



Full wwPDB EM Validation Report ⓘ

Dec 7, 2022 – 04:02 PM JST

PDB ID : 7VML
EMDB ID : EMD-33935
Title : Structure of recombinant RyR2 (EGTA dataset, class 1&2, closed state)
Authors : Kobayashi, T.; Tsutsumi, A.; Kurebayashi, N.; Kodama, M.; Kikkawa, M.;
Murayama, T.; Ogawa, H.
Deposited on : 2021-10-09
Resolution : 3.30 Å(reported)

This is a Full wwPDB EM 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/EMValidationReportHelp>

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:

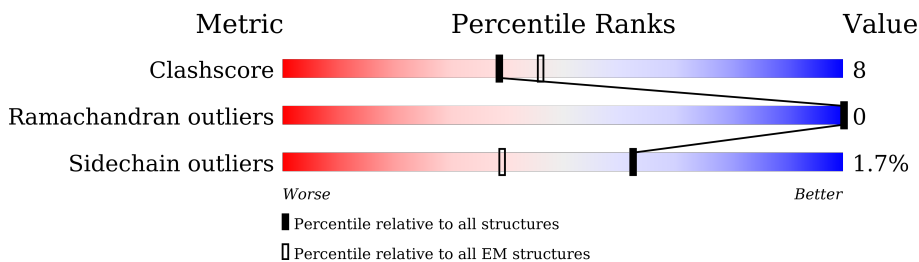
EMDB validation analysis : 0.0.1.dev43
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.3

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.30 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)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the 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 EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	4966	
1	B	4966	
1	C	4966	
1	D	4966	
2	G	176	
2	H	176	
2	I	176	
2	J	176	

2 Entry composition i

There are 3 unique types of molecules in this entry. The entry contains 123564 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 Ryanodine receptor 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	4044	30071	19035	5243	5617	176	0	0
1	B	4044	30071	19035	5243	5617	176	0	0
1	C	4044	30071	19035	5243	5617	176	0	0
1	D	4044	30071	19035	5243	5617	176	0	0

- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	G	107	819	516	144	155	4	0	0
2	H	107	819	516	144	155	4	0	0
2	I	107	819	516	144	155	4	0	0
2	J	107	819	516	144	155	4	0	0

There are 276 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
G	-67	MET	-	initiating methionine	UNP P68106
G	-66	GLY	-	expression tag	UNP P68106
G	-65	SER	-	expression tag	UNP P68106
G	-64	SER	-	expression tag	UNP P68106
G	-63	HIS	-	expression tag	UNP P68106
G	-62	HIS	-	expression tag	UNP P68106
G	-61	HIS	-	expression tag	UNP P68106
G	-60	HIS	-	expression tag	UNP P68106
G	-59	HIS	-	expression tag	UNP P68106

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Chain	Residue	Modelled	Actual	Comment	Reference
G	-58	HIS	-	expression tag	UNP P68106
G	-57	SER	-	expression tag	UNP P68106
G	-56	SER	-	expression tag	UNP P68106
G	-55	GLY	-	expression tag	UNP P68106
G	-54	LEU	-	expression tag	UNP P68106
G	-53	VAL	-	expression tag	UNP P68106
G	-52	PRO	-	expression tag	UNP P68106
G	-51	ARG	-	expression tag	UNP P68106
G	-50	GLY	-	expression tag	UNP P68106
G	-49	SER	-	expression tag	UNP P68106
G	-48	HIS	-	expression tag	UNP P68106
G	-47	MET	-	expression tag	UNP P68106
G	-46	ALA	-	expression tag	UNP P68106
G	-45	SER	-	expression tag	UNP P68106
G	-44	MET	-	expression tag	UNP P68106
G	-43	ASP	-	expression tag	UNP P68106
G	-42	GLU	-	expression tag	UNP P68106
G	-41	LYS	-	expression tag	UNP P68106
G	-40	THR	-	expression tag	UNP P68106
G	-39	THR	-	expression tag	UNP P68106
G	-38	GLY	-	expression tag	UNP P68106
G	-37	TRP	-	expression tag	UNP P68106
G	-36	ARG	-	expression tag	UNP P68106
G	-35	GLY	-	expression tag	UNP P68106
G	-34	GLY	-	expression tag	UNP P68106
G	-33	HIS	-	expression tag	UNP P68106
G	-32	VAL	-	expression tag	UNP P68106
G	-31	VAL	-	expression tag	UNP P68106
G	-30	GLU	-	expression tag	UNP P68106
G	-29	GLY	-	expression tag	UNP P68106
G	-28	LEU	-	expression tag	UNP P68106
G	-27	ALA	-	expression tag	UNP P68106
G	-26	GLY	-	expression tag	UNP P68106
G	-25	GLU	-	expression tag	UNP P68106
G	-24	LEU	-	expression tag	UNP P68106
G	-23	GLU	-	expression tag	UNP P68106
G	-22	GLN	-	expression tag	UNP P68106
G	-21	LEU	-	expression tag	UNP P68106
G	-20	ARG	-	expression tag	UNP P68106
G	-19	ALA	-	expression tag	UNP P68106
G	-18	ARG	-	expression tag	UNP P68106
G	-17	LEU	-	expression tag	UNP P68106

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Chain	Residue	Modelled	Actual	Comment	Reference
G	-16	GLU	-	expression tag	UNP P68106
G	-15	HIS	-	expression tag	UNP P68106
G	-14	HIS	-	expression tag	UNP P68106
G	-13	PRO	-	expression tag	UNP P68106
G	-12	GLN	-	expression tag	UNP P68106
G	-11	GLY	-	expression tag	UNP P68106
G	-10	GLN	-	expression tag	UNP P68106
G	-9	ARG	-	expression tag	UNP P68106
G	-8	GLU	-	expression tag	UNP P68106
G	-7	PRO	-	expression tag	UNP P68106
G	-6	GLY	-	expression tag	UNP P68106
G	-5	SER	-	expression tag	UNP P68106
G	-4	GLY	-	expression tag	UNP P68106
G	-3	GLY	-	expression tag	UNP P68106
G	-2	SER	-	expression tag	UNP P68106
G	-1	GLY	-	expression tag	UNP P68106
G	0	GLY	-	expression tag	UNP P68106
G	1	THR	-	expression tag	UNP P68106
H	-67	MET	-	initiating methionine	UNP P68106
H	-66	GLY	-	expression tag	UNP P68106
H	-65	SER	-	expression tag	UNP P68106
H	-64	SER	-	expression tag	UNP P68106
H	-63	HIS	-	expression tag	UNP P68106
H	-62	HIS	-	expression tag	UNP P68106
H	-61	HIS	-	expression tag	UNP P68106
H	-60	HIS	-	expression tag	UNP P68106
H	-59	HIS	-	expression tag	UNP P68106
H	-58	HIS	-	expression tag	UNP P68106
H	-57	SER	-	expression tag	UNP P68106
H	-56	SER	-	expression tag	UNP P68106
H	-55	GLY	-	expression tag	UNP P68106
H	-54	LEU	-	expression tag	UNP P68106
H	-53	VAL	-	expression tag	UNP P68106
H	-52	PRO	-	expression tag	UNP P68106
H	-51	ARG	-	expression tag	UNP P68106
H	-50	GLY	-	expression tag	UNP P68106
H	-49	SER	-	expression tag	UNP P68106
H	-48	HIS	-	expression tag	UNP P68106
H	-47	MET	-	expression tag	UNP P68106
H	-46	ALA	-	expression tag	UNP P68106
H	-45	SER	-	expression tag	UNP P68106
H	-44	MET	-	expression tag	UNP P68106

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Chain	Residue	Modelled	Actual	Comment	Reference
H	-43	ASP	-	expression tag	UNP P68106
H	-42	GLU	-	expression tag	UNP P68106
H	-41	LYS	-	expression tag	UNP P68106
H	-40	THR	-	expression tag	UNP P68106
H	-39	THR	-	expression tag	UNP P68106
H	-38	GLY	-	expression tag	UNP P68106
H	-37	TRP	-	expression tag	UNP P68106
H	-36	ARG	-	expression tag	UNP P68106
H	-35	GLY	-	expression tag	UNP P68106
H	-34	GLY	-	expression tag	UNP P68106
H	-33	HIS	-	expression tag	UNP P68106
H	-32	VAL	-	expression tag	UNP P68106
H	-31	VAL	-	expression tag	UNP P68106
H	-30	GLU	-	expression tag	UNP P68106
H	-29	GLY	-	expression tag	UNP P68106
H	-28	LEU	-	expression tag	UNP P68106
H	-27	ALA	-	expression tag	UNP P68106
H	-26	GLY	-	expression tag	UNP P68106
H	-25	GLU	-	expression tag	UNP P68106
H	-24	LEU	-	expression tag	UNP P68106
H	-23	GLU	-	expression tag	UNP P68106
H	-22	GLN	-	expression tag	UNP P68106
H	-21	LEU	-	expression tag	UNP P68106
H	-20	ARG	-	expression tag	UNP P68106
H	-19	ALA	-	expression tag	UNP P68106
H	-18	ARG	-	expression tag	UNP P68106
H	-17	LEU	-	expression tag	UNP P68106
H	-16	GLU	-	expression tag	UNP P68106
H	-15	HIS	-	expression tag	UNP P68106
H	-14	HIS	-	expression tag	UNP P68106
H	-13	PRO	-	expression tag	UNP P68106
H	-12	GLN	-	expression tag	UNP P68106
H	-11	GLY	-	expression tag	UNP P68106
H	-10	GLN	-	expression tag	UNP P68106
H	-9	ARG	-	expression tag	UNP P68106
H	-8	GLU	-	expression tag	UNP P68106
H	-7	PRO	-	expression tag	UNP P68106
H	-6	GLY	-	expression tag	UNP P68106
H	-5	SER	-	expression tag	UNP P68106
H	-4	GLY	-	expression tag	UNP P68106
H	-3	GLY	-	expression tag	UNP P68106
H	-2	SER	-	expression tag	UNP P68106

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Chain	Residue	Modelled	Actual	Comment	Reference
H	-1	GLY	-	expression tag	UNP P68106
H	0	GLY	-	expression tag	UNP P68106
H	1	THR	-	expression tag	UNP P68106
I	-67	MET	-	initiating methionine	UNP P68106
I	-66	GLY	-	expression tag	UNP P68106
I	-65	SER	-	expression tag	UNP P68106
I	-64	SER	-	expression tag	UNP P68106
I	-63	HIS	-	expression tag	UNP P68106
I	-62	HIS	-	expression tag	UNP P68106
I	-61	HIS	-	expression tag	UNP P68106
I	-60	HIS	-	expression tag	UNP P68106
I	-59	HIS	-	expression tag	UNP P68106
I	-58	HIS	-	expression tag	UNP P68106
I	-57	SER	-	expression tag	UNP P68106
I	-56	SER	-	expression tag	UNP P68106
I	-55	GLY	-	expression tag	UNP P68106
I	-54	LEU	-	expression tag	UNP P68106
I	-53	VAL	-	expression tag	UNP P68106
I	-52	PRO	-	expression tag	UNP P68106
I	-51	ARG	-	expression tag	UNP P68106
I	-50	GLY	-	expression tag	UNP P68106
I	-49	SER	-	expression tag	UNP P68106
I	-48	HIS	-	expression tag	UNP P68106
I	-47	MET	-	expression tag	UNP P68106
I	-46	ALA	-	expression tag	UNP P68106
I	-45	SER	-	expression tag	UNP P68106
I	-44	MET	-	expression tag	UNP P68106
I	-43	ASP	-	expression tag	UNP P68106
I	-42	GLU	-	expression tag	UNP P68106
I	-41	LYS	-	expression tag	UNP P68106
I	-40	THR	-	expression tag	UNP P68106
I	-39	THR	-	expression tag	UNP P68106
I	-38	GLY	-	expression tag	UNP P68106
I	-37	TRP	-	expression tag	UNP P68106
I	-36	ARG	-	expression tag	UNP P68106
I	-35	GLY	-	expression tag	UNP P68106
I	-34	GLY	-	expression tag	UNP P68106
I	-33	HIS	-	expression tag	UNP P68106
I	-32	VAL	-	expression tag	UNP P68106
I	-31	VAL	-	expression tag	UNP P68106
I	-30	GLU	-	expression tag	UNP P68106
I	-29	GLY	-	expression tag	UNP P68106

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Chain	Residue	Modelled	Actual	Comment	Reference
I	-28	LEU	-	expression tag	UNP P68106
I	-27	ALA	-	expression tag	UNP P68106
I	-26	GLY	-	expression tag	UNP P68106
I	-25	GLU	-	expression tag	UNP P68106
I	-24	LEU	-	expression tag	UNP P68106
I	-23	GLU	-	expression tag	UNP P68106
I	-22	GLN	-	expression tag	UNP P68106
I	-21	LEU	-	expression tag	UNP P68106
I	-20	ARG	-	expression tag	UNP P68106
I	-19	ALA	-	expression tag	UNP P68106
I	-18	ARG	-	expression tag	UNP P68106
I	-17	LEU	-	expression tag	UNP P68106
I	-16	GLU	-	expression tag	UNP P68106
I	-15	HIS	-	expression tag	UNP P68106
I	-14	HIS	-	expression tag	UNP P68106
I	-13	PRO	-	expression tag	UNP P68106
I	-12	GLN	-	expression tag	UNP P68106
I	-11	GLY	-	expression tag	UNP P68106
I	-10	GLN	-	expression tag	UNP P68106
I	-9	ARG	-	expression tag	UNP P68106
I	-8	GLU	-	expression tag	UNP P68106
I	-7	PRO	-	expression tag	UNP P68106
I	-6	GLY	-	expression tag	UNP P68106
I	-5	SER	-	expression tag	UNP P68106
I	-4	GLY	-	expression tag	UNP P68106
I	-3	GLY	-	expression tag	UNP P68106
I	-2	SER	-	expression tag	UNP P68106
I	-1	GLY	-	expression tag	UNP P68106
I	0	GLY	-	expression tag	UNP P68106
I	1	THR	-	expression tag	UNP P68106
J	-67	MET	-	initiating methionine	UNP P68106
J	-66	GLY	-	expression tag	UNP P68106
J	-65	SER	-	expression tag	UNP P68106
J	-64	SER	-	expression tag	UNP P68106
J	-63	HIS	-	expression tag	UNP P68106
J	-62	HIS	-	expression tag	UNP P68106
J	-61	HIS	-	expression tag	UNP P68106
J	-60	HIS	-	expression tag	UNP P68106
J	-59	HIS	-	expression tag	UNP P68106
J	-58	HIS	-	expression tag	UNP P68106
J	-57	SER	-	expression tag	UNP P68106
J	-56	SER	-	expression tag	UNP P68106

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Chain	Residue	Modelled	Actual	Comment	Reference
J	-55	GLY	-	expression tag	UNP P68106
J	-54	LEU	-	expression tag	UNP P68106
J	-53	VAL	-	expression tag	UNP P68106
J	-52	PRO	-	expression tag	UNP P68106
J	-51	ARG	-	expression tag	UNP P68106
J	-50	GLY	-	expression tag	UNP P68106
J	-49	SER	-	expression tag	UNP P68106
J	-48	HIS	-	expression tag	UNP P68106
J	-47	MET	-	expression tag	UNP P68106
J	-46	ALA	-	expression tag	UNP P68106
J	-45	SER	-	expression tag	UNP P68106
J	-44	MET	-	expression tag	UNP P68106
J	-43	ASP	-	expression tag	UNP P68106
J	-42	GLU	-	expression tag	UNP P68106
J	-41	LYS	-	expression tag	UNP P68106
J	-40	THR	-	expression tag	UNP P68106
J	-39	THR	-	expression tag	UNP P68106
J	-38	GLY	-	expression tag	UNP P68106
J	-37	TRP	-	expression tag	UNP P68106
J	-36	ARG	-	expression tag	UNP P68106
J	-35	GLY	-	expression tag	UNP P68106
J	-34	GLY	-	expression tag	UNP P68106
J	-33	HIS	-	expression tag	UNP P68106
J	-32	VAL	-	expression tag	UNP P68106
J	-31	VAL	-	expression tag	UNP P68106
J	-30	GLU	-	expression tag	UNP P68106
J	-29	GLY	-	expression tag	UNP P68106
J	-28	LEU	-	expression tag	UNP P68106
J	-27	ALA	-	expression tag	UNP P68106
J	-26	GLY	-	expression tag	UNP P68106
J	-25	GLU	-	expression tag	UNP P68106
J	-24	LEU	-	expression tag	UNP P68106
J	-23	GLU	-	expression tag	UNP P68106
J	-22	GLN	-	expression tag	UNP P68106
J	-21	LEU	-	expression tag	UNP P68106
J	-20	ARG	-	expression tag	UNP P68106
J	-19	ALA	-	expression tag	UNP P68106
J	-18	ARG	-	expression tag	UNP P68106
J	-17	LEU	-	expression tag	UNP P68106
J	-16	GLU	-	expression tag	UNP P68106
J	-15	HIS	-	expression tag	UNP P68106
J	-14	HIS	-	expression tag	UNP P68106

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Chain	Residue	Modelled	Actual	Comment	Reference
J	-13	PRO	-	expression tag	UNP P68106
J	-12	GLN	-	expression tag	UNP P68106
J	-11	GLY	-	expression tag	UNP P68106
J	-10	GLN	-	expression tag	UNP P68106
J	-9	ARG	-	expression tag	UNP P68106
J	-8	GLU	-	expression tag	UNP P68106
J	-7	PRO	-	expression tag	UNP P68106
J	-6	GLY	-	expression tag	UNP P68106
J	-5	SER	-	expression tag	UNP P68106
J	-4	GLY	-	expression tag	UNP P68106
J	-3	GLY	-	expression tag	UNP P68106
J	-2	SER	-	expression tag	UNP P68106
J	-1	GLY	-	expression tag	UNP P68106
J	0	GLY	-	expression tag	UNP P68106
J	1	THR	-	expression tag	UNP P68106

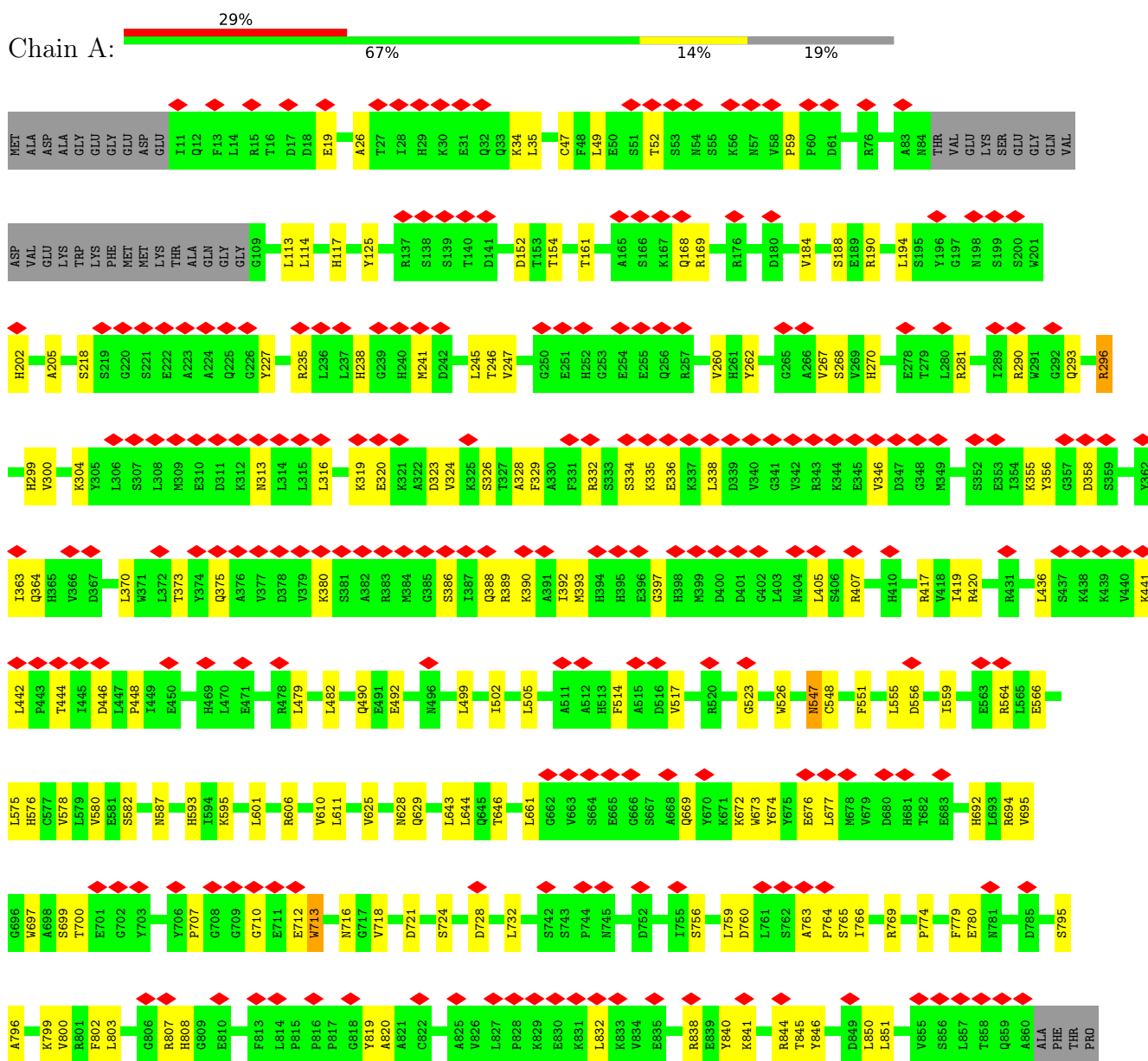
- Molecule 3 is ZINC ION (three-letter code: ZN) (formula: Zn) (labeled as "Ligand of Interest" by depositor).

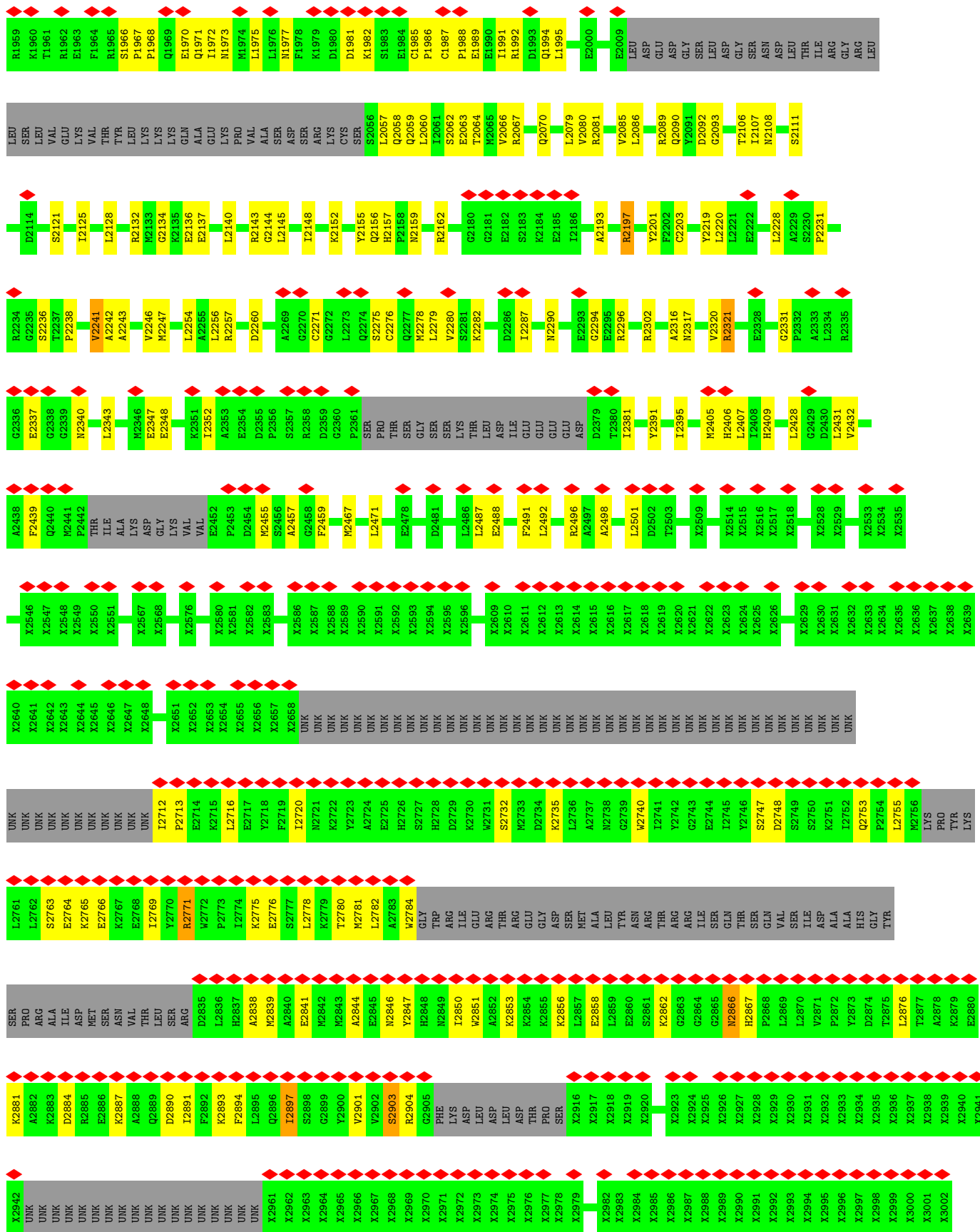
Mol	Chain	Residues	Atoms		AltConf
3	A	1	Total 1	Zn 1	0
3	B	1	Total 1	Zn 1	0
3	C	1	Total 1	Zn 1	0
3	D	1	Total 1	Zn 1	0

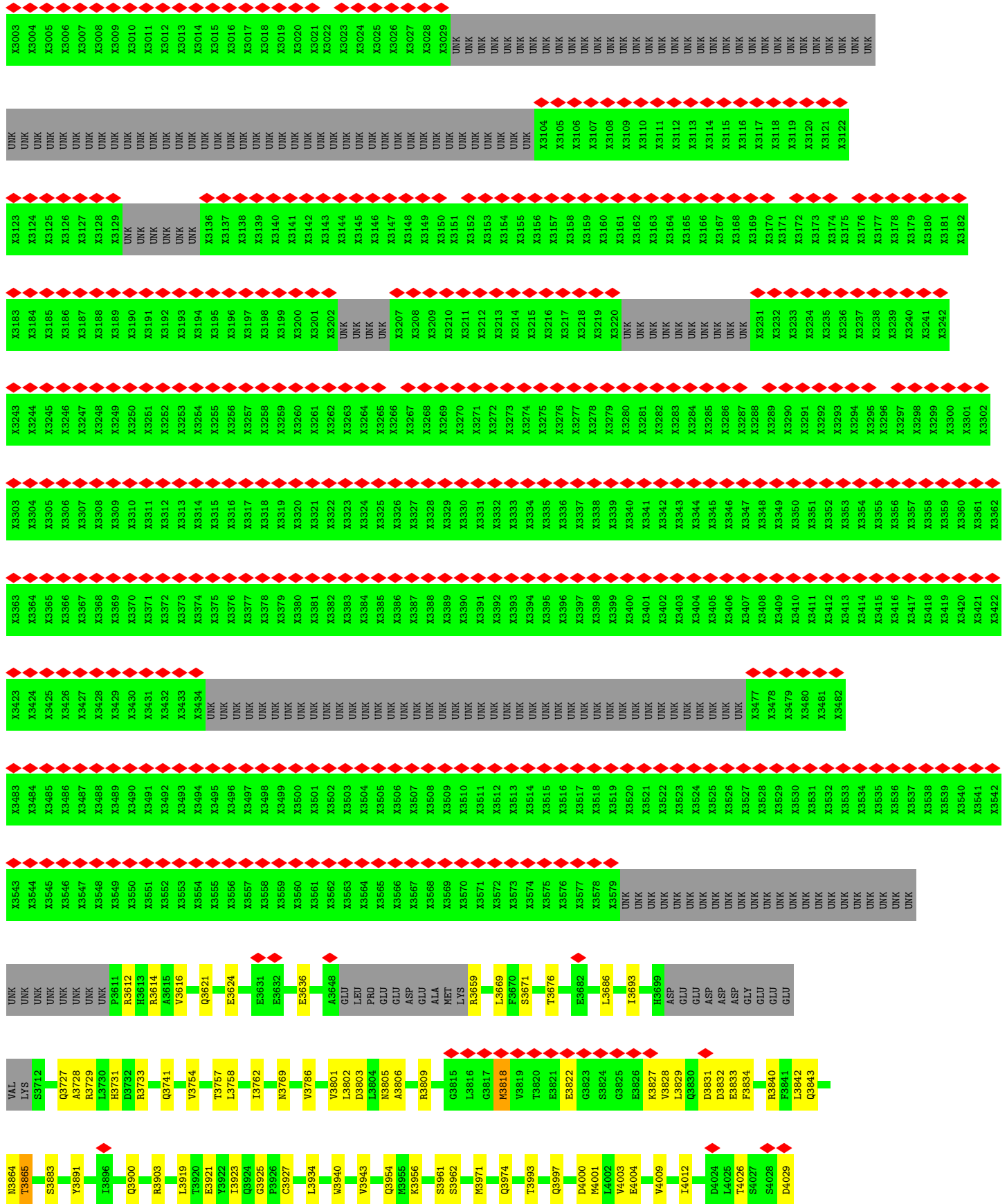
3 Residue-property plots

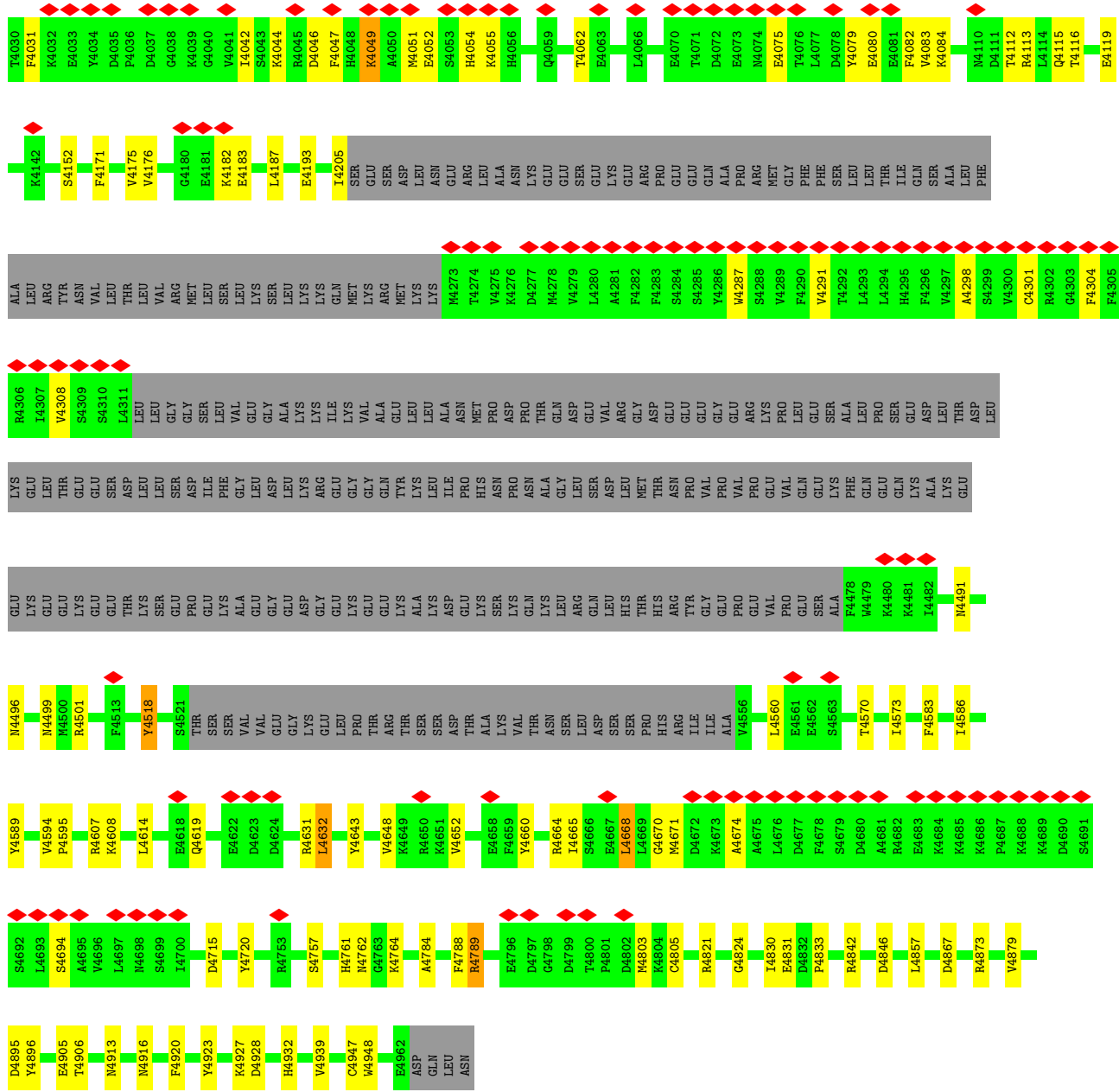
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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: Ryanodine receptor 2

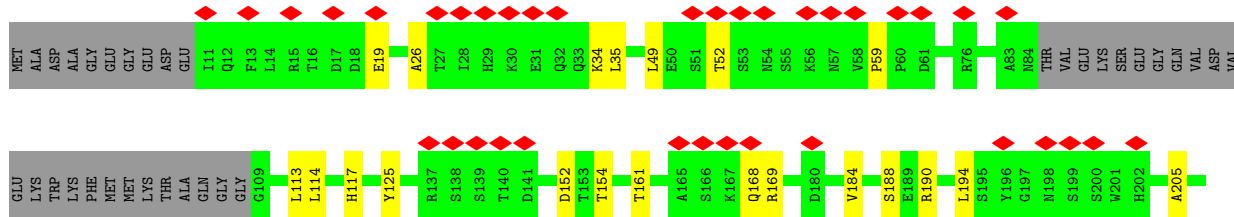


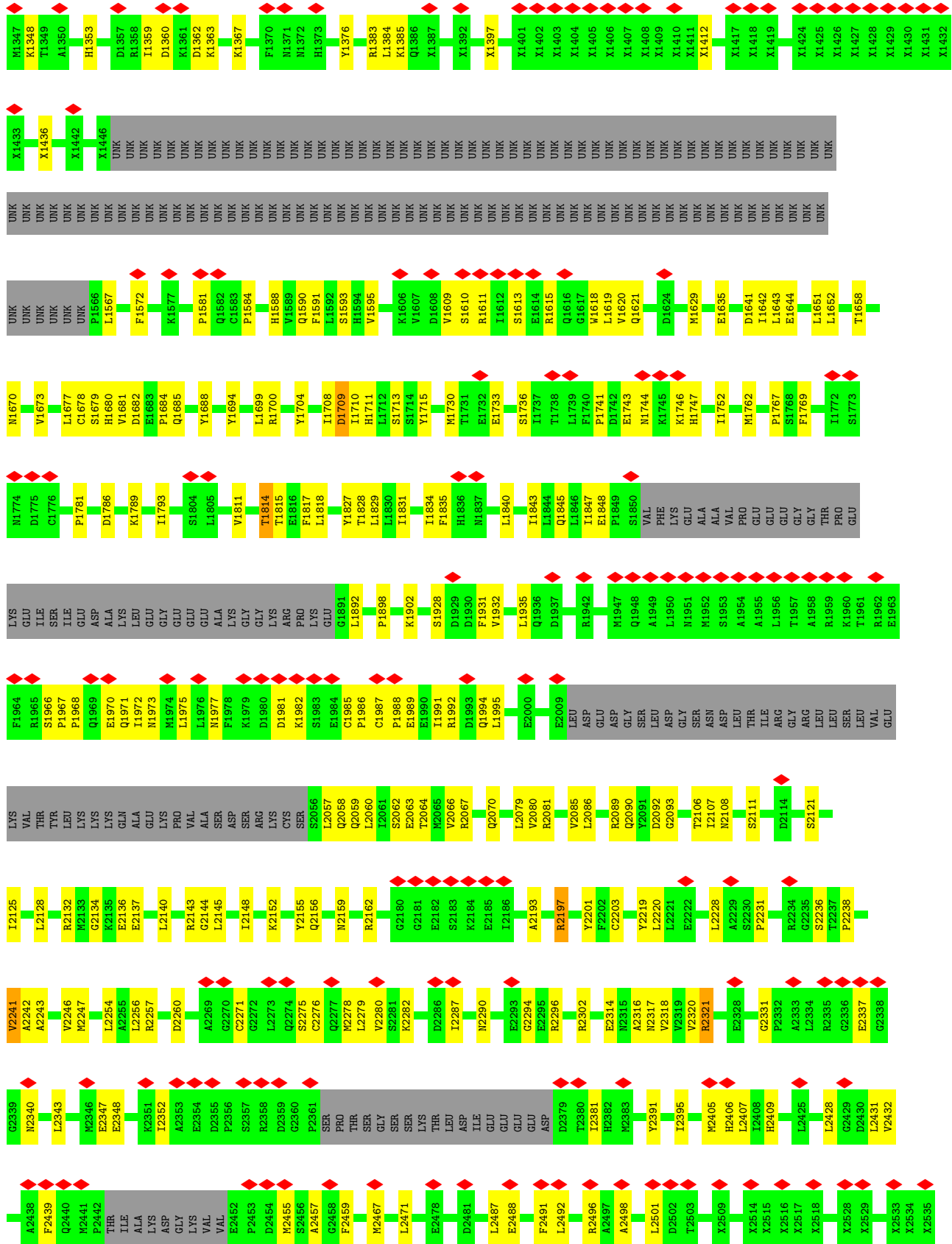


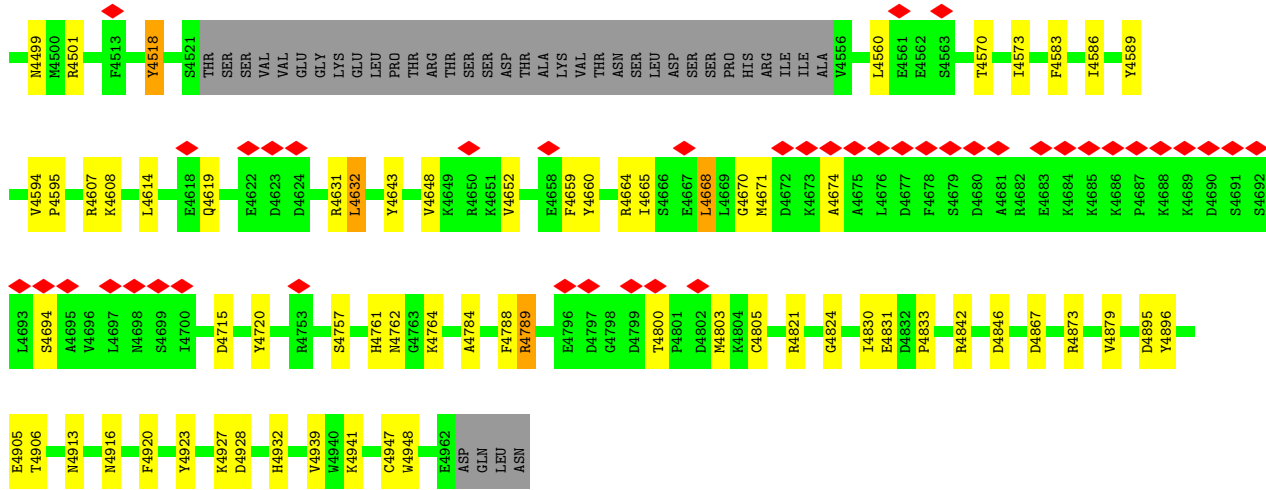




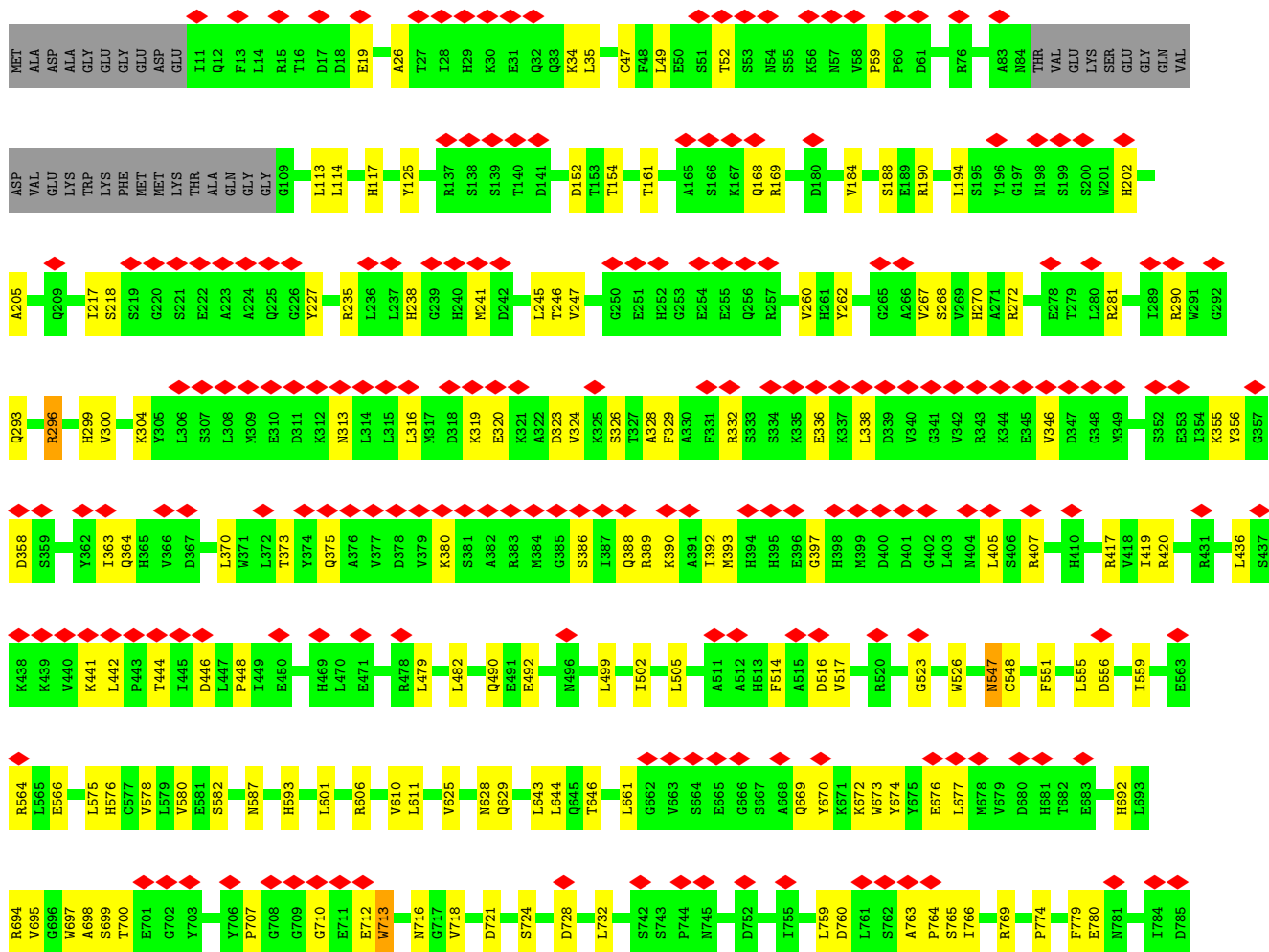
• Molecule 1: Ryanodine receptor 2

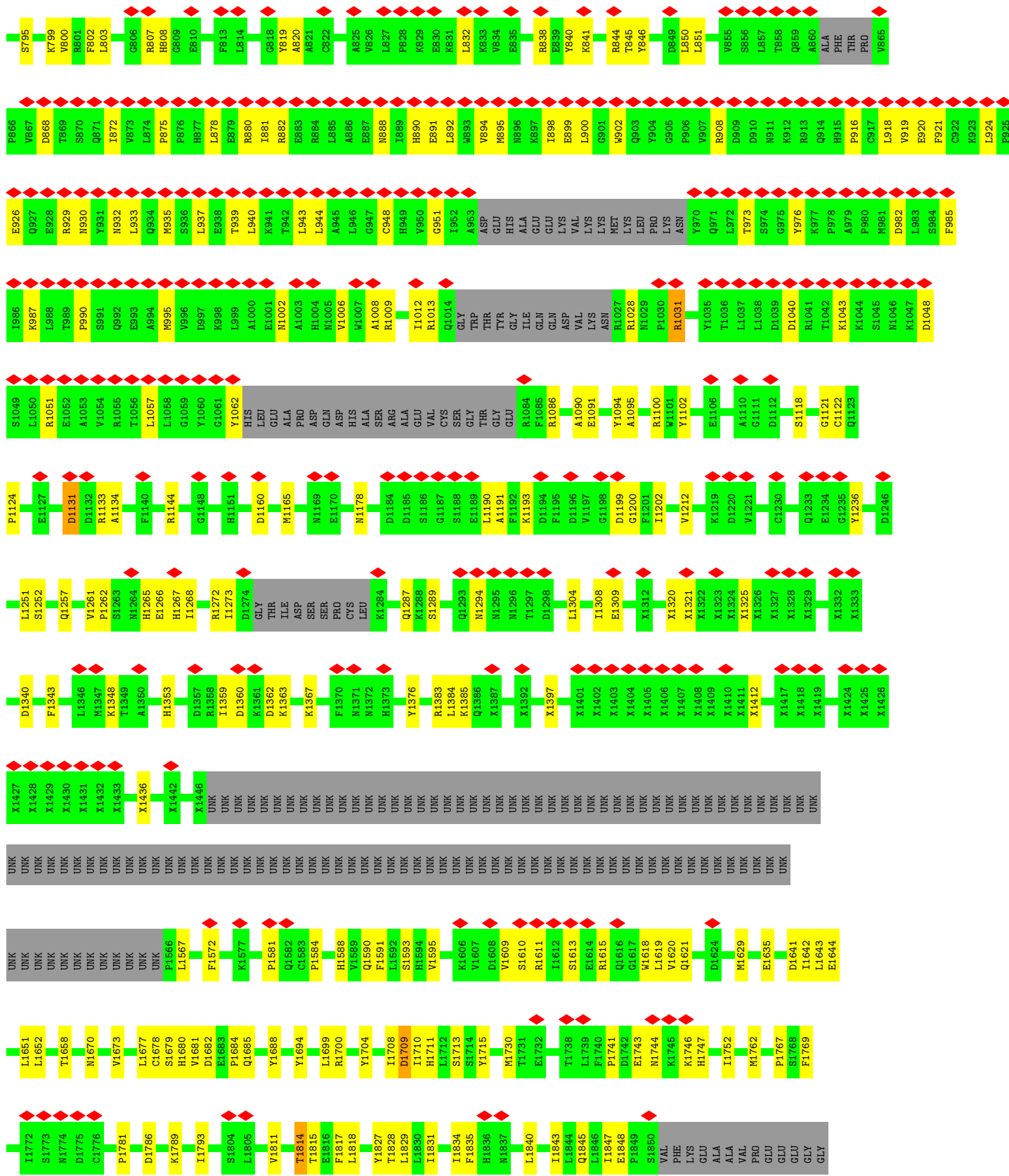




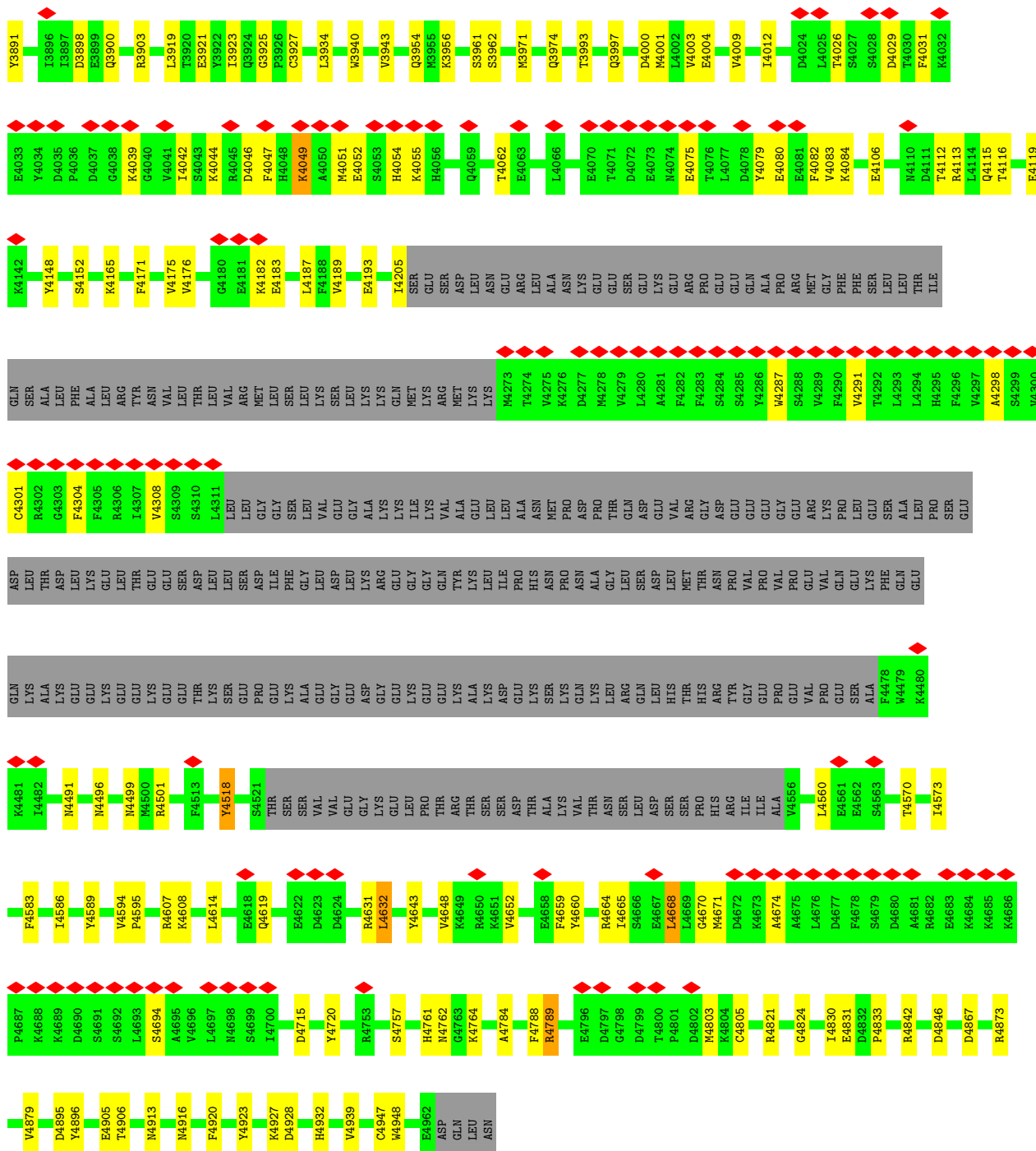


● Molecule 1: Ryanodine receptor 2



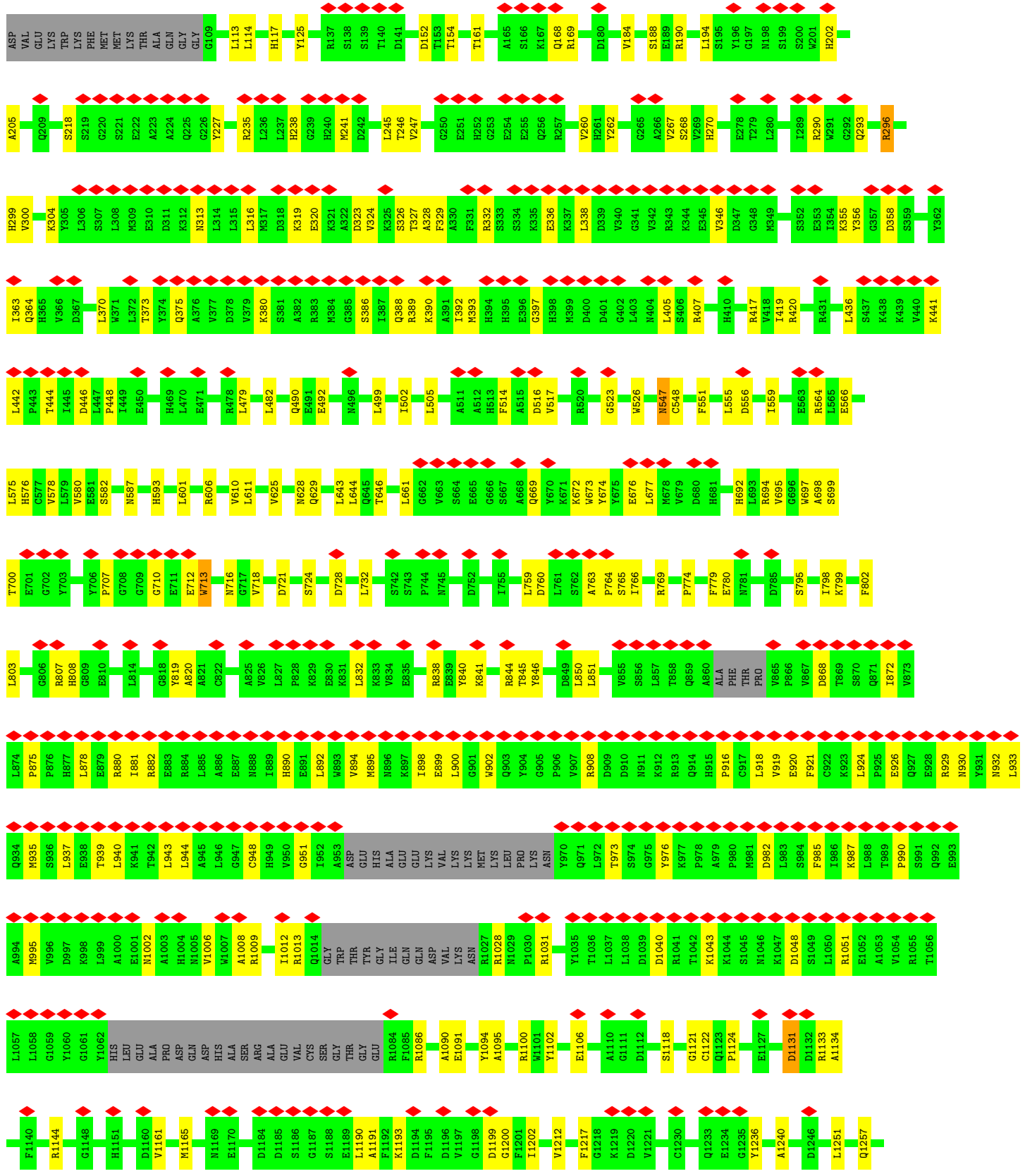


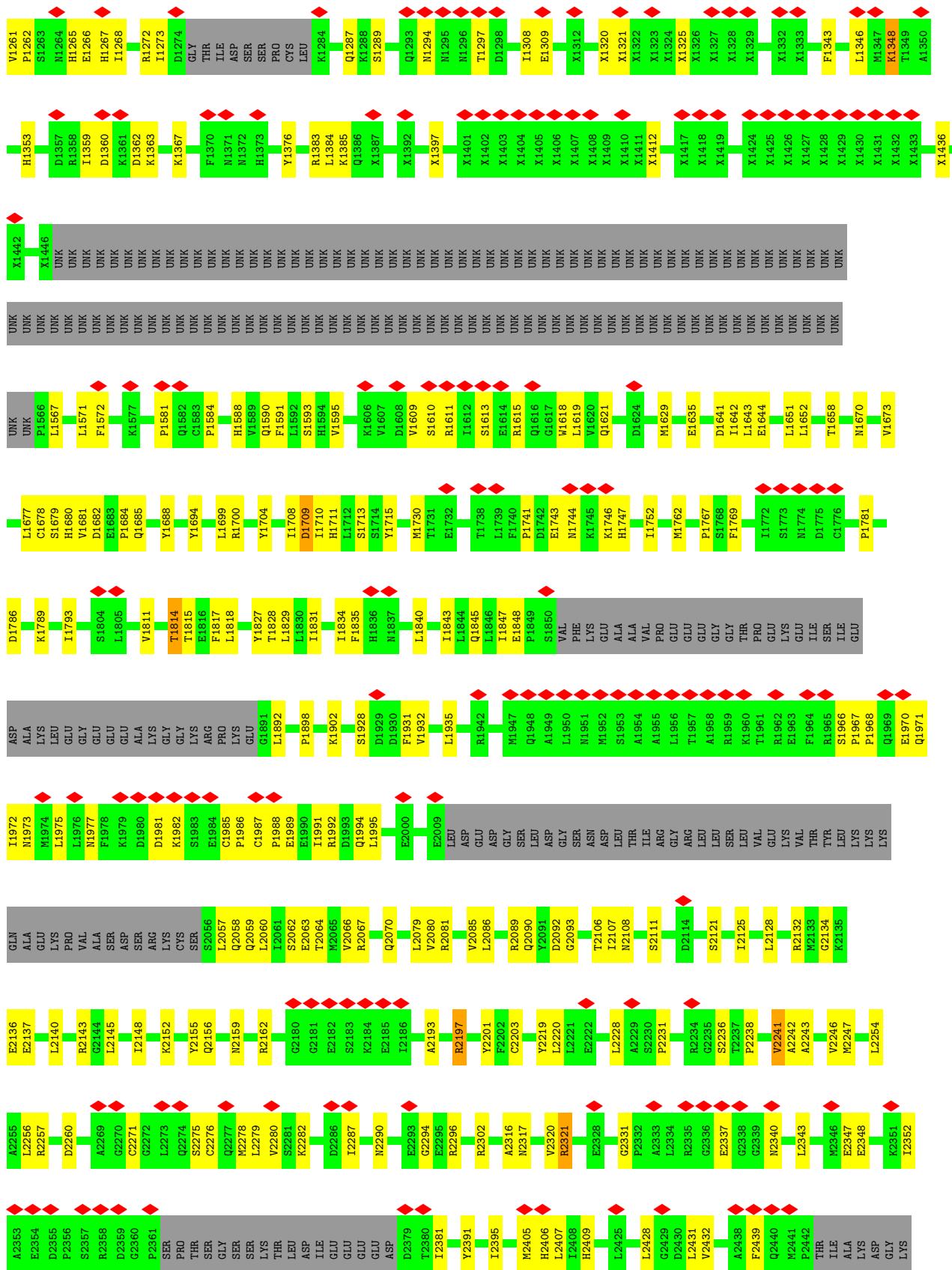
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UNK	X3006	X2964	X3126	X3186	X3246	X3306	X3366	X3426	X3486	X3546	UNK	R3729
UNK	X3007	X2965	X3127	X3187	X3247	X3307	X3367	X3427	X3487	X3547	UNK	L3730
UNK	X3008	X2966	X3128	X3188	X3248	X3308	X3368	X3428	X3488	X3548	UNK	H3731
UNK	X3009	X2967	X3129	X3189	X3249	X3309	X3369	X3429	X3489	X3549	UNK	R3732
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UNK	X3016	X2974	UNK	UNK	X3256	X3316	X3376	UNK	X3496	X3556	E3624	
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UNK	X3018	X2976	UNK	UNK	X3258	X3318	X3378	UNK	X3498	X3558	E3632	V3801
UNK	X3019	X2977	UNK	UNK	X3259	X3319	X3379	UNK	X3499	X3559	E3636	L3802
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			UNK	UNK	X3301	X3361	X3421	UNK	X3541	UNK	LYS	
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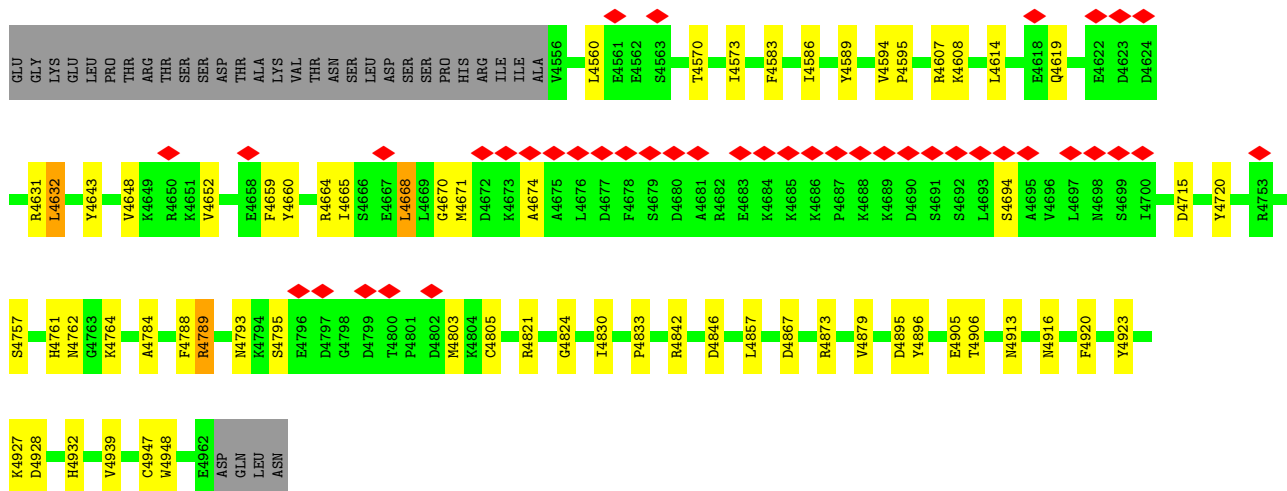
• Molecule 1: Ryanodine receptor 2



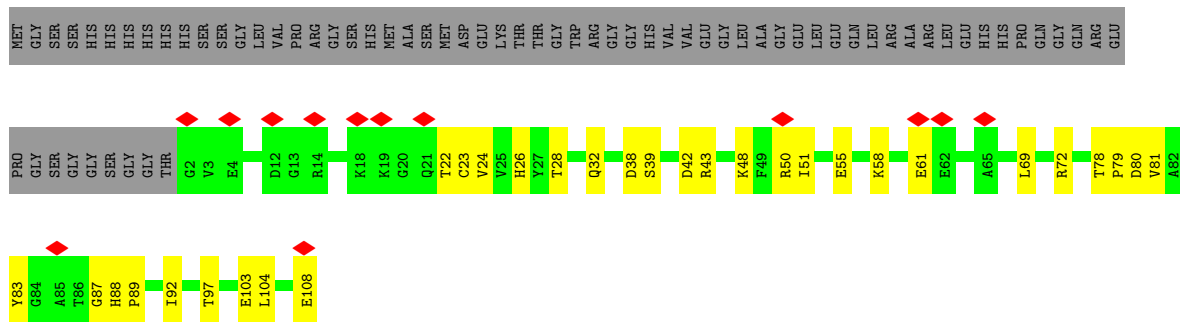




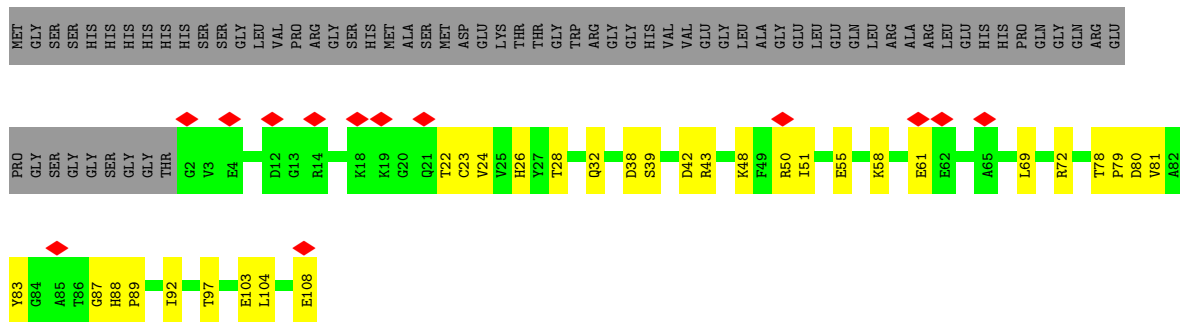
X3315	UNK	X3495	X3555	L3768	Q3924	H4048	E4193	SER	LYS	GLY	F4478	N4491	M4496	N4499	M4500	R4501	F4513	Y4518	S4521	THR	X3316	X3376	X3496	X3556	L3769	G3925	H4049	E4194	LEU	LEU	G3926	H4050	I4205	ILE	ASP	F4479	M4492	M4496	N4499	M4500	R4501	F4513	Y4518	S4521	THR	X3317	X3377	X3497	X3557	I3762	P3926	C3927	A4050	SER	GLY	F4480	N4493	M4496	N4499	M4500	R4501	F4513	Y4518	S4521	THR	X3318	X3378	X3498	X3558	N3769	E3624	E3631	H4051	GLU	GLY	F4481	N4494	M4497	N4499	M4500	R4501	F4513	Y4518	S4521	THR	X3319	X3379	X3499	X3559	Y3786	W3940	S4053	H4052	ASP	GLY	F4482	N4495	M4498	N4499	M4500	R4501	F4513	Y4518	S4521	THR	X3320	X3380	X3500	X3560	V3801	W3943	H4054	H4055	ASP	GLY	F4483	N4496	M4499	N4499	M4500	R4501	F4513	Y4518	S4521	THR	X3321	X3381	X3501	X3561	V3802	V3943	H4056	H4056	ASP	GLY	F4484	N4497	M4500	N4500	M4500	R4501	F4513	Y4518	S4521	THR	X3322	X3382	X3502	X3562	D3803	V3944	H4057	H4057	ASP	GLY	F4485	N4498	M4501	N4501	M4501	R4501	F4513	Y4518	S4521	THR	X3323	X3383	X3503	X3563	D3804	V3945	H4058	H4058	ASP	GLY	F4486	N4499	M4502	N4502	M4502	R4501	F4513	Y4518	S4521	THR	X3324	X3384	X3504	X3564	D3805	V3946	H4059	H4059	ASP	GLY	F4487	N4500	M4503	N4503	M4503	R4501	F4513	Y4518	S4521	THR	X3325	X3385	X3505	X3565	D3806	V3947	H4060	H4060	ASP	GLY	F4488	N4501	M4504	N4504	M4504	R4501	F4513	Y4518	S4521	THR	X3326	X3386	X3506	X3566	D3807	V3948	H4061	H4061	ASP	GLY	F4489	N4502	M4505	N4505	M4505	R4501	F4513	Y4518	S4521	THR	X3327	X3387	X3507	X3567	D3808	V3949	H4062	H4062	ASP	GLY	F4490	N4503	M4506	N4506	M4506	R4501	F4513	Y4518	S4521	THR	X3328	X3388	X3508	X3568	D3809	V3950	H4063	H4063	ASP	GLY	F4491	N4504	M4507	N4507	M4507	R4501	F4513	Y4518	S4521	THR	X3329	X3389	X3509	X3569	D3810	V3951	H4064	H4064	ASP	GLY	F4492	N4505	M4508	N4508	M4508	R4501	F4513	Y4518	S4521	THR	X3330	X3390	X3510	X3570	D3811	V3952	H4065	H4065	ASP	GLY	F4493	N4506	M4509	N4509	M4509	R4501	F4513	Y4518	S4521	THR	X3331	X3391	X3511	X3571	D3812	V3953	H4066	H4066	ASP	GLY	F4494	N4507	M4510	N4510	M4510	R4501	F4513	Y4518	S4521	THR	X3332	X3392	X3512	X3572	D3813	V3954	H4067	H4067	ASP	GLY	F4495	N4508	M4511	N4511	M4511	R4501	F4513	Y4518	S4521	THR	X3333	X3393	X3513	X3573	D3814	V3955	H4068	H4068	ASP	GLY	F4496	N4509	M4512	N4512	M4512	R4501	F4513	Y4518	S4521	THR	X3334	X3394	X3514	X3574	D3815	V3956	H4069	H4069	ASP	GLY	F4497	N4510	M4513	N4513	M4513	R4501	F4513	Y4518	S4521	THR	X3335	X3395	X3515	X3575	D3816	V3957	H4070	H4070	ASP	GLY	F4498	N4511	M4514	N4514	M4514	R4501	F4513	Y4518	S4521	THR	X3336	X3396	X3516	X3576	D3817	V3958	H4071	H4071	ASP	GLY	F4499	N4512	M4515	N4515	M4515	R4501	F4513	Y4518	S4521	THR	X3337	X3397	X3517	X3577	D3818	V3959	H4072	H4072	ASP	GLY	F4500	N4513	M4516	N4516	M4516	R4501	F4513	Y4518	S4521	THR	X3338	X3398	X3518	X3578	D3819	V3960	H4073	H4073	ASP	GLY	F4501	N4514	M4517	N4517	M4517	R4501	F4513	Y4518	S4521	THR	X3339	X3399	X3519	X3579	D3820	V3961	H4074	H4074	ASP	GLY	F4502	N4515	M4518	N4518	M4518	R4501	F4513	Y4518	S4521	THR	X3340	X3400	X3520	UNK	D3821	V3962	H4075	H4075	ASP	GLY	F4503	N4516	M4519	N4519	M4519	R4501	F4513	Y4518	S4521	THR	X3341	X3401	X3521	UNK	D3822	V3963	H4076	H4076	ASP	GLY	F4504	N4517	M4520	N4520	M4520	R4501	F4513	Y4518	S4521	THR	X3342	X3402	X3522	UNK	D3823	V3964	H4077	H4077	ASP	GLY	F4505	N4518	M4521	N4521	M4521	R4501	F4513	Y4518	S4521	THR	X3343	X3403	X3523	UNK	D3824	V3965	H4078	H4078	ASP	GLY	F4506	N4519	M4522	N4522	M4522	R4501	F4513	Y4518	S4521	THR	X3344	X3404	X3524	UNK	D3825	V3966	H4079	H4079	ASP	GLY	F4507	N4520	M4523	N4523	M4523	R4501	F4513	Y4518	S4521	THR	X3345	X3405	X3525	UNK	D3826	V3967	H4080	H4080	ASP	GLY	F4508	N4521	M4524	N4524	M4524	R4501	F4513	Y4518	S4521	THR	X3346	X3406	X3526	UNK	D3827	V3968	H4081	H4081	ASP	GLY	F4509	N4522	M4525	N4525	M4525	R4501	F4513	Y4518	S4521	THR	X3347	X3407	X3527	UNK	D3828	V3969	H4082	H4082	ASP	GLY	F4510	N4523	M4526	N4526	M4526	R4501	F4513	Y4518	S4521	THR	X3348	X3408	X3528	UNK	D3829	V3970	H4083	H4083	ASP	GLY	F4511	N4524	M4527	N4527	M4527	R4501	F4513	Y4518	S4521	THR	X3349	X3409	X3529	UNK	D3830	V3971	H4084	H4084	ASP	GLY	F4512	N4525	M4528	N4528	M4528	R4501	F4513	Y4518	S4521	THR	X3350	X3410	X3530	UNK	D3831	V3972	H4085	H4085	ASP	GLY	F4513	N4526	M4529	N4529	M4529	R4501	F4513	Y4518	S4521	THR	X3351	X3411	X3531	UNK	D3832	V3973	H4086	H4086	ASP	GLY	F4514	N4527	M4530	N4530	M4530	R4501	F4513	Y4518	S4521	THR	X3352	X3412	X3532	UNK	D3833	V3974	H4087	H4087	ASP	GLY	F4515	N4528	M4531	N4531	M4531	R4501	F4513	Y4518	S4521	THR	X3353	X3413	X3533	UNK	D3834	V3975	H4088	H4088	ASP	GLY	F4516	N4529	M4532	N4532	M4532	R4501	F4513	Y4518	S4521	THR	X3354	X3414	X3534	UNK	D3835	V3976	H4089	H4089	ASP	GLY	F4517	N4530	M4533	N4533	M4533	R4501	F4513	Y4518	S4521	THR	X3355	X3415	X3535	UNK	D3836	V3977	H4090	H4090	ASP	GLY	F4518	N4531	M4534	N4534	M4534	R4501	F4513	Y4518	S4521	THR	X3356	X3416	X3536	UNK	D3837	V3978	H4091	H4091	ASP	GLY	F4519	N4532	M4535	N4535	M4535	R4501	F4513	Y4518	S4521	THR	X3357	X3417	X3537	UNK	D3838	V3979	H4092	H4092	ASP	GLY	F4520	N4533	M4536	N4536	M4536	R4501	F4513	Y4518	S4521	THR	X3358	X3418	X3538	UNK	D3839	V3980	H4093	H4093	ASP	GLY	F4521	N4534	M4537	N4537	M4537	R4501	F4513	Y4518	S4521	THR	X3359	X3419	X3539	UNK	D3840	V3981	H4094	H4094	ASP	GLY	F4522	N4535	M4538	N4538	M4538	R4501	F4513	Y4518	S4521	THR	X3360	X3420	X3540	UNK	D3841	V3982	H4095	H4095	ASP	GLY	F4523	N4536	M4539	N4539	M4539	R4501	F4513	Y4518	S4521	THR	X3361	X3421	X3541	UNK	D3842	V3983	H4096	H4096	ASP	GLY	F4524	N4537	M4540	N4540	M4540	R4501	F4513	Y4518	S4521	THR	X3362	X3422	X3542	UNK	D3843	V3984	H4097	H4097	ASP	GLY	F4525	N4538	M4541	N4541	M4541	R4501	F4513	Y4518	S4521	THR	X3363	X3423	X3543	UNK	D3844	V3985	H4098	H4098	ASP	GLY	F4526	N4539	M4542	N4542	M4542	R4501	F4513	Y4518	S4521	THR	X3364	X3424	X3544	UNK	D3845	V3986	H4099	H4099	ASP	GLY	F4527	N4540	M4543	N4543	M4543	R4501	F4513	Y4518	S4521	THR	X3365	X3425	X3545	UNK	D3846	V3987	H4100	H4100	ASP	GLY	F4528	N4541	M4544	N4544	M4544	R4501	F4513	Y4518	S4521	THR	X3366	X3426	X3546	UNK	D3847	V3988	H4101	H4101	ASP	GLY	F4529	N4542	M4545	N4545	M4545	R4501	F4513	Y4518	S4521	THR	X3367	X3427	X3547	UNK	D3848	V3989	H4102	H4102	ASP	GLY	F4530	N4543	M4546	N4546	M4546	R4501	F4513	Y4518	S4521	THR	X3368	X3428	X3548	UNK	D3849	V3990	H4103	H4103	ASP	GLY	F4531	N4544	M4547	N4547	M4547	R4501	F4513	Y4518	S4521	THR	X3369	X3429	X3549	UNK	D3850	V3991	H4104	H4104	ASP	GLY	F4532	N4545	M4548	N4548	M4548	R4501	F4513	Y4518	S4521	THR	X3370	X3430	X3550	UNK	D3851	V3992	H4105	H4105	ASP	GLY	F4533	N4546	M4549	N4549	M4549	R4501	F4513	Y4518	S4521	THR	X3371	X3431	X3551	UNK	D3852	V3993	H4106	H4106	ASP	GLY	F4534	N4547	M4550	N4550	M4550	R4501	F4513	Y4518	S4521	THR	X3372	X3432	X3552	UNK	D3853	V3994	H4107	H4107	ASP	GLY	F4535	N4548	M4551	N4551	M4551	R4501	F4513	Y4518	S4521	THR	X3373	X3433	X3553	UNK	D3854	V3995	H4108	H4108	ASP	GLY	F4536	N4549	M4552	N4552	M4552	R4501	F4513	Y4518	S4521	THR	X3374	X3434	X3554	UNK	D3855	V3996	H4109	H4109	ASP	GLY	F4537	N4550	M4553	N4553	M4553	R4501	F4513	Y4518	S4521	THR	X3375	X3435	X3555	UNK	D3856	V3997	H4110	H4110	ASP	GLY	F4538	N4551	M4554	N4554	M4554	R4501	F4513	Y4518	S4521	THR	X3376	X3436	X3556	UNK	D3857	V3998	H4111	H4111	ASP	GLY	F4539	N4552	M4555	N4555	M4555	R4501	F4513	Y4518	S4521	THR	X3377	X3437	X3557	UNK	D3858	V3999	H4112	H4112	ASP	GLY	F4540	N4553	M4556	N4556	M4556	R4501	F4513	Y4518	S4521	THR	X3378	X3438	X3558	UNK	D3859	V4000	H4113	H4113	ASP	GLY	F4541	N4554	M4557	N4557	M4557	R4501	F4513	Y4518	S4521	THR	X3379	X3439	X3559	UNK	D3860	V4001	H4114	H4114	ASP	GLY	F4542	N4555	M4558	N4558	M4558	R4501	F4513	Y4518	S4521	THR	X3380	X3440	X3560	UNK	D3861	V4002	H4115	H4115	ASP	GLY	F4543	N4556	M4559	N4559	M4559	R4501	F4513	Y4518	S4521	THR	X3381	X3441	X3561	UNK	D3862	V4003	H4116	H4116	ASP	GLY	F4544	N4557	M4560	N4560	M4560	R4501	F4513	Y4518	S4521	THR	X3382	X3442	X3562	UNK	D3863	V4004	H4117	H4117	ASP	GLY	F4545	N4558	M4561	N4561	M4561	R4501	F4513	Y4518	S4521	THR	X3383	X3443	X3563	UNK	D3864	V4005	H4118	H4118	ASP	GLY	F4546	N4559	M4562	N4562	M4562	R4501	F4513	Y4518	S4521	THR	X3384	X3444	X3564	UNK	D3865	V4006	H4119	H4119	ASP	GLY	F4547	N4560	M4563	N4563	M4563	R4501	F4513	Y4518	S4521	THR	X3385	X3445	X3565	UNK	D3866	V4007	H4120	H4120	ASP	GLY	F4548	N4561	M4564	N4564	M4564	R4501	F4513	Y4518	S4521	THR	X3386	X3446
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• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

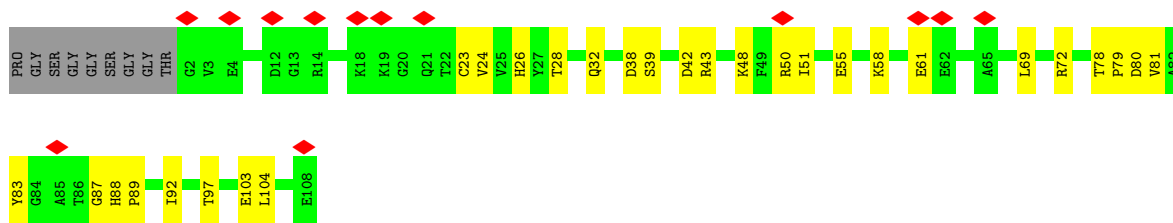


• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

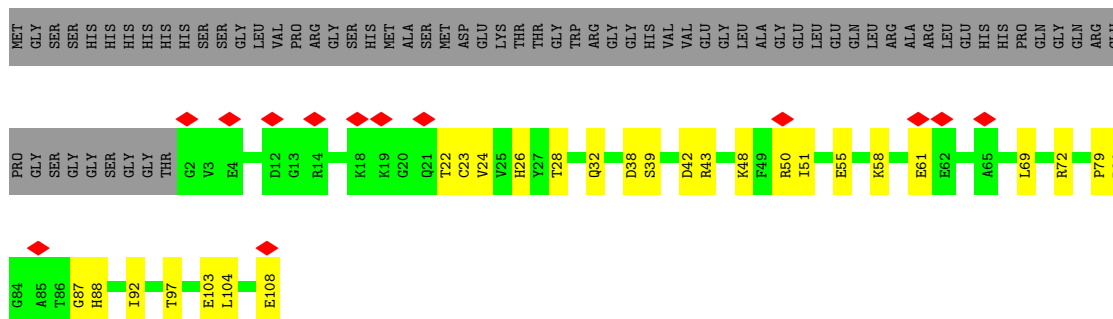
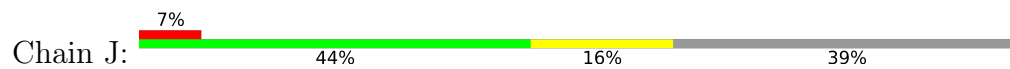


• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B





• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	264902	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	50	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.151	Depositor
Minimum map value	-0.091	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.005	Depositor
Recommended contour level	0.023	Depositor
Map size (\AA)	513.60004, 513.60004, 513.60004	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	1.284, 1.284, 1.284	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

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	0.24	0/26895	0.41	0/36316
1	B	0.24	0/26895	0.41	0/36316
1	C	0.25	0/26895	0.41	0/36316
1	D	0.25	0/26895	0.41	0/36316
2	G	0.26	0/835	0.46	0/1123
2	H	0.26	0/835	0.46	0/1123
2	I	0.26	0/835	0.46	0/1123
2	J	0.26	0/835	0.46	0/1123
All	All	0.25	0/110920	0.41	0/149756

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

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	30071	0	26715	447	0
1	B	30071	0	26715	452	0
1	C	30071	0	26714	453	0
1	D	30071	0	26715	440	0
2	G	819	0	821	19	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	H	819	0	821	20	0
2	I	819	0	821	18	0
2	J	819	0	821	17	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
3	C	1	0	0	0	0
3	D	1	0	0	0	0
All	All	123564	0	110143	1847	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 8.

All (1847) 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:D:2406:HIS:HA	1:D:2409:HIS:HB3	1.62	0.82
1:C:2406:HIS:HA	1:C:2409:HIS:HB3	1.62	0.81
1:B:2406:HIS:HA	1:B:2409:HIS:HB3	1.62	0.80
1:A:2406:HIS:HA	1:A:2409:HIS:HB3	1.62	0.80
1:A:4042:ILE:HG22	1:A:4044:LYS:H	1.50	0.76
1:C:4042:ILE:HG22	1:C:4044:LYS:H	1.50	0.76
1:B:4042:ILE:HG22	1:B:4044:LYS:H	1.50	0.76
1:A:1741:PRO:HB3	1:A:1746:LYS:HE3	1.68	0.76
1:D:1741:PRO:HB3	1:D:1746:LYS:HE3	1.68	0.76
1:D:4042:ILE:HG22	1:D:4044:LYS:H	1.50	0.75
1:C:1741:PRO:HB3	1:C:1746:LYS:HE3	1.68	0.75
1:B:1741:PRO:HB3	1:B:1746:LYS:HE3	1.68	0.75
1:C:4833:PRO:HB3	1:C:4842:ARG:HD3	1.69	0.74
1:B:3843:GLN:HG3	1:B:3921:GLU:HG3	1.70	0.74
1:A:4833:PRO:HB3	1:A:4842:ARG:HD3	1.69	0.73
1:A:3843:GLN:HG3	1:A:3921:GLU:HG3	1.70	0.73
1:D:3843:GLN:HG3	1:D:3921:GLU:HG3	1.70	0.73
1:B:4833:PRO:HB3	1:B:4842:ARG:HD3	1.69	0.73
1:C:3843:GLN:HG3	1:C:3921:GLU:HG3	1.70	0.73
1:C:838:ARG:H	1:C:841:LYS:HZ1	1.37	0.72
1:D:2771:ARG:HH22	1:D:2775:LYS:HD2	1.55	0.72
1:D:4833:PRO:HB3	1:D:4842:ARG:HD3	1.69	0.72
1:B:2771:ARG:HH22	1:B:2775:LYS:HD2	1.55	0.72
1:B:694:ARG:HG2	1:B:728:ASP:HB3	1.72	0.72
1:A:694:ARG:HG2	1:A:728:ASP:HB3	1.72	0.71
1:C:2771:ARG:HH22	1:C:2775:LYS:HD2	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:880:ARG:HG3	1:A:881:ILE:HD12	1.73	0.71
1:A:2771:ARG:HH22	1:A:2775:LYS:HD2	1.54	0.71
1:D:880:ARG:HG3	1:D:881:ILE:HD12	1.73	0.70
1:B:880:ARG:HG3	1:B:881:ILE:HD12	1.73	0.69
1:D:694:ARG:HG2	1:D:728:ASP:HB3	1.72	0.69
1:C:694:ARG:HG2	1:C:728:ASP:HB3	1.72	0.69
1:A:1744:ASN:HD21	1:A:1746:LYS:HE2	1.58	0.69
1:C:880:ARG:HG3	1:C:881:ILE:HD12	1.73	0.69
1:D:2732:SER:HA	1:D:2735:LYS:HG2	1.75	0.69
1:D:1744:ASN:HD21	1:D:1746:LYS:HE2	1.58	0.68
1:B:1744:ASN:HD21	1:B:1746:LYS:HE2	1.58	0.68
1:C:2732:SER:HA	1:C:2735:LYS:HG2	1.75	0.68
1:B:2732:SER:HA	1:B:2735:LYS:HG2	1.75	0.68
1:C:1744:ASN:HD21	1:C:1746:LYS:HE2	1.58	0.68
1:D:838:ARG:H	1:D:841:LYS:HZ1	1.40	0.68
1:C:1262:PRO:HG2	1:C:1265:HIS:HB2	1.77	0.67
1:A:1262:PRO:HG2	1:A:1265:HIS:HB2	1.77	0.67
1:C:4003:VAL:HG11	1:C:4113:ARG:HG2	1.76	0.67
1:C:4042:ILE:HG21	1:C:4047:PHE:HB2	1.77	0.67
1:B:1847:ILE:HG23	1:B:1892:LEU:HB3	1.77	0.67
1:A:2732:SER:HA	1:A:2735:LYS:HG2	1.75	0.67
1:C:1681:VAL:HG23	1:C:1682:ASP:H	1.60	0.67
1:D:1262:PRO:HG2	1:D:1265:HIS:HB2	1.77	0.67
1:B:1262:PRO:HG2	1:B:1265:HIS:HB2	1.77	0.66
1:C:1613:SER:O	1:C:1615:ARG:NH2	2.28	0.66
1:C:1682:ASP:HB2	1:C:1685:GLN:HB3	1.78	0.66
1:B:4003:VAL:HG11	1:B:4113:ARG:HG2	1.76	0.66
1:D:1682:ASP:HB2	1:D:1685:GLN:HB3	1.78	0.66
1:D:4003:VAL:HG11	1:D:4113:ARG:HG2	1.76	0.66
1:A:1682:ASP:HB2	1:A:1685:GLN:HB3	1.78	0.66
1:A:4003:VAL:HG11	1:A:4113:ARG:HG2	1.76	0.66
1:C:1006:VAL:HG13	1:C:1009:ARG:HH21	1.61	0.66
1:C:1847:ILE:HG23	1:C:1892:LEU:HB3	1.77	0.66
1:B:1613:SER:O	1:B:1615:ARG:NH2	2.28	0.66
1:C:1266:GLU:O	1:C:1267:HIS:ND1	2.29	0.66
1:B:1266:GLU:O	1:B:1267:HIS:ND1	2.29	0.65
1:B:1682:ASP:HB2	1:B:1685:GLN:HB3	1.78	0.65
1:D:1613:SER:O	1:D:1615:ARG:NH2	2.28	0.65
1:A:1681:VAL:HG23	1:A:1682:ASP:H	1.60	0.65
1:A:4873:ARG:NH1	1:D:4867:ASP:OD1	2.28	0.65
1:D:1681:VAL:HG23	1:D:1682:ASP:H	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1847:ILE:HG23	1:A:1892:LEU:HB3	1.77	0.65
1:B:1681:VAL:HG23	1:B:1682:ASP:H	1.60	0.65
1:C:4824:GLY:O	1:D:4821:ARG:NH2	2.30	0.65
2:G:24:VAL:HG22	2:G:48:LYS:HG2	1.79	0.65
1:D:1006:VAL:HG13	1:D:1009:ARG:HH21	1.61	0.65
1:A:1613:SER:O	1:A:1615:ARG:NH2	2.28	0.65
1:D:1847:ILE:HG23	1:D:1892:LEU:HB3	1.77	0.65
1:D:4042:ILE:HG21	1:D:4047:PHE:HB2	1.77	0.65
1:B:4042:ILE:HG21	1:B:4047:PHE:HB2	1.77	0.65
1:A:4042:ILE:HG21	1:A:4047:PHE:HB2	1.77	0.65
1:A:4821:ARG:NH2	1:D:4824:GLY:O	2.29	0.65
1:B:2488:GLU:HA	1:B:2492:LEU:HD12	1.79	0.65
1:A:1266:GLU:O	1:A:1267:HIS:ND1	2.29	0.65
1:D:3727:GLN:OE1	1:D:3769:ASN:ND2	2.30	0.65
1:B:4867:ASP:OD1	1:C:4873:ARG:NH1	2.30	0.65
2:I:23:CYS:HB2	2:I:51:ILE:HD11	1.79	0.65
1:A:2488:GLU:HA	1:A:2492:LEU:HD12	1.79	0.65
1:D:2488:GLU:HA	1:D:2492:LEU:HD12	1.79	0.65
1:A:1006:VAL:HG13	1:A:1009:ARG:HH21	1.61	0.64
1:C:4867:ASP:OD1	1:D:4873:ARG:NH1	2.30	0.64
1:D:1266:GLU:O	1:D:1267:HIS:ND1	2.29	0.64
2:J:24:VAL:HG22	2:J:48:LYS:HG2	1.78	0.64
1:A:3954:GLN:NE2	1:A:3974:GLN:OE1	2.31	0.64
2:G:23:CYS:HB2	2:G:51:ILE:HD11	1.79	0.64
1:A:4789:ARG:NH2	1:A:4805:CYS:O	2.31	0.64
1:B:4789:ARG:NH2	1:B:4805:CYS:O	2.31	0.64
2:H:24:VAL:HG22	2:H:48:LYS:HG2	1.78	0.64
1:A:4842:ARG:NH1	1:A:4846:ASP:OD2	2.31	0.64
1:B:3954:GLN:NE2	1:B:3974:GLN:OE1	2.31	0.64
1:B:1265:HIS:HD2	1:B:1268:ILE:HB	1.62	0.64
1:B:4619:GLN:HE22	1:B:4631:ARG:HH12	1.44	0.64
1:C:3954:GLN:NE2	1:C:3974:GLN:OE1	2.31	0.64
1:B:1006:VAL:HG13	1:B:1009:ARG:HH21	1.61	0.64
1:B:4842:ARG:NH1	1:B:4846:ASP:OD2	2.31	0.64
2:I:24:VAL:HG22	2:I:48:LYS:HG2	1.79	0.64
1:D:4842:ARG:NH1	1:D:4846:ASP:OD2	2.31	0.64
1:C:1265:HIS:HD2	1:C:1268:ILE:HB	1.62	0.64
1:C:1989:GLU:HG2	1:C:1992:ARG:HD3	1.79	0.64
1:C:2488:GLU:HA	1:C:2492:LEU:HD12	1.79	0.64
1:A:4867:ASP:OD1	1:B:4873:ARG:NH1	2.31	0.64
2:H:23:CYS:HB2	2:H:51:ILE:HD11	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1265:HIS:HD2	1:D:1268:ILE:HB	1.62	0.64
1:D:4619:GLN:HE22	1:D:4631:ARG:HH12	1.44	0.63
1:B:1359:ILE:HG12	1:B:1363:LYS:HD2	1.80	0.63
1:D:1989:GLU:HG2	1:D:1992:ARG:HD3	1.79	0.63
1:A:838:ARG:H	1:A:841:LYS:HZ1	1.46	0.63
1:A:1265:HIS:HD2	1:A:1268:ILE:HB	1.62	0.63
1:B:1989:GLU:HG2	1:B:1992:ARG:HD3	1.79	0.63
1:C:4789:ARG:NH2	1:C:4805:CYS:O	2.31	0.63
1:A:3727:GLN:OE1	1:A:3769:ASN:ND2	2.30	0.63
1:D:3954:GLN:NE2	1:D:3974:GLN:OE1	2.31	0.63
1:D:4789:ARG:NH2	1:D:4805:CYS:O	2.31	0.63
1:C:4842:ARG:NH1	1:C:4846:ASP:OD2	2.31	0.63
1:A:1989:GLU:HG2	1:A:1992:ARG:HD3	1.79	0.63
1:A:4619:GLN:HE22	1:A:4631:ARG:HH12	1.44	0.63
1:C:1684:PRO:HD3	2:I:42:ASP:HB3	1.80	0.63
1:B:3727:GLN:OE1	1:B:3769:ASN:ND2	2.30	0.63
1:C:4619:GLN:HE22	1:C:4631:ARG:HH12	1.44	0.63
1:D:1359:ILE:HG12	1:D:1363:LYS:HD2	1.80	0.63
1:A:1610:SER:HB3	1:A:1619:LEU:HB3	1.81	0.62
2:J:23:CYS:HB2	2:J:51:ILE:HD11	1.79	0.62
1:C:760:ASP:HB3	1:C:764:PRO:HG2	1.81	0.62
1:D:1040:ASP:HA	1:D:1043:LYS:HG3	1.80	0.62
1:B:1040:ASP:HA	1:B:1043:LYS:HG3	1.80	0.62
1:A:1040:ASP:HA	1:A:1043:LYS:HG3	1.80	0.62
1:B:4824:GLY:O	1:C:4821:ARG:NH2	2.33	0.62
1:C:1040:ASP:HA	1:C:1043:LYS:HG3	1.80	0.62
1:D:2275:SER:OG	1:D:2287:ILE:O	2.16	0.62
1:A:1359:ILE:HG12	1:A:1363:LYS:HD2	1.80	0.62
1:C:3727:GLN:OE1	1:C:3769:ASN:ND2	2.30	0.62
1:A:4824:GLY:O	1:B:4821:ARG:NH2	2.33	0.62
1:B:760:ASP:HB3	1:B:764:PRO:HG2	1.81	0.62
1:B:1610:SER:HB3	1:B:1619:LEU:HB3	1.81	0.62
1:B:672:LYS:HB3	1:B:819:TYR:HA	1.82	0.62
1:B:838:ARG:H	1:B:841:LYS:HZ1	1.48	0.62
2:G:32:GLN:NE2	2:G:97:THR:OG1	2.31	0.62
1:A:672:LYS:HB3	1:A:819:TYR:HA	1.82	0.61
1:C:1359:ILE:HG12	1:C:1363:LYS:HD2	1.80	0.61
1:A:1708:ILE:HD12	1:A:1828:THR:HG21	1.83	0.61
1:B:1684:PRO:HD3	2:H:42:ASP:HB3	1.80	0.61
1:D:1708:ILE:HD12	1:D:1828:THR:HG21	1.83	0.61
2:J:32:GLN:NE2	2:J:97:THR:OG1	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:676:GLU:HB2	1:A:803:LEU:HB2	1.82	0.61
1:A:760:ASP:HB3	1:A:764:PRO:HG2	1.81	0.61
1:D:760:ASP:HB3	1:D:764:PRO:HG2	1.81	0.61
1:C:2275:SER:OG	1:C:2287:ILE:O	2.16	0.61
1:D:1610:SER:HB3	1:D:1619:LEU:HB3	1.81	0.61
1:A:707:PRO:O	1:A:838:ARG:NH1	2.34	0.60
1:A:1730:MET:SD	1:A:2106:THR:OG1	2.58	0.60
1:B:707:PRO:O	1:B:838:ARG:NH1	2.34	0.60
1:D:707:PRO:O	1:D:838:ARG:NH1	2.34	0.60
1:D:759:LEU:HD13	1:D:766:ILE:HG12	1.83	0.60
1:C:672:LYS:HB3	1:C:819:TYR:HA	1.82	0.60
1:C:1610:SER:HB3	1:C:1619:LEU:HB3	1.81	0.60
1:C:1708:ILE:HD12	1:C:1828:THR:HG21	1.83	0.60
1:C:1730:MET:SD	1:C:2106:THR:OG1	2.58	0.60
1:C:2145:LEU:HD23	1:C:2148:ILE:HD11	1.83	0.60
1:C:676:GLU:HB2	1:C:803:LEU:HB2	1.82	0.60
1:D:2145:LEU:HD23	1:D:2148:ILE:HD11	1.84	0.60
1:A:188:SER:HB2	1:A:190:ARG:HH21	1.67	0.60
1:A:759:LEU:HD13	1:A:766:ILE:HG12	1.83	0.60
1:A:2747:SER:O	1:A:2753:GLN:NE2	2.33	0.60
1:C:707:PRO:O	1:C:838:ARG:NH1	2.34	0.60
1:B:1708:ILE:HD12	1:B:1828:THR:HG21	1.83	0.60
1:B:2145:LEU:HD23	1:B:2148:ILE:HD11	1.83	0.60
1:C:188:SER:HB2	1:C:190:ARG:HH21	1.67	0.60
1:D:672:LYS:HB3	1:D:819:TYR:HA	1.82	0.60
1:A:2145:LEU:HD23	1:A:2148:ILE:HD11	1.83	0.60
1:D:2903:SER:OG	1:D:2904:ARG:N	2.35	0.60
1:B:1122:CYS:HA	1:B:1133:ARG:HD3	1.85	0.59
1:C:1267:HIS:HB2	1:C:1294:ASN:HB2	1.85	0.59
1:C:2747:SER:O	1:C:2753:GLN:NE2	2.33	0.59
1:C:2903:SER:OG	1:C:2904:ARG:N	2.35	0.59
1:A:1122:CYS:HA	1:A:1133:ARG:HD3	1.85	0.59
1:A:933:LEU:O	1:A:937:LEU:HG	2.03	0.59
1:B:2903:SER:OG	1:B:2904:ARG:N	2.35	0.59
1:D:1267:HIS:HB2	1:D:1294:ASN:HB2	1.85	0.59
1:B:676:GLU:HB2	1:B:803:LEU:HB2	1.82	0.59
1:D:676:GLU:HB2	1:D:803:LEU:HB2	1.82	0.59
1:A:1267:HIS:HB2	1:A:1294:ASN:HB2	1.85	0.59
1:B:290:ARG:H	1:B:293:GLN:HE21	1.50	0.59
1:D:3754:VAL:HA	1:D:3757:THR:HG22	1.85	0.59
1:C:1122:CYS:HA	1:C:1133:ARG:HD3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:188:SER:HB2	1:B:190:ARG:HH21	1.67	0.59
2:H:32:GLN:NE2	2:H:97:THR:OG1	2.31	0.59
1:C:933:LEU:O	1:C:937:LEU:HG	2.03	0.59
1:D:933:LEU:O	1:D:937:LEU:HG	2.03	0.59
1:D:1122:CYS:HA	1:D:1133:ARG:HD3	1.84	0.59
1:C:759:LEU:HD13	1:C:766:ILE:HG12	1.83	0.59
1:C:3754:VAL:HA	1:C:3757:THR:HG22	1.85	0.59
1:A:235:ARG:NH1	1:A:268:SER:O	2.36	0.59
1:A:290:ARG:H	1:A:293:GLN:HE21	1.50	0.58
1:D:290:ARG:H	1:D:293:GLN:HE21	1.50	0.58
1:A:629:GLN:HE21	1:A:1670:ASN:HD22	1.51	0.58
1:B:629:GLN:HE21	1:B:1670:ASN:HD22	1.51	0.58
1:B:1267:HIS:HB2	1:B:1294:ASN:HB2	1.85	0.58
1:A:3754:VAL:HA	1:A:3757:THR:HG22	1.85	0.58
1:B:759:LEU:HD13	1:B:766:ILE:HG12	1.83	0.58
1:A:1684:PRO:HD3	2:G:42:ASP:HB3	1.83	0.58
1:B:235:ARG:NH1	1:B:268:SER:O	2.36	0.58
1:D:188:SER:HB2	1:D:190:ARG:HH21	1.67	0.58
1:B:933:LEU:O	1:B:937:LEU:HG	2.03	0.58
1:C:235:ARG:NH1	1:C:268:SER:O	2.36	0.58
1:C:625:VAL:HG23	1:C:628:ASN:HB2	1.86	0.58
1:B:625:VAL:HG23	1:B:628:ASN:HB2	1.86	0.58
1:A:625:VAL:HG23	1:A:628:ASN:HB2	1.86	0.58
1:B:3754:VAL:HA	1:B:3757:THR:HG22	1.85	0.57
1:A:2903:SER:OG	1:A:2904:ARG:N	2.35	0.57
1:C:1273:ILE:HD11	1:C:1287:GLN:HB2	1.86	0.57
1:D:235:ARG:NH1	1:D:268:SER:O	2.36	0.57
2:G:50:ARG:N	2:G:55:GLU:OE2	2.37	0.57
1:B:921:PHE:O	1:B:929:ARG:NH1	2.36	0.57
1:C:290:ARG:H	1:C:293:GLN:HE21	1.50	0.57
2:I:32:GLN:NE2	2:I:97:THR:OG1	2.31	0.57
1:D:625:VAL:HG23	1:D:628:ASN:HB2	1.86	0.57
1:D:1273:ILE:HD11	1:D:1287:GLN:HB2	1.86	0.57
1:D:59:PRO:HB3	1:D:296:ARG:HH12	1.70	0.57
1:C:629:GLN:HE21	1:C:1670:ASN:HD22	1.51	0.57
2:J:50:ARG:N	2:J:55:GLU:OE2	2.37	0.57
1:C:59:PRO:HB3	1:C:296:ARG:HH12	1.69	0.57
1:D:629:GLN:HE21	1:D:1670:ASN:HD22	1.51	0.57
1:D:908:ARG:HG2	1:D:916:PRO:HG3	1.87	0.57
1:A:2275:SER:OG	1:A:2287:ILE:O	2.16	0.56
1:D:2275:SER:HA	1:D:2290:ASN:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:908:ARG:HG2	1:A:916:PRO:HG3	1.87	0.56
1:A:1272:ARG:NH2	1:A:1584:PRO:O	2.39	0.56
1:B:59:PRO:HB3	1:B:296:ARG:HH12	1.70	0.56
1:B:1273:ILE:HD11	1:B:1287:GLN:HB2	1.86	0.56
1:B:1730:MET:SD	1:B:2106:THR:OG1	2.58	0.56
1:D:2228:LEU:HD22	1:D:2296:ARG:HG3	1.87	0.56
1:A:59:PRO:HB3	1:A:296:ARG:HH12	1.70	0.56
1:D:1272:ARG:NH2	1:D:1584:PRO:O	2.38	0.56
1:A:1273:ILE:HD11	1:A:1287:GLN:HB2	1.86	0.56
1:C:1769:PHE:O	2:I:83:TYR:OH	2.24	0.56
1:A:2228:LEU:HD22	1:A:2296:ARG:HG3	1.87	0.56
1:B:677:LEU:HD22	1:B:695:VAL:HG21	1.88	0.56
1:C:908:ARG:HG2	1:C:916:PRO:HG3	1.87	0.56
1:C:2275:SER:HA	1:C:2290:ASN:HB2	1.87	0.56
1:D:1730:MET:SD	1:D:2106:THR:OG1	2.58	0.56
1:A:4049:LYS:HA	1:A:4052:GLU:HG2	1.88	0.56
1:D:1769:PHE:O	2:J:83:TYR:OH	2.24	0.56
1:A:677:LEU:HD22	1:A:695:VAL:HG21	1.88	0.56
2:H:50:ARG:N	2:H:55:GLU:OE2	2.37	0.56
1:D:1902:LYS:HG3	1:D:2079:LEU:HD11	1.88	0.56
1:B:1272:ARG:NH2	1:B:1584:PRO:O	2.39	0.56
1:B:2747:SER:O	1:B:2753:GLN:NE2	2.33	0.56
1:B:4049:LYS:HA	1:B:4052:GLU:HG2	1.88	0.56
2:I:50:ARG:N	2:I:55:GLU:OE2	2.37	0.56
1:D:973:THR:OG1	1:D:976:TYR:O	2.18	0.56
1:D:3729:ARG:O	1:D:3733:ARG:NH1	2.40	0.55
1:B:973:THR:OG1	1:B:976:TYR:O	2.18	0.55
1:B:1902:LYS:HG3	1:B:2079:LEU:HD11	1.88	0.55
1:B:3891:TYR:O	1:B:3956:LYS:NZ	2.37	0.55
1:C:1902:LYS:HG3	1:C:2079:LEU:HD11	1.88	0.55
1:A:1902:LYS:HG3	1:A:2079:LEU:HD11	1.88	0.55
1:A:2275:SER:HA	1:A:2290:ASN:HB2	1.87	0.55
1:B:2275:SER:OG	1:B:2287:ILE:O	2.16	0.55
1:C:844:ARG:HE	1:C:845:THR:H	1.54	0.55
1:B:908:ARG:HG2	1:B:916:PRO:HG3	1.87	0.55
1:B:1769:PHE:O	2:H:83:TYR:OH	2.24	0.55
1:B:2275:SER:HA	1:B:2290:ASN:HB2	1.87	0.55
1:C:677:LEU:HD22	1:C:695:VAL:HG21	1.88	0.55
1:D:227:TYR:HA	1:D:355:LYS:HA	1.88	0.55
1:B:2228:LEU:HD22	1:B:2296:ARG:HG3	1.87	0.55
1:C:1090:ALA:HB3	1:C:1202:ILE:HD11	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3728:ALA:HA	1:C:3731:HIS:ND1	2.22	0.55
1:A:1769:PHE:O	2:G:83:TYR:OH	2.24	0.55
1:C:2228:LEU:HD22	1:C:2296:ARG:HG3	1.87	0.55
1:B:677:LEU:HD12	1:B:802:PHE:HA	1.89	0.55
1:C:1272:ARG:NH2	1:C:1584:PRO:O	2.39	0.55
1:C:1793:ILE:HG12	1:C:1843:ILE:HD11	1.89	0.55
1:D:1684:PRO:HD3	2:J:42:ASP:HB3	1.89	0.55
1:C:677:LEU:HD12	1:C:802:PHE:HA	1.89	0.55
1:D:677:LEU:HD22	1:D:695:VAL:HG21	1.88	0.55
1:D:2747:SER:O	1:D:2753:GLN:NE2	2.33	0.55
1:A:227:TYR:HA	1:A:355:LYS:HA	1.88	0.55
1:B:3728:ALA:HA	1:B:3731:HIS:ND1	2.22	0.55
1:C:1829:LEU:HB3	1:C:1834:ILE:HD11	1.89	0.55
1:D:4049:LYS:HA	1:D:4052:GLU:HG2	1.88	0.55
1:A:677:LEU:HD12	1:A:802:PHE:HA	1.89	0.54
1:A:1090:ALA:HB3	1:A:1202:ILE:HD11	1.88	0.54
1:A:1588:HIS:HE1	1:A:1590:GLN:HE21	1.54	0.54
1:B:1793:ILE:HG12	1:B:1843:ILE:HD11	1.89	0.54
1:C:601:LEU:HB2	1:C:610:VAL:HG11	1.90	0.54
1:C:3891:TYR:O	1:C:3956:LYS:NZ	2.37	0.54
1:B:601:LEU:HB2	1:B:610:VAL:HG11	1.90	0.54
1:B:3729:ARG:O	1:B:3733:ARG:NH1	2.40	0.54
1:C:4049:LYS:HA	1:C:4052:GLU:HG2	1.88	0.54
1:D:677:LEU:HD12	1:D:802:PHE:HA	1.89	0.54
1:A:3729:ARG:O	1:A:3733:ARG:NH1	2.40	0.54
1:B:1090:ALA:HB3	1:B:1202:ILE:HD11	1.88	0.54
1:C:3729:ARG:O	1:C:3733:ARG:NH1	2.40	0.54
1:D:386:SER:HB3	1:D:388:GLN:HE22	1.73	0.54
1:D:921:PHE:O	1:D:929:ARG:NH1	2.36	0.54
1:A:1793:ILE:HG12	1:A:1843:ILE:HD11	1.89	0.54
1:A:1829:LEU:HB3	1:A:1834:ILE:HD11	1.89	0.54
1:A:4029:ASP:OD2	1:A:4054:HIS:NE2	2.39	0.54
1:C:373:THR:HG22	1:C:397:GLY:HA2	1.90	0.54
2:I:58:LYS:HA	2:I:61:GLU:HG2	1.90	0.54
1:A:973:THR:OG1	1:A:976:TYR:O	2.18	0.54
1:A:3728:ALA:HA	1:A:3731:HIS:ND1	2.22	0.54
1:B:227:TYR:HA	1:B:355:LYS:HA	1.88	0.54
1:B:732:LEU:HB3	1:B:779:PHE:CZ	2.43	0.54
1:C:386:SER:HB3	1:C:388:GLN:HE22	1.73	0.54
1:C:1588:HIS:HE1	1:C:1590:GLN:HE21	1.54	0.54
1:D:844:ARG:HE	1:D:845:THR:H	1.54	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4029:ASP:OD2	1:D:4054:HIS:NE2	2.39	0.54
1:B:168:GLN:HG3	1:B:169:ARG:HG3	1.90	0.54
1:B:373:THR:HG22	1:B:397:GLY:HA2	1.90	0.54
1:B:386:SER:HB3	1:B:388:GLN:HE22	1.73	0.54
1:B:844:ARG:HE	1:B:845:THR:H	1.54	0.54
1:D:373:THR:HG22	1:D:397:GLY:HA2	1.90	0.54
1:D:1090:ALA:HB3	1:D:1202:ILE:HD11	1.88	0.54
1:D:1829:LEU:HB3	1:D:1834:ILE:HD11	1.89	0.54
1:A:35:LEU:HD13	1:A:49:LEU:HD13	1.90	0.54
1:A:373:THR:HG22	1:A:397:GLY:HA2	1.90	0.54
1:A:2136:GLU:O	1:A:2140:LEU:HG	2.08	0.54
1:C:227:TYR:HA	1:C:355:LYS:HA	1.88	0.54
1:C:1814:THR:OG1	1:C:1815:THR:N	2.41	0.54
1:C:4029:ASP:OD2	1:C:4054:HIS:NE2	2.39	0.54
1:A:3802:LEU:HB2	1:A:3883:SER:OG	2.08	0.54
1:D:900:LEU:HD23	1:D:902:TRP:HE1	1.73	0.54
2:J:58:LYS:HA	2:J:61:GLU:HG2	1.90	0.54
1:A:168:GLN:HG3	1:A:169:ARG:HG3	1.90	0.53
1:A:844:ARG:HE	1:A:845:THR:H	1.54	0.53
1:B:35:LEU:HD13	1:B:49:LEU:HD13	1.90	0.53
1:B:900:LEU:HD23	1:B:902:TRP:HE1	1.73	0.53
1:D:35:LEU:HD13	1:D:49:LEU:HD13	1.90	0.53
1:D:732:LEU:HB3	1:D:779:PHE:CZ	2.43	0.53
1:D:1814:THR:OG1	1:D:1815:THR:N	2.41	0.53
1:D:3728:ALA:HA	1:D:3731:HIS:ND1	2.22	0.53
1:B:1397:UNK:HA	1:B:1412:UNK:HA	1.90	0.53
1:D:601:LEU:HB2	1:D:610:VAL:HG11	1.90	0.53
1:D:1793:ILE:HG12	1:D:1843:ILE:HD11	1.89	0.53
2:H:58:LYS:HA	2:H:61:GLU:HG2	1.90	0.53
1:C:1397:UNK:HA	1:C:1412:UNK:HA	1.90	0.53
1:D:1397:UNK:HA	1:D:1412:UNK:HA	1.90	0.53
2:J:79:PRO:HD3	2:J:97:THR:HG22	1.90	0.53
1:A:386:SER:HB3	1:A:388:GLN:HE22	1.73	0.53
1:A:900:LEU:HD23	1:A:902:TRP:HE1	1.73	0.53
1:A:1704:TYR:O	1:A:1708:ILE:HG12	2.09	0.53
1:B:2136:GLU:O	1:B:2140:LEU:HG	2.08	0.53
2:H:79:PRO:HD3	2:H:97:THR:HG22	1.90	0.53
1:D:1588:HIS:HE1	1:D:1590:GLN:HE21	1.54	0.53
1:D:3802:LEU:HB2	1:D:3883:SER:OG	2.08	0.53
1:A:732:LEU:HB3	1:A:779:PHE:CZ	2.43	0.53
1:A:982:ASP:OD2	1:A:985:PHE:HB2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1814:THR:OG1	1:A:1815:THR:N	2.41	0.53
2:G:79:PRO:HD3	2:G:97:THR:HG22	1.90	0.53
1:B:2716:LEU:O	1:B:2720:ILE:HG12	2.08	0.53
1:C:168:GLN:HG3	1:C:169:ARG:HG3	1.90	0.53
1:D:1704:TYR:O	1:D:1708:ILE:HG12	2.09	0.53
1:D:2716:LEU:O	1:D:2720:ILE:HG12	2.08	0.53
1:A:4115:GLN:O	1:A:4119:GLU:HG2	2.09	0.53
1:B:890:HIS:O	1:B:894:VAL:HG23	2.09	0.53
1:B:1829:LEU:HB3	1:B:1834:ILE:HD11	1.89	0.53
1:C:3802:LEU:HB2	1:C:3883:SER:OG	2.08	0.53
1:C:4115:GLN:O	1:C:4119:GLU:HG2	2.09	0.53
1:D:168:GLN:HG3	1:D:169:ARG:HG3	1.90	0.53
1:D:606:ARG:NH2	1:D:1635:GLU:OE1	2.35	0.53
1:D:890:HIS:O	1:D:894:VAL:HG23	2.09	0.53
1:A:601:LEU:HB2	1:A:610:VAL:HG11	1.90	0.53
1:A:606:ARG:NH2	1:A:1635:GLU:OE1	2.35	0.53
1:A:2152:LYS:HZ3	1:A:2155:TYR:HB2	1.73	0.53
1:A:2716:LEU:O	1:A:2720:ILE:HG12	2.08	0.53
1:B:499:LEU:HD23	1:B:502:ILE:HD11	1.90	0.53
1:B:1588:HIS:HE1	1:B:1590:GLN:HE21	1.54	0.53
1:B:3802:LEU:HB2	1:B:3883:SER:OG	2.08	0.53
1:C:441:LYS:HG2	1:C:442:LEU:HD23	1.90	0.53
1:C:732:LEU:HB3	1:C:779:PHE:CZ	2.43	0.53
1:C:1131:ASP:HB3	1:C:1133:ARG:HG2	1.91	0.53
1:A:1131:ASP:HB3	1:A:1133:ARG:HG2	1.91	0.53
1:C:35:LEU:HD13	1:C:49:LEU:HD13	1.90	0.53
1:C:59:PRO:HG2	1:C:319:LYS:HD2	1.91	0.53
1:C:304:LYS:HB2	1:C:316:LEU:HD12	1.91	0.53
2:I:79:PRO:HD3	2:I:97:THR:HG22	1.90	0.53
1:A:2712:ILE:HD13	1:A:2775:LYS:HE2	1.91	0.53
1:A:3891:TYR:O	1:A:3956:LYS:NZ	2.37	0.53
1:B:59:PRO:HG2	1:B:319:LYS:HD2	1.91	0.53
1:B:304:LYS:HB2	1:B:316:LEU:HD12	1.91	0.53
1:B:4115:GLN:O	1:B:4119:GLU:HG2	2.09	0.53
1:D:4115:GLN:O	1:D:4119:GLU:HG2	2.09	0.53
2:G:58:LYS:HA	2:G:61:GLU:HG2	1.90	0.52
1:B:1704:TYR:O	1:B:1708:ILE:HG12	2.09	0.52
1:B:1814:THR:OG1	1:B:1815:THR:N	2.41	0.52
1:B:2278:MET:O	1:B:2282:LYS:HG2	2.09	0.52
1:B:2712:ILE:HD13	1:B:2775:LYS:HE2	1.91	0.52
1:B:4029:ASP:OD2	1:B:4054:HIS:NE2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:900:LEU:HD23	1:C:902:TRP:HE1	1.73	0.52
1:D:499:LEU:HD23	1:D:502:ILE:HD11	1.90	0.52
1:D:851:LEU:HB3	1:D:1212:VAL:HG12	1.91	0.52
1:D:982:ASP:OD2	1:D:985:PHE:HB2	2.09	0.52
1:D:1091:GLU:HB3	1:D:1094:TYR:HD2	1.74	0.52
1:A:1091:GLU:HB3	1:A:1094:TYR:HD2	1.74	0.52
1:A:2159:ASN:OD1	1:A:2162:ARG:NH2	2.33	0.52
1:B:1009:ARG:O	1:B:1013:ARG:NH1	2.43	0.52
1:C:763:ALA:HB3	1:C:764:PRO:HD3	1.92	0.52
1:C:890:HIS:O	1:C:894:VAL:HG23	2.09	0.52
1:C:2136:GLU:O	1:C:2140:LEU:HG	2.08	0.52
1:C:2712:ILE:HD13	1:C:2775:LYS:HE2	1.91	0.52
1:C:2716:LEU:O	1:C:2720:ILE:HG12	2.08	0.52
1:D:59:PRO:HG2	1:D:319:LYS:HD2	1.91	0.52
1:D:1131:ASP:HB3	1:D:1133:ARG:HG2	1.91	0.52
1:A:300:VAL:O	1:A:420:ARG:NH1	2.37	0.52
1:B:1131:ASP:HB3	1:B:1133:ARG:HG2	1.91	0.52
1:C:1704:TYR:O	1:C:1708:ILE:HG12	2.09	0.52
1:D:441:LYS:HG2	1:D:442:LEU:HD23	1.90	0.52
1:D:2152:LYS:HZ3	1:D:2155:TYR:HB2	1.73	0.52
1:A:1397:UNK:HA	1:A:1412:UNK:HA	1.90	0.52
1:A:4670:GLY:O	1:A:4671:MET:HG2	2.10	0.52
1:C:894:VAL:HG13	1:C:918:LEU:HB3	1.91	0.52
1:C:2395:ILE:HG21	1:C:2467:MET:SD	2.50	0.52
1:C:4928:ASP:O	1:C:4932:HIS:NE2	2.43	0.52
1:D:2278:MET:O	1:D:2282:LYS:HG2	2.09	0.52
1:A:763:ALA:HB3	1:A:764:PRO:HD3	1.92	0.52
1:A:851:LEU:HB3	1:A:1212:VAL:HG12	1.92	0.52
1:A:4928:ASP:O	1:A:4932:HIS:NE2	2.43	0.52
1:A:1009:ARG:O	1:A:1013:ARG:NH1	2.43	0.52
1:B:982:ASP:OD2	1:B:985:PHE:HB2	2.09	0.52
1:C:1190:LEU:HD21	1:C:1193:LYS:HB3	1.92	0.52
1:D:763:ALA:HB3	1:D:764:PRO:HD3	1.92	0.52
1:D:2136:GLU:O	1:D:2140:LEU:HG	2.08	0.52
1:A:304:LYS:HB2	1:A:316:LEU:HD12	1.91	0.52
1:B:441:LYS:HG2	1:B:442:LEU:HD23	1.90	0.52
1:C:499:LEU:HD23	1:C:502:ILE:HD11	1.90	0.52
1:C:2254:LEU:O	1:C:3809:ARG:HD3	2.10	0.52
1:C:2278:MET:O	1:C:2282:LYS:HG2	2.09	0.52
1:A:890:HIS:O	1:A:894:VAL:HG23	2.09	0.52
1:A:2278:MET:O	1:A:2282:LYS:HG2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4670:GLY:O	1:B:4671:MET:HG2	2.10	0.52
1:C:4670:GLY:O	1:C:4671:MET:HG2	2.10	0.52
1:D:4928:ASP:O	1:D:4932:HIS:NE2	2.43	0.52
1:A:499:LEU:HD23	1:A:502:ILE:HD11	1.90	0.52
1:A:844:ARG:HE	1:A:845:THR:HG22	1.75	0.52
1:A:4947:CYS:SG	1:A:4948:TRP:N	2.83	0.52
1:B:375:GLN:NE2	1:B:390:LYS:O	2.43	0.52
1:B:763:ALA:HB3	1:B:764:PRO:HD3	1.92	0.52
1:B:1190:LEU:HD21	1:B:1193:LYS:HB3	1.91	0.52
1:B:4928:ASP:O	1:B:4932:HIS:NE2	2.43	0.52
1:B:4947:CYS:SG	1:B:4948:TRP:N	2.83	0.52
1:C:982:ASP:OD2	1:C:985:PHE:HB2	2.09	0.52
1:C:1009:ARG:O	1:C:1013:ARG:NH1	2.43	0.52
1:D:4947:CYS:SG	1:D:4948:TRP:N	2.83	0.52
1:A:441:LYS:HG2	1:A:442:LEU:HD23	1.90	0.52
1:B:1091:GLU:HB3	1:B:1094:TYR:HD2	1.74	0.52
1:C:844:ARG:HE	1:C:845:THR:HG22	1.75	0.52
1:D:844:ARG:HE	1:D:845:THR:HG22	1.75	0.52
1:D:2763:SER:H	1:D:2766:GLU:HB2	1.75	0.52
1:A:875:PRO:O	1:A:882:ARG:NH2	2.38	0.51
1:C:851:LEU:HB3	1:C:1212:VAL:HG12	1.91	0.51
1:D:2395:ILE:HG21	1:D:2467:MET:SD	2.50	0.51
1:A:894:VAL:HG13	1:A:918:LEU:HB3	1.91	0.51
1:A:4046:ASP:OD1	1:A:4046:ASP:N	2.43	0.51
1:B:2395:ILE:HG21	1:B:2467:MET:SD	2.50	0.51
1:C:1121:GLY:O	1:C:1133:ARG:NH1	2.43	0.51
1:C:4047:PHE:O	1:C:4051:MET:HG2	2.11	0.51
1:D:304:LYS:HB2	1:D:316:LEU:HD12	1.91	0.51
1:D:894:VAL:HG13	1:D:918:LEU:HB3	1.91	0.51
1:D:2254:LEU:O	1:D:3809:ARG:HD3	2.10	0.51
1:A:1190:LEU:HD21	1:A:1193:LYS:HB3	1.91	0.51
1:B:894:VAL:HG13	1:B:918:LEU:HB3	1.91	0.51
1:D:1009:ARG:O	1:D:1013:ARG:NH1	2.43	0.51
1:D:2712:ILE:HD13	1:D:2775:LYS:HE2	1.91	0.51
1:D:4046:ASP:OD1	1:D:4046:ASP:N	2.43	0.51
1:A:3786:VAL:HG11	1:A:3865:THR:HG23	1.93	0.51
1:A:4047:PHE:O	1:A:4051:MET:HG2	2.11	0.51
1:A:4298:ALA:HA	1:A:4301:CYS:SG	2.51	0.51
1:B:4047:PHE:O	1:B:4051:MET:HG2	2.10	0.51
1:C:375:GLN:NE2	1:C:390:LYS:O	2.43	0.51
1:C:1091:GLU:HB3	1:C:1094:TYR:HD2	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2152:LYS:HZ3	1:C:2155:TYR:HB2	1.74	0.51
1:D:1121:GLY:O	1:D:1133:ARG:NH1	2.43	0.51
1:A:2254:LEU:O	1:A:3809:ARG:HD3	2.10	0.51
1:B:643:LEU:HD13	1:B:1658:THR:HG23	1.93	0.51
1:C:2763:SER:H	1:C:2766:GLU:HB2	1.75	0.51
1:C:4947:CYS:SG	1:C:4948:TRP:N	2.83	0.51
1:D:4298:ALA:HA	1:D:4301:CYS:SG	2.51	0.51
1:D:4670:GLY:O	1:D:4671:MET:HG2	2.10	0.51
1:B:2152:LYS:HZ3	1:B:2155:TYR:HB2	1.75	0.51
1:B:3786:VAL:HG11	1:B:3865:THR:HG23	1.93	0.51
1:B:4298:ALA:HA	1:B:4301:CYS:SG	2.51	0.51
1:C:921:PHE:O	1:C:929:ARG:NH1	2.36	0.51
1:C:4570:THR:HA	1:C:4573:ILE:HG12	1.93	0.51
1:D:3891:TYR:O	1:D:3956:LYS:NZ	2.37	0.51
1:A:921:PHE:O	1:A:929:ARG:NH1	2.36	0.51
1:A:926:GLU:O	1:A:930:ASN:ND2	2.44	0.51
1:A:1121:GLY:O	1:A:1133:ARG:NH1	2.43	0.51
1:A:2121:SER:O	1:A:2125:ILE:HG12	2.11	0.51
1:A:2766:GLU:O	1:A:2769:ILE:HG12	2.11	0.51
1:B:1121:GLY:O	1:B:1133:ARG:NH1	2.43	0.51
1:C:2121:SER:O	1:C:2125:ILE:HG12	2.11	0.51
1:C:3961:SER:OG	1:C:3962:SER:N	2.44	0.51
2:I:69:LEU:HA	2:I:104:LEU:HD22	1.92	0.51
1:A:59:PRO:HG2	1:A:319:LYS:HD2	1.91	0.51
1:A:2395:ILE:HG21	1:A:2467:MET:SD	2.50	0.51
1:B:2159:ASN:OD1	1:B:2162:ARG:NH2	2.34	0.51
1:C:2766:GLU:O	1:C:2769:ILE:HG12	2.11	0.51
1:C:4298:ALA:HA	1:C:4301:CYS:SG	2.51	0.51
1:D:1190:LEU:HD21	1:D:1193:LYS:HB3	1.91	0.51
1:D:2121:SER:O	1:D:2125:ILE:HG12	2.11	0.51
1:D:2766:GLU:O	1:D:2769:ILE:HG12	2.11	0.51
1:B:3961:SER:OG	1:B:3962:SER:N	2.44	0.51
2:H:69:LEU:HA	2:H:104:LEU:HD22	1.93	0.51
1:C:629:GLN:NE2	1:C:1670:ASN:HD22	2.09	0.51
1:C:1199:ASP:OD1	1:C:1199:ASP:N	2.44	0.51
1:D:375:GLN:NE2	1:D:390:LYS:O	2.43	0.51
1:D:4047:PHE:O	1:D:4051:MET:HG2	2.11	0.51
1:A:1048:ASP:HA	1:A:1051:ARG:HD2	1.93	0.50
1:B:851:LEU:HB3	1:B:1212:VAL:HG12	1.92	0.50
1:B:926:GLU:O	1:B:930:ASN:ND2	2.44	0.50
1:B:2121:SER:O	1:B:2125:ILE:HG12	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3805:ASN:OD1	1:B:3806:ALA:N	2.44	0.50
1:D:1048:ASP:HA	1:D:1051:ARG:HD2	1.93	0.50
1:A:935:MET:O	1:A:939:THR:HG23	2.12	0.50
1:B:1124:PRO:HD2	1:B:1595:VAL:HG23	1.94	0.50
1:A:4671:MET:HA	1:A:4674:ALA:HB3	1.94	0.50
1:B:629:GLN:NE2	1:B:1670:ASN:HD22	2.09	0.50
1:B:892:LEU:HA	1:B:895:MET:HB2	1.94	0.50
1:B:1265:HIS:CD2	1:B:1268:ILE:HB	2.45	0.50
1:B:2254:LEU:O	1:B:3809:ARG:HD3	2.10	0.50
1:B:4589:TYR:OH	1:B:4715:ASP:OD2	2.28	0.50
1:B:4671:MET:HA	1:B:4674:ALA:HB3	1.94	0.50
1:C:548:CYS:SG	1:C:582:SER:HB3	2.52	0.50
1:C:2107:ILE:HG13	1:C:2108:ASN:H	1.77	0.50
1:D:548:CYS:SG	1:D:582:SER:HB3	2.52	0.50
1:D:935:MET:O	1:D:939:THR:HG23	2.12	0.50
1:A:2763:SER:H	1:A:2766:GLU:HB2	1.75	0.50
1:A:3961:SER:OG	1:A:3962:SER:N	2.44	0.50
1:A:4607:ARG:NE	1:A:4643:TYR:OH	2.45	0.50
1:B:699:SER:OG	1:B:700:THR:N	2.45	0.50
1:B:844:ARG:HE	1:B:845:THR:HG22	1.75	0.50
1:B:1048:ASP:HA	1:B:1051:ARG:HD2	1.93	0.50
1:B:1845:GLN:NE2	1:B:1848:GLU:OE2	2.45	0.50
1:B:4607:ARG:NE	1:B:4643:TYR:OH	2.45	0.50
1:C:926:GLU:O	1:C:930:ASN:ND2	2.44	0.50
1:C:935:MET:O	1:C:939:THR:HG23	2.12	0.50
1:D:1845:GLN:NE2	1:D:1848:GLU:OE2	2.45	0.50
1:A:2081:ARG:HG3	1:A:3686:LEU:HD22	1.94	0.50
1:B:935:MET:O	1:B:939:THR:HG23	2.12	0.50
1:B:2107:ILE:HG13	1:B:2108:ASN:H	1.77	0.50
1:B:2455:MET:HG3	1:B:2457:ALA:H	1.77	0.50
1:C:1845:GLN:NE2	1:C:1848:GLU:OE2	2.45	0.50
1:D:629:GLN:NE2	1:D:1670:ASN:HD22	2.09	0.50
1:D:769:ARG:HA	1:D:774:PRO:HA	1.94	0.50
1:D:2081:ARG:HG3	1:D:3686:LEU:HD22	1.94	0.50
2:J:88:HIS:H	2:J:92:ILE:HB	1.77	0.50
1:A:643:LEU:HD13	1:A:1658:THR:HG23	1.93	0.50
1:A:2784:TRP:HH2	1:A:2846:ASN:HB2	1.77	0.50
2:G:88:HIS:H	2:G:92:ILE:HB	1.77	0.50
1:B:2784:TRP:HH2	1:B:2846:ASN:HB2	1.77	0.50
1:A:892:LEU:HA	1:A:895:MET:HB2	1.94	0.50
1:A:1845:GLN:NE2	1:A:1848:GLU:OE2	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2340:ASN:OD1	1:A:2340:ASN:N	2.45	0.50
1:B:2766:GLU:O	1:B:2769:ILE:HG12	2.11	0.50
1:B:4570:THR:HA	1:B:4573:ILE:HG12	1.93	0.50
2:H:88:HIS:H	2:H:92:ILE:HB	1.77	0.50
1:C:3786:VAL:HG11	1:C:3865:THR:HG23	1.93	0.50
1:D:3786:VAL:HG11	1:D:3865:THR:HG23	1.93	0.50
1:D:4607:ARG:NE	1:D:4643:TYR:OH	2.45	0.50
1:A:2107:ILE:HG13	1:A:2108:ASN:H	1.77	0.50
1:C:1265:HIS:CD2	1:C:1268:ILE:HB	2.46	0.50
1:D:300:VAL:O	1:D:420:ARG:NH1	2.37	0.50
1:D:926:GLU:O	1:D:930:ASN:ND2	2.44	0.50
1:A:1144:ARG:NH1	1:A:1191:ALA:O	2.45	0.50
1:A:1359:ILE:HG13	1:A:1360:ASP:H	1.77	0.50
1:A:3805:ASN:OD1	1:A:3806:ALA:N	2.44	0.50
2:I:88:HIS:H	2:I:92:ILE:HB	1.77	0.50
1:D:2784:TRP:HH2	1:D:2846:ASN:HB2	1.77	0.50
1:D:4671:MET:HA	1:D:4674:ALA:HB3	1.94	0.50
1:A:629:GLN:NE2	1:A:1670:ASN:HD22	2.09	0.49
2:G:69:LEU:HA	2:G:104:LEU:HD22	1.93	0.49
1:B:606:ARG:NH2	1:B:1635:GLU:OE1	2.35	0.49
1:B:1008:ALA:O	1:B:1012:ILE:HG23	2.12	0.49
1:C:895:MET:O	1:C:899:GLU:HG2	2.12	0.49
1:C:2784:TRP:HH2	1:C:2846:ASN:HB2	1.77	0.49
1:D:643:LEU:HD13	1:D:1658:THR:HG23	1.93	0.49
1:D:1932:VAL:HG21	1:D:3616:VAL:HA	1.94	0.49
1:B:2763:SER:H	1:B:2766:GLU:HB2	1.75	0.49
1:B:3832:ASP:OD1	1:B:3833:GLU:N	2.45	0.49
1:B:4659:PHE:O	1:C:4055:LYS:NZ	2.38	0.49
1:C:973:THR:OG1	1:C:976:TYR:O	2.18	0.49
1:C:1048:ASP:HA	1:C:1051:ARG:HD2	1.93	0.49
1:C:1124:PRO:HD2	1:C:1595:VAL:HG23	1.94	0.49
1:C:1144:ARG:NH1	1:C:1191:ALA:O	2.45	0.49
1:C:1359:ILE:HG13	1:C:1360:ASP:H	1.78	0.49
1:C:1567:LEU:HD22	1:C:1581:PRO:HB3	1.94	0.49
1:C:2455:MET:HG3	1:C:2457:ALA:H	1.77	0.49
1:C:4046:ASP:OD1	1:C:4046:ASP:N	2.43	0.49
1:C:4671:MET:HA	1:C:4674:ALA:HB3	1.94	0.49
1:D:892:LEU:HA	1:D:895:MET:HB2	1.94	0.49
1:D:1102:TYR:HB2	1:D:1165:MET:HG3	1.94	0.49
1:A:548:CYS:SG	1:A:582:SER:HB3	2.52	0.49
1:A:699:SER:OG	1:A:700:THR:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1265:HIS:CD2	1:A:1268:ILE:HB	2.46	0.49
1:A:4570:THR:HA	1:A:4573:ILE:HG12	1.93	0.49
1:B:700:THR:HG1	1:B:787:LEU:H	1.59	0.49
1:B:1991:ILE:HA	1:B:1994:GLN:HG2	1.93	0.49
1:B:2343:LEU:O	1:B:2347:GLU:HG2	2.13	0.49
1:C:1931:PHE:CE1	1:C:1995:LEU:HB2	2.48	0.49
1:D:1567:LEU:HD22	1:D:1581:PRO:HB3	1.94	0.49
1:D:1966:SER:O	1:D:1966:SER:OG	2.31	0.49
1:D:2159:ASN:OD1	1:D:2162:ARG:NH2	2.34	0.49
1:D:3832:ASP:OD1	1:D:3833:GLU:N	2.45	0.49
1:D:3961:SER:OG	1:D:3962:SER:N	2.44	0.49
2:J:69:LEU:HA	2:J:104:LEU:HD22	1.93	0.49
1:A:375:GLN:NE2	1:A:390:LYS:O	2.43	0.49
1:B:548:CYS:SG	1:B:582:SER:HB3	2.52	0.49
1:B:1359:ILE:HG13	1:B:1360:ASP:H	1.77	0.49
1:C:643:LEU:HD13	1:C:1658:THR:HG23	1.93	0.49
1:C:2159:ASN:OD1	1:C:2162:ARG:NH2	2.33	0.49
1:C:4607:ARG:NE	1:C:4643:TYR:OH	2.45	0.49
1:D:1931:PHE:CE1	1:D:1995:LEU:HB2	2.48	0.49
1:D:1991:ILE:HA	1:D:1994:GLN:HG2	1.93	0.49
1:D:3805:ASN:OD1	1:D:3806:ALA:N	2.44	0.49
1:A:769:ARG:HA	1:A:774:PRO:HA	1.94	0.49
1:B:1678:CYS:SG	1:B:1679:SER:N	2.86	0.49
1:C:2778:LEU:O	1:C:2782:LEU:HG	2.13	0.49
1:D:419:ILE:HD13	1:D:492:GLU:HG3	1.95	0.49
1:D:721:ASP:N	1:D:721:ASP:OD1	2.46	0.49
1:D:1124:PRO:HD2	1:D:1595:VAL:HG23	1.94	0.49
1:D:1144:ARG:NH1	1:D:1191:ALA:O	2.45	0.49
1:D:2271:CYS:SG	1:D:2294:GLY:N	2.86	0.49
1:D:2343:LEU:O	1:D:2347:GLU:HG2	2.13	0.49
1:D:4000:ASP:O	1:D:4004:GLU:HG3	2.13	0.49
1:D:4570:THR:HA	1:D:4573:ILE:HG12	1.93	0.49
1:A:19:GLU:HG3	1:A:218:SER:HB3	1.95	0.49
1:A:1008:ALA:O	1:A:1012:ILE:HG23	2.12	0.49
1:A:1966:SER:O	1:A:1966:SER:OG	2.31	0.49
1:A:2257:ARG:HH21	1:A:3806:ALA:HB1	1.78	0.49
1:A:2331:GLY:HA3	1:A:2391:TYR:HE1	1.78	0.49
1:A:4055:LYS:NZ	1:D:4659:PHE:O	2.38	0.49
1:B:2257:ARG:HH21	1:B:3806:ALA:HB1	1.78	0.49
1:B:4608:LYS:HG3	1:B:4614:LEU:HB2	1.95	0.49
1:C:1932:VAL:HG21	1:C:3616:VAL:HA	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2271:CYS:SG	1:C:2294:GLY:N	2.86	0.49
1:C:3940:TRP:HA	1:C:3943:VAL:HG22	1.94	0.49
1:C:4044:LYS:HB2	1:C:4075:GLU:HG2	1.95	0.49
1:D:1199:ASP:OD1	1:D:1199:ASP:N	2.44	0.49
1:D:1362:ASP:OD1	1:D:1362:ASP:N	2.46	0.49
1:A:4496:ASN:HD22	1:A:4499:ASN:HD22	1.61	0.49
1:B:769:ARG:HA	1:B:774:PRO:HA	1.94	0.49
1:B:1102:TYR:HB2	1:B:1165:MET:HG3	1.94	0.49
1:C:3832:ASP:OD1	1:C:3833:GLU:N	2.45	0.49
1:C:4496:ASN:HD22	1:C:4499:ASN:HD22	1.61	0.49
1:C:4608:LYS:HG3	1:C:4614:LEU:HB2	1.95	0.49
1:D:2092:ASP:OD1	1:D:2093:GLY:N	2.46	0.49
1:D:2331:GLY:HA3	1:D:2391:TYR:HE1	1.78	0.49
1:D:4589:TYR:OH	1:D:4715:ASP:OD2	2.28	0.49
1:A:1715:TYR:CZ	1:A:1762:MET:HB3	2.48	0.49
1:A:2455:MET:HG3	1:A:2457:ALA:H	1.77	0.49
1:A:4000:ASP:O	1:A:4004:GLU:HG3	2.13	0.49
1:B:2070:GLN:O	1:B:3659:ARG:NH1	2.43	0.49
1:B:2092:ASP:OD1	1:B:2093:GLY:N	2.46	0.49
1:B:2487:LEU:HA	1:B:2491:PHE:HB2	1.95	0.49
1:C:3805:ASN:OD1	1:C:3806:ALA:N	2.44	0.49
1:D:1265:HIS:CD2	1:D:1268:ILE:HB	2.45	0.49
1:D:2778:LEU:O	1:D:2782:LEU:HG	2.13	0.49
1:A:1678:CYS:SG	1:A:1679:SER:N	2.86	0.49
1:A:3923:ILE:HD13	1:A:3934:LEU:HD12	1.95	0.49
1:B:895:MET:O	1:B:899:GLU:HG2	2.12	0.49
1:B:1932:VAL:HG21	1:B:3616:VAL:HA	1.94	0.49
1:B:4000:ASP:O	1:B:4004:GLU:HG3	2.13	0.49
1:B:4496:ASN:HD22	1:B:4499:ASN:HD22	1.61	0.49
1:C:1362:ASP:N	1:C:1362:ASP:OD1	2.46	0.49
1:C:1935:LEU:HD21	1:C:1975:LEU:HD11	1.95	0.49
1:C:2487:LEU:HA	1:C:2491:PHE:HB2	1.95	0.49
1:D:895:MET:O	1:D:899:GLU:HG2	2.12	0.49
1:D:2107:ILE:HG13	1:D:2108:ASN:H	1.77	0.49
1:D:2257:ARG:HH21	1:D:3806:ALA:HB1	1.78	0.49
1:D:3940:TRP:HA	1:D:3943:VAL:HG22	1.94	0.49
1:D:4044:LYS:HB2	1:D:4075:GLU:HG2	1.95	0.49
1:A:246:THR:HG21	1:A:267:VAL:HG11	1.95	0.49
1:A:760:ASP:OD2	1:A:764:PRO:HD2	2.13	0.49
1:A:894:VAL:HA	1:A:918:LEU:HD22	1.95	0.49
1:A:1567:LEU:HD22	1:A:1581:PRO:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3940:TRP:HA	1:A:3943:VAL:HG22	1.94	0.49
1:B:356:TYR:HA	1:B:405:LEU:HB2	1.95	0.49
1:B:2081:ARG:HG3	1:B:3686:LEU:HD22	1.94	0.49
1:C:769:ARG:HA	1:C:774:PRO:HA	1.94	0.49
1:C:892:LEU:HA	1:C:895:MET:HB2	1.94	0.49
1:C:2331:GLY:HA3	1:C:2391:TYR:HE1	1.78	0.49
1:C:4112:THR:O	1:C:4116:THR:HG23	2.13	0.49
1:D:4496:ASN:HD22	1:D:4499:ASN:HD22	1.61	0.49
1:A:611:LEU:HD11	1:A:643:LEU:HD21	1.95	0.48
1:A:1931:PHE:CE1	1:A:1995:LEU:HB2	2.48	0.48
1:A:3832:ASP:OD1	1:A:3833:GLU:N	2.45	0.48
1:B:1144:ARG:NH1	1:B:1191:ALA:O	2.45	0.48
1:B:3940:TRP:HA	1:B:3943:VAL:HG22	1.94	0.48
1:B:4112:THR:O	1:B:4116:THR:HG23	2.13	0.48
1:C:875:PRO:O	1:C:882:ARG:NH2	2.38	0.48
1:C:1710:ILE:HG13	1:C:1711:HIS:CD2	2.48	0.48
1:C:2257:ARG:HH21	1:C:3806:ALA:HB1	1.78	0.48
1:D:19:GLU:HG3	1:D:218:SER:HB3	1.95	0.48
1:D:356:TYR:HA	1:D:405:LEU:HB2	1.95	0.48
1:D:699:SER:OG	1:D:700:THR:N	2.45	0.48
1:D:1008:ALA:O	1:D:1012:ILE:HG23	2.12	0.48
1:D:1678:CYS:SG	1:D:1679:SER:N	2.86	0.48
1:A:1102:TYR:HB2	1:A:1165:MET:HG3	1.94	0.48
1:A:1935:LEU:HD21	1:A:1975:LEU:HD11	1.95	0.48
1:A:2271:CYS:SG	1:A:2294:GLY:N	2.86	0.48
1:A:2778:LEU:O	1:A:2782:LEU:HG	2.13	0.48
1:A:4079:TYR:O	1:A:4083:VAL:HG22	2.13	0.48
1:B:611:LEU:HD11	1:B:643:LEU:HD21	1.95	0.48
1:B:1567:LEU:HD22	1:B:1581:PRO:HB3	1.94	0.48
1:B:3923:ILE:HD13	1:B:3934:LEU:HD12	1.95	0.48
1:B:4079:TYR:O	1:B:4083:VAL:HG22	2.13	0.48
1:C:760:ASP:OD2	1:C:764:PRO:HD2	2.13	0.48
1:C:1991:ILE:HA	1:C:1994:GLN:HG2	1.93	0.48
1:D:1359:ILE:HG13	1:D:1360:ASP:H	1.78	0.48
1:D:2340:ASN:OD1	1:D:2340:ASN:N	2.45	0.48
1:A:587:ASN:OD1	1:A:2132:ARG:NH1	2.46	0.48
1:A:1362:ASP:OD1	1:A:1362:ASP:N	2.46	0.48
1:A:1991:ILE:HA	1:A:1994:GLN:HG2	1.93	0.48
1:A:2092:ASP:OD1	1:A:2093:GLY:N	2.46	0.48
1:A:2343:LEU:O	1:A:2347:GLU:HG2	2.13	0.48
1:B:894:VAL:HA	1:B:918:LEU:HD22	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1710:ILE:HG13	1:B:1711:HIS:CD2	2.48	0.48
1:B:4694:SER:O	1:B:4694:SER:OG	2.31	0.48
1:C:246:THR:HG21	1:C:267:VAL:HG11	1.95	0.48
1:C:2231:PRO:HD3	1:C:2381:ILE:HD11	1.95	0.48
1:C:4659:PHE:O	1:D:4055:LYS:NZ	2.34	0.48
1:D:1710:ILE:HG13	1:D:1711:HIS:CD2	2.48	0.48
1:D:1981:ASP:OD1	1:D:1982:LYS:N	2.46	0.48
1:D:2455:MET:HG3	1:D:2457:ALA:H	1.77	0.48
1:A:710:GLY:HA3	1:A:716:ASN:HD22	1.78	0.48
1:A:924:LEU:HB2	1:A:929:ARG:HD3	1.96	0.48
1:B:760:ASP:OD2	1:B:764:PRO:HD2	2.13	0.48
1:B:4789:ARG:NH2	1:B:4805:CYS:SG	2.86	0.48
1:C:114:LEU:HB2	1:C:117:HIS:CD2	2.49	0.48
1:C:587:ASN:OD1	1:C:2132:ARG:NH1	2.46	0.48
1:C:699:SER:OG	1:C:700:THR:N	2.45	0.48
1:C:721:ASP:OD1	1:C:721:ASP:N	2.46	0.48
1:C:1102:TYR:HB2	1:C:1165:MET:HG3	1.94	0.48
1:C:1715:TYR:CZ	1:C:1762:MET:HB3	2.48	0.48
1:C:1981:ASP:OD1	1:C:1982:LYS:N	2.46	0.48
1:C:2081:ARG:HG3	1:C:3686:LEU:HD22	1.94	0.48
1:C:3898:ASP:OD1	1:C:3898:ASP:N	2.44	0.48
1:C:4079:TYR:O	1:C:4083:VAL:HG22	2.13	0.48
1:D:611:LEU:HD11	1:D:643:LEU:HD21	1.95	0.48
1:D:710:GLY:HA3	1:D:716:ASN:HD22	1.78	0.48
1:D:875:PRO:O	1:D:882:ARG:NH2	2.38	0.48
1:D:4112:THR:O	1:D:4116:THR:HG23	2.13	0.48
1:D:4193:GLU:CD	1:D:4607:ARG:HH22	2.16	0.48
1:A:1932:VAL:HG21	1:A:3616:VAL:HA	1.94	0.48
1:B:924:LEU:HB2	1:B:929:ARG:HD3	1.96	0.48
1:B:2231:PRO:HD3	1:B:2381:ILE:HD11	1.95	0.48
1:B:2271:CYS:SG	1:B:2294:GLY:N	2.86	0.48
1:B:2331:GLY:HA3	1:B:2391:TYR:HE1	1.78	0.48
1:B:2866:ASN:HD22	1:B:2867:HIS:N	2.12	0.48
1:C:238:HIS:HB2	1:C:241:MET:HB2	1.96	0.48
1:C:356:TYR:HA	1:C:405:LEU:HB2	1.95	0.48
1:C:3923:ILE:HD13	1:C:3934:LEU:HD12	1.95	0.48
1:D:262:TYR:HB2	1:D:389:ARG:HG3	1.96	0.48
1:A:419:ILE:HD13	1:A:492:GLU:HG3	1.95	0.48
1:B:114:LEU:HB2	1:B:117:HIS:CD2	2.49	0.48
1:B:575:LEU:HA	1:B:578:VAL:HG12	1.95	0.48
1:B:721:ASP:OD1	1:B:721:ASP:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1362:ASP:N	1:B:1362:ASP:OD1	2.46	0.48
1:B:1966:SER:OG	1:B:1966:SER:O	2.31	0.48
1:C:1986:PRO:HB2	1:C:1988:PRO:HD2	1.96	0.48
1:C:2092:ASP:OD1	1:C:2093:GLY:N	2.46	0.48
1:D:987:LYS:NZ	1:D:990:PRO:HD3	2.29	0.48
1:D:2231:PRO:HD3	1:D:2381:ILE:HD11	1.95	0.48
1:D:2866:ASN:HD22	1:D:2867:HIS:N	2.12	0.48
1:D:3923:ILE:HD13	1:D:3934:LEU:HD12	1.95	0.48
1:A:895:MET:O	1:A:899:GLU:HG2	2.12	0.48
1:A:2487:LEU:HA	1:A:2491:PHE:HB2	1.95	0.48
1:A:4044:LYS:HB2	1:A:4075:GLU:HG2	1.95	0.48
1:B:1935:LEU:HD21	1:B:1975:LEU:HD11	1.95	0.48
1:B:1981:ASP:OD1	1:B:1982:LYS:N	2.46	0.48
1:B:1986:PRO:HB2	1:B:1988:PRO:HD2	1.96	0.48
1:B:2238:PRO:O	1:B:2241:VAL:HG12	2.14	0.48
1:C:611:LEU:HD11	1:C:643:LEU:HD21	1.95	0.48
1:C:1678:CYS:SG	1:C:1679:SER:N	2.86	0.48
1:C:4789:ARG:NH2	1:C:4805:CYS:SG	2.86	0.48
1:D:2487:LEU:HA	1:D:2491:PHE:HB2	1.95	0.48
1:A:1124:PRO:HD2	1:A:1595:VAL:HG23	1.94	0.48
1:A:4193:GLU:CD	1:A:4607:ARG:HH22	2.16	0.48
1:B:19:GLU:HG3	1:B:218:SER:HB3	1.95	0.48
1:B:246:THR:HG21	1:B:267:VAL:HG11	1.95	0.48
1:B:587:ASN:OD1	1:B:2132:ARG:NH1	2.46	0.48
1:B:710:GLY:HA3	1:B:716:ASN:HD22	1.78	0.48
1:B:1715:TYR:CZ	1:B:1762:MET:HB3	2.48	0.48
1:B:1931:PHE:CE1	1:B:1995:LEU:HB2	2.48	0.48
1:B:4905:GLU:HG3	1:B:4906:THR:N	2.29	0.48
1:C:2343:LEU:O	1:C:2347:GLU:HG2	2.13	0.48
1:C:2866:ASN:HD22	1:C:2867:HIS:N	2.12	0.48
1:C:4000:ASP:O	1:C:4004:GLU:HG3	2.13	0.48
1:D:238:HIS:HB2	1:D:241:MET:HB2	1.96	0.48
1:D:760:ASP:OD2	1:D:764:PRO:HD2	2.13	0.48
1:D:1986:PRO:HB2	1:D:1988:PRO:HD2	1.96	0.48
1:D:4789:ARG:NH2	1:D:4805:CYS:SG	2.86	0.48
1:A:878:LEU:HD22	1:A:881:ILE:HD13	1.96	0.48
1:A:4762:ASN:O	1:A:4764:LYS:N	2.47	0.48
1:A:4789:ARG:NH2	1:A:4805:CYS:SG	2.86	0.48
1:B:1811:VAL:HB	1:B:1818:LEU:HD13	1.96	0.48
1:C:419:ILE:HD13	1:C:492:GLU:HG3	1.95	0.48
1:C:575:LEU:HA	1:C:578:VAL:HG12	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:710:GLY:HA3	1:C:716:ASN:HD22	1.78	0.48
1:C:1008:ALA:O	1:C:1012:ILE:HG23	2.12	0.48
1:C:2238:PRO:O	1:C:2241:VAL:HG12	2.14	0.48
1:D:924:LEU:HB2	1:D:929:ARG:HD3	1.96	0.48
1:D:1348:LYS:HA	1:D:1348:LYS:HD2	1.54	0.48
1:D:2887:LYS:O	1:D:2891:ILE:HG23	2.14	0.48
1:A:356:TYR:HA	1:A:405:LEU:HB2	1.95	0.48
1:A:721:ASP:N	1:A:721:ASP:OD1	2.46	0.48
1:A:1710:ILE:HG13	1:A:1711:HIS:CD2	2.48	0.48
1:A:1767:PRO:HG3	1:A:1781:PRO:HB3	1.96	0.48
1:A:1981:ASP:OD1	1:A:1982:LYS:N	2.46	0.48
1:A:2231:PRO:HD3	1:A:2381:ILE:HD11	1.95	0.48
1:A:4608:LYS:HG3	1:A:4614:LEU:HB2	1.95	0.48
1:B:419:ILE:HD13	1:B:492:GLU:HG3	1.95	0.48
1:B:2778:LEU:O	1:B:2782:LEU:HG	2.13	0.48
1:B:2887:LYS:O	1:B:2891:ILE:HG23	2.14	0.48
1:B:4046:ASP:N	1:B:4046:ASP:OD1	2.43	0.48
1:C:576:HIS:O	1:C:580:VAL:HG23	2.14	0.48
1:D:2238:PRO:O	1:D:2241:VAL:HG12	2.14	0.48
1:D:4608:LYS:HG3	1:D:4614:LEU:HB2	1.95	0.48
1:A:114:LEU:HB2	1:A:117:HIS:CD2	2.49	0.47
1:A:238:HIS:HB2	1:A:241:MET:HB2	1.96	0.47
1:A:246:THR:OG1	1:A:247:VAL:N	2.47	0.47
1:A:4112:THR:O	1:A:4116:THR:HG23	2.13	0.47
1:B:878:LEU:HD22	1:B:881:ILE:HD13	1.96	0.47
1:B:987:LYS:NZ	1:B:990:PRO:HD3	2.29	0.47
1:C:4193:GLU:CD	1:C:4607:ARG:HH22	2.16	0.47
1:D:587:ASN:OD1	1:D:2132:ARG:NH1	2.46	0.47
1:A:262:TYR:HB2	1:A:389:ARG:HG3	1.95	0.47
1:A:313:ASN:HD21	1:A:392:ILE:HA	1.79	0.47
1:A:575:LEU:HA	1:A:578:VAL:HG12	1.95	0.47
1:A:2887:LYS:O	1:A:2891:ILE:HG23	2.14	0.47
1:B:246:THR:OG1	1:B:247:VAL:N	2.47	0.47
1:C:4905:GLU:HG3	1:C:4906:THR:N	2.29	0.47
1:D:114:LEU:HB2	1:D:117:HIS:CD2	2.49	0.47
1:D:878:LEU:HD22	1:D:881:ILE:HD13	1.96	0.47
1:D:894:VAL:HA	1:D:918:LEU:HD22	1.95	0.47
1:D:1715:TYR:CZ	1:D:1762:MET:HB3	2.48	0.47
1:A:1199:ASP:OD1	1:A:1199:ASP:N	2.44	0.47
1:A:2838:ALA:O	1:A:2841:GLU:HG3	2.14	0.47
1:B:313:ASN:HD21	1:B:392:ILE:HA	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:39:SER:O	2:H:43:ARG:NH1	2.48	0.47
1:C:313:ASN:HD21	1:C:392:ILE:HA	1.79	0.47
1:C:1257:GLN:HA	1:C:1384:LEU:HD22	1.96	0.47
1:C:1383:ARG:HE	1:C:1385:LYS:HE2	1.79	0.47
1:C:1811:VAL:HB	1:C:1818:LEU:HD13	1.96	0.47
1:D:246:THR:OG1	1:D:247:VAL:N	2.47	0.47
1:D:576:HIS:O	1:D:580:VAL:HG23	2.14	0.47
1:D:1935:LEU:HD21	1:D:1975:LEU:HD11	1.95	0.47
1:D:2838:ALA:O	1:D:2841:GLU:HG3	2.14	0.47
1:A:2866:ASN:HD22	1:A:2867:HIS:N	2.12	0.47
1:A:4029:ASP:OD1	1:A:4029:ASP:N	2.47	0.47
1:B:238:HIS:HB2	1:B:241:MET:HB2	1.96	0.47
1:C:19:GLU:HG3	1:C:218:SER:HB3	1.95	0.47
1:C:894:VAL:HA	1:C:918:LEU:HD22	1.95	0.47
1:C:1767:PRO:HG3	1:C:1781:PRO:HB3	1.96	0.47
1:C:4029:ASP:OD1	1:C:4029:ASP:N	2.47	0.47
2:I:39:SER:O	2:I:43:ARG:NH1	2.48	0.47
1:D:246:THR:HG21	1:D:267:VAL:HG11	1.95	0.47
1:D:4079:TYR:O	1:D:4083:VAL:HG22	2.13	0.47
2:J:39:SER:O	2:J:43:ARG:NH1	2.48	0.47
1:A:987:LYS:NZ	1:A:990:PRO:HD3	2.29	0.47
1:A:1827:TYR:CZ	1:A:1831:ILE:HD11	2.49	0.47
1:A:2128:LEU:HD11	1:A:2140:LEU:HD12	1.96	0.47
1:B:576:HIS:O	1:B:580:VAL:HG23	2.15	0.47
1:B:1257:GLN:HA	1:B:1384:LEU:HD22	1.96	0.47
1:B:1972:ILE:HA	1:B:1975:LEU:HG	1.96	0.47
1:B:2134:GLY:H	1:B:2137:GLU:HB2	1.80	0.47
1:B:4044:LYS:HB2	1:B:4075:GLU:HG2	1.95	0.47
1:A:1642:ILE:HD11	1:A:1699:LEU:HD23	1.97	0.47
1:A:1972:ILE:HA	1:A:1975:LEU:HG	1.96	0.47
1:A:1986:PRO:HB2	1:A:1988:PRO:HD2	1.96	0.47
1:B:1383:ARG:HE	1:B:1385:LYS:HE2	1.79	0.47
1:B:2128:LEU:HD11	1:B:2140:LEU:HD12	1.97	0.47
1:B:4193:GLU:CD	1:B:4607:ARG:HH22	2.16	0.47
1:C:924:LEU:HB2	1:C:929:ARG:HD3	1.96	0.47
1:C:1966:SER:O	1:C:1966:SER:OG	2.31	0.47
1:D:575:LEU:HA	1:D:578:VAL:HG12	1.95	0.47
1:A:407:ARG:HH21	1:A:3864:ASN:HB3	1.80	0.47
1:A:1811:VAL:HB	1:A:1818:LEU:HD13	1.96	0.47
1:A:2134:GLY:H	1:A:2137:GLU:HB2	1.80	0.47
1:A:4287:TRP:O	1:A:4291:VAL:HG13	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:39:SER:O	2:G:43:ARG:NH1	2.48	0.47
1:B:1642:ILE:HD11	1:B:1699:LEU:HD23	1.97	0.47
1:B:1767:PRO:HG3	1:B:1781:PRO:HB3	1.96	0.47
1:B:3621:GLN:O	1:B:3624:GLU:HG3	2.15	0.47
1:B:4287:TRP:O	1:B:4291:VAL:HG13	2.15	0.47
1:C:246:THR:OG1	1:C:247:VAL:N	2.47	0.47
1:C:987:LYS:NZ	1:C:990:PRO:HD3	2.29	0.47
1:C:1321:UNK:HA	1:C:1436:UNK:HA	1.97	0.47
1:C:1591:PHE:CZ	1:C:1593:SER:HB2	2.50	0.47
1:C:1972:ILE:HA	1:C:1975:LEU:HG	1.96	0.47
1:C:2070:GLN:O	1:C:3659:ARG:NH1	2.43	0.47
1:C:2134:GLY:H	1:C:2137:GLU:HB2	1.80	0.47
1:D:313:ASN:HD21	1:D:392:ILE:HA	1.80	0.47
1:D:1677:LEU:O	1:D:1681:VAL:HG22	2.15	0.47
1:D:2128:LEU:HD11	1:D:2140:LEU:HD12	1.96	0.47
1:D:4905:GLU:HG3	1:D:4906:THR:N	2.29	0.47
1:A:2238:PRO:O	1:A:2241:VAL:HG12	2.14	0.47
1:B:262:TYR:HB2	1:B:389:ARG:HG3	1.96	0.47
1:B:300:VAL:O	1:B:420:ARG:NH1	2.36	0.47
1:B:1002:ASN:O	1:B:1006:VAL:HG23	2.15	0.47
1:B:1827:TYR:CZ	1:B:1831:ILE:HD11	2.49	0.47
1:B:3636:GLU:HG3	1:B:3693:ILE:HG23	1.97	0.47
1:C:2838:ALA:O	1:C:2841:GLU:HG3	2.14	0.47
1:D:1767:PRO:HG3	1:D:1781:PRO:HB3	1.96	0.47
1:A:1383:ARG:HE	1:A:1385:LYS:HE2	1.79	0.47
1:B:407:ARG:HH21	1:B:3864:ASN:HB3	1.80	0.47
1:B:559:ILE:HD13	1:B:593:HIS:HB3	1.97	0.47
1:B:875:PRO:O	1:B:882:ARG:NH2	2.38	0.47
1:B:2838:ALA:O	1:B:2841:GLU:HG3	2.14	0.47
1:C:300:VAL:O	1:C:420:ARG:NH1	2.37	0.47
1:C:505:LEU:HD22	1:C:526:TRP:HD1	1.80	0.47
1:C:559:ILE:HD13	1:C:593:HIS:HB3	1.97	0.47
1:C:712:GLU:OE2	1:C:838:ARG:NE	2.47	0.47
1:C:2340:ASN:OD1	1:C:2340:ASN:N	2.45	0.47
1:D:1257:GLN:HA	1:D:1384:LEU:HD22	1.96	0.47
1:D:1591:PHE:CZ	1:D:1593:SER:HB2	2.50	0.47
1:A:838:ARG:H	1:A:841:LYS:NZ	2.12	0.47
1:A:1343:PHE:HB2	1:A:1376:TYR:HD2	1.80	0.47
1:C:262:TYR:HB2	1:C:389:ARG:HG3	1.95	0.47
1:C:1968:PRO:HA	1:C:1971:GLN:HB3	1.97	0.47
1:C:3621:GLN:O	1:C:3624:GLU:HG3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4518:TYR:HE1	1:C:4560:LEU:HB2	1.80	0.47
1:D:407:ARG:HH21	1:D:3864:ASN:HB3	1.80	0.47
1:D:1972:ILE:HA	1:D:1975:LEU:HG	1.96	0.47
1:A:2064:THR:HG22	1:A:2067:ARG:HH12	1.80	0.46
1:A:2439:PHE:HB3	1:A:2459:PHE:CD2	2.50	0.46
1:B:872:ILE:HD13	1:B:944:LEU:HD22	1.97	0.46
1:C:878:LEU:HD22	1:C:881:ILE:HD13	1.96	0.46
1:D:872:ILE:HD13	1:D:944:LEU:HD22	1.97	0.46
1:D:1642:ILE:HD11	1:D:1699:LEU:HD23	1.97	0.46
1:A:4905:GLU:HG3	1:A:4906:THR:N	2.29	0.46
1:C:407:ARG:HH21	1:C:3864:ASN:HB3	1.80	0.46
1:C:4589:TYR:OH	1:C:4715:ASP:OD2	2.29	0.46
1:D:559:ILE:HD13	1:D:593:HIS:HB3	1.97	0.46
1:D:1321:UNK:HA	1:D:1436:UNK:HA	1.97	0.46
1:D:1811:VAL:HB	1:D:1818:LEU:HD13	1.96	0.46
1:D:2134:GLY:H	1:D:2137:GLU:HB2	1.80	0.46
1:D:2858:GLU:O	1:D:2862:LYS:HG2	2.16	0.46
1:B:380:LYS:HD2	1:B:380:LYS:HA	1.77	0.46
1:B:1321:UNK:HA	1:B:1436:UNK:HA	1.97	0.46
1:B:1677:LEU:O	1:B:1681:VAL:HG22	2.15	0.46
1:B:2064:THR:HG22	1:B:2067:ARG:HH12	1.80	0.46
1:B:3919:LEU:O	1:B:3923:ILE:HG12	2.16	0.46
1:B:4518:TYR:HE1	1:B:4560:LEU:HB2	1.81	0.46
1:C:2766:GLU:HA	1:C:2769:ILE:HG23	1.97	0.46
1:C:4287:TRP:O	1:C:4291:VAL:HG13	2.15	0.46
1:D:4762:ASN:O	1:D:4764:LYS:N	2.47	0.46
1:A:559:ILE:HD13	1:A:593:HIS:HB3	1.97	0.46
1:A:576:HIS:O	1:A:580:VAL:HG23	2.14	0.46
1:A:2070:GLN:O	1:A:3659:ARG:NH1	2.44	0.46
1:A:4518:TYR:HE1	1:A:4560:LEU:HB2	1.80	0.46
1:B:555:LEU:HD21	1:B:578:VAL:HG11	1.98	0.46
1:B:1591:PHE:CZ	1:B:1593:SER:HB2	2.50	0.46
1:C:1677:LEU:O	1:C:1681:VAL:HG22	2.15	0.46
1:D:1827:TYR:CZ	1:D:1831:ILE:HD11	2.49	0.46
1:D:2064:THR:HG22	1:D:2067:ARG:HH12	1.80	0.46
1:D:3919:LEU:O	1:D:3923:ILE:HG12	2.16	0.46
1:A:1257:GLN:HA	1:A:1384:LEU:HD22	1.96	0.46
1:A:1609:VAL:HG12	1:A:1611:ARG:H	1.81	0.46
1:A:3636:GLU:HG3	1:A:3693:ILE:HG23	1.97	0.46
1:B:505:LEU:HD22	1:B:526:TRP:HD1	1.80	0.46
1:B:2439:PHE:HB3	1:B:2459:PHE:CD2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2858:GLU:O	1:B:2862:LYS:HG2	2.16	0.46
1:C:1827:TYR:CZ	1:C:1831:ILE:HD11	2.49	0.46
1:C:2858:GLU:O	1:C:2862:LYS:HG2	2.16	0.46
1:C:2887:LYS:O	1:C:2891:ILE:HG23	2.14	0.46
1:C:3919:LEU:O	1:C:3923:ILE:HG12	2.16	0.46
1:D:1002:ASN:O	1:D:1006:VAL:HG23	2.15	0.46
1:D:1343:PHE:HB2	1:D:1376:TYR:HD2	1.80	0.46
1:D:1383:ARG:HE	1:D:1385:LYS:HE2	1.79	0.46
1:D:2058:GLN:HG3	1:D:2090:GLN:NE2	2.31	0.46
1:A:1677:LEU:O	1:A:1681:VAL:HG22	2.15	0.46
1:A:2343:LEU:HD23	1:A:2343:LEU:HA	1.76	0.46
1:B:3801:VAL:HG13	1:B:3883:SER:HB2	1.98	0.46
1:B:3818:MET:SD	1:B:3818:MET:N	2.77	0.46
1:C:1289:SER:HA	1:C:1353:HIS:HB3	1.98	0.46
1:C:1609:VAL:HG12	1:C:1611:ARG:H	1.81	0.46
1:C:1898:PRO:O	1:C:1902:LYS:HG2	2.16	0.46
1:C:1977:ASN:OD1	1:C:1977:ASN:N	2.49	0.46
1:C:2058:GLN:HA	1:C:2090:GLN:HE21	1.81	0.46
1:C:4694:SER:O	1:C:4694:SER:OG	2.31	0.46
1:A:490:GLN:O	1:A:490:GLN:NE2	2.47	0.46
1:A:555:LEU:HD21	1:A:578:VAL:HG11	1.98	0.46
1:A:2858:GLU:O	1:A:2862:LYS:HG2	2.15	0.46
1:A:3919:LEU:O	1:A:3923:ILE:HG12	2.16	0.46
1:B:1968:PRO:HA	1:B:1971:GLN:HB3	1.97	0.46
1:C:1002:ASN:O	1:C:1006:VAL:HG23	2.15	0.46
1:C:1642:ILE:HD11	1:C:1699:LEU:HD23	1.97	0.46
1:C:2439:PHE:HB3	1:C:2459:PHE:CD2	2.50	0.46
1:C:3636:GLU:HG3	1:C:3693:ILE:HG23	1.97	0.46
1:D:712:GLU:OE2	1:D:838:ARG:NE	2.47	0.46
1:D:718:VAL:HG23	1:D:724:SER:HB2	1.98	0.46
1:A:3822:GLU:OE1	1:A:3827:LYS:N	2.49	0.46
1:A:4009:VAL:HA	1:A:4012:ILE:HG12	1.98	0.46
1:B:1898:PRO:O	1:B:1902:LYS:HG2	2.16	0.46
1:B:2058:GLN:HG3	1:B:2090:GLN:NE2	2.31	0.46
1:C:555:LEU:HD21	1:C:578:VAL:HG11	1.98	0.46
1:C:718:VAL:HG23	1:C:724:SER:HB2	1.98	0.46
1:C:872:ILE:HD13	1:C:944:LEU:HD22	1.97	0.46
1:A:718:VAL:HG23	1:A:724:SER:HB2	1.98	0.46
1:A:807:ARG:O	1:A:1615:ARG:NE	2.47	0.46
1:A:872:ILE:HD13	1:A:944:LEU:HD22	1.97	0.46
1:A:1591:PHE:CZ	1:A:1593:SER:HB2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3621:GLN:O	1:A:3624:GLU:HG3	2.15	0.46
1:B:2058:GLN:HA	1:B:2090:GLN:HE21	1.81	0.46
1:B:2766:GLU:HA	1:B:2769:ILE:HG23	1.97	0.46
1:C:2064:THR:HG22	1:C:2067:ARG:HH12	1.80	0.46
1:C:3801:VAL:HG13	1:C:3883:SER:HB2	1.98	0.46
1:D:34:LYS:O	1:D:52:THR:OG1	2.33	0.46
1:D:2439:PHE:HB3	1:D:2459:PHE:CD2	2.50	0.46
1:D:3621:GLN:O	1:D:3624:GLU:HG3	2.15	0.46
1:A:1002:ASN:O	1:A:1006:VAL:HG23	2.15	0.46
1:A:2059:GLN:O	1:A:2063:GLU:HG2	2.16	0.46
1:B:943:LEU:HA	1:B:995:MET:HE3	1.98	0.46
1:B:1289:SER:HA	1:B:1353:HIS:HB3	1.98	0.46
1:B:4009:VAL:HA	1:B:4012:ILE:HG12	1.98	0.46
1:C:2128:LEU:HD11	1:C:2140:LEU:HD12	1.96	0.46
1:D:1898:PRO:O	1:D:1902:LYS:HG2	2.16	0.46
1:D:1968:PRO:HA	1:D:1971:GLN:HB3	1.97	0.46
1:D:4518:TYR:HE1	1:D:4560:LEU:HB2	1.80	0.46
1:A:2058:GLN:HG3	1:A:2090:GLN:NE2	2.31	0.45
1:B:718:VAL:HG23	1:B:724:SER:HB2	1.98	0.45
1:B:1118:SER:HA	1:B:1134:ALA:HA	1.98	0.45
1:D:1609:VAL:HG12	1:D:1611:ARG:H	1.81	0.45
1:D:2766:GLU:HA	1:D:2769:ILE:HG23	1.97	0.45
1:A:436:LEU:HD21	1:A:517:VAL:HG12	1.99	0.45
1:A:987:LYS:HZ1	1:A:990:PRO:HD3	1.80	0.45
1:A:1321:UNK:HA	1:A:1436:UNK:HA	1.97	0.45
1:A:1898:PRO:O	1:A:1902:LYS:HG2	2.16	0.45
1:A:3818:MET:SD	1:A:3818:MET:N	2.77	0.45
1:B:1343:PHE:HB2	1:B:1376:TYR:HD2	1.80	0.45
1:B:1641:ASP:HB3	1:B:1644:GLU:HG3	1.98	0.45
1:D:3636:GLU:HG3	1:D:3693:ILE:HG23	1.96	0.45
1:A:1289:SER:HA	1:A:1353:HIS:HB3	1.98	0.45
1:A:3831:ASP:HB3	1:A:3834:PHE:HB3	1.98	0.45
1:B:329:PHE:HB3	1:B:363:ILE:HD11	1.98	0.45
1:C:2059:GLN:O	1:C:2063:GLU:HG2	2.16	0.45
1:C:4665:ILE:O	1:C:4668:LEU:HD23	2.17	0.45
1:D:765:SER:HB3	1:D:780:GLU:HA	1.99	0.45
1:D:2058:GLN:HA	1:D:2090:GLN:HE21	1.81	0.45
1:D:2059:GLN:O	1:D:2063:GLU:HG2	2.16	0.45
1:D:2853:LYS:HA	1:D:2856:LYS:HG2	1.99	0.45
1:D:3822:GLU:OE1	1:D:3827:LYS:N	2.49	0.45
1:D:4665:ILE:O	1:D:4668:LEU:HD23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:712:GLU:OE2	1:A:838:ARG:NE	2.47	0.45
1:A:2197:ARG:HB3	1:A:2236:SER:OG	2.17	0.45
1:B:4665:ILE:O	1:B:4668:LEU:HD23	2.17	0.45
1:C:850:LEU:HD23	1:C:850:LEU:H	1.81	0.45
1:D:4009:VAL:HA	1:D:4012:ILE:HG12	1.98	0.45
1:A:850:LEU:HD23	1:A:850:LEU:H	1.81	0.45
1:A:1641:ASP:HB3	1:A:1644:GLU:HG3	1.99	0.45
1:A:2766:GLU:HA	1:A:2769:ILE:HG23	1.97	0.45
1:A:4589:TYR:OH	1:A:4715:ASP:OD2	2.28	0.45
1:A:4784:ALA:HA	1:A:4788:PHE:HD2	1.82	0.45
1:B:2197:ARG:HB3	1:B:2236:SER:OG	2.17	0.45
1:B:3831:ASP:HB3	1:B:3834:PHE:HB3	1.98	0.45
1:D:436:LEU:HD21	1:D:517:VAL:HG12	1.99	0.45
1:D:555:LEU:HD21	1:D:578:VAL:HG11	1.98	0.45
1:D:4287:TRP:O	1:D:4291:VAL:HG13	2.15	0.45
1:A:329:PHE:HB3	1:A:363:ILE:HD11	1.98	0.45
1:A:1118:SER:HA	1:A:1134:ALA:HA	1.98	0.45
1:A:1977:ASN:OD1	1:A:1977:ASN:N	2.49	0.45
1:A:3801:VAL:HG13	1:A:3883:SER:HB2	1.98	0.45
1:B:4784:ALA:HA	1:B:4788:PHE:HD2	1.82	0.45
1:C:3822:GLU:OE1	1:C:3827:LYS:N	2.49	0.45
1:C:3831:ASP:HB3	1:C:3834:PHE:HB3	1.98	0.45
1:D:417:ARG:NH1	1:D:420:ARG:HH22	2.15	0.45
1:D:1786:ASP:HA	1:D:1789:LYS:HD3	1.99	0.45
1:D:1977:ASN:N	1:D:1977:ASN:OD1	2.49	0.45
1:D:2197:ARG:HB3	1:D:2236:SER:OG	2.17	0.45
1:A:1643:LEU:HD22	1:A:1694:TYR:O	2.17	0.45
1:A:2058:GLN:HA	1:A:2090:GLN:HE21	1.81	0.45
1:B:838:ARG:H	1:B:841:LYS:NZ	2.12	0.45
1:B:4182:LYS:HD2	1:B:4182:LYS:HA	1.80	0.45
1:B:4660:TYR:HB3	1:B:4664:ARG:HH21	1.82	0.45
1:C:697:TRP:HB2	1:C:766:ILE:HD13	1.99	0.45
1:C:1320:UNK:HA	1:C:1325:UNK:HA	1.99	0.45
1:C:1643:LEU:HD22	1:C:1694:TYR:O	2.17	0.45
1:C:4762:ASN:O	1:C:4764:LYS:N	2.47	0.45
1:D:1289:SER:HA	1:D:1353:HIS:HB3	1.98	0.45
1:D:1641:ASP:OD1	1:D:1642:ILE:N	2.50	0.45
1:D:3801:VAL:HG13	1:D:3883:SER:HB2	1.98	0.45
1:D:3831:ASP:HB3	1:D:3834:PHE:HB3	1.98	0.45
1:D:4051:MET:HE2	1:D:4062:THR:HA	1.98	0.45
1:A:669:GLN:HB3	1:A:673:TRP:HZ2	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1985:CYS:SG	1:B:1992:ARG:HD2	2.57	0.45
1:B:3822:GLU:OE1	1:B:3827:LYS:N	2.49	0.45
1:C:1987:CYS:N	1:C:1988:PRO:HD2	2.32	0.45
1:C:2197:ARG:HB3	1:C:2236:SER:OG	2.17	0.45
1:D:505:LEU:HD22	1:D:526:TRP:HD1	1.80	0.45
1:D:669:GLN:HB3	1:D:673:TRP:HZ2	1.82	0.45
1:D:850:LEU:HD23	1:D:850:LEU:H	1.81	0.45
1:D:1165:MET:HB3	1:D:1236:TYR:CE2	2.52	0.45
1:A:765:SER:HB3	1:A:780:GLU:HA	1.99	0.45
1:A:1968:PRO:HA	1:A:1971:GLN:HB3	1.97	0.45
1:B:697:TRP:HB2	1:B:766:ILE:HD13	1.99	0.45
1:C:26:ALA:HB2	1:C:194:LEU:HD21	1.99	0.45
1:C:669:GLN:HB3	1:C:673:TRP:HZ2	1.82	0.45
1:C:2058:GLN:HG3	1:C:2090:GLN:NE2	2.31	0.45
1:C:4009:VAL:HA	1:C:4012:ILE:HG12	1.98	0.45
1:A:1031:ARG:HD3	1:A:1031:ARG:HA	1.85	0.45
1:A:1165:MET:HB3	1:A:1236:TYR:CE2	2.52	0.45
1:A:1985:CYS:SG	1:A:1992:ARG:HD2	2.57	0.45
1:A:2853:LYS:HA	1:A:2856:LYS:HG2	1.99	0.45
1:A:4665:ILE:O	1:A:4668:LEU:HD23	2.17	0.45
1:A:4694:SER:O	1:A:4694:SER:OG	2.31	0.45
1:B:644:LEU:HD11	1:B:1651:LEU:HD22	1.99	0.45
1:B:799:LYS:HG2	1:B:1621:GLN:NE2	2.32	0.45
1:B:1845:GLN:HA	1:B:1848:GLU:HG2	1.98	0.45
1:B:1987:CYS:N	1:B:1988:PRO:HD2	2.32	0.45
1:C:894:VAL:O	1:C:898:ILE:HG13	2.17	0.45
1:D:799:LYS:HG2	1:D:1621:GLN:NE2	2.32	0.45
1:D:1118:SER:HA	1:D:1134:ALA:HA	1.98	0.45
1:D:1643:LEU:HD22	1:D:1694:TYR:O	2.17	0.45
1:D:4784:ALA:HA	1:D:4788:PHE:HD2	1.82	0.45
1:A:1095:ALA:HB1	1:A:1200:GLY:HA3	1.99	0.44
1:A:2844:ALA:HB1	1:A:2884:ASP:OD1	2.17	0.44
1:B:1095:ALA:HB1	1:B:1200:GLY:HA3	1.99	0.44
1:B:4762:ASN:O	1:B:4764:LYS:N	2.47	0.44
1:C:1343:PHE:HB2	1:C:1376:TYR:HD2	1.80	0.44
1:D:4080:GLU:O	1:D:4084:LYS:HD3	2.17	0.44
1:A:417:ARG:NH1	1:A:420:ARG:HH22	2.15	0.44
1:A:799:LYS:HG2	1:A:1621:GLN:NE2	2.32	0.44
1:B:2844:ALA:HB1	1:B:2884:ASP:OD1	2.18	0.44
1:C:417:ARG:NH1	1:C:420:ARG:HH22	2.15	0.44
1:C:2853:LYS:HA	1:C:2856:LYS:HG2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4080:GLU:O	1:C:4084:LYS:HD3	2.17	0.44
1:D:1320:UNK:HA	1:D:1325:UNK:HA	1.99	0.44
1:D:2070:GLN:O	1:D:3659:ARG:NH1	2.44	0.44
1:A:1641:ASP:OD1	1:A:1642:ILE:N	2.50	0.44
1:B:1165:MET:HB3	1:B:1236:TYR:CE2	2.52	0.44
1:B:1709:ASP:HA	1:B:1713:SER:HB3	2.00	0.44
1:B:3925:GLY:O	1:B:3927:CYS:N	2.50	0.44
1:B:4080:GLU:O	1:B:4084:LYS:HD3	2.17	0.44
1:C:799:LYS:HG2	1:C:1621:GLN:NE2	2.32	0.44
1:C:1118:SER:HA	1:C:1134:ALA:HA	1.98	0.44
1:C:1845:GLN:HA	1:C:1848:GLU:HG2	1.98	0.44
1:C:2844:ALA:HB1	1:C:2884:ASP:OD1	2.17	0.44
1:D:2428:LEU:O	1:D:2432:VAL:HG23	2.18	0.44
1:D:4660:TYR:HB3	1:D:4664:ARG:HH21	1.82	0.44
1:D:4694:SER:O	1:D:4694:SER:OG	2.31	0.44
1:B:336:GLU:HG3	1:B:338:LEU:HD22	1.99	0.44
1:B:765:SER:HB3	1:B:780:GLU:HA	1.99	0.44
1:B:1609:VAL:HG12	1:B:1611:ARG:H	1.81	0.44
1:C:436:LEU:HD21	1:C:517:VAL:HG12	1.99	0.44
1:C:606:ARG:NH2	1:C:1635:GLU:OE1	2.35	0.44
1:C:1641:ASP:OD1	1:C:1642:ILE:N	2.50	0.44
1:C:1641:ASP:HB3	1:C:1644:GLU:HG3	1.99	0.44
1:C:1985:CYS:SG	1:C:1992:ARG:HD2	2.57	0.44
1:C:2428:LEU:O	1:C:2432:VAL:HG23	2.18	0.44
1:C:4660:TYR:HB3	1:C:4664:ARG:HH21	1.82	0.44
1:B:26:ALA:HB2	1:B:194:LEU:HD21	1.99	0.44
1:B:692:HIS:HB3	1:B:795:SER:HB3	2.00	0.44
1:B:850:LEU:HD23	1:B:850:LEU:H	1.81	0.44
1:B:900:LEU:HD23	1:B:902:TRP:NE1	2.33	0.44
1:C:900:LEU:HD23	1:C:902:TRP:NE1	2.33	0.44
1:C:943:LEU:HD11	1:C:948:CYS:HB3	1.99	0.44
1:C:1709:ASP:HA	1:C:1713:SER:HB3	2.00	0.44
1:C:2331:GLY:HA3	1:C:2391:TYR:CE1	2.53	0.44
1:C:2781:MET:HG3	1:C:2839:MET:HE1	1.99	0.44
1:C:4205:ILE:HG23	1:C:4491:ASN:HB3	2.00	0.44
1:D:697:TRP:HB2	1:D:766:ILE:HD13	1.99	0.44
1:A:894:VAL:O	1:A:898:ILE:HG13	2.17	0.44
1:A:1353:HIS:CE1	1:A:1367:LYS:HE3	2.53	0.44
1:A:1700:ARG:NH1	1:A:1817:PHE:O	2.51	0.44
1:A:1786:ASP:HA	1:A:1789:LYS:HD3	1.99	0.44
1:B:281:ARG:NH1	1:B:346:VAL:O	2.37	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:669:GLN:HB3	1:B:673:TRP:HZ2	1.82	0.44
1:B:1641:ASP:OD1	1:B:1642:ILE:N	2.50	0.44
1:B:1970:GLU:HA	1:B:1973:ASN:HB2	2.00	0.44
1:B:2343:LEU:HA	1:B:2343:LEU:HD23	1.76	0.44
1:C:329:PHE:HB3	1:C:363:ILE:HD11	1.98	0.44
1:C:644:LEU:HD11	1:C:1651:LEU:HD22	1.99	0.44
1:C:1970:GLU:HA	1:C:1973:ASN:HB2	2.00	0.44
1:D:329:PHE:HB3	1:D:363:ILE:HD11	1.98	0.44
1:D:336:GLU:HG3	1:D:338:LEU:HD22	1.99	0.44
1:D:1985:CYS:SG	1:D:1992:ARG:HD2	2.57	0.44
1:D:2337:GLU:OE1	1:D:2337:GLU:N	2.51	0.44
1:A:661:LEU:HD13	1:A:673:TRP:CD1	2.53	0.44
1:B:1643:LEU:HD22	1:B:1694:TYR:O	2.17	0.44
1:B:2059:GLN:O	1:B:2063:GLU:HG2	2.16	0.44
1:C:332:ARG:NH1	1:C:364:GLN:OE1	2.51	0.44
1:C:4183:GLU:O	1:C:4187:LEU:HG	2.18	0.44
1:C:4784:ALA:HA	1:C:4788:PHE:HD2	1.82	0.44
1:D:2085:VAL:HG12	1:D:3686:LEU:HD13	1.99	0.44
1:D:2331:GLY:HA3	1:D:2391:TYR:CE1	2.53	0.44
1:A:152:ASP:OD2	1:A:154:THR:OG1	2.36	0.44
1:A:644:LEU:HD11	1:A:1651:LEU:HD22	1.99	0.44
1:A:697:TRP:HB2	1:A:766:ILE:HD13	1.99	0.44
1:A:900:LEU:HD23	1:A:902:TRP:NE1	2.33	0.44
1:A:943:LEU:HD11	1:A:948:CYS:HB3	1.99	0.44
1:A:2781:MET:HG3	1:A:2839:MET:HE1	2.00	0.44
1:B:436:LEU:HD21	1:B:517:VAL:HG12	1.99	0.44
1:B:1320:UNK:HA	1:B:1325:UNK:HA	1.99	0.44
1:B:1786:ASP:HA	1:B:1789:LYS:HD3	1.99	0.44
1:B:2853:LYS:HA	1:B:2856:LYS:HG2	1.99	0.44
1:B:4183:GLU:O	1:B:4187:LEU:HG	2.18	0.44
1:C:320:GLU:OE2	1:C:320:GLU:N	2.51	0.44
1:C:692:HIS:HB3	1:C:795:SER:HB3	2.00	0.44
1:C:1165:MET:HB3	1:C:1236:TYR:CE2	2.52	0.44
2:I:38:ASP:OD1	2:I:39:SER:N	2.51	0.44
1:D:1641:ASP:HB3	1:D:1644:GLU:HG3	1.99	0.44
1:D:2220:LEU:HD11	1:D:2242:ALA:HB2	2.00	0.44
1:D:4205:ILE:HG23	1:D:4491:ASN:HB3	2.00	0.44
1:A:26:ALA:HB2	1:A:194:LEU:HD21	1.99	0.44
1:A:845:THR:OG1	1:A:846:TYR:N	2.51	0.44
1:A:2085:VAL:HG12	1:A:3686:LEU:HD13	1.99	0.44
1:B:661:LEU:HD13	1:B:673:TRP:CD1	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2331:GLY:HA3	1:B:2391:TYR:CE1	2.53	0.44
1:C:1095:ALA:HB1	1:C:1200:GLY:HA3	1.99	0.44
1:C:1747:HIS:O	1:C:1747:HIS:ND1	2.51	0.44
1:D:644:LEU:HD11	1:D:1651:LEU:HD22	1.99	0.44
1:D:1747:HIS:O	1:D:1747:HIS:ND1	2.51	0.44
1:D:2844:ALA:HB1	1:D:2884:ASP:OD1	2.17	0.44
1:A:1970:GLU:HA	1:A:1973:ASN:HB2	2.00	0.43
1:A:3925:GLY:O	1:A:3927:CYS:N	2.50	0.43
1:B:674:TYR:N	1:B:820:ALA:O	2.51	0.43
1:B:840:TYR:CE2	1:B:850:LEU:HA	2.53	0.43
1:B:1652:LEU:HD12	1:B:1699:LEU:HD13	2.01	0.43
1:C:646:THR:HG21	1:C:1685:GLN:HE22	1.83	0.43
1:C:674:TYR:N	1:C:820:ALA:O	2.51	0.43
1:C:1786:ASP:HA	1:C:1789:LYS:HD3	1.99	0.43
1:C:2337:GLU:N	1:C:2337:GLU:OE1	2.51	0.43
1:C:4026:THR:O	1:C:4031:PHE:HB3	2.18	0.43
1:D:290:ARG:H	1:D:293:GLN:NE2	2.16	0.43
1:D:894:VAL:O	1:D:898:ILE:HG13	2.17	0.43
1:D:943:LEU:HD11	1:D:948:CYS:HB3	1.99	0.43
1:D:1845:GLN:HA	1:D:1848:GLU:HG2	1.98	0.43
1:D:1987:CYS:N	1:D:1988:PRO:HD2	2.32	0.43
1:D:4501:ARG:HH12	1:D:4720:TYR:HE2	1.66	0.43
1:A:34:LYS:O	1:A:52:THR:OG1	2.33	0.43
1:A:712:GLU:HG3	1:A:713:TRP:CD1	2.53	0.43
1:A:929:ARG:HA	1:A:932:ASN:HD21	1.83	0.43
1:A:1709:ASP:HA	1:A:1713:SER:HB3	2.00	0.43
1:A:1987:CYS:N	1:A:1988:PRO:HD2	2.32	0.43
1:A:2337:GLU:OE1	1:A:2337:GLU:N	2.51	0.43
1:A:4051:MET:HE2	1:A:4062:THR:HA	1.99	0.43
1:A:4080:GLU:O	1:A:4084:LYS:HD3	2.17	0.43
1:B:417:ARG:NH1	1:B:420:ARG:HH22	2.15	0.43
1:B:2428:LEU:O	1:B:2432:VAL:HG23	2.18	0.43
1:B:4205:ILE:HG23	1:B:4491:ASN:HB3	2.00	0.43
1:C:1353:HIS:CE1	1:C:1367:LYS:HE3	2.53	0.43
1:C:2085:VAL:HG12	1:C:3686:LEU:HD13	1.99	0.43
1:C:2876:LEU:HB2	1:C:2881:LYS:HE3	2.00	0.43
1:D:332:ARG:NH1	1:D:364:GLN:OE1	2.51	0.43
1:D:661:LEU:HD13	1:D:673:TRP:CD1	2.53	0.43
1:D:712:GLU:HG3	1:D:713:TRP:CD1	2.53	0.43
1:D:2108:ASN:HD21	1:D:2111:SER:HB3	1.83	0.43
1:D:2776:GLU:O	1:D:2780:THR:HG23	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4026:THR:O	1:D:4031:PHE:HB3	2.18	0.43
1:A:505:LEU:HD22	1:A:526:TRP:HD1	1.80	0.43
1:A:1006:VAL:HG13	1:A:1009:ARG:NH2	2.31	0.43
1:A:1845:GLN:HA	1:A:1848:GLU:HG2	1.99	0.43
1:A:2086:LEU:O	1:A:2090:GLN:HG2	2.19	0.43
1:A:4205:ILE:HG23	1:A:4491:ASN:HB3	2.00	0.43
1:A:4660:TYR:HB3	1:A:4664:ARG:HH21	1.82	0.43
1:A:4830:ILE:HB	1:A:4842:ARG:HH21	1.83	0.43
1:B:646:THR:HG21	1:B:1685:GLN:HE22	1.83	0.43
1:B:2085:VAL:HG12	1:B:3686:LEU:HD13	1.99	0.43
1:B:2337:GLU:OE1	1:B:2337:GLU:N	2.51	0.43
1:B:4830:ILE:HB	1:B:4842:ARG:HH21	1.83	0.43
2:H:38:ASP:OD1	2:H:39:SER:N	2.51	0.43
1:C:2776:GLU:O	1:C:2780:THR:HG23	2.18	0.43
1:D:1095:ALA:HB1	1:D:1200:GLY:HA3	1.99	0.43
1:D:1353:HIS:CE1	1:D:1367:LYS:HE3	2.53	0.43
1:D:4608:LYS:HG2	1:D:4614:LEU:HD22	2.01	0.43
1:A:281:ARG:NH1	1:A:346:VAL:O	2.37	0.43
1:A:1320:UNK:HA	1:A:1325:UNK:HA	1.99	0.43
1:A:1652:LEU:HD12	1:A:1699:LEU:HD13	2.00	0.43
1:A:2876:LEU:HB2	1:A:2881:LYS:HE3	2.00	0.43
1:B:894:VAL:O	1:B:898:ILE:HG13	2.17	0.43
1:B:1353:HIS:CE1	1:B:1367:LYS:HE3	2.53	0.43
1:B:1977:ASN:N	1:B:1977:ASN:OD1	2.49	0.43
1:B:2193:ALA:O	1:B:2236:SER:HB3	2.19	0.43
1:B:2776:GLU:O	1:B:2780:THR:HG23	2.19	0.43
1:C:2108:ASN:HD21	1:C:2111:SER:HB3	1.83	0.43
1:D:152:ASP:OD2	1:D:154:THR:OG1	2.36	0.43
1:A:840:TYR:CE2	1:A:850:LEU:HA	2.53	0.43
1:A:2765:LYS:O	1:A:2769:ILE:HG23	2.19	0.43
1:B:490:GLN:O	1:B:490:GLN:NE2	2.47	0.43
1:B:1700:ARG:NH1	1:B:1817:PHE:O	2.51	0.43
1:B:4029:ASP:OD1	1:B:4029:ASP:N	2.47	0.43
1:C:661:LEU:HD13	1:C:673:TRP:CD1	2.53	0.43
1:C:4632:LEU:HD23	1:C:4632:LEU:H	1.84	0.43
1:D:840:TYR:CE2	1:D:850:LEU:HA	2.53	0.43
1:D:1297:THR:OG1	1:D:1346:LEU:O	2.27	0.43
1:D:2276:CYS:O	1:D:2280:VAL:HG13	2.19	0.43
1:D:2765:LYS:O	1:D:2769:ILE:HG23	2.19	0.43
1:A:692:HIS:HB3	1:A:795:SER:HB3	2.00	0.43
1:B:1086:ARG:HH21	1:B:1251:LEU:HD13	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2471:LEU:HD23	1:B:2471:LEU:HA	1.83	0.43
1:B:4648:VAL:O	1:B:4652:VAL:HG12	2.19	0.43
1:C:1700:ARG:NH1	1:C:1817:PHE:O	2.51	0.43
1:C:2086:LEU:O	1:C:2090:GLN:HG2	2.19	0.43
1:C:2220:LEU:HD11	1:C:2242:ALA:HB2	2.00	0.43
1:C:4648:VAL:O	1:C:4652:VAL:HG12	2.19	0.43
1:D:323:ASP:O	1:D:327:THR:OG1	2.34	0.43
1:D:490:GLN:O	1:D:490:GLN:NE2	2.47	0.43
1:D:646:THR:HG21	1:D:1685:GLN:HE22	1.83	0.43
1:D:1709:ASP:HA	1:D:1713:SER:HB3	2.00	0.43
1:D:1744:ASN:ND2	1:D:1746:LYS:HE2	2.31	0.43
1:D:2439:PHE:HB3	1:D:2459:PHE:HD2	1.82	0.43
1:D:4183:GLU:O	1:D:4187:LEU:HG	2.18	0.43
1:D:4830:ILE:HB	1:D:4842:ARG:HH21	1.84	0.43
1:A:332:ARG:NH1	1:A:364:GLN:OE1	2.51	0.43
1:A:336:GLU:HG3	1:A:338:LEU:HD22	1.99	0.43
1:A:2193:ALA:O	1:A:2236:SER:HB3	2.19	0.43
2:G:38:ASP:OD1	2:G:39:SER:N	2.51	0.43
1:B:943:LEU:HD11	1:B:948:CYS:HB3	1.99	0.43
1:B:2220:LEU:HD11	1:B:2242:ALA:HB2	2.00	0.43
1:C:336:GLU:HG3	1:C:338:LEU:HD22	1.99	0.43
1:C:802:PHE:HB2	1:C:1618:TRP:HB2	2.00	0.43
1:C:929:ARG:HA	1:C:932:ASN:HD21	1.83	0.43
1:C:1086:ARG:HH21	1:C:1251:LEU:HD13	1.84	0.43
1:C:4304:PHE:O	1:C:4308:VAL:HG22	2.19	0.43
1:C:4501:ARG:HH12	1:C:4720:TYR:HE2	1.66	0.43
1:D:802:PHE:HB2	1:D:1618:TRP:HB2	2.00	0.43
1:D:2086:LEU:O	1:D:2090:GLN:HG2	2.19	0.43
1:D:3803:ASP:OD1	1:D:3806:ALA:HB3	2.19	0.43
1:D:4594:VAL:N	1:D:4595:PRO:HD2	2.34	0.43
1:A:646:THR:HG21	1:A:1685:GLN:HE22	1.83	0.43
1:A:2108:ASN:HD21	1:A:2111:SER:HB3	1.83	0.43
1:A:2220:LEU:HD11	1:A:2242:ALA:HB2	2.00	0.43
1:A:2471:LEU:HD23	1:A:2471:LEU:HA	1.83	0.43
1:A:4079:TYR:HA	1:A:4082:PHE:HB3	2.01	0.43
1:A:4648:VAL:O	1:A:4652:VAL:HG12	2.19	0.43
1:B:1006:VAL:HG13	1:B:1009:ARG:NH2	2.31	0.43
1:B:2108:ASN:HD21	1:B:2111:SER:HB3	1.83	0.43
1:B:4304:PHE:O	1:B:4308:VAL:HG22	2.19	0.43
1:C:845:THR:OG1	1:C:846:TYR:N	2.51	0.43
1:C:2276:CYS:O	1:C:2280:VAL:HG13	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3954:GLN:NE2	1:C:3971:MET:SD	2.92	0.43
1:C:4594:VAL:N	1:C:4595:PRO:HD2	2.34	0.43
1:D:838:ARG:H	1:D:841:LYS:NZ	2.12	0.43
1:D:2243:ALA:O	1:D:2247:MET:HB2	2.19	0.43
1:D:4304:PHE:O	1:D:4308:VAL:HG22	2.19	0.43
1:D:4830:ILE:HB	1:D:4842:ARG:NH2	2.34	0.43
1:A:802:PHE:HB2	1:A:1618:TRP:HB2	2.00	0.43
1:A:4304:PHE:O	1:A:4308:VAL:HG22	2.19	0.43
1:A:4608:LYS:HG2	1:A:4614:LEU:HD22	2.01	0.43
1:B:34:LYS:O	1:B:52:THR:OG1	2.33	0.43
1:B:332:ARG:NH1	1:B:364:GLN:OE1	2.51	0.43
1:B:2246:VAL:HG21	1:B:2256:LEU:HD22	2.01	0.43
1:B:2316:ALA:O	1:B:2320:VAL:HG23	2.19	0.43
1:B:2781:MET:HG3	1:B:2839:MET:HE1	2.00	0.43
1:B:4608:LYS:HG2	1:B:4614:LEU:HD22	2.01	0.43
1:C:442:LEU:HG	1:C:444:THR:HG22	2.01	0.43
1:C:765:SER:HB3	1:C:780:GLU:HA	1.99	0.43
1:C:1789:LYS:HB2	1:C:1835:PHE:HE1	1.84	0.43
1:C:2765:LYS:O	1:C:2769:ILE:HG23	2.19	0.43
1:C:4051:MET:HE2	1:C:4062:THR:HA	2.01	0.43
1:C:4830:ILE:HB	1:C:4842:ARG:NH2	2.34	0.43
1:C:4920:PHE:HE2	1:C:4939:VAL:HG11	1.84	0.43
1:D:26:ALA:HB2	1:D:194:LEU:HD21	1.99	0.43
1:D:674:TYR:N	1:D:820:ALA:O	2.51	0.43
1:D:1652:LEU:HD12	1:D:1699:LEU:HD13	2.01	0.43
1:D:1700:ARG:NH1	1:D:1817:PHE:O	2.51	0.43
1:D:1970:GLU:HA	1:D:1973:ASN:HB2	2.00	0.43
1:D:2246:VAL:HG21	1:D:2256:LEU:HD22	2.01	0.43
1:A:380:LYS:HD2	1:A:380:LYS:HA	1.77	0.43
1:A:1789:LYS:HB2	1:A:1835:PHE:HE1	1.84	0.43
1:A:2276:CYS:O	1:A:2280:VAL:HG13	2.19	0.43
1:A:2331:GLY:HA3	1:A:2391:TYR:CE1	2.53	0.43
1:A:2428:LEU:O	1:A:2432:VAL:HG23	2.18	0.43
1:A:2439:PHE:HB3	1:A:2459:PHE:HD2	1.83	0.43
1:A:3803:ASP:OD1	1:A:3806:ALA:HB3	2.19	0.43
1:A:4183:GLU:O	1:A:4187:LEU:HG	2.18	0.43
1:B:845:THR:OG1	1:B:846:TYR:N	2.51	0.43
1:B:2243:ALA:O	1:B:2247:MET:HB2	2.19	0.43
1:B:2260:ASP:N	1:B:2260:ASP:OD1	2.52	0.43
1:B:2276:CYS:O	1:B:2280:VAL:HG13	2.19	0.43
1:B:4079:TYR:HA	1:B:4082:PHE:HB3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:34:LYS:O	1:C:52:THR:OG1	2.33	0.43
1:C:838:ARG:H	1:C:841:LYS:NZ	2.12	0.43
1:C:1652:LEU:HD12	1:C:1699:LEU:HD13	2.01	0.43
1:C:4079:TYR:HA	1:C:4082:PHE:HB3	2.01	0.43
1:D:692:HIS:HB3	1:D:795:SER:HB3	2.00	0.43
1:D:929:ARG:HA	1:D:932:ASN:HD21	1.83	0.43
1:D:943:LEU:HA	1:D:995:MET:HE3	2.01	0.43
1:D:2876:LEU:HB2	1:D:2881:LYS:HE3	2.00	0.43
1:D:4632:LEU:HD23	1:D:4632:LEU:H	1.84	0.43
2:J:38:ASP:OD1	2:J:39:SER:N	2.51	0.43
1:A:2316:ALA:O	1:A:2320:VAL:HG23	2.19	0.42
1:A:4594:VAL:N	1:A:4595:PRO:HD2	2.34	0.42
1:B:2439:PHE:HB3	1:B:2459:PHE:HD2	1.82	0.42
1:B:2876:LEU:HB2	1:B:2881:LYS:HE3	2.00	0.42
1:B:4923:TYR:CZ	1:B:4927:LYS:HD2	2.54	0.42
1:C:840:TYR:CE2	1:C:850:LEU:HA	2.53	0.42
1:C:2260:ASP:N	1:C:2260:ASP:OD1	2.52	0.42
1:C:2439:PHE:HB3	1:C:2459:PHE:HD2	1.82	0.42
1:D:47:CYS:O	1:D:202:HIS:NE2	2.51	0.42
1:D:2057:LEU:O	1:D:2060:LEU:HD23	2.19	0.42
1:D:2193:ALA:O	1:D:2236:SER:HB3	2.19	0.42
1:D:2316:ALA:O	1:D:2320:VAL:HG23	2.19	0.42
1:D:2781:MET:HG3	1:D:2839:MET:HE1	2.01	0.42
1:D:3954:GLN:NE2	1:D:3971:MET:SD	2.92	0.42
1:D:4920:PHE:HE2	1:D:4939:VAL:HG11	1.84	0.42
1:A:1928:SER:OG	1:A:3616:VAL:HG23	2.20	0.42
1:A:4501:ARG:HH12	1:A:4720:TYR:HE2	1.66	0.42
1:A:4923:TYR:CZ	1:A:4927:LYS:HD2	2.54	0.42
1:B:2498:ALA:O	1:B:2501:LEU:HD23	2.20	0.42
1:B:3612:ARG:O	1:B:3612:ARG:NH1	2.52	0.42
1:B:4594:VAL:N	1:B:4595:PRO:HD2	2.34	0.42
1:C:152:ASP:OD2	1:C:154:THR:OG1	2.36	0.42
1:C:2316:ALA:O	1:C:2320:VAL:HG23	2.19	0.42
1:C:2498:ALA:O	1:C:2501:LEU:HD23	2.20	0.42
1:C:4830:ILE:HB	1:C:4842:ARG:HH21	1.83	0.42
1:D:442:LEU:HG	1:D:444:THR:HG22	2.01	0.42
1:D:900:LEU:HD23	1:D:902:TRP:NE1	2.33	0.42
1:D:2260:ASP:OD1	1:D:2260:ASP:N	2.52	0.42
1:A:674:TYR:N	1:A:820:ALA:O	2.51	0.42
1:A:2246:VAL:HG21	1:A:2256:LEU:HD22	2.01	0.42
1:A:2276:CYS:HB2	1:A:2279:LEU:HG	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3954:GLN:NE2	1:A:3971:MET:SD	2.92	0.42
1:A:4026:THR:O	1:A:4031:PHE:HB3	2.18	0.42
2:G:28:THR:HA	2:G:39:SER:HA	2.01	0.42
1:B:161:THR:HG23	1:B:184:VAL:HB	2.01	0.42
1:B:245:LEU:HD11	1:B:260:VAL:HG12	2.01	0.42
1:B:712:GLU:HG3	1:B:713:TRP:CD1	2.53	0.42
1:B:773:GLN:H	1:B:773:GLN:HG2	1.69	0.42
1:B:2086:LEU:O	1:B:2090:GLN:HG2	2.19	0.42
1:B:3803:ASP:OD1	1:B:3806:ALA:HB3	2.18	0.42
1:B:3954:GLN:NE2	1:B:3971:MET:SD	2.92	0.42
2:H:83:TYR:HB3	2:H:87:GLY:HA2	2.01	0.42
1:C:712:GLU:HG3	1:C:713:TRP:CD1	2.53	0.42
1:C:2057:LEU:O	1:C:2060:LEU:HD23	2.19	0.42
1:C:2243:ALA:O	1:C:2247:MET:HB2	2.19	0.42
1:C:3900:GLN:OE1	1:C:3903:ARG:NH1	2.52	0.42
1:C:3925:GLY:O	1:C:3927:CYS:N	2.50	0.42
1:D:245:LEU:HD11	1:D:260:VAL:HG12	2.01	0.42
1:D:845:THR:OG1	1:D:846:TYR:N	2.51	0.42
1:D:2498:ALA:O	1:D:2501:LEU:HD23	2.20	0.42
1:D:3925:GLY:O	1:D:3927:CYS:N	2.50	0.42
1:A:1629:MET:HG2	1:A:1688:TYR:CE2	2.55	0.42
1:A:1744:ASN:ND2	1:A:1746:LYS:HE2	2.31	0.42
1:A:2260:ASP:OD1	1:A:2260:ASP:N	2.52	0.42
1:A:3762:ILE:HD12	1:A:3840:ARG:HG3	2.00	0.42
1:A:4171:PHE:CE1	1:A:4175:VAL:HG21	2.55	0.42
1:B:2276:CYS:HB2	1:B:2279:LEU:HG	2.02	0.42
1:B:2340:ASN:OD1	1:B:2340:ASN:N	2.45	0.42
1:B:3900:GLN:OE1	1:B:3903:ARG:NH1	2.52	0.42
1:B:4920:PHE:HE2	1:B:4939:VAL:HG11	1.84	0.42
1:C:807:ARG:O	1:C:1615:ARG:NE	2.47	0.42
1:C:2193:ALA:O	1:C:2236:SER:HB3	2.19	0.42
1:C:2197:ARG:HB3	1:C:2197:ARG:HE	1.64	0.42
1:C:2246:VAL:HG21	1:C:2256:LEU:HD22	2.01	0.42
1:C:3758:LEU:O	1:C:3762:ILE:HG12	2.20	0.42
1:C:3803:ASP:OD1	1:C:3806:ALA:HB3	2.18	0.42
1:D:320:GLU:OE2	1:D:320:GLU:N	2.51	0.42
1:D:1006:VAL:HG13	1:D:1009:ARG:NH2	2.31	0.42
1:D:1928:SER:OG	1:D:3616:VAL:HG23	2.20	0.42
1:D:3758:LEU:O	1:D:3762:ILE:HG12	2.20	0.42
1:D:4176:VAL:HG11	1:D:4879:VAL:HA	2.01	0.42
1:D:4648:VAL:O	1:D:4652:VAL:HG12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:479:LEU:HD23	1:A:482:LEU:HD21	2.02	0.42
1:A:1086:ARG:HH21	1:A:1251:LEU:HD13	1.84	0.42
1:A:2057:LEU:O	1:A:2060:LEU:HD23	2.19	0.42
1:A:4857:LEU:HD23	1:A:4857:LEU:HA	1.94	0.42
1:B:479:LEU:HD23	1:B:482:LEU:HD21	2.01	0.42
1:B:712:GLU:OE2	1:B:838:ARG:NE	2.47	0.42
1:B:802:PHE:HB2	1:B:1618:TRP:HB2	2.00	0.42
1:B:1789:LYS:HB2	1:B:1835:PHE:HE1	1.84	0.42
1:B:3802:LEU:HD23	1:B:3829:LEU:HD13	2.01	0.42
1:B:4026:THR:O	1:B:4031:PHE:HB3	2.18	0.42
1:B:4171:PHE:CE1	1:B:4175:VAL:HG21	2.55	0.42
1:B:4632:LEU:HD23	1:B:4632:LEU:H	1.84	0.42
1:C:799:LYS:HG2	1:C:1621:GLN:HE22	1.85	0.42
1:C:4923:TYR:CZ	1:C:4927:LYS:HD2	2.54	0.42
1:D:479:LEU:HD23	1:D:482:LEU:HD21	2.01	0.42
1:D:919:VAL:HG22	1:D:920:GLU:H	1.85	0.42
1:D:1308:ILE:HG12	1:D:1572:PHE:HD2	1.84	0.42
1:A:799:LYS:HG2	1:A:1621:GLN:HE22	1.85	0.42
1:A:1747:HIS:ND1	1:A:1747:HIS:O	2.51	0.42
1:A:2243:ALA:O	1:A:2247:MET:HB2	2.19	0.42
1:A:2776:GLU:O	1:A:2780:THR:HG23	2.19	0.42
1:A:4632:LEU:H	1:A:4632:LEU:HD23	1.84	0.42
1:B:929:ARG:HA	1:B:932:ASN:HD21	1.83	0.42
1:B:1308:ILE:HG12	1:B:1572:PHE:HD2	1.84	0.42
1:B:2765:LYS:O	1:B:2769:ILE:HG23	2.19	0.42
1:B:3671:SER:OG	1:B:3741:GLN:OE1	2.23	0.42
1:B:3758:LEU:O	1:B:3762:ILE:HG12	2.20	0.42
1:C:479:LEU:HD23	1:C:482:LEU:HD21	2.01	0.42
1:C:919:VAL:HG22	1:C:920:GLU:H	1.85	0.42
1:C:2080:VAL:HG13	1:C:3669:LEU:HD22	2.02	0.42
1:C:3762:ILE:HD12	1:C:3840:ARG:HG3	2.00	0.42
1:D:2735:LYS:HE2	1:D:2740:TRP:HB2	2.02	0.42
1:D:3762:ILE:HD12	1:D:3840:ARG:HG3	2.00	0.42
1:D:3900:GLN:OE1	1:D:3903:ARG:NH1	2.52	0.42
1:D:3993:THR:O	1:D:3997:GLN:HG2	2.20	0.42
1:D:4079:TYR:HA	1:D:4082:PHE:HB3	2.01	0.42
1:A:125:TYR:CE1	1:A:417:ARG:HD3	2.55	0.42
1:A:190:ARG:HD3	1:A:205:ALA:O	2.20	0.42
1:A:290:ARG:H	1:A:293:GLN:NE2	2.16	0.42
1:A:2498:ALA:O	1:A:2501:LEU:HD23	2.20	0.42
2:G:83:TYR:HB3	2:G:87:GLY:HA2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3712:SER:O	1:B:3712:SER:OG	2.34	0.42
1:B:4501:ARG:HH12	1:B:4720:TYR:HE2	1.66	0.42
1:B:4913:ASN:HB3	1:B:4916:ASN:HB2	2.02	0.42
1:C:3993:THR:O	1:C:3997:GLN:HG2	2.20	0.42
1:C:4171:PHE:CE1	1:C:4175:VAL:HG21	2.55	0.42
1:C:4895:ASP:OD1	1:C:4896:TYR:N	2.53	0.42
1:D:1629:MET:HG2	1:D:1688:TYR:CE2	2.55	0.42
1:D:4171:PHE:CE1	1:D:4175:VAL:HG21	2.55	0.42
1:D:4923:TYR:CZ	1:D:4927:LYS:HD2	2.54	0.42
1:A:320:GLU:OE2	1:A:320:GLU:N	2.51	0.42
1:A:595:LYS:HE2	1:A:595:LYS:HB3	1.91	0.42
1:A:919:VAL:HG22	1:A:920:GLU:H	1.85	0.42
1:A:3993:THR:O	1:A:3997:GLN:HG2	2.20	0.42
1:A:4920:PHE:HE2	1:A:4939:VAL:HG11	1.84	0.42
2:G:80:ASP:OD1	2:G:81:VAL:N	2.53	0.42
1:B:919:VAL:HG22	1:B:920:GLU:H	1.85	0.42
1:B:1629:MET:HG2	1:B:1688:TYR:CE2	2.55	0.42
1:B:1752:ILE:HD11	1:B:1840:LEU:HB3	2.02	0.42
1:B:1928:SER:OG	1:B:3616:VAL:HG23	2.20	0.42
1:B:3993:THR:O	1:B:3997:GLN:HG2	2.20	0.42
1:B:4757:SER:O	1:B:4761:HIS:HB2	2.20	0.42
1:C:125:TYR:CE1	1:C:417:ARG:HD3	2.55	0.42
1:C:868:ASP:OD1	1:C:868:ASP:N	2.52	0.42
1:C:1928:SER:OG	1:C:3616:VAL:HG23	2.20	0.42
1:C:2735:LYS:HE2	1:C:2740:TRP:HB2	2.02	0.42
1:D:1571:LEU:HD23	1:D:1571:LEU:HA	1.91	0.42
1:D:1789:LYS:HB2	1:D:1835:PHE:HE1	1.84	0.42
1:D:2755:LEU:HD21	1:D:2764:GLU:OE2	2.20	0.42
1:D:4895:ASP:OD1	1:D:4896:TYR:N	2.53	0.42
2:J:80:ASP:OD1	2:J:81:VAL:N	2.53	0.42
1:A:161:THR:HG23	1:A:184:VAL:HB	2.01	0.42
1:A:1677:LEU:HA	1:A:1680:HIS:HB2	2.01	0.42
1:A:3900:GLN:OE1	1:A:3903:ARG:NH1	2.52	0.42
1:B:868:ASP:OD1	1:B:868:ASP:N	2.52	0.42
1:B:2755:LEU:HD21	1:B:2764:GLU:OE2	2.20	0.42
1:B:4051:MET:HE2	1:B:4062:THR:HA	2.00	0.42
1:B:4830:ILE:HB	1:B:4842:ARG:NH2	2.34	0.42
1:C:290:ARG:HH11	1:C:346:VAL:HG21	1.85	0.42
1:C:4182:LYS:HD2	1:C:4182:LYS:HA	1.80	0.42
1:C:4608:LYS:HG2	1:C:4614:LEU:HD22	2.01	0.42
1:C:4913:ASN:HB3	1:C:4916:ASN:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:564:ARG:HD2	1:D:566:GLU:OE1	2.20	0.42
1:D:799:LYS:HG2	1:D:1621:GLN:HE22	1.85	0.42
1:D:807:ARG:O	1:D:1615:ARG:NE	2.47	0.42
1:D:1086:ARG:HH21	1:D:1251:LEU:HD13	1.84	0.42
1:D:2716:LEU:HD22	1:D:2778:LEU:HD21	2.02	0.42
1:D:4029:ASP:OD1	1:D:4029:ASP:N	2.47	0.42
1:D:4583:PHE:O	1:D:4586:ILE:HG22	2.20	0.42
1:A:1308:ILE:HG12	1:A:1572:PHE:HD2	1.84	0.42
1:A:4583:PHE:O	1:A:4586:ILE:HG22	2.20	0.42
1:B:313:ASN:ND2	1:B:392:ILE:HD13	2.35	0.42
1:B:442:LEU:HG	1:B:444:THR:HG22	2.01	0.42
1:B:1747:HIS:O	1:B:1747:HIS:ND1	2.51	0.42
1:B:3762:ILE:HD12	1:B:3840:ARG:HG3	2.00	0.42
1:B:4176:VAL:HG11	1:B:4879:VAL:HA	2.01	0.42
1:C:370:LEU:HB2	1:C:393:MET:HB2	2.02	0.42
1:C:564:ARG:HD2	1:C:566:GLU:OE1	2.20	0.42
1:C:943:LEU:HA	1:C:995:MET:HE3	2.02	0.42
1:C:1100:ARG:HB3	1:C:1236:TYR:CD2	2.55	0.42
1:C:2850:ILE:HG13	1:C:2851:TRP:N	2.35	0.42
1:C:4176:VAL:HG11	1:C:4879:VAL:HA	2.01	0.42
1:D:125:TYR:CE1	1:D:417:ARG:HD3	2.55	0.42
1:D:190:ARG:HD3	1:D:205:ALA:O	2.20	0.42
1:D:370:LEU:HB2	1:D:393:MET:HB2	2.02	0.42
1:D:868:ASP:OD1	1:D:868:ASP:N	2.52	0.42
1:D:878:LEU:HD11	1:D:951:GLY:HA2	2.02	0.42
1:D:2062:SER:O	1:D:2066:VAL:HG22	2.20	0.42
1:D:2276:CYS:HB2	1:D:2279:LEU:HG	2.02	0.42
1:D:3802:LEU:HD23	1:D:3829:LEU:HD13	2.02	0.42
2:J:28:THR:HA	2:J:39:SER:HA	2.01	0.42
1:A:446:ASP:O	1:A:448:PRO:HD3	2.20	0.41
1:A:1348:LYS:HA	1:A:1348:LYS:HD2	1.54	0.41
1:B:4895:ASP:OD1	1:B:4896:TYR:N	2.53	0.41
1:B:4941:LYS:HE2	1:B:4941:LYS:HB3	1.89	0.41
1:C:446:ASP:O	1:C:448:PRO:HD3	2.20	0.41
1:C:547:ASN:OD1	1:C:547:ASN:N	2.53	0.41
1:C:987:LYS:HZ1	1:C:990:PRO:HD3	1.84	0.41
1:C:1006:VAL:HG13	1:C:1009:ARG:NH2	2.31	0.41
1:C:1308:ILE:HG12	1:C:1572:PHE:HD2	1.84	0.41
1:C:1629:MET:HG2	1:C:1688:TYR:CE2	2.54	0.41
1:C:1752:ILE:HD11	1:C:1840:LEU:HB3	2.02	0.41
1:C:3612:ARG:NH1	1:C:3612:ARG:O	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3818:MET:SD	1:C:3818:MET:N	2.77	0.41
1:D:516:ASP:OD1	1:D:516:ASP:N	2.53	0.41
1:D:2722:LYS:HD2	1:D:2722:LYS:HA	1.87	0.41
1:A:245:LEU:HD11	1:A:260:VAL:HG12	2.01	0.41
1:A:2080:VAL:HG13	1:A:3669:LEU:HD22	2.02	0.41
1:A:2755:LEU:HD21	1:A:2764:GLU:OE2	2.20	0.41
1:B:290:ARG:HH11	1:B:346:VAL:HG21	1.85	0.41
1:B:370:LEU:HB2	1:B:393:MET:HB2	2.02	0.41
1:B:547:ASN:OD1	1:B:547:ASN:N	2.53	0.41
1:B:2080:VAL:HG13	1:B:3669:LEU:HD22	2.02	0.41
1:B:2428:LEU:HA	1:B:2431:LEU:HD12	2.02	0.41
1:C:190:ARG:HD3	1:C:205:ALA:O	2.20	0.41
1:C:490:GLN:O	1:C:490:GLN:NE2	2.47	0.41
1:C:514:PHE:HD2	1:C:523:GLY:HA2	1.85	0.41
1:C:516:ASP:OD1	1:C:516:ASP:N	2.53	0.41
1:C:878:LEU:HD11	1:C:951:GLY:HA2	2.02	0.41
1:C:1124:PRO:HB2	1:C:1252:SER:OG	2.20	0.41
1:C:2348:GLU:O	1:C:2352:ILE:HG12	2.20	0.41
1:D:1677:LEU:HA	1:D:1680:HIS:HB2	2.01	0.41
1:D:2348:GLU:O	1:D:2352:ILE:HG12	2.20	0.41
1:A:290:ARG:HH11	1:A:346:VAL:HG21	1.85	0.41
1:A:324:VAL:O	1:A:328:ALA:HB2	2.21	0.41
1:A:334:SER:OG	1:A:335:LYS:N	2.53	0.41
1:A:894:VAL:HG22	1:A:918:LEU:HA	2.02	0.41
1:A:1752:ILE:HD11	1:A:1840:LEU:HB3	2.02	0.41
1:A:2716:LEU:HD22	1:A:2778:LEU:HD21	2.02	0.41
1:A:2735:LYS:HE2	1:A:2740:TRP:HB2	2.02	0.41
1:A:4830:ILE:HB	1:A:4842:ARG:NH2	2.34	0.41
1:B:190:ARG:HD3	1:B:205:ALA:O	2.20	0.41
1:B:514:PHE:HD2	1:B:523:GLY:HA2	1.85	0.41
1:B:808:HIS:CE1	1:B:832:LEU:HD23	2.56	0.41
1:B:894:VAL:HG22	1:B:918:LEU:HA	2.02	0.41
1:B:2317:ASN:HB3	1:B:2321:ARG:NH2	2.35	0.41
1:B:3898:ASP:OD1	1:B:3898:ASP:N	2.44	0.41
2:H:80:ASP:OD1	2:H:81:VAL:N	2.53	0.41
1:C:323:ASP:HB3	1:C:326:SER:HB3	2.02	0.41
2:I:80:ASP:OD1	2:I:81:VAL:N	2.53	0.41
1:D:894:VAL:HG22	1:D:918:LEU:HA	2.02	0.41
1:D:2317:ASN:HB3	1:D:2321:ARG:NH2	2.35	0.41
1:A:313:ASN:ND2	1:A:392:ILE:HD13	2.35	0.41
1:A:514:PHE:HD2	1:A:523:GLY:HA2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:564:ARG:HD2	1:A:566:GLU:OE1	2.20	0.41
1:B:334:SER:OG	1:B:335:LYS:N	2.53	0.41
1:C:245:LEU:HD11	1:C:260:VAL:HG12	2.01	0.41
1:C:247:VAL:O	1:C:272:ARG:NH1	2.51	0.41
1:C:1091:GLU:HB3	1:C:1094:TYR:CD2	2.55	0.41
1:C:2428:LEU:HA	1:C:2431:LEU:HD12	2.02	0.41
1:C:2755:LEU:HD21	1:C:2764:GLU:OE2	2.20	0.41
1:C:4583:PHE:O	1:C:4586:ILE:HG22	2.20	0.41
1:D:712:GLU:OE1	1:D:841:LYS:HD3	2.21	0.41
1:D:1967:PRO:HD2	1:D:1970:GLU:OE2	2.20	0.41
1:D:4757:SER:O	1:D:4761:HIS:HB2	2.20	0.41
1:D:4913:ASN:HB3	1:D:4916:ASN:HB2	2.02	0.41
1:A:442:LEU:HG	1:A:444:THR:HG22	2.01	0.41
1:A:808:HIS:CE1	1:A:832:LEU:HD23	2.56	0.41
1:A:1967:PRO:HD2	1:A:1970:GLU:OE2	2.20	0.41
1:A:2317:ASN:HB3	1:A:2321:ARG:NH2	2.35	0.41
1:A:4176:VAL:HG11	1:A:4879:VAL:HA	2.01	0.41
1:B:125:TYR:CE1	1:B:417:ARG:HD3	2.55	0.41
1:B:564:ARG:HD2	1:B:566:GLU:OE1	2.20	0.41
1:B:799:LYS:HG2	1:B:1621:GLN:HE22	1.85	0.41
1:B:1091:GLU:HB3	1:B:1094:TYR:CD2	2.55	0.41
1:C:2317:ASN:HB3	1:C:2321:ARG:NH2	2.35	0.41
1:C:2722:LYS:HD2	1:C:2722:LYS:HA	1.87	0.41
1:D:290:ARG:HH11	1:D:346:VAL:HG21	1.85	0.41
1:D:547:ASN:OD1	1:D:547:ASN:N	2.53	0.41
1:D:2492:LEU:O	1:D:2496:ARG:HG3	2.21	0.41
1:D:2850:ILE:HG13	1:D:2851:TRP:N	2.35	0.41
1:A:47:CYS:O	1:A:202:HIS:NE2	2.51	0.41
1:A:2405:MET:SD	1:A:2407:LEU:HB2	2.61	0.41
1:A:2492:LEU:O	1:A:2496:ARG:HG3	2.21	0.41
1:A:3802:LEU:HD23	1:A:3829:LEU:HD13	2.02	0.41
1:A:4757:SER:O	1:A:4761:HIS:HB2	2.20	0.41
1:A:4830:ILE:HG22	1:A:4831:GLU:H	1.86	0.41
1:A:4895:ASP:OD1	1:A:4896:TYR:N	2.53	0.41
1:A:4913:ASN:HB3	1:A:4916:ASN:HB2	2.02	0.41
1:B:446:ASP:O	1:B:448:PRO:HD3	2.20	0.41
1:B:800:VAL:HB	1:B:1620:VAL:HG23	2.03	0.41
1:B:1100:ARG:HB3	1:B:1236:TYR:CD2	2.55	0.41
1:B:2057:LEU:O	1:B:2060:LEU:HD23	2.19	0.41
1:B:2348:GLU:O	1:B:2352:ILE:HG12	2.20	0.41
1:B:2492:LEU:O	1:B:2496:ARG:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2713:PRO:HG2	1:B:2716:LEU:HD12	2.03	0.41
1:B:2850:ILE:HG13	1:B:2851:TRP:N	2.35	0.41
1:B:4800:THR:O	1:B:4800:THR:OG1	2.38	0.41
1:C:217:ILE:HD13	1:C:217:ILE:HA	1.95	0.41
1:C:2062:SER:O	1:C:2066:VAL:HG22	2.20	0.41
1:C:2405:MET:SD	1:C:2407:LEU:HB2	2.61	0.41
1:C:2713:PRO:HD3	1:C:2782:LEU:HD11	2.03	0.41
1:C:4757:SER:O	1:C:4761:HIS:HB2	2.20	0.41
2:I:83:TYR:HB3	2:I:87:GLY:HA2	2.01	0.41
1:D:323:ASP:HB3	1:D:326:SER:HB3	2.02	0.41
1:D:446:ASP:O	1:D:448:PRO:HD3	2.20	0.41
1:D:514:PHE:HD2	1:D:523:GLY:HA2	1.85	0.41
1:D:798:ILE:HD12	1:D:798:ILE:HA	1.93	0.41
1:D:2405:MET:SD	1:D:2407:LEU:HB2	2.61	0.41
1:D:3802:LEU:HB2	1:D:3883:SER:HG	1.84	0.41
1:D:4793:ASN:O	1:D:4795:SER:N	2.51	0.41
2:J:83:TYR:HB3	2:J:87:GLY:HA2	2.01	0.41
1:A:1100:ARG:HB3	1:A:1236:TYR:CD2	2.55	0.41
1:A:2850:ILE:HG13	1:A:2851:TRP:N	2.35	0.41
1:A:3758:LEU:O	1:A:3762:ILE:HG12	2.20	0.41
1:B:1124:PRO:HB2	1:B:1252:SER:OG	2.20	0.41
2:H:28:THR:HA	2:H:39:SER:HA	2.01	0.41
2:H:28:THR:O	2:H:28:THR:OG1	2.34	0.41
2:H:72:ARG:HG2	2:H:103:GLU:HB2	2.03	0.41
1:C:380:LYS:HD2	1:C:380:LYS:HA	1.77	0.41
1:C:890:HIS:CE1	1:C:924:LEU:HD11	2.56	0.41
1:C:1009:ARG:O	1:C:1012:ILE:HG12	2.21	0.41
1:C:2276:CYS:HB2	1:C:2279:LEU:HG	2.02	0.41
1:C:2894:PHE:O	1:C:2897:ILE:HG22	2.21	0.41
1:C:4039:LYS:HB2	1:C:4039:LYS:HE2	1.88	0.41
1:D:161:THR:HG23	1:D:184:VAL:HB	2.01	0.41
1:D:2713:PRO:HG2	1:D:2716:LEU:HD12	2.03	0.41
1:D:4070:GLU:OE1	1:D:4070:GLU:N	2.50	0.41
1:A:882:ARG:CG	1:A:940:LEU:HD22	2.51	0.41
1:A:2282:LYS:HA	1:A:2282:LYS:HD2	1.90	0.41
1:A:2348:GLU:O	1:A:2352:ILE:HG12	2.20	0.41
1:B:698:ALA:HA	1:B:724:SER:HA	2.03	0.41
1:B:888:ASN:O	1:B:891:GLU:HG2	2.21	0.41
1:B:1733:GLU:O	1:B:1736:SER:OG	2.30	0.41
1:B:2713:PRO:HD3	1:B:2782:LEU:HD11	2.03	0.41
1:B:2716:LEU:HD22	1:B:2778:LEU:HD21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:281:ARG:NH1	1:C:346:VAL:O	2.37	0.41
1:C:3802:LEU:HD23	1:C:3829:LEU:HD13	2.02	0.41
1:C:4165:LYS:HB2	1:C:4165:LYS:HE3	1.84	0.41
2:I:72:ARG:HG2	2:I:103:GLU:HB2	2.03	0.41
1:D:313:ASN:ND2	1:D:392:ILE:HD13	2.35	0.41
1:D:1009:ARG:O	1:D:1012:ILE:HG12	2.21	0.41
1:D:1100:ARG:HB3	1:D:1236:TYR:CD2	2.55	0.41
1:A:323:ASP:HB3	1:A:326:SER:HB3	2.02	0.41
1:A:712:GLU:OE1	1:A:841:LYS:HD3	2.21	0.41
1:A:1009:ARG:O	1:A:1012:ILE:HG12	2.21	0.41
1:A:1124:PRO:HB2	1:A:1252:SER:OG	2.20	0.41
1:A:1682:ASP:HB3	1:A:1684:PRO:HD2	2.02	0.41
1:A:2062:SER:O	1:A:2066:VAL:HG22	2.20	0.41
1:A:2278:MET:N	1:A:2278:MET:SD	2.94	0.41
1:A:3612:ARG:O	1:A:3612:ARG:NH1	2.52	0.41
1:A:3671:SER:OG	1:A:3741:GLN:OE1	2.23	0.41
2:G:78:THR:HB	2:G:81:VAL:HG12	2.03	0.41
1:B:152:ASP:OD2	1:B:154:THR:OG1	2.36	0.41
1:B:290:ARG:H	1:B:293:GLN:NE2	2.16	0.41
1:B:712:GLU:OE1	1:B:841:LYS:HD3	2.21	0.41
1:B:882:ARG:CG	1:B:940:LEU:HD22	2.51	0.41
1:B:890:HIS:CE1	1:B:924:LEU:HD11	2.55	0.41
1:B:1677:LEU:HA	1:B:1680:HIS:HB2	2.01	0.41
1:B:1743:GLU:CD	1:B:1744:ASN:HD22	2.24	0.41
1:B:1967:PRO:HD2	1:B:1970:GLU:OE2	2.20	0.41
1:B:2278:MET:SD	1:B:2278:MET:N	2.94	0.41
1:B:4280:LEU:HD23	1:B:4280:LEU:HA	1.97	0.41
1:B:4830:ILE:HG22	1:B:4831:GLU:H	1.86	0.41
2:H:78:THR:HB	2:H:81:VAL:HG12	2.03	0.41
1:C:161:THR:HG23	1:C:184:VAL:HB	2.01	0.41
1:C:313:ASN:ND2	1:C:392:ILE:HD13	2.35	0.41
1:C:670:TYR:CE2	1:C:672:LYS:HD2	2.56	0.41
1:C:894:VAL:HG22	1:C:918:LEU:HA	2.02	0.41
1:C:1031:ARG:HA	1:C:1031:ARG:HD3	1.85	0.41
1:C:1682:ASP:HB3	1:C:1684:PRO:HD2	2.02	0.41
1:C:1967:PRO:HD2	1:C:1970:GLU:OE2	2.20	0.41
1:C:2713:PRO:HG2	1:C:2716:LEU:HD12	2.03	0.41
2:I:28:THR:HA	2:I:39:SER:HA	2.01	0.41
1:D:324:VAL:O	1:D:328:ALA:HB2	2.21	0.41
1:D:808:HIS:CE1	1:D:832:LEU:HD23	2.56	0.41
1:D:1217:PHE:O	1:D:1240:ALA:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4189:VAL:HG21	1:D:4948:TRP:CZ2	2.56	0.41
1:D:4857:LEU:HD23	1:D:4857:LEU:HA	1.94	0.41
1:A:800:VAL:HB	1:A:1620:VAL:HG23	2.03	0.41
1:A:2713:PRO:HD3	1:A:2782:LEU:HD11	2.03	0.41
2:G:88:HIS:HD2	2:G:89:PRO:HD2	1.86	0.41
1:B:323:ASP:HB3	1:B:326:SER:HB3	2.02	0.41
1:B:1050:LEU:HD13	1:B:1050:LEU:HA	1.94	0.41
1:B:2144:GLY:O	1:B:2148:ILE:HG12	2.21	0.41
1:C:882:ARG:HD2	1:C:937:LEU:HD23	2.03	0.41
1:C:1160:ASP:HB3	1:C:1178:ASN:HD21	1.86	0.41
1:C:1677:LEU:HA	1:C:1680:HIS:HB2	2.01	0.41
1:C:1744:ASN:ND2	1:C:1746:LYS:HE2	2.31	0.41
1:C:1829:LEU:O	1:C:1834:ILE:HG12	2.21	0.41
1:C:4830:ILE:HG22	1:C:4831:GLU:H	1.86	0.41
1:D:2080:VAL:HG13	1:D:3669:LEU:HD22	2.02	0.41
1:A:370:LEU:HB2	1:A:393:MET:HB2	2.02	0.40
1:A:547:ASN:OD1	1:A:547:ASN:N	2.53	0.40
1:A:1743:GLU:CD	1:A:1744:ASN:HD22	2.24	0.40
1:B:324:VAL:O	1:B:328:ALA:HB2	2.21	0.40
1:B:1682:ASP:HB3	1:B:1684:PRO:HD2	2.02	0.40
1:B:4189:VAL:HG21	1:B:4948:TRP:CZ2	2.56	0.40
2:H:88:HIS:HD2	2:H:89:PRO:HD2	1.86	0.40
1:C:47:CYS:O	1:C:202:HIS:NE2	2.51	0.40
1:C:800:VAL:HB	1:C:1620:VAL:HG23	2.03	0.40
1:C:808:HIS:CE1	1:C:832:LEU:HD23	2.56	0.40
1:C:888:ASN:O	1:C:891:GLU:HG2	2.21	0.40
1:C:2716:LEU:HD22	1:C:2778:LEU:HD21	2.02	0.40
1:C:3802:LEU:HB2	1:C:3883:SER:HG	1.84	0.40
1:C:4106:GLU:OE1	1:C:4148:TYR:OH	2.27	0.40
1:C:4189:VAL:HG21	1:C:4948:TRP:CZ2	2.56	0.40
2:I:78:THR:HB	2:I:81:VAL:HG12	2.03	0.40
1:D:882:ARG:HD2	1:D:937:LEU:HD23	2.03	0.40
1:D:2156:GLN:O	1:D:3614:ARG:NH1	2.54	0.40
1:D:2471:LEU:HD23	1:D:2471:LEU:HA	1.83	0.40
1:A:795:SER:OG	1:A:796:ALA:N	2.54	0.40
1:A:890:HIS:CE1	1:A:924:LEU:HD11	2.56	0.40
1:A:1106:GLU:HG2	1:A:1161:VAL:HG12	2.04	0.40
1:A:2713:PRO:HG2	1:A:2716:LEU:HD12	2.03	0.40
1:A:2858:GLU:O	1:A:2862:LYS:HE3	2.22	0.40
1:B:1057:LEU:HD12	1:B:1062:TYR:HB2	2.04	0.40
1:B:2062:SER:O	1:B:2066:VAL:HG22	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2156:GLN:O	1:B:3614:ARG:NH1	2.54	0.40
1:B:4583:PHE:O	1:B:4586:ILE:HG22	2.20	0.40
1:C:324:VAL:O	1:C:328:ALA:HB2	2.21	0.40
1:C:2156:GLN:O	1:C:3614:ARG:NH1	2.54	0.40
1:D:882:ARG:CG	1:D:940:LEU:HD22	2.51	0.40
1:D:1752:ILE:HD11	1:D:1840:LEU:HB3	2.02	0.40
1:D:2428:LEU:HA	1:D:2431:LEU:HD12	2.02	0.40
1:D:2858:GLU:O	1:D:2862:LYS:HE3	2.22	0.40
2:J:22:THR:HG23	2:J:108:GLU:HB2	2.04	0.40
1:A:878:LEU:HD11	1:A:951:GLY:HA2	2.02	0.40
1:A:2144:GLY:O	1:A:2148:ILE:HG12	2.21	0.40
1:A:2428:LEU:HA	1:A:2431:LEU:HD12	2.02	0.40
1:A:2763:SER:N	1:A:2766:GLU:HB2	2.36	0.40
1:A:4182:LYS:HD2	1:A:4182:LYS:HA	1.80	0.40
2:G:22:THR:HG23	2:G:108:GLU:HB2	2.03	0.40
1:B:642:LEU:HD12	1:B:642:LEU:HA	1.90	0.40
1:B:878:LEU:HD11	1:B:951:GLY:HA2	2.02	0.40
1:B:2735:LYS:HE2	1:B:2740:TRP:HB2	2.02	0.40
1:B:2763:SER:N	1:B:2766:GLU:HB2	2.36	0.40
1:C:698:ALA:HA	1:C:724:SER:HA	2.03	0.40
1:C:1057:LEU:HD12	1:C:1062:TYR:HB2	2.04	0.40
1:C:1304:LEU:HD12	1:C:1340:ASP:HB2	2.03	0.40
1:C:1743:GLU:CD	1:C:1744:ASN:HD22	2.24	0.40
1:D:698:ALA:HA	1:D:724:SER:HA	2.03	0.40
1:D:890:HIS:CE1	1:D:924:LEU:HD11	2.56	0.40
1:D:1106:GLU:HG2	1:D:1161:VAL:HG12	2.04	0.40
1:D:4830:ILE:HD12	1:D:4842:ARG:HH21	1.87	0.40
2:J:72:ARG:HG2	2:J:103:GLU:HB2	2.03	0.40
1:A:674:TYR:CE2	1:A:756:SER:HB2	2.57	0.40
1:A:1217:PHE:O	1:A:1240:ALA:N	2.54	0.40
1:A:2156:GLN:O	1:A:3614:ARG:NH1	2.54	0.40
1:A:2894:PHE:O	1:A:2897:ILE:HG22	2.21	0.40
2:G:72:ARG:HG2	2:G:103:GLU:HB2	2.03	0.40
1:B:670:TYR:CE2	1:B:672:LYS:HD2	2.56	0.40
1:B:674:TYR:CE2	1:B:756:SER:HB2	2.57	0.40
1:B:1106:GLU:HG2	1:B:1161:VAL:HG12	2.04	0.40
1:B:2314:GLU:O	1:B:2318:VAL:HG22	2.22	0.40
2:H:22:THR:HG23	2:H:108:GLU:HB2	2.04	0.40
1:C:625:VAL:HG21	1:C:628:ASN:HD22	1.86	0.40
1:C:4055:LYS:HE3	1:C:4055:LYS:HB2	1.92	0.40
1:D:1743:GLU:CD	1:D:1744:ASN:HD22	2.24	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2278:MET:N	1:D:2278:MET:SD	2.94	0.40
1:A:888:ASN:O	1:A:891:GLU:HG2	2.21	0.40
1:A:2107:ILE:HG22	1:A:2157:HIS:CD2	2.57	0.40
1:A:3842:LEU:HD23	1:A:3842:LEU:HA	1.96	0.40
1:B:987:LYS:HZ1	1:B:990:PRO:HD3	1.85	0.40
1:B:1595:VAL:O	1:B:1595:VAL:HG13	2.22	0.40
1:B:2152:LYS:HZ1	1:B:2156:GLN:HG3	1.86	0.40
1:B:2405:MET:SD	1:B:2407:LEU:HB2	2.61	0.40
1:B:2728:HIS:O	1:B:2732:SER:OG	2.28	0.40
1:B:2858:GLU:O	1:B:2862:LYS:HE3	2.22	0.40
1:C:882:ARG:CG	1:C:940:LEU:HD22	2.51	0.40
1:C:2144:GLY:O	1:C:2148:ILE:HG12	2.21	0.40
1:C:2278:MET:SD	1:C:2278:MET:N	2.94	0.40
1:C:2471:LEU:HD23	1:C:2471:LEU:HA	1.83	0.40
2:I:88:HIS:HD2	2:I:89:PRO:HD2	1.86	0.40
1:D:380:LYS:HA	1:D:380:LYS:HD2	1.77	0.40
1:D:1682:ASP:HB3	1:D:1684:PRO:HD2	2.02	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	3255/4966 (66%)	3049 (94%)	206 (6%)	0	100	100
1	B	3255/4966 (66%)	3053 (94%)	202 (6%)	0	100	100
1	C	3255/4966 (66%)	3051 (94%)	204 (6%)	0	100	100
1	D	3255/4966 (66%)	3050 (94%)	205 (6%)	0	100	100
2	G	105/176 (60%)	103 (98%)	2 (2%)	0	100	100
2	H	105/176 (60%)	103 (98%)	2 (2%)	0	100	100
2	I	105/176 (60%)	103 (98%)	2 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	J	105/176 (60%)	103 (98%)	2 (2%)	0	100	100
All	All	13440/20568 (65%)	12615 (94%)	825 (6%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	2862/3387 (84%)	2814 (98%)	48 (2%)	60	78
1	B	2862/3387 (84%)	2814 (98%)	48 (2%)	60	78
1	C	2862/3387 (84%)	2814 (98%)	48 (2%)	60	78
1	D	2862/3387 (84%)	2815 (98%)	47 (2%)	62	79
2	G	88/140 (63%)	87 (99%)	1 (1%)	73	85
2	H	88/140 (63%)	87 (99%)	1 (1%)	73	85
2	I	88/140 (63%)	87 (99%)	1 (1%)	73	85
2	J	88/140 (63%)	87 (99%)	1 (1%)	73	85
All	All	11800/14108 (84%)	11605 (98%)	195 (2%)	62	78

All (195) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	113	LEU
1	A	270	HIS
1	A	296	ARG
1	A	299	HIS
1	A	358	ASP
1	A	547	ASN
1	A	551	PHE
1	A	556	ASP
1	A	713	TRP
1	A	1028	ARG

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Mol	Chain	Res	Type
1	A	1031	ARG
1	A	1131	ASP
1	A	1261	VAL
1	A	1309	GLU
1	A	1348	LYS
1	A	1673	VAL
1	A	1709	ASP
1	A	1814	THR
1	A	2089	ARG
1	A	2143	ARG
1	A	2197	ARG
1	A	2201	TYR
1	A	2203	CYS
1	A	2219	TYR
1	A	2241	VAL
1	A	2302	ARG
1	A	2321	ARG
1	A	2748	ASP
1	A	2771	ARG
1	A	2847	TYR
1	A	2866	ASN
1	A	2890	ASP
1	A	2893	LYS
1	A	2897	ILE
1	A	2901	VAL
1	A	2903	SER
1	A	3676	THR
1	A	3818	MET
1	A	3828	VAL
1	A	3865	THR
1	A	4001	MET
1	A	4049	LYS
1	A	4152	SER
1	A	4518	TYR
1	A	4632	LEU
1	A	4668	LEU
1	A	4789	ARG
1	A	4803	MET
2	G	26	HIS
1	B	113	LEU
1	B	270	HIS
1	B	296	ARG

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Mol	Chain	Res	Type
1	B	299	HIS
1	B	358	ASP
1	B	547	ASN
1	B	551	PHE
1	B	556	ASP
1	B	713	TRP
1	B	1028	ARG
1	B	1031	ARG
1	B	1131	ASP
1	B	1261	VAL
1	B	1309	GLU
1	B	1348	LYS
1	B	1673	VAL
1	B	1709	ASP
1	B	1814	THR
1	B	2089	ARG
1	B	2143	ARG
1	B	2197	ARG
1	B	2201	TYR
1	B	2203	CYS
1	B	2219	TYR
1	B	2241	VAL
1	B	2302	ARG
1	B	2321	ARG
1	B	2748	ASP
1	B	2771	ARG
1	B	2847	TYR
1	B	2866	ASN
1	B	2890	ASP
1	B	2893	LYS
1	B	2897	ILE
1	B	2901	VAL
1	B	2903	SER
1	B	3676	THR
1	B	3818	MET
1	B	3828	VAL
1	B	3865	THR
1	B	4001	MET
1	B	4049	LYS
1	B	4152	SER
1	B	4518	TYR
1	B	4632	LEU

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Mol	Chain	Res	Type
1	B	4668	LEU
1	B	4789	ARG
1	B	4803	MET
2	H	26	HIS
1	C	113	LEU
1	C	270	HIS
1	C	296	ARG
1	C	299	HIS
1	C	358	ASP
1	C	547	ASN
1	C	551	PHE
1	C	556	ASP
1	C	713	TRP
1	C	1028	ARG
1	C	1031	ARG
1	C	1131	ASP
1	C	1261	VAL
1	C	1309	GLU
1	C	1348	LYS
1	C	1673	VAL
1	C	1709	ASP
1	C	1814	THR
1	C	2089	ARG
1	C	2143	ARG
1	C	2197	ARG
1	C	2201	TYR
1	C	2203	CYS
1	C	2219	TYR
1	C	2241	VAL
1	C	2302	ARG
1	C	2321	ARG
1	C	2748	ASP
1	C	2771	ARG
1	C	2847	TYR
1	C	2866	ASN
1	C	2890	ASP
1	C	2893	LYS
1	C	2897	ILE
1	C	2901	VAL
1	C	2903	SER
1	C	3676	THR
1	C	3818	MET

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Mol	Chain	Res	Type
1	C	3828	VAL
1	C	3865	THR
1	C	4001	MET
1	C	4049	LYS
1	C	4152	SER
1	C	4518	TYR
1	C	4632	LEU
1	C	4668	LEU
1	C	4789	ARG
1	C	4803	MET
2	I	26	HIS
1	D	113	LEU
1	D	270	HIS
1	D	296	ARG
1	D	299	HIS
1	D	358	ASP
1	D	547	ASN
1	D	551	PHE
1	D	556	ASP
1	D	713	TRP
1	D	1028	ARG
1	D	1031	ARG
1	D	1131	ASP
1	D	1261	VAL
1	D	1309	GLU
1	D	1348	LYS
1	D	1673	VAL
1	D	1709	ASP
1	D	1814	THR
1	D	2089	ARG
1	D	2143	ARG
1	D	2197	ARG
1	D	2201	TYR
1	D	2203	CYS
1	D	2219	TYR
1	D	2241	VAL
1	D	2302	ARG
1	D	2321	ARG
1	D	2771	ARG
1	D	2847	TYR
1	D	2866	ASN
1	D	2890	ASP

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Mol	Chain	Res	Type
1	D	2893	LYS
1	D	2897	ILE
1	D	2901	VAL
1	D	2903	SER
1	D	3676	THR
1	D	3818	MET
1	D	3828	VAL
1	D	3865	THR
1	D	4001	MET
1	D	4049	LYS
1	D	4152	SER
1	D	4518	TYR
1	D	4632	LEU
1	D	4668	LEU
1	D	4789	ARG
1	D	4803	MET
2	J	26	HIS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (158) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	44	ASN
1	A	150	GLN
1	A	293	GLN
1	A	313	ASN
1	A	544	ASN
1	A	550	GLN
1	A	593	HIS
1	A	629	GLN
1	A	716	ASN
1	A	808	HIS
1	A	888	ASN
1	A	1005	ASN
1	A	1178	ASN
1	A	1265	HIS
1	A	1588	HIS
1	A	1616	GLN
1	A	1653	GLN
1	A	1744	ASN
1	A	1973	ASN
1	A	2090	GLN
1	A	2117	ASN

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Mol	Chain	Res	Type
1	A	2150	ASN
1	A	2151	ASN
1	A	2274	GLN
1	A	2290	ASN
1	A	2317	ASN
1	A	2480	GLN
1	A	2726	HIS
1	A	2849	ASN
1	A	2866	ASN
1	A	3932	GLN
1	A	3952	HIS
1	A	3954	GLN
1	A	3959	GLN
1	A	3974	GLN
1	A	4491	ASN
1	A	4496	ASN
1	A	4619	GLN
2	G	26	HIS
2	G	32	GLN
2	G	88	HIS
1	B	44	ASN
1	B	150	GLN
1	B	293	GLN
1	B	313	ASN
1	B	544	ASN
1	B	550	GLN
1	B	593	HIS
1	B	629	GLN
1	B	716	ASN
1	B	808	HIS
1	B	888	ASN
1	B	1178	ASN
1	B	1265	HIS
1	B	1588	HIS
1	B	1616	GLN
1	B	1744	ASN
1	B	1973	ASN
1	B	2090	GLN
1	B	2117	ASN
1	B	2150	ASN
1	B	2151	ASN
1	B	2274	GLN

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Mol	Chain	Res	Type
1	B	2290	ASN
1	B	2317	ASN
1	B	2480	GLN
1	B	2849	ASN
1	B	2866	ASN
1	B	3952	HIS
1	B	3954	GLN
1	B	3959	GLN
1	B	3974	GLN
1	B	4491	ASN
1	B	4496	ASN
1	B	4619	GLN
2	H	26	HIS
2	H	32	GLN
2	H	88	HIS
1	C	44	ASN
1	C	150	GLN
1	C	293	GLN
1	C	313	ASN
1	C	544	ASN
1	C	550	GLN
1	C	593	HIS
1	C	629	GLN
1	C	716	ASN
1	C	808	HIS
1	C	888	ASN
1	C	1178	ASN
1	C	1265	HIS
1	C	1588	HIS
1	C	1616	GLN
1	C	1744	ASN
1	C	1973	ASN
1	C	2090	GLN
1	C	2117	ASN
1	C	2150	ASN
1	C	2151	ASN
1	C	2274	GLN
1	C	2290	ASN
1	C	2317	ASN
1	C	2480	GLN
1	C	2726	HIS
1	C	2849	ASN

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Mol	Chain	Res	Type
1	C	2866	ASN
1	C	3932	GLN
1	C	3952	HIS
1	C	3954	GLN
1	C	3959	GLN
1	C	3974	GLN
1	C	4491	ASN
1	C	4496	ASN
1	C	4619	GLN
1	C	4786	ASN
2	I	26	HIS
2	I	32	GLN
2	I	88	HIS
1	D	44	ASN
1	D	150	GLN
1	D	293	GLN
1	D	313	ASN
1	D	544	ASN
1	D	550	GLN
1	D	593	HIS
1	D	629	GLN
1	D	716	ASN
1	D	808	HIS
1	D	888	ASN
1	D	1005	ASN
1	D	1178	ASN
1	D	1265	HIS
1	D	1588	HIS
1	D	1616	GLN
1	D	1653	GLN
1	D	1744	ASN
1	D	1973	ASN
1	D	2090	GLN
1	D	2117	ASN
1	D	2150	ASN
1	D	2151	ASN
1	D	2274	GLN
1	D	2290	ASN
1	D	2317	ASN
1	D	2480	GLN
1	D	2726	HIS
1	D	2849	ASN

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Mol	Chain	Res	Type
1	D	2866	ASN
1	D	3952	HIS
1	D	3954	GLN
1	D	3959	GLN
1	D	3974	GLN
1	D	4491	ASN
1	D	4496	ASN
1	D	4619	GLN
2	J	26	HIS
2	J	32	GLN
2	J	88	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 4 ligands modelled in this entry, 4 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

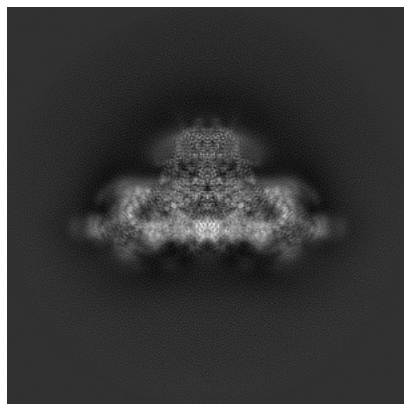
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-33935. These allow visual inspection of the internal detail of the map and identification of artifacts.

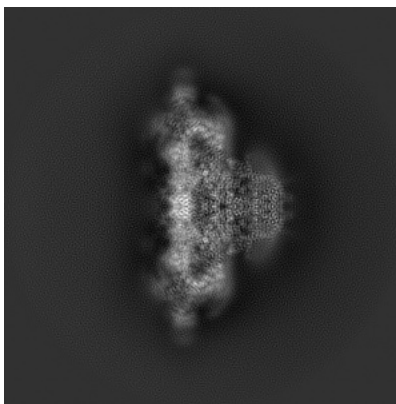
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

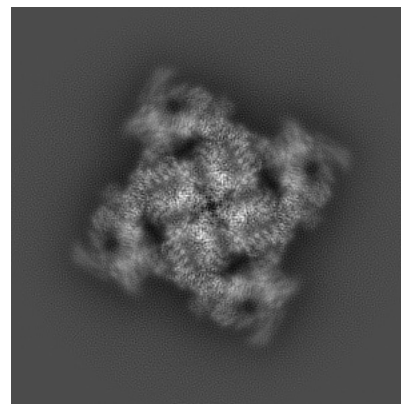
6.1.1 Primary map



X

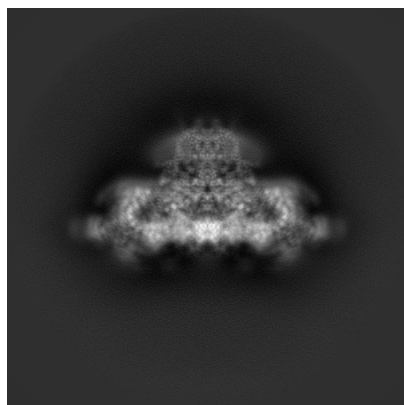


Y

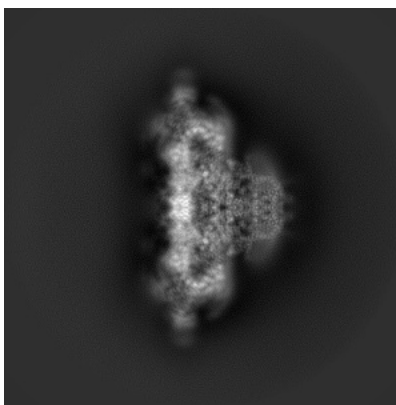


Z

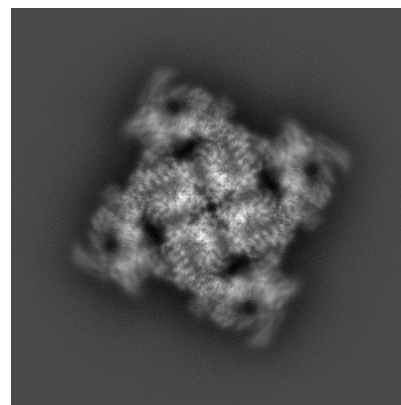
6.1.2 Raw map



X



Y

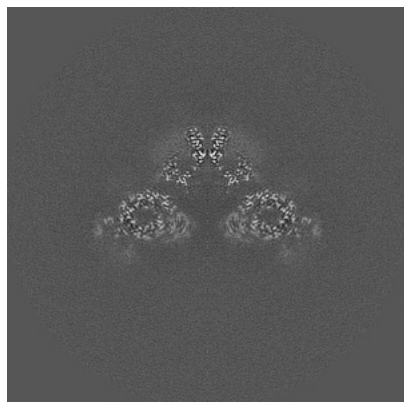


Z

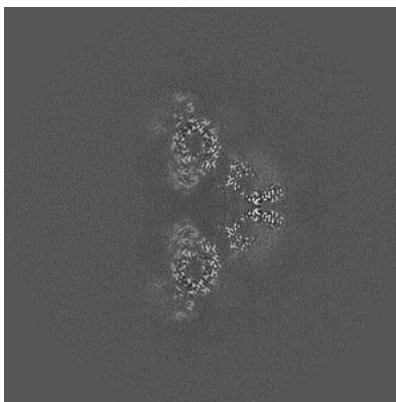
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

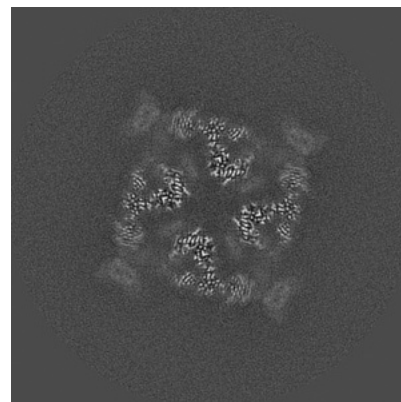
6.2.1 Primary map



X Index: 200

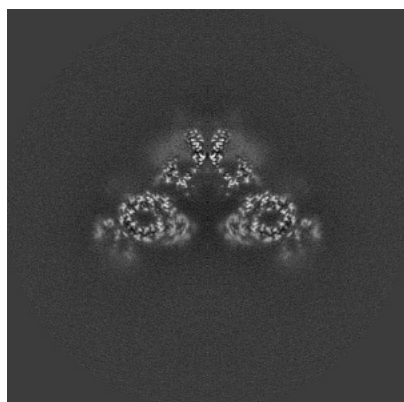


Y Index: 200

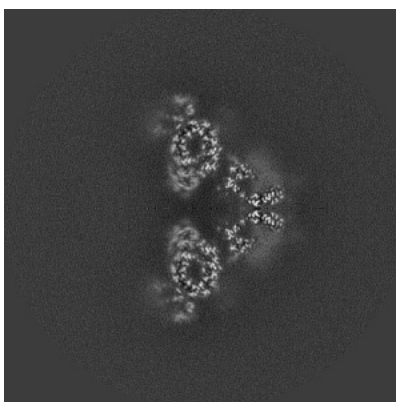


Z Index: 200

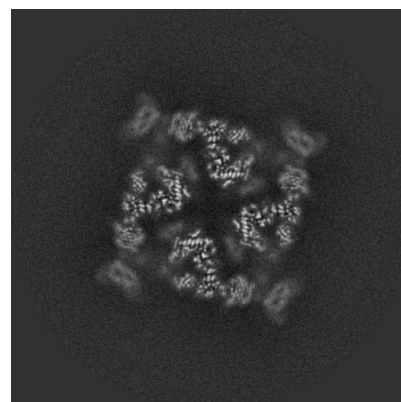
6.2.2 Raw map



X Index: 200



Y Index: 200

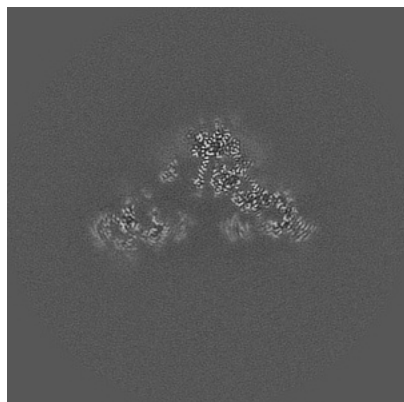


Z Index: 200

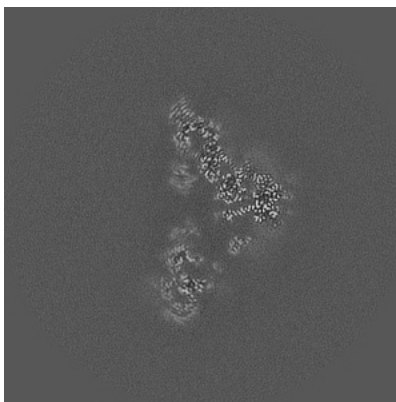
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

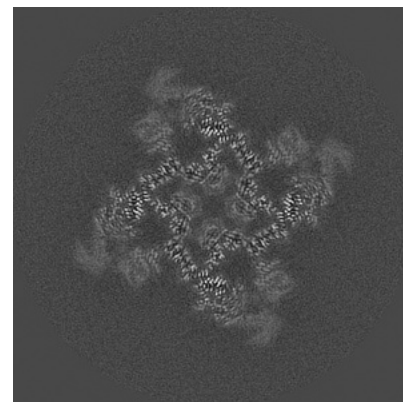
6.3.1 Primary map



X Index: 207

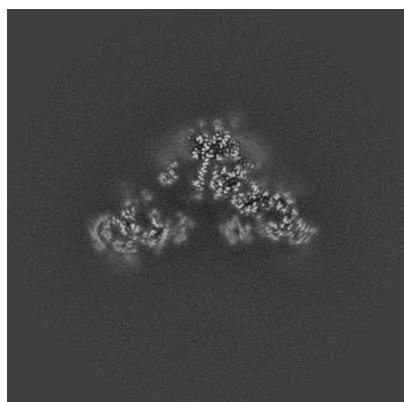


Y Index: 193

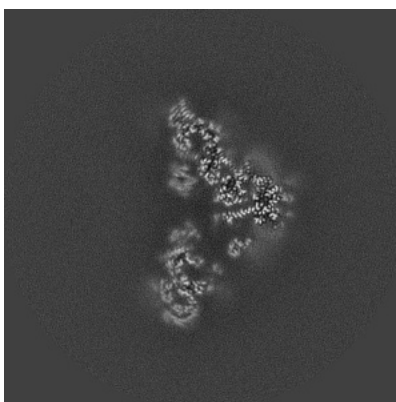


Z Index: 183

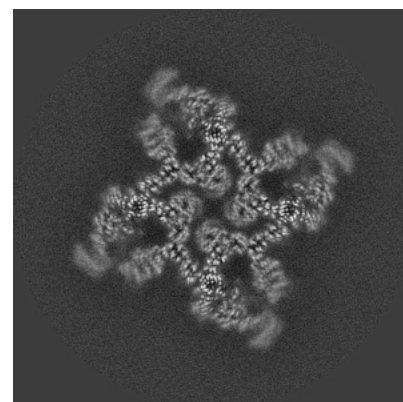
6.3.2 Raw map



X Index: 207



Y Index: 193

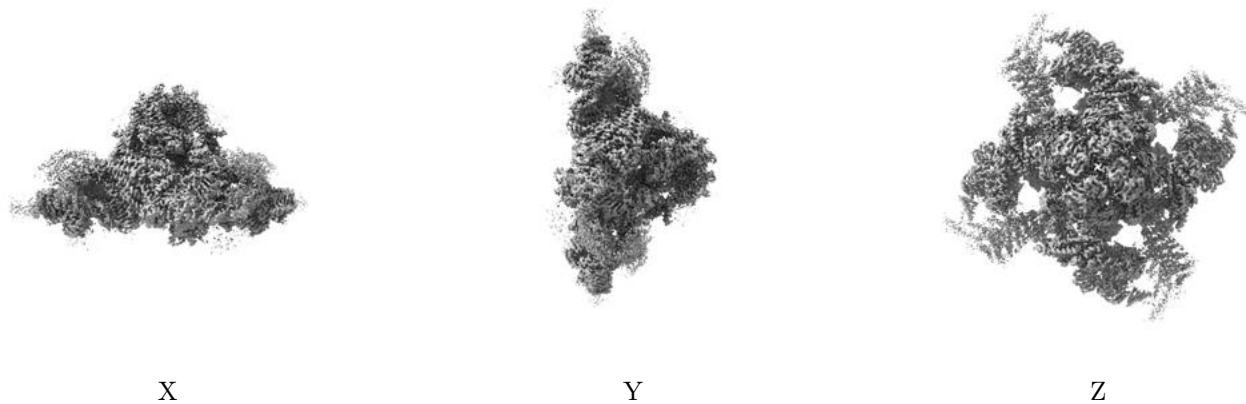


Z Index: 180

The images above show the largest variance slices of the map in three orthogonal directions.

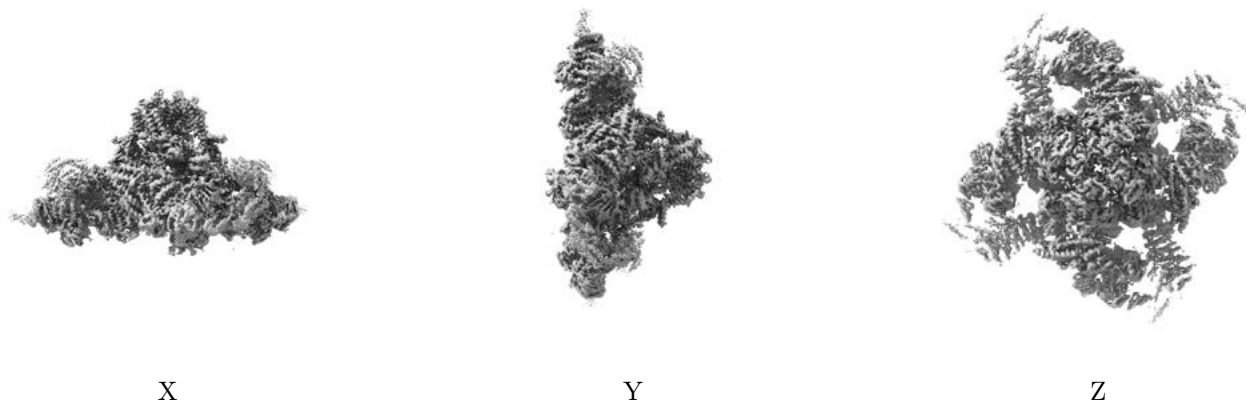
6.4 Orthogonal surface views [i](#)

6.4.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.023. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.4.2 Raw map



These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

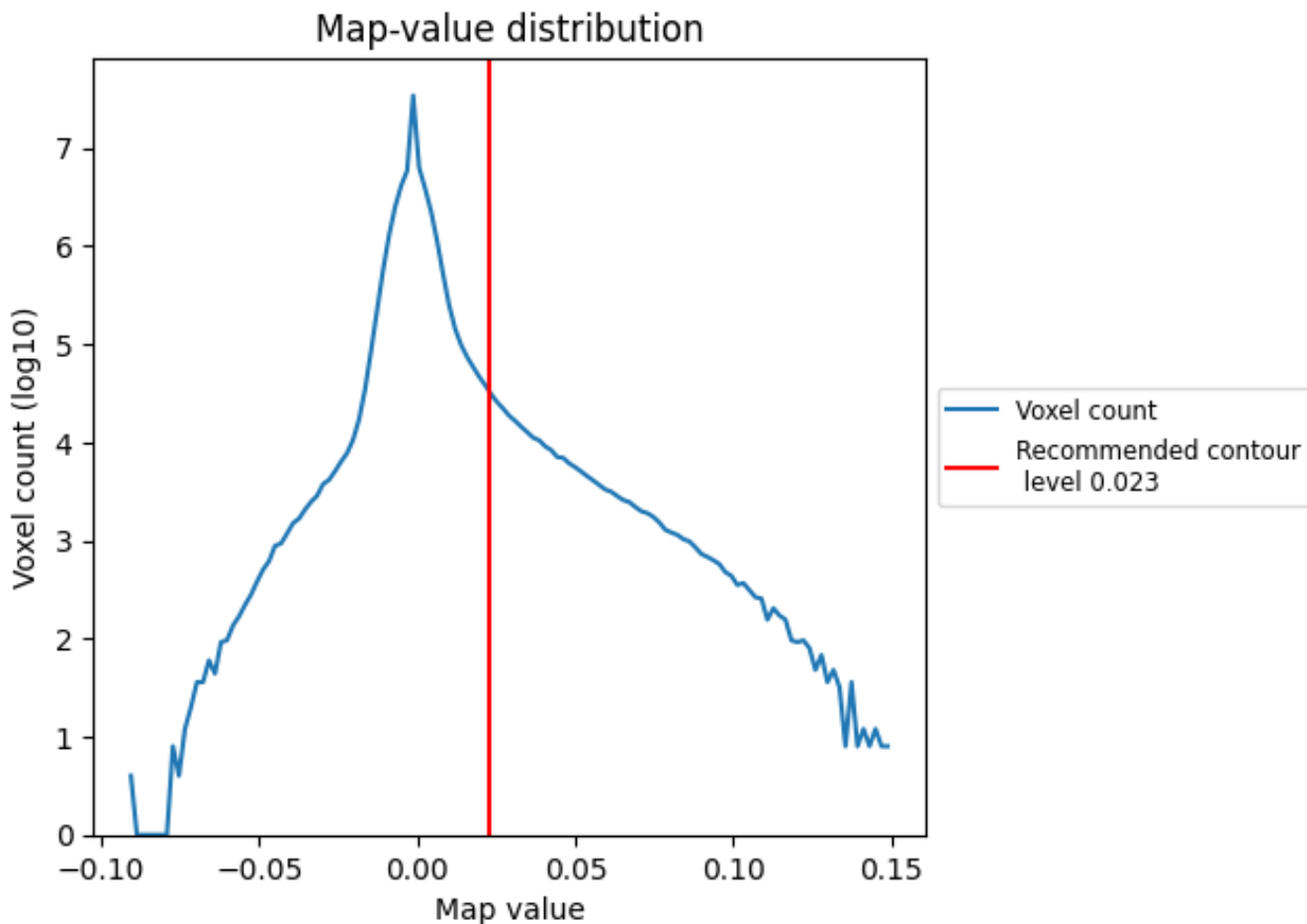
6.5 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

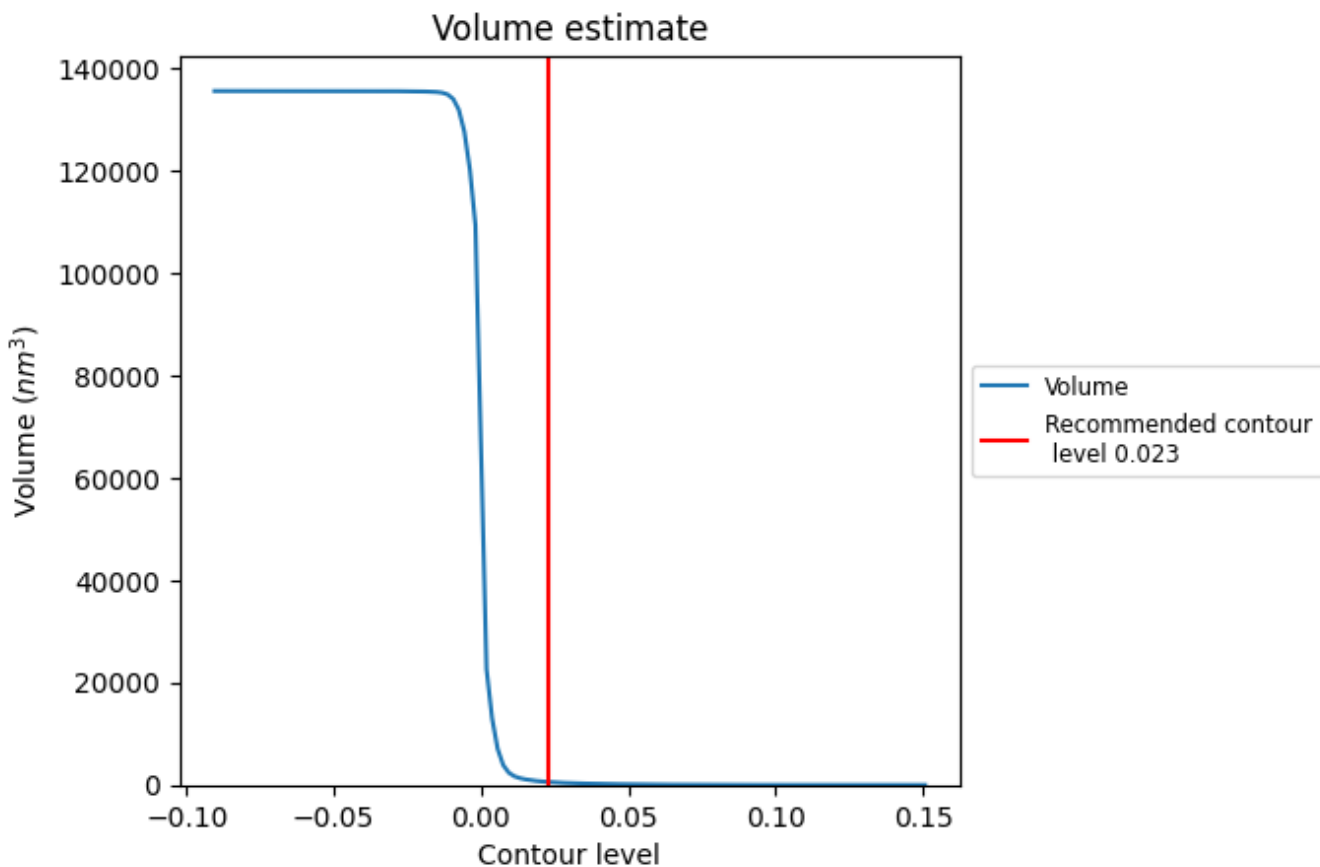
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

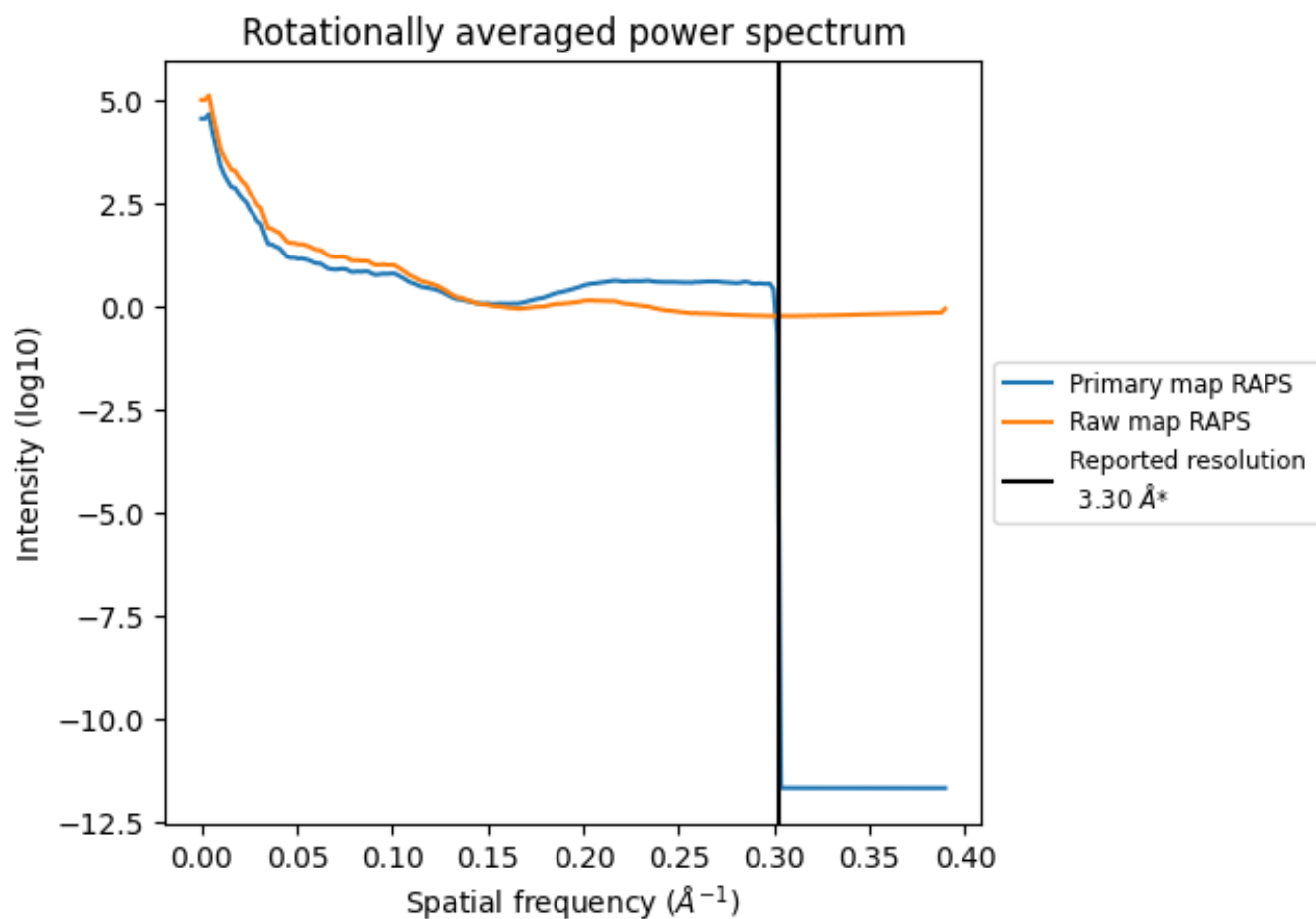
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 568 nm³; this corresponds to an approximate mass of 513 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum [i](#)

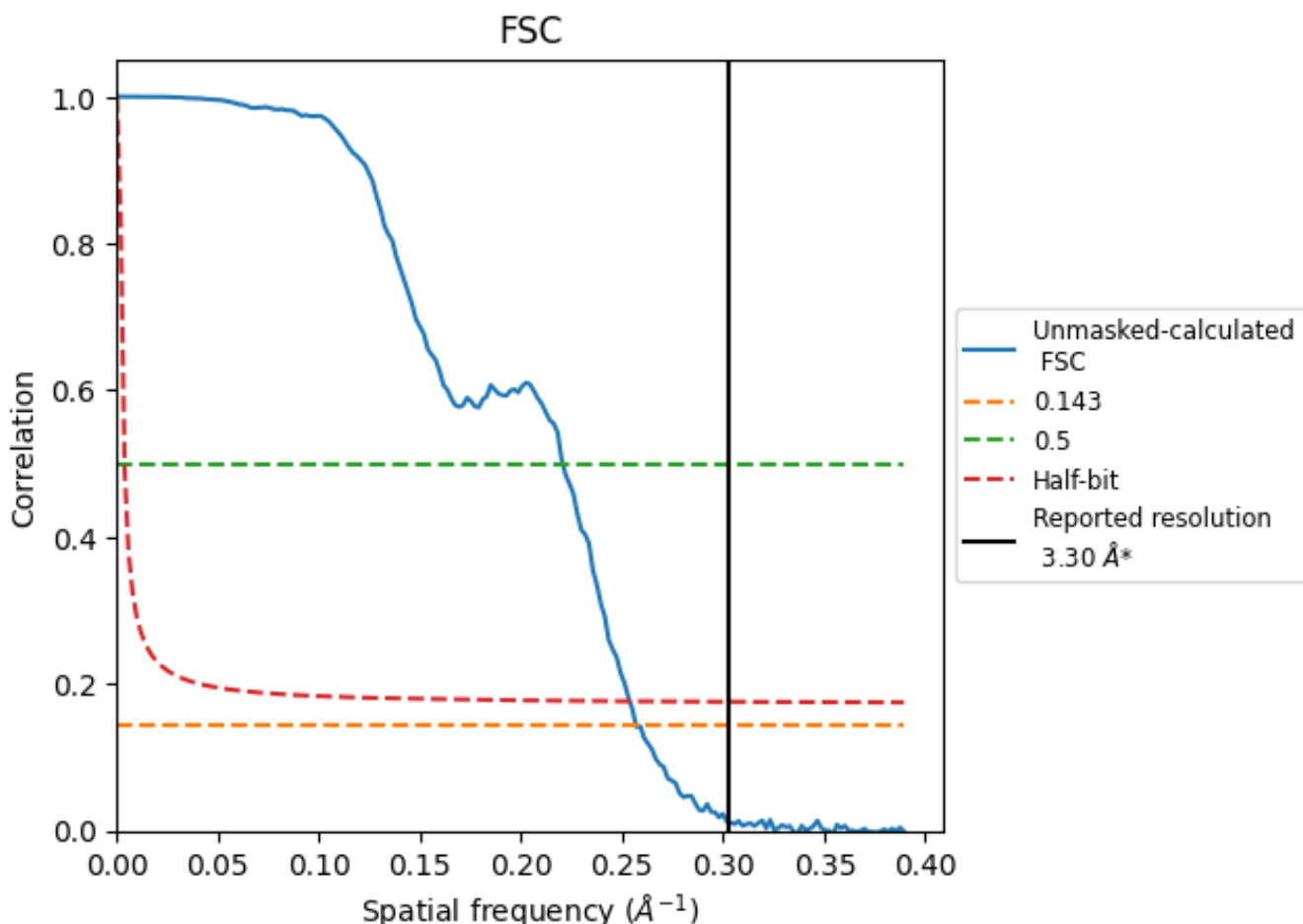


*Reported resolution corresponds to spatial frequency of 0.303 Å⁻¹

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.303\AA^{-1}

8.2 Resolution estimates [i](#)

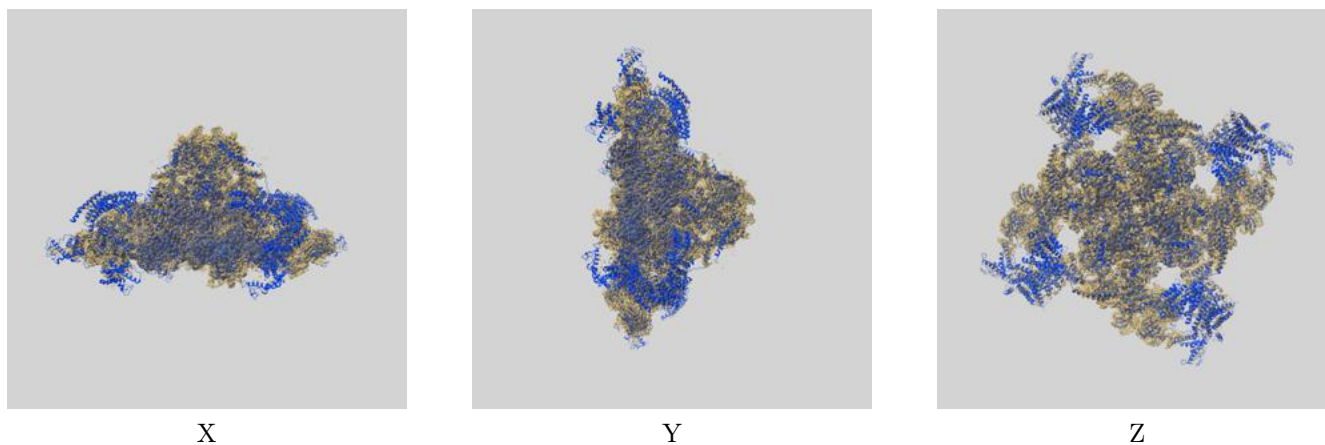
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.30	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	3.89	4.53	3.94

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 3.89 differs from the reported value 3.3 by more than 10 %

9 Map-model fit [i](#)

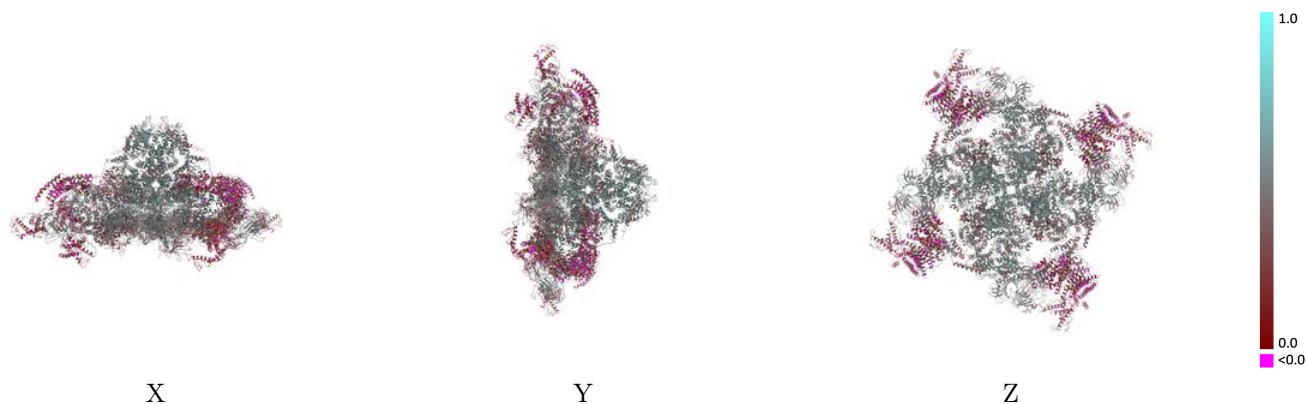
This section contains information regarding the fit between EMDB map EMD-33935 and PDB model 7VML. Per-residue inclusion information can be found in section [3](#) on page [11](#).

9.1 Map-model overlay [i](#)



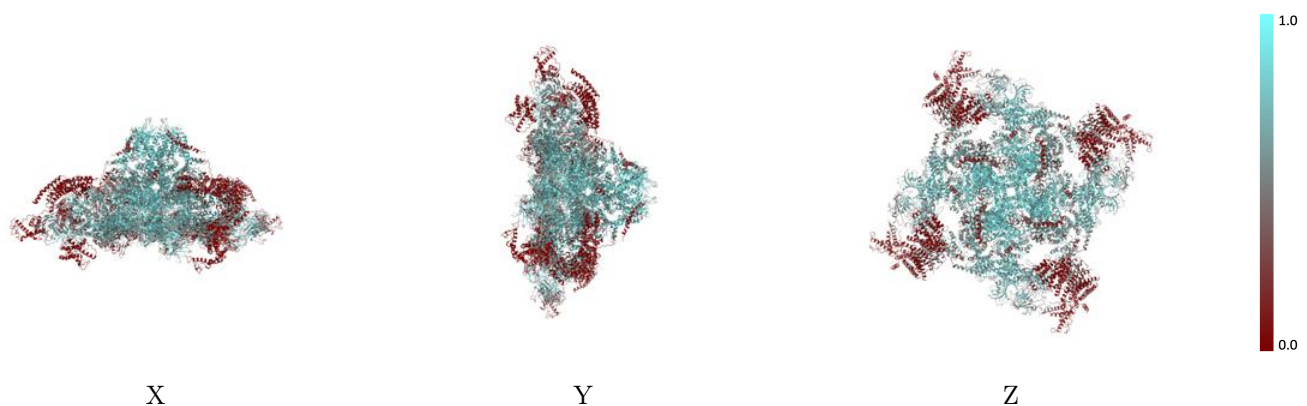
The images above show the 3D surface view of the map at the recommended contour level 0.023 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



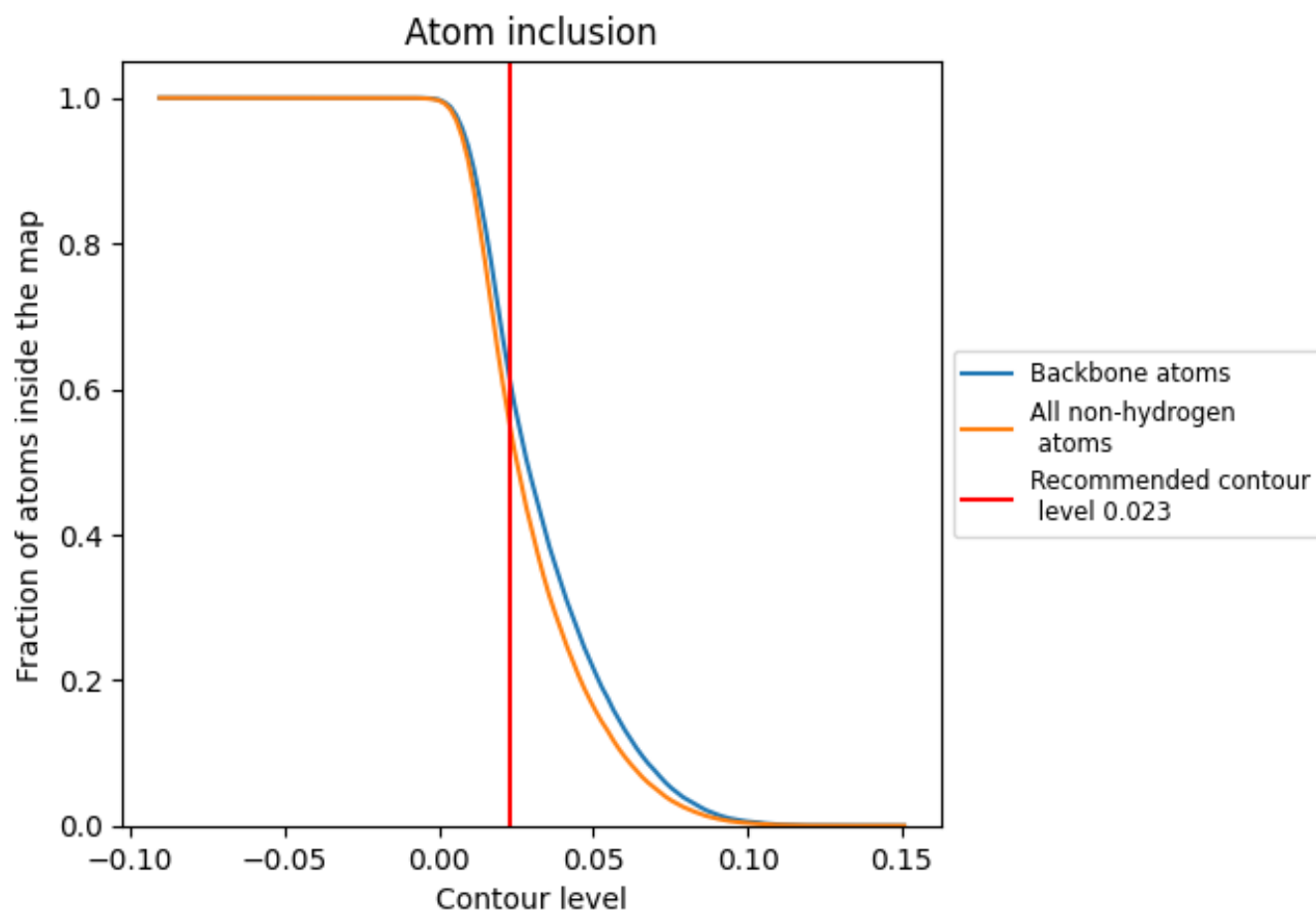
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.023).



















9.4 Atom inclusion [i](#)



At the recommended contour level, 61% of all backbone atoms, 55% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary [i](#)

The table lists the average atom inclusion at the recommended contour level (0.023) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.5490	 0.4130
A	 0.5466	 0.4110
B	 0.5463	 0.4120
C	 0.5458	 0.4110
D	 0.5463	 0.4110
G	 0.6555	 0.4790
H	 0.6493	 0.4800
I	 0.6481	 0.4770
J	 0.6518	 0.4770

