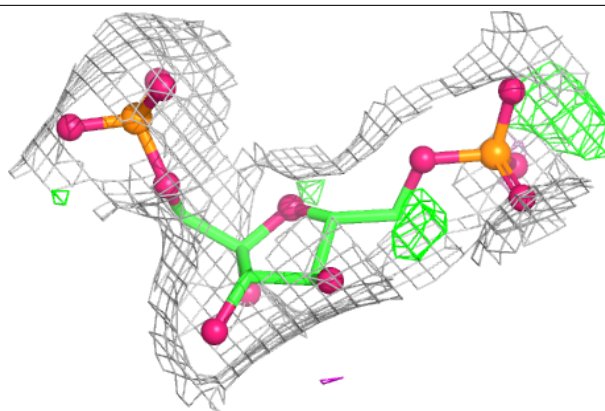
Electron density around FBP A 501:

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

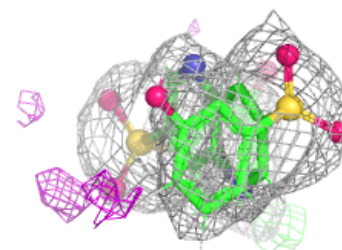
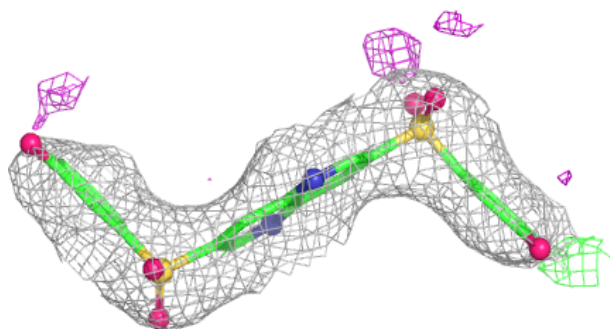
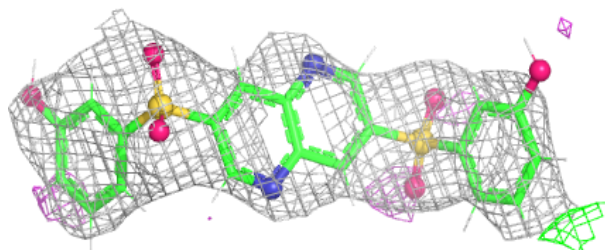


Electron density around FBP E 501:

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

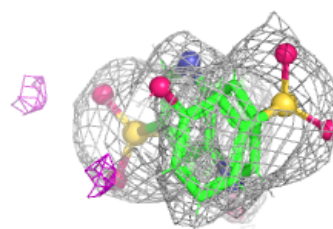
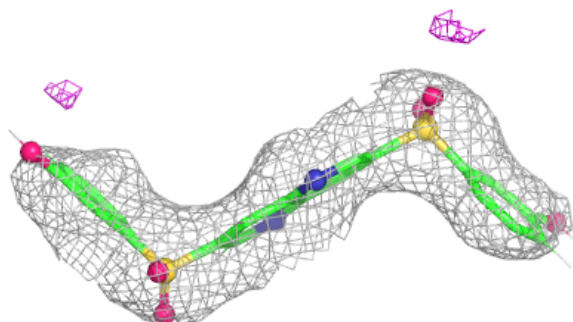
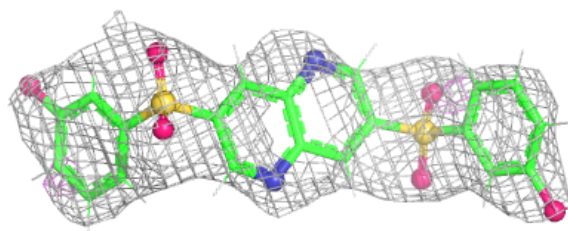
**Electron density around WVX E 505:**

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

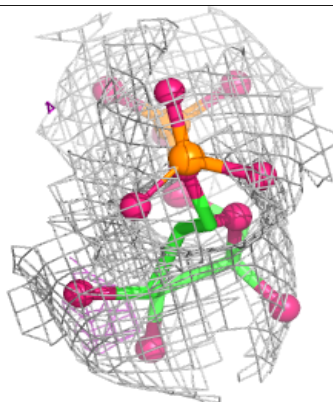
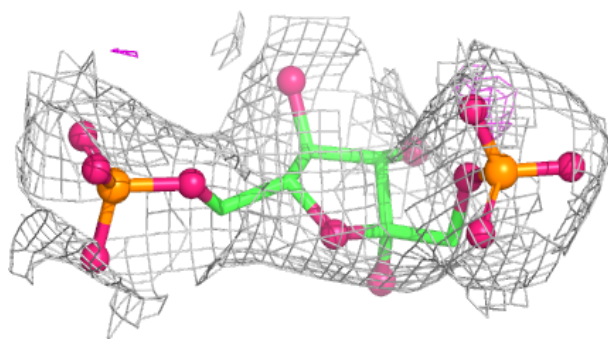
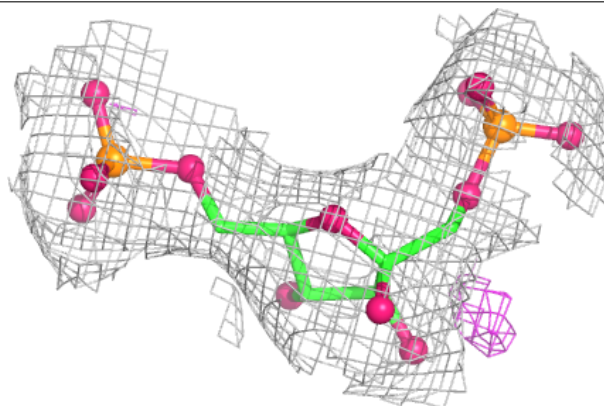


Electron density around WVX A 505:

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

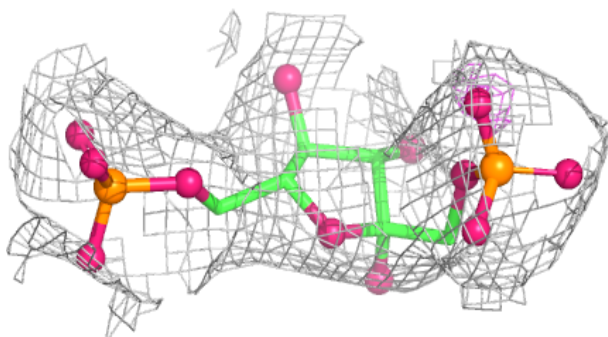
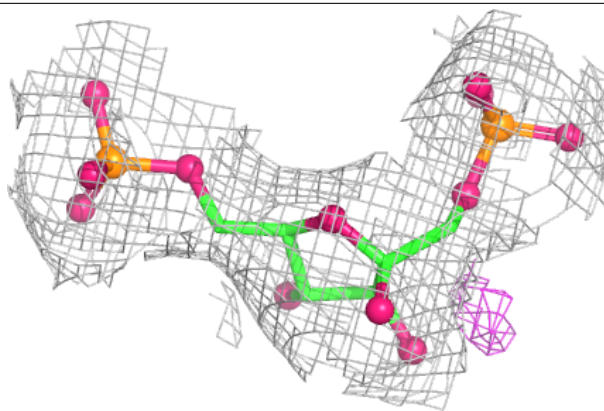
**Electron density around FBP B 501:**

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 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

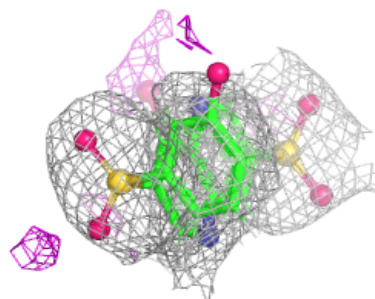
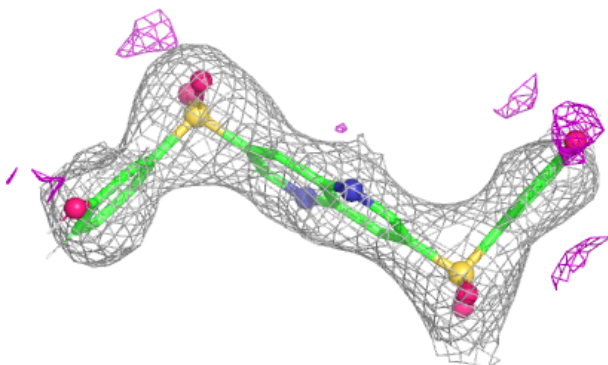
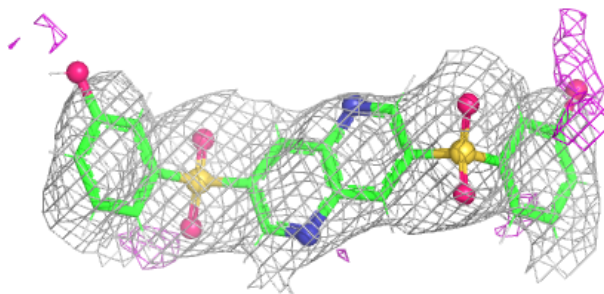


Electron density around FBP F 501:

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

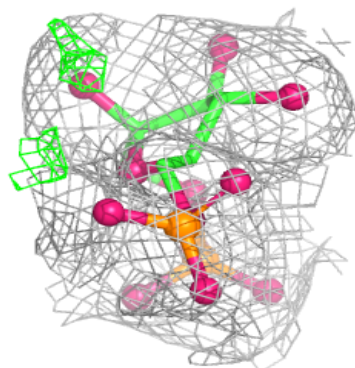
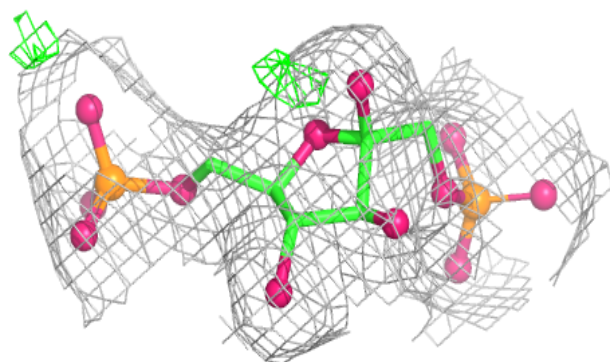
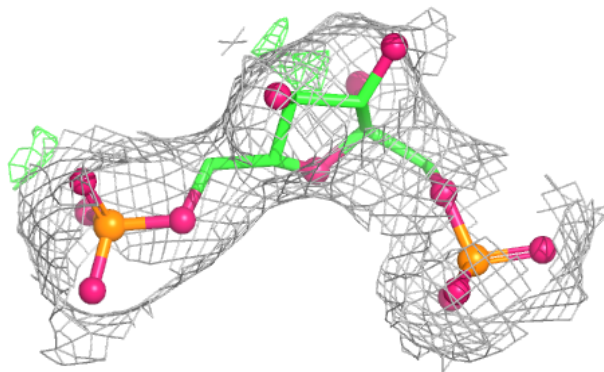
**Electron density around WVX B 505:**

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

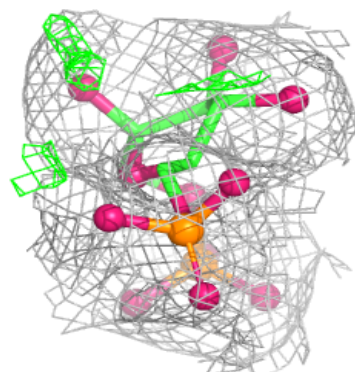
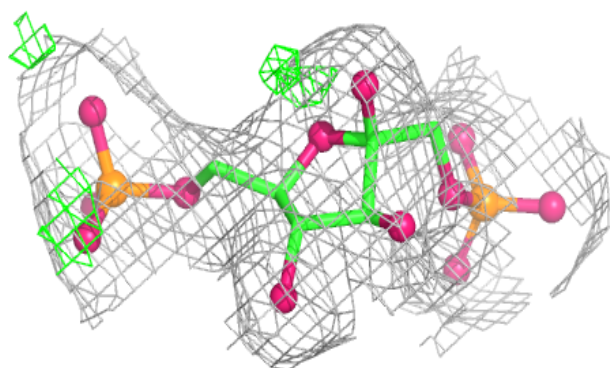
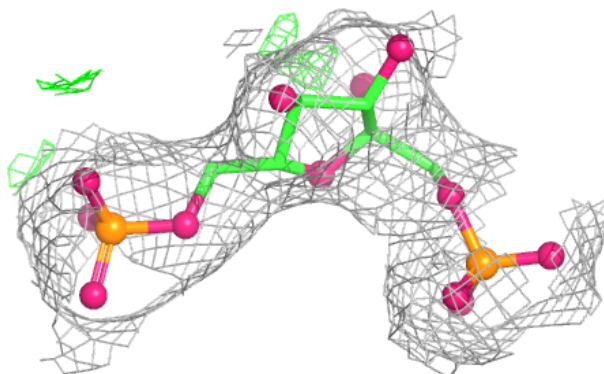


Electron density around FBP C 501:

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

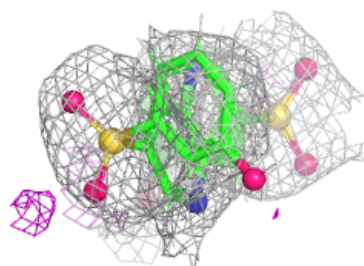
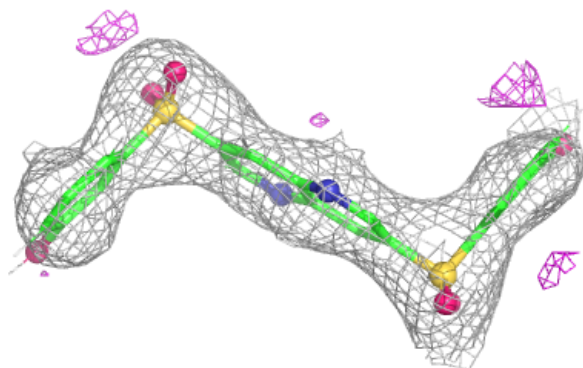
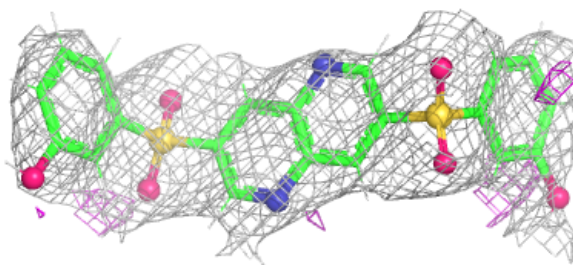
**Electron density around FBP G 501:**

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

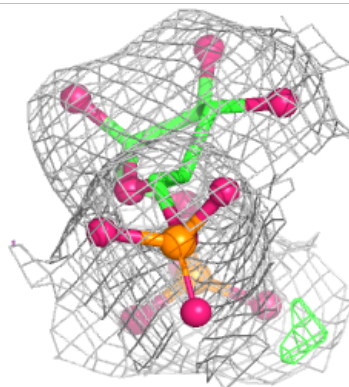
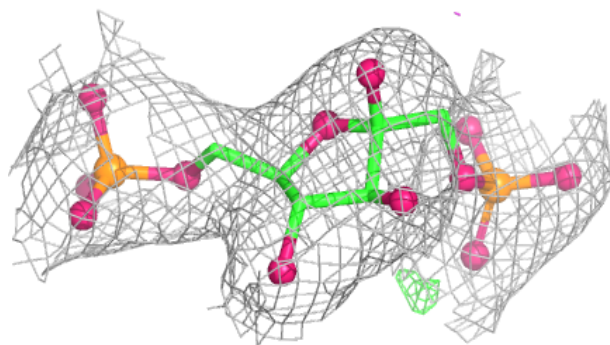
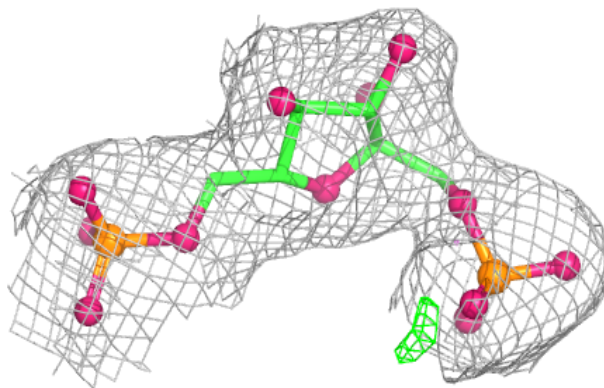


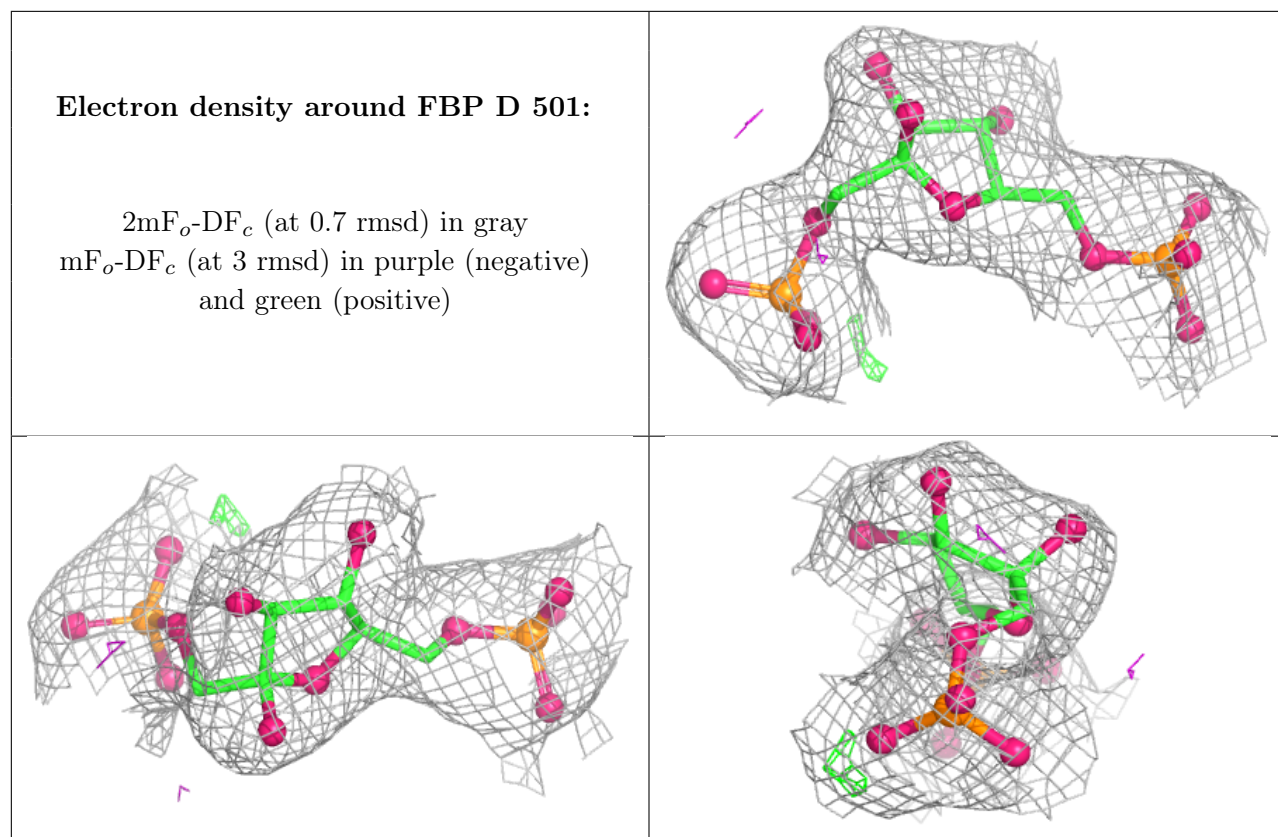
Electron density around WVX F 505:

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

**Electron density around FBP H 501:**

$2mF_o-DF_c$ (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.