



Full wwPDB EM Validation Report ⓘ

Mar 9, 2026 – 08:34 AM UTC

PDB ID : 7VMS / pdb_00007vms
EMDB ID : EMD-32037
Title : Structure of recombinant RyR2 mutant K4593A (Ca²⁺ dataset)
Authors : Kobayashi, T.; Tsutsumi, A.; Kurebayashi, N.; Kodama, M.; Kikkawa, M.;
Murayama, T.; Ogawa, H.
Deposited on : 2021-10-09
Resolution : 3.80 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.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

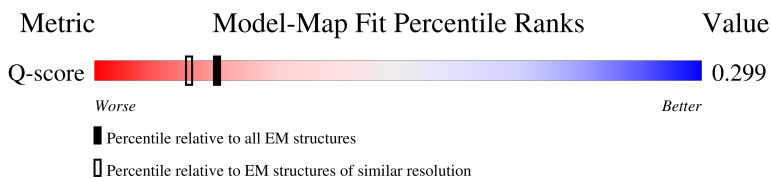
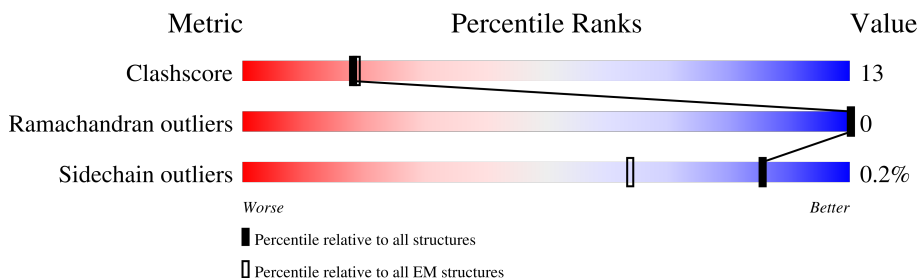
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.80 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)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	10198 (3.30 - 4.30)

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	41% 61% 20% 19%
1	B	4966	41% 61% 20% 19%
1	C	4966	41% 61% 20% 19%
1	D	4966	41% 61% 20% 19%

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Mol	Chain	Length	Quality of chain
2	G	176	28% 39% 22% 39%
2	H	176	28% 39% 22% 39%
2	I	176	28% 39% 22% 39%
2	J	176	28% 39% 22% 39%

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 123552 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
1	A	4044	Total	C	N	O	S	0	0
			30067	19032	5242	5617	176		
1	B	4044	Total	C	N	O	S	0	0
			30067	19032	5242	5617	176		
1	C	4044	Total	C	N	O	S	0	0
			30067	19032	5242	5617	176		
1	D	4044	Total	C	N	O	S	0	0
			30067	19032	5242	5617	176		

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	4593	ALA	LYS	engineered mutation	UNP E9Q401
B	4593	ALA	LYS	engineered mutation	UNP E9Q401
C	4593	ALA	LYS	engineered mutation	UNP E9Q401
D	4593	ALA	LYS	engineered mutation	UNP E9Q401

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

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

There are 276 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
G	-67	MET	-	initiating methionine	UNP P68106

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Chain	Residue	Modelled	Actual	Comment	Reference
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
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

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Chain	Residue	Modelled	Actual	Comment	Reference
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
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

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Chain	Residue	Modelled	Actual	Comment	Reference
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
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

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Chain	Residue	Modelled	Actual	Comment	Reference
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
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

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Chain	Residue	Modelled	Actual	Comment	Reference
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
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

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Chain	Residue	Modelled	Actual	Comment	Reference
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
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

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Chain	Residue	Modelled	Actual	Comment	Reference
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
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 (CCD ID: 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

- Molecule 4 is CALCIUM ION (CCD ID: CA) (formula: Ca) (labeled as "Ligand of Interest" by depositor).

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

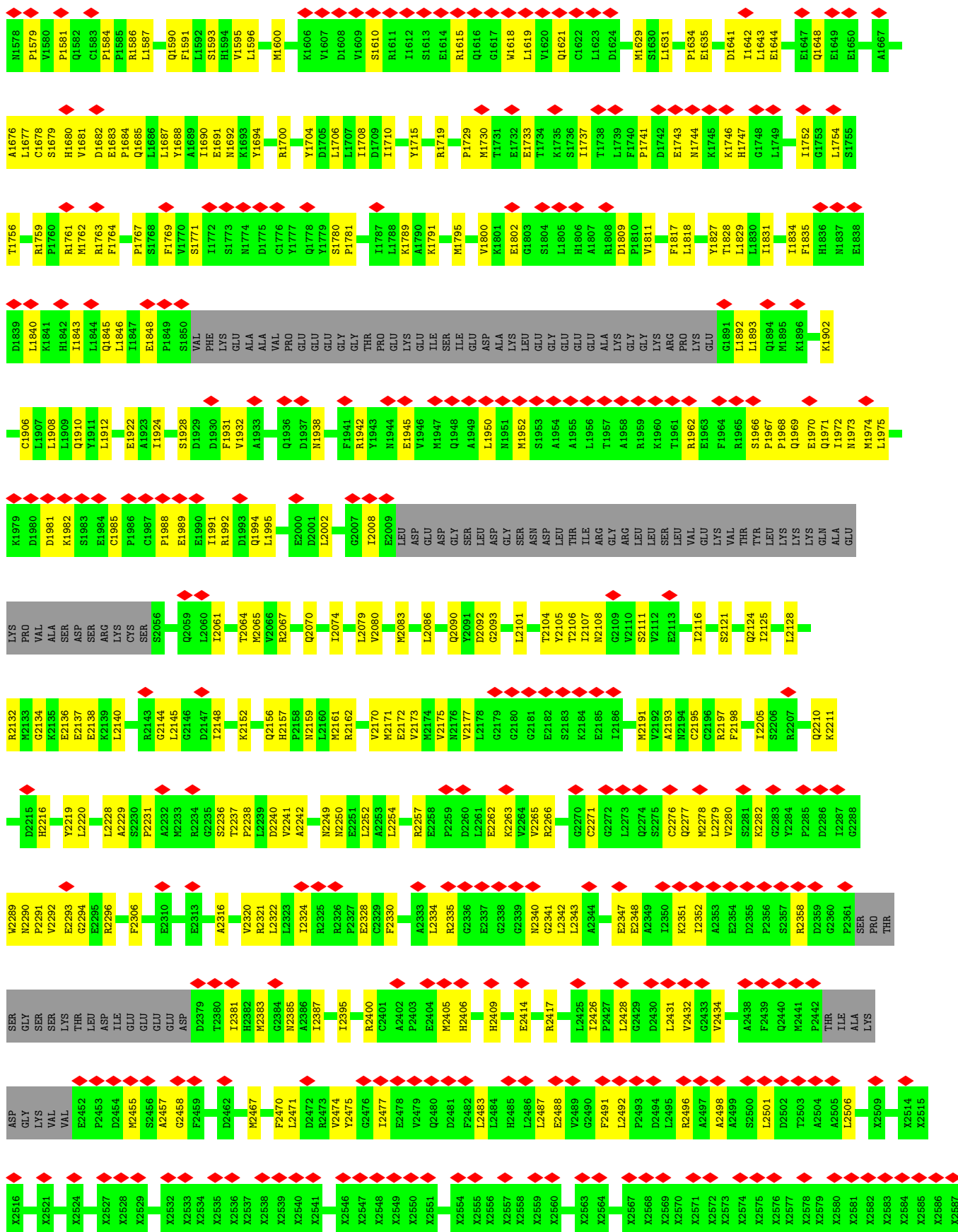
3 Residue-property plots

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

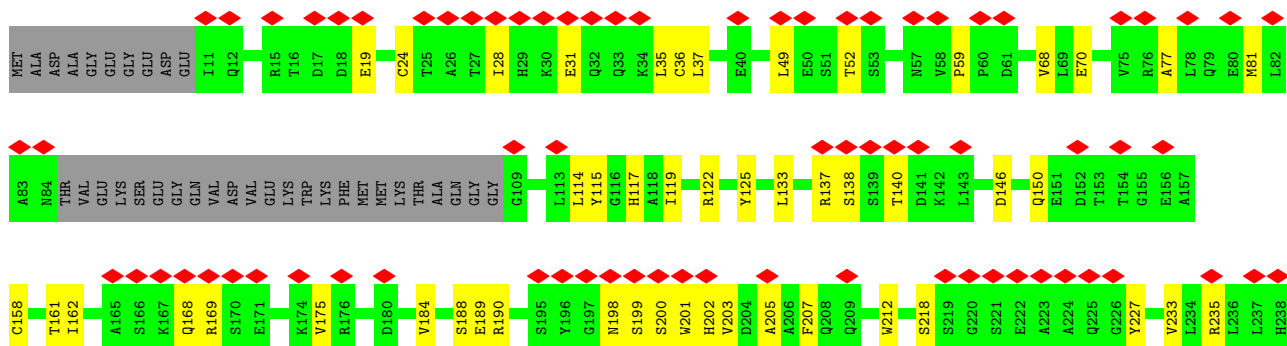


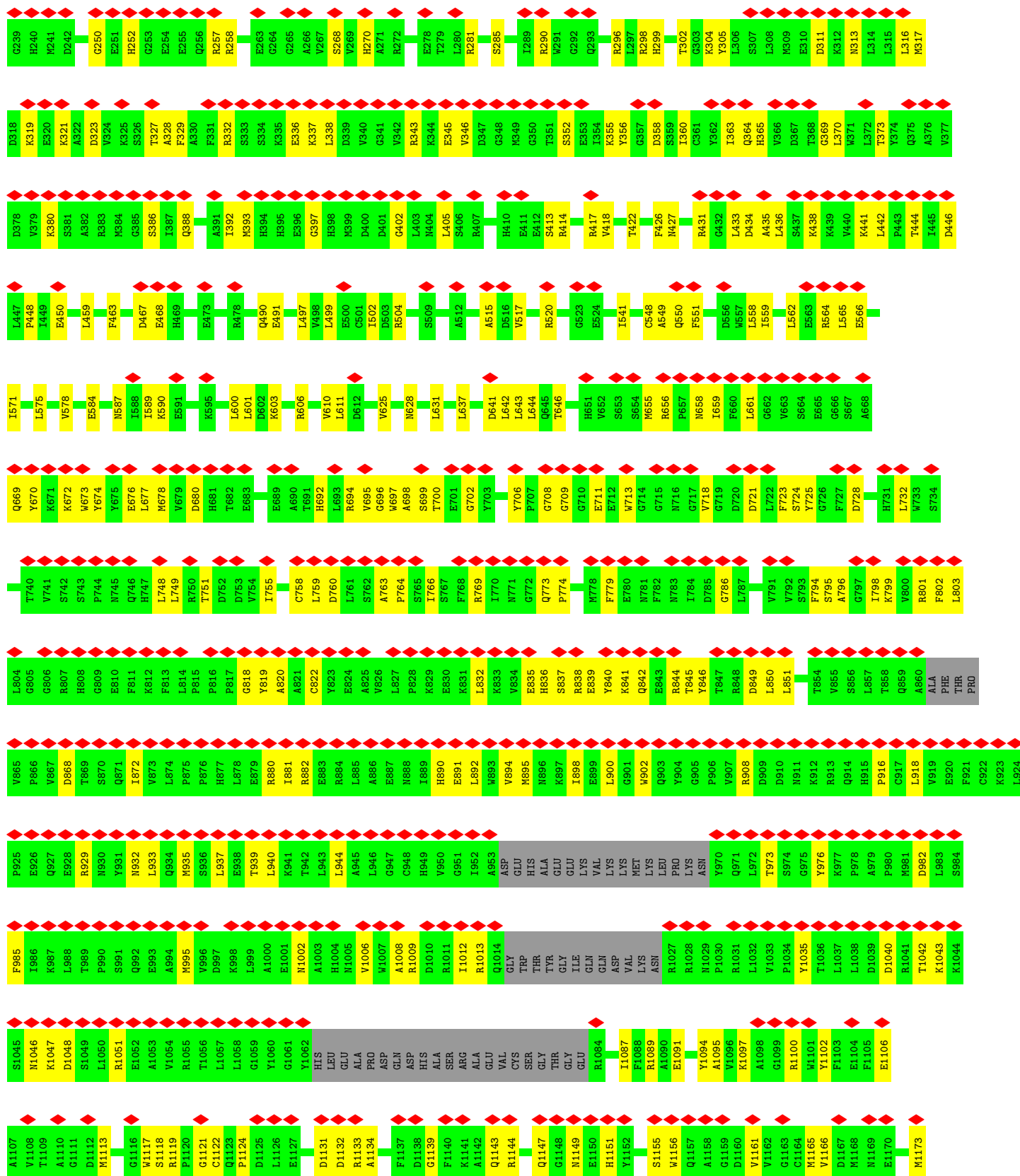










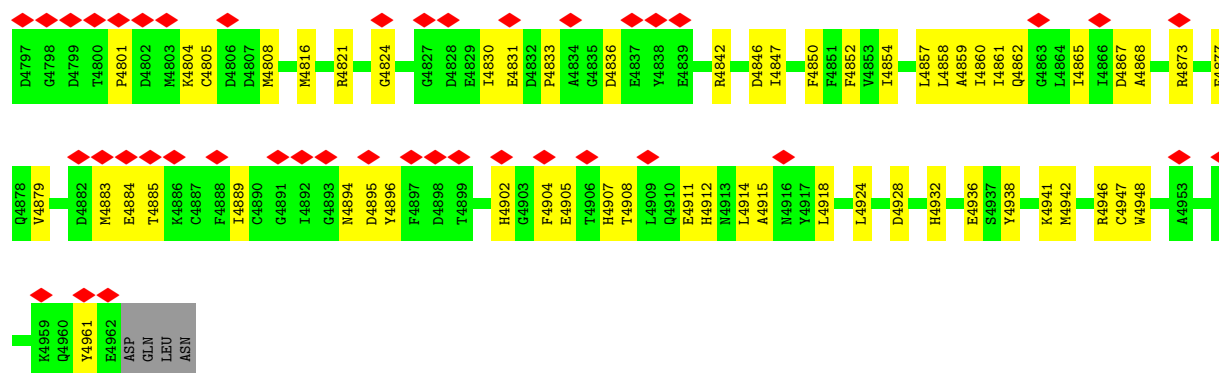




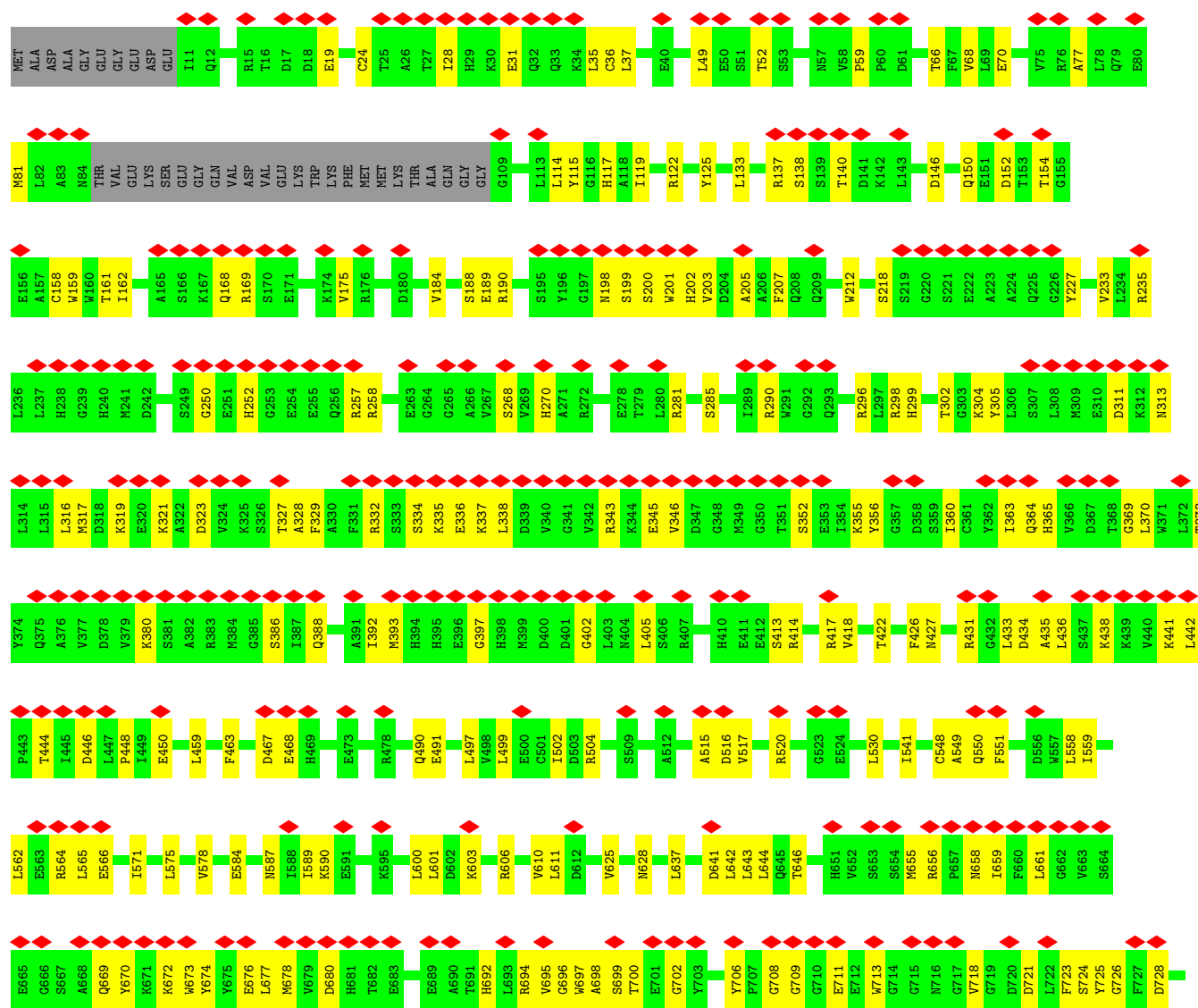
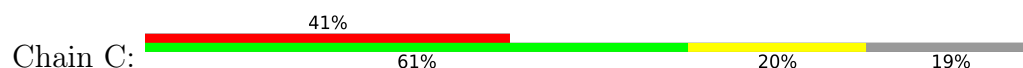


X3696	Y3779	F3611	X3651	X3491	X3371	X3251	X3191	UNK	X3011
C3697	E3782	R3612	X3552	X3492	X3312	X3252	X3192	UNK	X3012
S698	X3783	H3613	X3553	X3493	X3313	X3253	X3193	UNK	X3013
H3699	X3784	A3614	X3554	X3494	X3314	X3254	X3194	UNK	X3014
ASP	X3785	X3615	X3555	X3495	X3315	X3255	X3195	UNK	X3015
GLU	V3786	V3616	X3556	X3496	X3316	X3256	X3196	UNK	X3016
ASP	F3619	F3619	X3557	X3497	X3317	X3257	X3197	UNK	X3017
ASP	L3620	L3620	X3558	X3498	X3318	X3258	X3198	UNK	X3018
GLY	Q3621	Q3621	X3559	X3499	X3319	X3259	X3199	UNK	X3019
GLU	E3624	E3624	X3560	X3500	X3320	X3260	X3200	UNK	X3020
GLU	F3629	F3629	X3561	X3501	X3321	X3261	X3201	UNK	X3021
VAL	T3630	T3630	X3562	X3502	X3322	X3262	X3202	UNK	X3022
LYS	X3712	X3712	X3563	X3503	X3323	X3263	UNK	UNK	X3023
S3713	F3713	F3713	X3564	X3504	X3324	X3264	X3203	UNK	X3024
E3714	E3631	E3631	X3565	X3505	X3325	X3265	X3204	UNK	X3025
E3715	E3632	E3632	X3566	X3506	X3326	X3266	X3205	UNK	X3026
X3716	H3633	H3633	X3567	X3507	X3327	X3267	X3206	UNK	X3027
X3717	Y3634	Y3634	X3568	X3508	X3328	X3268	X3207	UNK	X3028
M3718	F3635	F3635	X3569	X3509	X3329	X3269	X3208	UNK	X3029
E3719	E3636	E3636	X3570	X3510	X3330	X3270	X3209	UNK	UNK
	L3639	L3639	X3571	X3511	X3331	X3271	X3210	UNK	UNK
L3723	L3640	L3640	X3572	X3512	X3332	X3272	X3211	UNK	UNK
	E3641	E3641	X3573	X3513	X3333	X3273	X3212	UNK	UNK
Q3726	Q3727	Q3727	X3574	X3514	X3334	X3274	X3213	UNK	UNK
A3728	L3643	L3643	X3575	X3515	X3335	X3275	X3214	UNK	UNK
R3729	A3644	A3644	X3576	X3516	X3336	X3276	X3215	UNK	UNK
X3730	K3645	K3645	X3577	X3517	X3337	X3277	X3216	UNK	UNK
H3731	A3648	A3648	X3578	X3518	X3338	X3278	X3217	UNK	UNK
E3732	GLU	GLU	X3579	X3519	X3339	X3279	X3218	X3104	UNK
R3733	LEU	LEU	X3579	X3519	X3339	X3279	X3219	X3105	UNK
	PRO	PRO	X3579	X3520	X3340	X3280	X3220	X3106	UNK
L3740	GLU	GLU	UNK	X3521	X3341	X3281	UNK	X3107	UNK
	ASP	ASP	UNK	X3522	X3342	X3282	UNK	X3108	UNK
G3748	ALA	ALA	UNK	X3523	X3343	X3283	UNK	X3109	UNK
	GLU	GLU	UNK	X3524	X3344	X3284	UNK	X3110	UNK
P3752	MET	MET	UNK	X3525	X3345	X3285	UNK	X3111	UNK
M3753	LYS	LYS	UNK	X3526	X3346	X3286	UNK	X3112	UNK
V3754	R3659	R3659	UNK	X3527	X3347	X3287	UNK	X3113	UNK
	V3660	V3660	UNK	X3527	X3347	X3287	UNK	X3114	UNK
T3757	H3664	H3664	UNK	X3528	X3348	X3288	X3231	X3115	UNK
L3758			UNK	X3529	X3349	X3289	X3232	X3116	UNK
K3759	L3668	L3668	UNK	X3530	X3350	X3290	X3233	X3117	UNK
L3760	L3669	L3669	UNK	X3531	X3351	X3291	X3234	X3118	UNK
Q3761	F3676	F3676	UNK	X3532	X3352	X3292	X3235	X3119	UNK
L3762	X3763	X3763	UNK	X3533	X3353	X3293	X3236	X3120	UNK
A3763	T3677	T3677	UNK	X3534	X3354	X3294	X3237	X3121	UNK
L3764	K3677	K3677	UNK	X3535	X3355	X3295	X3238	X3122	UNK
	X3678	X3678	UNK	X3536	X3356	X3296	X3239	X3123	UNK
G3768			UNK	X3537	X3357	X3297	X3240	X3124	UNK
N3769	F3683	F3683	UNK	X3538	X3358	X3298	X3241	X3125	UNK
	D3684	D3684	UNK	X3539	X3359	X3299	X3242	X3126	UNK
K3775	M3688	M3688	UNK	X3540	X3360	X3300	X3243	X3127	UNK
			UNK	X3541	X3361	X3301	X3244	X3128	UNK
D3778	L3693	L3693	UNK	X3542	X3362	X3302	X3245	X3129	UNK
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			UNK	X3544	X3364	X3304	X3247	UNK	UNK
			UNK	X3545	X3365	X3305	X3248	UNK	UNK
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			UNK	X3547	X3367	X3307	X3250	UNK	UNK
			UNK	X3548	X3368	X3308	X3250	UNK	UNK
			UNK	X3549	X3369	X3309	X3250	UNK	UNK
			UNK	X3550	X3370	X3310	X3250	UNK	UNK





• Molecule 1: Ryanodine receptor 2





L2506	M2441	S2357	L2279	C2196	L2119	LEU	E1970	L1893	I1834	L1749	E1650	F1572
X2509	P2442	R2358	V2280	F2198	A2120	LYS	Q1971	M1895	F1835	I1752	A1687	K1573
X2514	THR	D2359	K2282	R2198	S2121	LYS	I1972	K1896	H1836	G1753	A1676	K1577
X2515	ALA	G2360	G2283	I2205	Q2124	GLN	N1973	L1974	E1837	L1754	L1677	N1578
X2516	LYS	P2361	Y2284	S2206	I2125	ALA	M1974	E1838	N1837	S1755	C1678	P1579
X2521	ASP	PRO	P2285	R2207	L2128	GLU	L1975	K1902	E1839	T1756	S1679	V1580
X2524	THR	THR	D2286	Q2210	L2128	LYS	K1979	C1906	D1839	R1759	H1680	P1581
X2527	VAL	GLY	I2287	K2211	R2132	PRO	D1980	L1907	L1840	P1760	V1681	Q1582
X2528	SER	SER	G2288	D2215	M2133	VAL	I1981	L1908	K1841	P1760	D1682	C1583
X2529	SER	SER	W2289	H2216	R2133	ALA	K1982	L1909	H1842	R1761	E1683	P1584
X2532	LYS	LYS	P2291	G2134	G2134	SER	K1982	Y1911	I1843	M1762	P1684	P1585
X2533	THR	THR	V2292	K2135	R2135	ASP	S1983	L1912	L1844	R1763	Q1684	R1586
X2534	LEU	LEU	E2293	E2137	E2137	ARG	E1984	C1913	Q1845	F1764	P1685	L1587
X2535	ASP	ASP	E2294	L2220	E2138	LYS	C1985	D1914	I1846	P1764	Q1685	L1587
X2536	ILE	ILE	G2295	L2228	K2139	SER	P1986	E1922	I1847	P1767	L1687	Q1590
X2537	GLU	GLU	E2296	A2229	L2140	SER	C1987	E1922	E1848	S1768	Y1688	F1591
X2538	GLU	GLU	R2296	S2230	R2143	S2056	P1988	A1923	E1849	F1769	A1689	L1592
X2539	GLU	GLU	E2310	M2233	G2144	Q2059	E1989	I1924	S1850	V1770	I1690	S1593
X2540	ASP	ASP	E2313	A2232	L2145	L2061	E1990	S1928	VAL	I1772	E1691	H1594
X2541	M2382	T2380	A2316	R2234	D2146	T2064	I1991	D1930	PHE	S1771	N1692	V1595
X2546	M2383	I2381	G2323	G2236	G2146	M2065	R1992	V1932	GLU	I1773	K1693	L1596
X2547	G2384	G2384	R2237	S2236	D2147	V2866	D1993	A1933	ALA	M1774	Y1694	M1600
X2548	N2385	A2386	P2238	P2238	I2148	R2067	L1995	Q1936	ALA	D1775	R1700	
X2549	I2387	I2387	L2239	L2239	K2152	Q2070	E2000	D1937	VAL	C1776		
X2550	I2395	I2395	D2240	D2240	Q2156	I2074	D2001	D1937	PRO	Y1777		
X2551	A2402	P2403	R2325	R2325	H2157	L2074	D2002	F1941	THR	Q1778		
X2554	E2404	E2404	P2327	M2249	N2159	L2074	G2007	R1942	PRO	P1779		
X2555	M2405	M2405	E2328	N2249	L2160	L2079	I2008	Y1943	GLU	I1787		
X2556	H2409	H2409	G2329	R2250	M2161	V2080	E2009	N1944	GLU	L1788		
X2557	E2414	E2414	F2330	E2251	R2162	M2083	LEU	E1945	LYS	K1789		
X2558	E2417	E2417	A2333	A2253	V2170	L2086	ASP	V1946	GLU	A1790		
X2559	L2425	L2425	L2334	L2254	M2171	L2086	GLU	M1947	ILE	K1791		
X2563	L2426	L2426	R2335	R2257	E2172	R2089	GLY	Q1948	SER	M1795		
X2564	P2427	P2427	G2336	E2258	M2173	Q2090	ASP	A1949	GLU	V1800		
X2567	L2428	L2428	E2337	P2259	V2175	D2092	LEU	L1950	ASP	K1801		
X2568	R2491	R2491	G2338	D2260	N2176	G2093	GLY	M1951	ALA	E1802		
X2569	L2492	L2492	E2262	L2261	V2177	L2101	ASN	M1952	LYS	G1803		
X2570	P2493	P2493	Q2339	E2264	G2180	T2104	SER	S1953	LEU	S1620		
X2571	L2494	L2494	M2340	V2264	G2180	Y2105	THR	A1954	GLY	T1733		
X2572	R2496	R2496	G2270	R2266	S2183	T2107	ILE	A1955	GLU	K1735		
X2573	A2497	A2497	C2271	G2272	E2185	D2108	ARG	T1957	GLU	S1737		
X2574	L2498	L2498	E2347	G2272	K2184	G2109	GLY	A1958	ALA	T1738		
X2575	G2499	G2499	E2348	L2273	E2185	V2110	ARG	R1959	GLY	L1739		
X2576	S2500	S2500	E2349	Q2274	S2111	S2111	GLY	K1960	LYS	F1740		
X2577	L2501	L2501	I2350	S2275	M2191	E2113	LEU	T1961	GLY	P1741		
X2578	D2502	D2502	K2351	G2276	V2192	F2113	LEU	R1962	ARG	D1742		
X2579	A2504	A2504	I2352	Q2277	A2193	I2116	VAL	E1963	LYS	F1817		
X2580	E2505	E2505	A2353	Q2277	N2194	I2116	GLU	F1964	PRO	L1818		
X2581	L2506	L2506	D2355	M2278	C2195		THR	R1965	LYS	N1744		
X2582			P2356				TYR	S1966	GLU	Y1827		
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								Q1969		I1830		
										I1831		









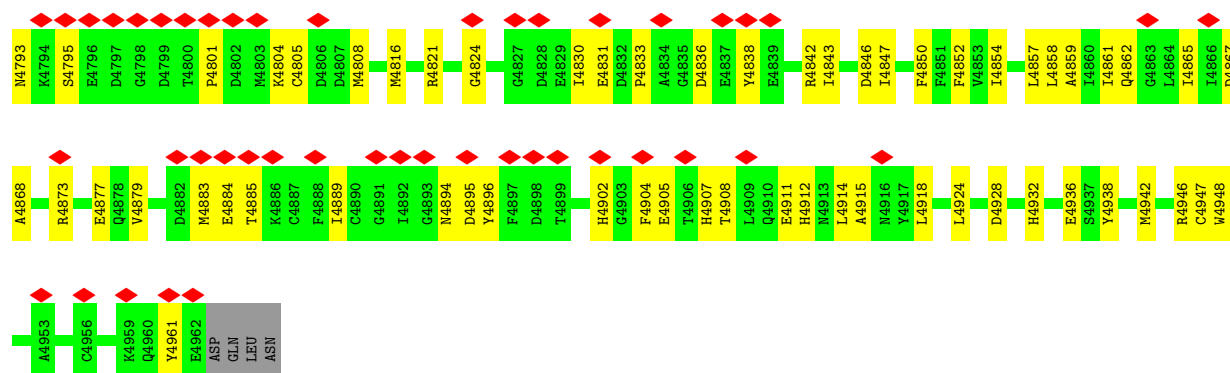
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LYS	M1973	Q1894	F1835	I1752	E1649	F1572	UNK	UNK	X1387	E1309	Y1236	M174
LYS	L1975	K1896	H1836	G1753	E1650	K1573	UNK	UNK	X1388	C1310	E1237	F1175
GLN			N1837	L1754	A1657		UNK	UNK	X1389	A1311	P1238	
ALA			E1838				UNK	UNK		X1312	V1241	T1176
GLU			N1839	L1755	A1676	K1577	UNK	UNK	X1392	X1313		L1177
PRO			D1839	T1756	L1677	N1578	UNK	UNK	X1393	X1314		N1178
VAL			L1840	R1759	C1678	P1579	UNK	UNK	X1394	X1315		G1179
VAL			L1841	P1760	S1679	V1580	UNK	UNK	X1395	X1316		E1180
ALA			H1842	R1761	H1680	Q1582	UNK	UNK	X1396			T1181
SER			I1843	M1762	V1681	C1583	UNK	UNK	X1399	X1321		L1182
ASP			L1844	R1763	D1682	P1584	UNK	UNK	X1400	X1322		L1183
SER			Q1845	F1764	E1683	P1585	UNK	UNK	X1401	X1323		L1184
SER			L1846		P1684	R1586	UNK	UNK	X1402	X1324		D1185
ASP			I1847	P1767	P1685	L1587	UNK	UNK	X1403	X1325		S1186
SER			E1848	S1768	Q1686		UNK	UNK	X1404	X1326		G1187
GLU			P1849	F1769	L1687	Q1590	UNK	UNK	X1405	X1327		S1188
CYS			S1850	V1770	Y1688	F1591	UNK	UNK	X1406	X1328		L1190
VAL			VAL	S1771	A1689	L1592	UNK	UNK	X1407	X1329		A1191
THR			PHE	I1772	I1690	S1593	UNK	UNK	X1408	X1332		F1192
GLY			LYS	S1773	E1691	H1594	UNK	UNK	X1409			K1193
GLY			GLU	N1774	N1692	V1595	UNK	UNK	X1410			D1194
ALA			ALA	D1775	K1693	L1596	UNK	UNK	X1411			F1195
ALA			ALA	C1776	Y1694		UNK	UNK	X1412			D1196
PRO			VAL	I1777	R1700	M1600	UNK	UNK	X1413			Y1197
GLU			GLU	Q1778	Y1704	A1606	UNK	UNK	X1414			G1198
GLY			GLU	Y1779	D1705	V1607	UNK	UNK	X1415			D1199
GLY			GLY	S1780	L1706	D1608	UNK	UNK	X1416			G1200
THR			THR	P1781	L1707	V1609	UNK	UNK	X1417			F1201
PRO			PRO	I1787	I1708	S1610	UNK	UNK	X1418			I1202
GLU			GLU	L1788	I1710	R1611	UNK	UNK	X1419			P1203
LYS			LYS	K1789	Y1715	I1612	UNK	UNK	X1420			V1204
ILE			ILE	K1791	R1719	E1614	UNK	UNK	X1421			G1205
ILE			ILE	M1795		R1615	UNK	UNK	X1422			S1206
ASP			ASP		P1729	Q1616	UNK	UNK	X1423			L1207
ALA			ALA	V1800	M1730	G1617	UNK	UNK	X1424			SER
LEU			LEU	K1801	T1731	W1618	UNK	UNK	X1425			SER
GLY			GLY	E1802	E1732	L1619	UNK	UNK	X1426			PRO
ASN			ASN	G1803	E1733	V1620	UNK	UNK	X1427			CYS
GLY			GLY	S1804	T1734	Q1621	UNK	UNK	X1428			LEU
LEU			LEU	L1805	K1735	C1622	UNK	UNK	X1429			K1284
THR			THR	H1806	S1736	L1623	UNK	UNK	X1431			V1212
ILE			ILE	A1807	I1737	D1624	UNK	UNK	X1432			G1213
ARG			ARG	R1808	T1738	M1629	UNK	UNK	X1433			R1214
GLY			GLY	R1809	L1739	S1630	UNK	UNK	X1434			M1215
GLY			GLY	P1810	F1740	L1631	UNK	UNK	X1435			K1288
LEU			LEU	V1811	P1741	E1635	UNK	UNK	X1436			D1220
LEU			LEU		D1742	P1634	UNK	UNK	X1437			V1221
SER			SER	F1817	E1743	E1635	UNK	UNK	X1438			S1222
LEU			LEU	L1816	N1744		UNK	UNK	X1439			T1223
VAL			VAL	Y1827	K1745		UNK	UNK	X1440			L1224
GLU			GLU	L1829	H1746		UNK	UNK	X1441			K1225
LYS			LYS	L1830	K1747		UNK	UNK	X1442			N1296
VAL			VAL		H1747		UNK	UNK	X1443			Y1226
THR			THR				UNK	UNK	X1444			F1227
							UNK	UNK	X1445			T1228
							UNK	UNK				I1229
							UNK	UNK				C1230
							UNK	UNK				G1231
							UNK	UNK				L1232
							UNK	UNK				Q1233





WORLDWIDE
PDB
PROTEIN DATA BANK





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

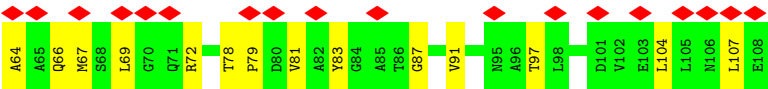


• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

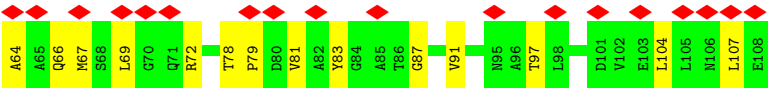
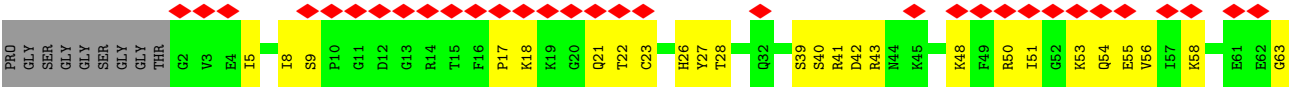
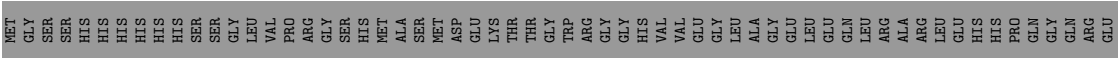


• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B





• 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	10879	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 ($e^-/\text{\AA}^2$)	60	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	2000	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.123	Depositor
Minimum map value	-0.065	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.007	Depositor
Recommended contour level	0.034	Depositor
Map size (Å)	424.96, 424.96, 424.96	wwPDB
Map dimensions	320, 320, 320	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.328, 1.328, 1.328	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, CA

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	0.14	1/26891 (0.0%)	0.37	0/36312
1	B	0.15	1/26891 (0.0%)	0.38	0/36312
1	C	0.15	1/26891 (0.0%)	0.38	0/36312
1	D	0.15	1/26891 (0.0%)	0.38	0/36312
2	G	0.13	0/835	0.41	0/1123
2	H	0.13	0/835	0.42	0/1123
2	I	0.13	0/835	0.42	0/1123
2	J	0.13	0/835	0.41	0/1123
All	All	0.15	4/110904 (0.0%)	0.38	0/149740

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	4606	ALA	C-N	5.67	1.41	1.33
1	A	4606	ALA	C-N	5.64	1.41	1.33
1	D	4606	ALA	C-N	5.64	1.41	1.33
1	B	4606	ALA	C-N	5.60	1.41	1.33

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	30067	0	26705	756	0
1	B	30067	0	26706	754	0
1	C	30067	0	26705	759	0
1	D	30067	0	26705	760	0
2	G	819	0	821	29	0
2	H	819	0	821	28	0
2	I	819	0	821	31	0
2	J	819	0	821	29	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
4	A	1	0	0	0	0
4	B	1	0	0	0	0
4	C	1	0	0	0	0
4	D	1	0	0	0	0
All	All	123552	0	110105	3081	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 13.

All (3081) 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:C:1629:MET:HE3	1:C:1685:GLN:HE21	1.35	0.92
1:D:1629:MET:HE3	1:D:1685:GLN:HE21	1.34	0.92
1:B:1629:MET:HE3	1:B:1685:GLN:HE21	1.35	0.92
1:A:1629:MET:HE3	1:A:1685:GLN:HE21	1.35	0.90
1:A:2276:CYS:HB2	1:A:2279:LEU:HD23	1.55	0.88
1:B:1811:VAL:H	1:B:1818:LEU:HD12	1.38	0.88
1:A:4517:PHE:HB3	1:A:4562:GLU:HG3	1.56	0.88
1:C:1811:VAL:H	1:C:1818:LEU:HD12	1.39	0.88
1:B:4517:PHE:HB3	1:B:4562:GLU:HG3	1.56	0.88
1:D:2276:CYS:HB2	1:D:2279:LEU:HD23	1.55	0.87
1:A:1811:VAL:H	1:A:1818:LEU:HD12	1.38	0.87
1:C:4517:PHE:HB3	1:C:4562:GLU:HG3	1.56	0.87
1:D:1811:VAL:H	1:D:1818:LEU:HD12	1.38	0.86
1:D:4517:PHE:HB3	1:D:4562:GLU:HG3	1.56	0.86
1:B:2276:CYS:HB2	1:B:2279:LEU:HD23	1.55	0.86
1:C:2276:CYS:HB2	1:C:2279:LEU:HD23	1.55	0.86
2:G:67:MET:HE3	2:G:104:LEU:HB2	1.58	0.86
2:H:67:MET:HE3	2:H:104:LEU:HB2	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:67:MET:HE3	2:J:104:LEU:HB2	1.58	0.85
1:C:642:LEU:HD12	1:C:643:LEU:HA	1.60	0.84
2:I:67:MET:HE3	2:I:104:LEU:HB2	1.58	0.84
1:D:642:LEU:HD12	1:D:643:LEU:HA	1.61	0.83
1:B:642:LEU:HD12	1:B:643:LEU:HA	1.60	0.83
2:J:69:LEU:HA	2:J:104:LEU:HD22	1.61	0.82
1:A:642:LEU:HD12	1:A:643:LEU:HA	1.60	0.82
1:C:3934:LEU:HD12	1:C:3939:LEU:HD22	1.62	0.82
1:B:678:MET:HE2	1:B:801:ARG:HD3	1.62	0.81
1:D:3934:LEU:HD12	1:D:3939:LEU:HD22	1.62	0.81
1:D:678:MET:HE2	1:D:801:ARG:HD3	1.62	0.81
1:A:3934:LEU:HD12	1:A:3939:LEU:HD22	1.63	0.81
1:C:678:MET:HE2	1:C:801:ARG:HD3	1.62	0.81
2:I:69:LEU:HA	2:I:104:LEU:HD22	1.61	0.81
2:G:69:LEU:HA	2:G:104:LEU:HD22	1.61	0.81
1:B:3934:LEU:HD12	1:B:3939:LEU:HD22	1.63	0.81
2:H:69:LEU:HA	2:H:104:LEU:HD22	1.61	0.81
1:B:4042:ILE:HG22	1:B:4044:LYS:H	1.46	0.80
1:A:678:MET:HE2	1:A:801:ARG:HD3	1.62	0.80
1:A:4042:ILE:HG22	1:A:4044:LYS:H	1.46	0.80
1:D:2406:HIS:HA	1:D:2409:HIS:HB3	1.64	0.80
1:B:2406:HIS:HA	1:B:2409:HIS:HB3	1.64	0.80
1:C:2406:HIS:HA	1:C:2409:HIS:HB3	1.63	0.80
1:C:373:THR:HG22	1:C:397:GLY:HA2	1.64	0.80
1:D:709:GLY:O	1:D:1255:LEU:HD11	1.81	0.80
1:C:802:PHE:HB2	1:C:1618:TRP:HB2	1.64	0.80
1:A:802:PHE:HB2	1:A:1618:TRP:HB2	1.64	0.79
1:C:709:GLY:O	1:C:1255:LEU:HD11	1.81	0.79
1:B:373:THR:HG22	1:B:397:GLY:HA2	1.64	0.79
1:D:802:PHE:HB2	1:D:1618:TRP:HB2	1.64	0.79
1:A:373:THR:HG22	1:A:397:GLY:HA2	1.64	0.79
1:A:709:GLY:O	1:A:1255:LEU:HD11	1.81	0.79
1:B:802:PHE:HB2	1:B:1618:TRP:HB2	1.64	0.79
1:D:373:THR:HG22	1:D:397:GLY:HA2	1.64	0.79
1:A:4650:ARG:HA	1:A:4653:MET:SD	2.23	0.79
1:B:709:GLY:O	1:B:1255:LEU:HD11	1.81	0.79
1:B:4650:ARG:HA	1:B:4653:MET:SD	2.23	0.79
1:C:4650:ARG:HA	1:C:4653:MET:SD	2.23	0.79
1:D:4650:ARG:HA	1:D:4653:MET:SD	2.23	0.79
1:A:2406:HIS:HA	1:A:2409:HIS:HB3	1.64	0.78
1:C:4042:ILE:HG22	1:C:4044:LYS:H	1.46	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4042:ILE:HG22	1:D:4044:LYS:H	1.46	0.78
1:A:1800:VAL:HG21	1:A:1846:LEU:HD11	1.65	0.78
1:C:1800:VAL:HG21	1:C:1846:LEU:HD11	1.65	0.78
1:B:1800:VAL:HG21	1:B:1846:LEU:HD11	1.65	0.78
1:A:3971:MET:HE3	1:A:4093:ILE:HD12	1.66	0.77
1:D:1800:VAL:HG21	1:D:1846:LEU:HD11	1.65	0.77
1:B:3971:MET:HE3	1:B:4093:ILE:HD12	1.66	0.77
1:A:1254:ARG:HB3	1:A:1254:ARG:HH11	1.50	0.76
1:D:1254:ARG:HB3	1:D:1254:ARG:HH11	1.50	0.76
1:D:1684:PRO:HD3	2:J:42:ASP:HB2	1.68	0.76
2:J:23:CYS:HB2	2:J:51:ILE:HD11	1.67	0.76
1:B:1684:PRO:HD3	2:H:42:ASP:HB2	1.68	0.76
2:I:23:CYS:HB2	2:I:51:ILE:HD11	1.67	0.76
1:D:3971:MET:HE3	1:D:4093:ILE:HD12	1.66	0.76
1:A:1684:PRO:HD3	2:G:42:ASP:HB2	1.68	0.76
1:C:1262:PRO:HG2	1:C:1265:HIS:HB2	1.67	0.76
1:C:1254:ARG:HB3	1:C:1254:ARG:HH11	1.50	0.76
1:C:3971:MET:HE3	1:C:4093:ILE:HD12	1.66	0.75
1:D:1262:PRO:HG2	1:D:1265:HIS:HB2	1.67	0.75
1:C:1684:PRO:HD3	2:I:42:ASP:HB2	1.68	0.75
1:C:4042:ILE:HG21	1:C:4047:PHE:HB2	1.68	0.75
1:B:4833:PRO:HB3	1:B:4842:ARG:HD3	1.69	0.75
1:D:1259:LEU:HD11	1:D:1596:LEU:HD21	1.68	0.75
1:A:4042:ILE:HG21	1:A:4047:PHE:HB2	1.68	0.75
1:B:1117:TRP:CD1	1:B:1203:PRO:HA	2.22	0.75
2:H:23:CYS:HB2	2:H:51:ILE:HD11	1.67	0.75
1:C:1254:ARG:HB3	1:C:1254:ARG:NH1	2.01	0.75
1:C:4833:PRO:HB3	1:C:4842:ARG:HD3	1.68	0.75
1:A:1681:VAL:HG23	1:A:1682:ASP:H	1.52	0.74
1:B:1254:ARG:NH1	1:B:1254:ARG:HB3	2.01	0.74
1:B:1259:LEU:HD11	1:B:1596:LEU:HD21	1.68	0.74
1:A:1117:TRP:CD1	1:A:1203:PRO:HA	2.22	0.74
1:D:1681:VAL:HG23	1:D:1682:ASP:H	1.52	0.74
1:A:365:HIS:HB2	1:A:393:MET:HE1	1.70	0.74
1:A:1254:ARG:HB3	1:A:1254:ARG:NH1	2.01	0.74
2:G:23:CYS:HB2	2:G:51:ILE:HD11	1.67	0.74
1:C:3727:GLN:OE1	1:C:3769:ASN:ND2	2.21	0.74
1:B:365:HIS:HB2	1:B:393:MET:HE1	1.70	0.74
1:D:1254:ARG:HB3	1:D:1254:ARG:NH1	2.01	0.74
1:B:4042:ILE:HG21	1:B:4047:PHE:HB2	1.68	0.74
1:C:1117:TRP:CD1	1:C:1203:PRO:HA	2.22	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1117:TRP:CD1	1:D:1203:PRO:HA	2.22	0.74
1:B:1262:PRO:HG2	1:B:1265:HIS:HB2	1.67	0.74
1:A:3727:GLN:OE1	1:A:3769:ASN:ND2	2.20	0.74
1:D:2713:PRO:HD3	1:D:2782:LEU:HD11	1.70	0.74
1:D:365:HIS:HB2	1:D:393:MET:HE1	1.70	0.74
1:D:4042:ILE:HG21	1:D:4047:PHE:HB2	1.68	0.74
1:A:4833:PRO:HB3	1:A:4842:ARG:HD3	1.69	0.74
1:B:3843:GLN:HG3	1:B:3921:GLU:HG3	1.70	0.74
1:A:1262:PRO:HG2	1:A:1265:HIS:HB2	1.67	0.73
1:C:3843:GLN:HG3	1:C:3921:GLU:HG3	1.70	0.73
1:B:1254:ARG:HB3	1:B:1254:ARG:HH11	1.50	0.73
1:C:1681:VAL:HG23	1:C:1682:ASP:H	1.52	0.73
1:B:1681:VAL:HG23	1:B:1682:ASP:H	1.52	0.73
1:D:3843:GLN:HG3	1:D:3921:GLU:HG3	1.70	0.73
1:A:1259:LEU:HD11	1:A:1596:LEU:HD21	1.68	0.73
1:A:2713:PRO:HD3	1:A:2782:LEU:HD11	1.70	0.73
1:C:365:HIS:HB2	1:C:393:MET:HE1	1.70	0.73
1:A:1610:SER:HB3	1:A:1619:LEU:HB3	1.70	0.73
1:A:3843:GLN:HG3	1:A:3921:GLU:HG3	1.70	0.72
1:D:4833:PRO:HB3	1:D:4842:ARG:HD3	1.69	0.72
1:C:1741:PRO:HB3	1:C:1746:LYS:HE3	1.71	0.72
1:C:1610:SER:HB3	1:C:1619:LEU:HB3	1.71	0.72
1:A:1741:PRO:HB3	1:A:1746:LYS:HE3	1.71	0.72
1:C:1259:LEU:HD11	1:C:1596:LEU:HD21	1.68	0.72
1:A:1744:ASN:HD21	1:A:1746:LYS:HE2	1.54	0.72
1:B:562:LEU:HD21	1:B:600:LEU:HD22	1.72	0.72
1:B:3727:GLN:OE1	1:B:3769:ASN:ND2	2.20	0.72
1:D:1741:PRO:HB3	1:D:1746:LYS:HE3	1.71	0.72
1:D:1744:ASN:HD21	1:D:1746:LYS:HE2	1.55	0.72
1:B:1741:PRO:HB3	1:B:1746:LYS:HE3	1.71	0.72
1:B:2713:PRO:HD3	1:B:2782:LEU:HD11	1.70	0.72
1:C:562:LEU:HD21	1:C:600:LEU:HD22	1.72	0.72
1:C:2220:LEU:HD11	1:C:2242:ALA:HB2	1.71	0.72
1:D:2220:LEU:HD11	1:D:2242:ALA:HB2	1.71	0.72
1:D:3727:GLN:OE1	1:D:3769:ASN:ND2	2.20	0.72
1:C:839:GLU:HG2	1:C:840:TYR:H	1.55	0.72
1:A:562:LEU:HD21	1:A:600:LEU:HD22	1.72	0.72
1:B:2352:ILE:HD12	1:B:2358:ARG:HG2	1.72	0.72
1:D:839:GLU:HG2	1:D:840:TYR:H	1.55	0.72
1:B:711:GLU:HA	1:B:1255:LEU:HD12	1.72	0.71
1:C:2713:PRO:HD3	1:C:2782:LEU:HD11	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2352:ILE:HD12	1:A:2358:ARG:HG2	1.72	0.71
1:B:1610:SER:HB3	1:B:1619:LEU:HB3	1.70	0.71
1:A:839:GLU:HG2	1:A:840:TYR:H	1.55	0.71
1:C:1744:ASN:HD21	1:C:1746:LYS:HE2	1.54	0.71
1:B:188:SER:HB2	1:B:190:ARG:HH11	1.56	0.71
1:C:4774:ALA:HA	1:C:4816:MET:HE1	1.73	0.71
1:D:1610:SER:HB3	1:D:1619:LEU:HB3	1.71	0.71
1:A:973:THR:OG1	1:A:976:TYR:O	2.07	0.71
1:B:4774:ALA:HA	1:B:4816:MET:HE1	1.73	0.71
1:D:562:LEU:HD21	1:D:600:LEU:HD22	1.72	0.71
1:A:4854:ILE:HA	1:A:4858:LEU:HD23	1.73	0.71
1:C:1265:HIS:HD2	1:C:1268:ILE:HB	1.55	0.71
1:C:188:SER:HB2	1:C:190:ARG:HH11	1.56	0.71
1:A:2159:ASN:OD1	1:A:2162:ARG:NH2	2.24	0.71
1:B:2159:ASN:OD1	1:B:2162:ARG:NH2	2.24	0.71
1:D:188:SER:HB2	1:D:190:ARG:HH11	1.56	0.71
1:A:711:GLU:HA	1:A:1255:LEU:HD12	1.73	0.70
1:B:2220:LEU:HD11	1:B:2242:ALA:HB2	1.71	0.70
1:C:4603:LYS:HD2	1:C:4607:ARG:NH1	2.06	0.70
1:D:4774:ALA:HA	1:D:4816:MET:HE1	1.73	0.70
1:D:2352:ILE:HD12	1:D:2358:ARG:HG2	1.72	0.70
1:B:233:VAL:HG21	1:B:413:SER:HB3	1.73	0.70
1:D:711:GLU:HA	1:D:1255:LEU:HD12	1.73	0.70
1:D:973:THR:OG1	1:D:976:TYR:O	2.07	0.70
1:D:1989:GLU:HG2	1:D:1992:ARG:HD3	1.74	0.70
1:D:2159:ASN:OD1	1:D:2162:ARG:NH2	2.24	0.70
1:A:1265:HIS:HD2	1:A:1268:ILE:HB	1.55	0.70
1:C:2352:ILE:HD12	1:C:2358:ARG:HG2	1.72	0.70
1:D:4854:ILE:HA	1:D:4858:LEU:HD23	1.73	0.70
1:A:3639:LEU:HD23	1:A:3693:ILE:HG21	1.74	0.70
1:B:370:LEU:HB2	1:B:393:MET:HG2	1.74	0.70
1:B:1744:ASN:HD21	1:B:1746:LYS:HE2	1.54	0.70
1:C:370:LEU:HB2	1:C:393:MET:HG2	1.74	0.70
1:C:711:GLU:HA	1:C:1255:LEU:HD12	1.73	0.70
1:C:2159:ASN:OD1	1:C:2162:ARG:NH2	2.24	0.70
1:A:2220:LEU:HD11	1:A:2242:ALA:HB2	1.71	0.70
1:B:839:GLU:HG2	1:B:840:TYR:H	1.55	0.70
1:B:1265:HIS:HD2	1:B:1268:ILE:HB	1.55	0.70
1:C:233:VAL:HG21	1:C:413:SER:HB3	1.73	0.70
1:C:3639:LEU:HD23	1:C:3693:ILE:HG21	1.74	0.70
1:C:4772:LEU:HD22	1:D:4752:LEU:HD21	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:370:LEU:HB2	1:D:393:MET:HG2	1.74	0.70
1:D:4603:LYS:HD2	1:D:4607:ARG:NH1	2.06	0.70
1:C:655:MET:HE1	1:C:836:HIS:HD1	1.57	0.70
1:D:233:VAL:HG21	1:D:413:SER:HB3	1.73	0.70
1:A:370:LEU:HB2	1:A:393:MET:HG2	1.74	0.70
1:B:4854:ILE:HA	1:B:4858:LEU:HD23	1.73	0.70
1:C:1254:ARG:HH11	1:C:1254:ARG:CB	2.05	0.70
1:C:3955:MET:O	1:C:3959:GLN:NE2	2.25	0.70
1:A:1989:GLU:HG2	1:A:1992:ARG:HD3	1.73	0.69
1:B:3639:LEU:HD23	1:B:3693:ILE:HG21	1.74	0.69
1:D:1254:ARG:HH11	1:D:1254:ARG:CB	2.05	0.69
1:D:3639:LEU:HD23	1:D:3693:ILE:HG21	1.74	0.69
1:A:233:VAL:HG21	1:A:413:SER:HB3	1.73	0.69
1:A:4774:ALA:HA	1:A:4816:MET:HE1	1.73	0.69
1:B:973:THR:OG1	1:B:976:TYR:O	2.07	0.69
1:C:973:THR:OG1	1:C:976:TYR:O	2.07	0.69
1:A:1829:LEU:HB3	1:A:1834:ILE:HD11	1.74	0.69
1:C:4854:ILE:HA	1:C:4858:LEU:HD23	1.73	0.69
1:D:1265:HIS:HD2	1:D:1268:ILE:HB	1.55	0.69
1:B:4603:LYS:HD2	1:B:4607:ARG:NH1	2.06	0.69
1:C:1989:GLU:HG2	1:C:1992:ARG:HD3	1.73	0.69
1:A:3955:MET:O	1:A:3959:GLN:NE2	2.25	0.69
1:A:4603:LYS:HD2	1:A:4607:ARG:NH1	2.06	0.69
1:C:150:GLN:HE21	1:C:158:CYS:HB3	1.58	0.69
1:D:1829:LEU:HB3	1:D:1834:ILE:HD11	1.74	0.69
1:A:188:SER:HB2	1:A:190:ARG:HH11	1.56	0.69
1:B:3955:MET:O	1:B:3959:GLN:NE2	2.25	0.69
1:D:4051:MET:HE1	1:D:4062:THR:HA	1.75	0.69
1:B:150:GLN:HE21	1:B:158:CYS:HB3	1.58	0.69
1:D:3955:MET:O	1:D:3959:GLN:NE2	2.25	0.69
1:A:298:ARG:HH12	1:A:319:LYS:HD3	1.58	0.69
1:C:4784:ALA:HA	1:C:4788:PHE:HD2	1.58	0.68
1:B:880:ARG:HG3	1:B:881:ILE:HD12	1.75	0.68
1:B:1989:GLU:HG2	1:B:1992:ARG:HD3	1.73	0.68
1:A:1117:TRP:HD1	1:A:1203:PRO:HA	1.57	0.68
1:B:1254:ARG:HH11	1:B:1254:ARG:CB	2.05	0.68
1:A:4051:MET:HE1	1:A:4062:THR:HA	1.75	0.68
1:B:1829:LEU:HB3	1:B:1834:ILE:HD11	1.74	0.68
1:C:298:ARG:HH12	1:C:319:LYS:HD3	1.58	0.68
1:B:1117:TRP:HD1	1:B:1203:PRO:HA	1.57	0.68
1:D:150:GLN:HE21	1:D:158:CYS:HB3	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1117:TRP:HD1	1:D:1203:PRO:HA	1.57	0.68
1:A:1254:ARG:HH11	1:A:1254:ARG:CB	2.05	0.68
1:B:4051:MET:HE1	1:B:4062:THR:HA	1.75	0.68
2:J:26:HIS:CD2	2:J:41:ARG:HG2	2.29	0.68
1:B:4772:LEU:HD22	1:C:4752:LEU:HD21	1.75	0.68
1:A:520:ARG:NH1	1:A:520:ARG:HA	2.09	0.68
1:A:2092:ASP:OD1	1:A:2093:GLY:N	2.27	0.68
1:A:3822:GLU:HG2	1:A:3827:LYS:HE2	1.76	0.68
1:A:3924:GLN:HA	1:A:3924:GLN:HE21	1.59	0.68
1:B:1303:ARG:NH2	1:B:1590:GLN:OE1	2.27	0.68
1:B:4784:ALA:HA	1:B:4788:PHE:HD2	1.58	0.68
1:C:2092:ASP:OD1	1:C:2093:GLY:N	2.27	0.68
1:C:3924:GLN:HA	1:C:3924:GLN:HE21	1.59	0.68
1:D:520:ARG:NH1	1:D:520:ARG:HA	2.09	0.68
1:D:1303:ARG:NH2	1:D:1590:GLN:OE1	2.27	0.68
1:A:4784:ALA:HA	1:A:4788:PHE:HD2	1.58	0.68
1:B:2092:ASP:OD1	1:B:2093:GLY:N	2.27	0.68
1:B:2340:ASN:OD1	1:B:2341:GLY:N	2.26	0.68
1:C:1303:ARG:NH2	1:C:1590:GLN:OE1	2.27	0.68
1:D:4784:ALA:HA	1:D:4788:PHE:HD2	1.58	0.68
1:A:150:GLN:HE21	1:A:158:CYS:HB3	1.58	0.68
1:B:3924:GLN:HE21	1:B:3924:GLN:HA	1.59	0.68
1:D:3822:GLU:HG2	1:D:3827:LYS:HE2	1.76	0.68
1:A:1303:ARG:NH2	1:A:1590:GLN:OE1	2.27	0.67
2:G:26:HIS:CD2	2:G:41:ARG:HG2	2.29	0.67
1:C:694:ARG:HG2	1:C:728:ASP:HB3	1.77	0.67
2:H:26:HIS:CD2	2:H:41:ARG:HG2	2.29	0.67
1:C:1829:LEU:HB3	1:C:1834:ILE:HD11	1.75	0.67
1:C:4051:MET:HE1	1:C:4062:THR:HA	1.75	0.67
2:I:26:HIS:CD2	2:I:41:ARG:HG2	2.29	0.67
1:C:520:ARG:NH1	1:C:520:ARG:HA	2.09	0.67
1:C:880:ARG:HG3	1:C:881:ILE:HD12	1.75	0.67
1:A:880:ARG:HG3	1:A:881:ILE:HD12	1.75	0.67
1:D:298:ARG:HH12	1:D:319:LYS:HD3	1.58	0.67
1:B:4497:PHE:HA	1:B:4500:MET:HE2	1.77	0.67
1:D:35:LEU:HD13	1:D:49:LEU:HD13	1.76	0.67
1:D:3924:GLN:HA	1:D:3924:GLN:HE21	1.59	0.67
1:B:520:ARG:HA	1:B:520:ARG:NH1	2.09	0.67
1:B:694:ARG:HG2	1:B:728:ASP:HB3	1.77	0.67
1:C:4497:PHE:HA	1:C:4500:MET:HE2	1.77	0.67
1:C:603:LYS:HG2	1:C:1573:LYS:HZ1	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1117:TRP:HD1	1:C:1203:PRO:HA	1.57	0.67
1:D:2092:ASP:OD1	1:D:2093:GLY:N	2.27	0.67
1:B:603:LYS:HG2	1:B:1573:LYS:HZ1	1.60	0.67
1:B:3822:GLU:HG2	1:B:3827:LYS:HE2	1.76	0.67
1:C:2340:ASN:OD1	1:C:2341:GLY:N	2.26	0.66
1:D:694:ARG:HG2	1:D:728:ASP:HB3	1.77	0.66
1:C:3822:GLU:HG2	1:C:3827:LYS:HE2	1.76	0.66
1:D:880:ARG:HG3	1:D:881:ILE:HD12	1.75	0.66
1:B:298:ARG:HH12	1:B:319:LYS:HD3	1.58	0.66
1:C:35:LEU:HD13	1:C:49:LEU:HD13	1.76	0.66
1:A:35:LEU:HD13	1:A:49:LEU:HD13	1.76	0.66
1:B:4009:VAL:O	1:B:4013:LEU:HG	1.96	0.66
1:C:4009:VAL:O	1:C:4013:LEU:HG	1.96	0.66
1:A:760:ASP:HB3	1:A:764:PRO:HG2	1.78	0.66
1:B:760:ASP:HB3	1:B:764:PRO:HG2	1.78	0.66
1:A:1106:GLU:HB3	1:A:1214:ARG:HB2	1.77	0.66
1:A:4497:PHE:HA	1:A:4500:MET:HE2	1.77	0.66
1:B:1144:ARG:NH1	1:B:1191:ALA:O	2.29	0.66
1:D:4009:VAL:O	1:D:4013:LEU:HG	1.96	0.66
1:A:2340:ASN:OD1	1:A:2341:GLY:N	2.26	0.66
1:A:4146:ARG:HH12	1:A:4911:GLU:HG3	1.61	0.66
1:B:35:LEU:HD13	1:B:49:LEU:HD13	1.76	0.66
1:C:1106:GLU:HB3	1:C:1214:ARG:HB2	1.77	0.66
1:C:1144:ARG:NH1	1:C:1191:ALA:O	2.29	0.66
1:D:4497:PHE:HA	1:D:4500:MET:HE2	1.77	0.66
1:A:4009:VAL:O	1:A:4013:LEU:HG	1.96	0.65
1:A:694:ARG:HG2	1:A:728:ASP:HB3	1.77	0.65
1:D:603:LYS:HG2	1:D:1573:LYS:HZ1	1.59	0.65
1:D:198:ASN:OD1	1:D:199:SER:N	2.29	0.65
1:D:1144:ARG:NH1	1:D:1191:ALA:O	2.29	0.65
1:D:760:ASP:HB3	1:D:764:PRO:HG2	1.78	0.65
1:A:1266:GLU:O	1:A:1267:HIS:ND1	2.30	0.65
1:C:760:ASP:HB3	1:C:764:PRO:HG2	1.78	0.65
1:D:1106:GLU:HB3	1:D:1214:ARG:HB2	1.77	0.65
1:A:4772:LEU:HD22	1:B:4752:LEU:HD21	1.78	0.65
1:A:520:ARG:HA	1:A:520:ARG:HH11	1.62	0.65
1:A:198:ASN:OD1	1:A:199:SER:N	2.29	0.65
1:A:1144:ARG:NH1	1:A:1191:ALA:O	2.29	0.65
1:B:851:LEU:HB3	1:B:1212:VAL:HG12	1.79	0.65
1:D:520:ARG:HA	1:D:520:ARG:HH11	1.62	0.65
1:A:4752:LEU:HD21	1:D:4772:LEU:HD22	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:851:LEU:HB3	1:C:1212:VAL:HG12	1.79	0.65
1:C:1266:GLU:O	1:C:1267:HIS:ND1	2.30	0.65
1:A:851:LEU:HB3	1:A:1212:VAL:HG12	1.79	0.65
1:D:2340:ASN:OD1	1:D:2341:GLY:N	2.26	0.65
1:C:4146:ARG:HH12	1:C:4911:GLU:HG3	1.61	0.64
1:D:851:LEU:HB3	1:D:1212:VAL:HG12	1.79	0.64
1:B:1932:VAL:HG21	1:B:3616:VAL:HA	1.80	0.64
1:B:4885:THR:HA	1:B:4894:ASN:HB2	1.79	0.64
1:B:1106:GLU:HB3	1:B:1214:ARG:HB2	1.77	0.64
1:C:1091:GLU:HB2	1:C:1094:TYR:HD2	1.62	0.64
1:D:1266:GLU:O	1:D:1267:HIS:ND1	2.30	0.64
1:A:4072:ASP:O	1:A:4073:GLU:HG3	1.98	0.64
1:C:1932:VAL:HG21	1:C:3616:VAL:HA	1.79	0.64
1:C:4824:GLY:O	1:D:4821:ARG:NH1	2.30	0.64
1:A:1091:GLU:HB2	1:A:1094:TYR:HD2	1.62	0.64
1:B:299:HIS:HD2	1:B:302:THR:H	1.46	0.64
1:B:1266:GLU:O	1:B:1267:HIS:ND1	2.30	0.64
1:B:4824:GLY:O	1:C:4821:ARG:NH1	2.31	0.64
1:D:1924:ILE:HD11	1:D:2002:LEU:HD22	1.79	0.64
1:A:299:HIS:HD2	1:A:302:THR:H	1.46	0.64
1:C:1924:ILE:HD11	1:C:2002:LEU:HD22	1.79	0.64
1:D:4146:ARG:HH12	1:D:4911:GLU:HG3	1.62	0.64
1:D:759:LEU:HD13	1:D:766:ILE:HG12	1.80	0.64
1:D:4168:LYS:HE3	1:D:4914:LEU:HD12	1.80	0.64
1:C:4168:LYS:HE3	1:C:4914:LEU:HD12	1.80	0.63
1:D:4072:ASP:O	1:D:4073:GLU:HG3	1.98	0.63
1:D:2145:LEU:HD23	1:D:2148:ILE:HD11	1.81	0.63
1:A:1932:VAL:HG21	1:A:3616:VAL:HA	1.79	0.63
1:A:4821:ARG:NH1	1:D:4824:GLY:O	2.31	0.63
1:B:4072:ASP:O	1:B:4073:GLU:HG3	1.98	0.63
1:B:4146:ARG:HH12	1:B:4911:GLU:HG3	1.61	0.63
1:B:1924:ILE:HD11	1:B:2002:LEU:HD22	1.79	0.63
1:B:198:ASN:OD1	1:B:199:SER:N	2.29	0.63
1:B:520:ARG:HA	1:B:520:ARG:HH11	1.62	0.63
1:A:1924:ILE:HD11	1:A:2002:LEU:HD22	1.79	0.63
1:A:4885:THR:HA	1:A:4894:ASN:HB2	1.79	0.63
1:B:2145:LEU:HD23	1:B:2148:ILE:HD11	1.81	0.63
1:C:198:ASN:OD1	1:C:199:SER:N	2.29	0.63
1:A:2145:LEU:HD23	1:A:2148:ILE:HD11	1.81	0.63
1:B:1091:GLU:HB2	1:B:1094:TYR:HD2	1.62	0.63
1:C:520:ARG:HA	1:C:520:ARG:HH11	1.62	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:759:LEU:HD13	1:C:766:ILE:HG12	1.80	0.63
1:C:4885:THR:HA	1:C:4894:ASN:HB2	1.79	0.63
1:D:1257:GLN:HA	1:D:1384:LEU:HD22	1.80	0.63
1:A:709:GLY:O	1:A:1255:LEU:CD1	2.47	0.63
1:B:759:LEU:HD13	1:B:766:ILE:HG12	1.80	0.63
1:C:2145:LEU:HD23	1:C:2148:ILE:HD11	1.81	0.63
1:C:4072:ASP:O	1:C:4073:GLU:HG3	1.98	0.63
1:D:1932:VAL:HG21	1:D:3616:VAL:HA	1.79	0.63
1:A:1091:GLU:HB2	1:A:1094:TYR:CD2	2.34	0.63
1:C:2107:ILE:HG13	1:C:2108:ASN:H	1.64	0.63
1:C:2290:ASN:HD22	1:C:2291:PRO:HD2	1.64	0.63
1:D:1091:GLU:HB2	1:D:1094:TYR:HD2	1.62	0.63
1:D:4885:THR:HA	1:D:4894:ASN:HB2	1.79	0.63
1:A:759:LEU:HD13	1:A:766:ILE:HG12	1.80	0.62
1:A:4168:LYS:HE3	1:A:4914:LEU:HD12	1.80	0.62
1:B:19:GLU:OE1	1:B:19:GLU:N	2.32	0.62
1:D:2290:ASN:HD22	1:D:2291:PRO:HD2	1.64	0.62
1:C:1257:GLN:HA	1:C:1384:LEU:HD22	1.80	0.62
1:A:19:GLU:N	1:A:19:GLU:OE1	2.32	0.62
1:B:1257:GLN:HA	1:B:1384:LEU:HD22	1.80	0.62
1:A:1097:LYS:NZ	1:A:1198:GLY:O	2.33	0.62
1:A:2107:ILE:HG13	1:A:2108:ASN:H	1.64	0.62
1:B:4168:LYS:HE3	1:B:4914:LEU:HD12	1.80	0.62
1:D:1682:ASP:OD2	1:D:1684:PRO:HD2	2.00	0.62
1:A:3633:HIS:HD2	1:A:3635:PHE:HD1	1.48	0.62
1:B:709:GLY:O	1:B:1255:LEU:CD1	2.47	0.62
1:B:3899:GLU:OE1	1:B:3899:GLU:N	2.31	0.62
1:C:19:GLU:OE1	1:C:19:GLU:N	2.32	0.62
1:C:1682:ASP:OD2	1:C:1684:PRO:HD2	2.00	0.62
2:J:28:THR:HA	2:J:39:SER:HA	1.82	0.62
1:B:1091:GLU:HB2	1:B:1094:TYR:CD2	2.34	0.62
1:B:4018:MET:HE1	1:B:4064:PHE:HB3	1.81	0.62
1:D:1091:GLU:HB2	1:D:1094:TYR:CD2	2.34	0.62
1:A:1143:GLN:OE1	1:A:1149:ASN:ND2	2.32	0.62
1:A:1257:GLN:HA	1:A:1384:LEU:HD22	1.80	0.62
1:C:709:GLY:O	1:C:1255:LEU:CD1	2.47	0.62
1:A:603:LYS:HG2	1:A:1573:LYS:HZ1	1.65	0.62
1:A:4808:MET:HG2	1:B:4516:LEU:HA	1.81	0.62
1:B:2107:ILE:HG13	1:B:2108:ASN:H	1.64	0.62
1:C:299:HIS:HD2	1:C:302:THR:H	1.46	0.62
1:D:137:ARG:NH1	1:D:200:SER:OG	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4018:MET:HE1	1:A:4064:PHE:HB3	1.81	0.62
1:B:137:ARG:NH1	1:B:200:SER:OG	2.33	0.62
1:B:2431:LEU:HB3	1:B:2471:LEU:HD21	1.82	0.62
1:C:3899:GLU:OE1	1:C:3899:GLU:N	2.31	0.62
1:D:3633:HIS:HD2	1:D:3635:PHE:HD1	1.48	0.62
1:A:2197:ARG:HB3	1:A:2236:SER:OG	2.00	0.61
1:A:2431:LEU:HB3	1:A:2471:LEU:HD21	1.82	0.61
1:A:3899:GLU:OE1	1:A:3899:GLU:N	2.31	0.61
2:G:28:THR:HA	2:G:39:SER:HA	1.82	0.61
1:D:2107:ILE:HG13	1:D:2108:ASN:H	1.64	0.61
1:D:2431:LEU:HB3	1:D:2471:LEU:HD21	1.82	0.61
1:A:2290:ASN:HD22	1:A:2291:PRO:HD2	1.64	0.61
1:C:1091:GLU:HB2	1:C:1094:TYR:CD2	2.34	0.61
1:C:2197:ARG:HB3	1:C:2236:SER:OG	2.01	0.61
1:D:299:HIS:HD2	1:D:302:THR:H	1.46	0.61
1:D:709:GLY:O	1:D:1255:LEU:CD1	2.47	0.61
1:D:2197:ARG:HB3	1:D:2236:SER:OG	2.01	0.61
1:A:1733:GLU:HG3	1:A:1754:LEU:HD21	1.82	0.61
1:A:1682:ASP:OD2	1:A:1684:PRO:HD2	2.00	0.61
1:D:19:GLU:OE1	1:D:19:GLU:N	2.32	0.61
1:A:137:ARG:NH1	1:A:200:SER:OG	2.33	0.61
1:D:1097:LYS:NZ	1:D:1198:GLY:O	2.33	0.61
1:A:2228:LEU:HD21	1:A:2237:THR:HG21	1.83	0.61
1:B:1097:LYS:NZ	1:B:1198:GLY:O	2.33	0.61
1:B:1682:ASP:OD2	1:B:1684:PRO:HD2	2.00	0.61
1:B:3633:HIS:HD2	1:B:3635:PHE:HD1	1.48	0.61
1:C:137:ARG:NH1	1:C:200:SER:OG	2.33	0.61
1:C:1097:LYS:NZ	1:C:1198:GLY:O	2.33	0.61
1:C:2470:PHE:O	1:C:2474:VAL:HG12	2.01	0.61
1:D:1684:PRO:HA	1:D:1687:LEU:HD12	1.82	0.61
1:D:4018:MET:HE1	1:D:4064:PHE:HB3	1.81	0.61
1:A:59:PRO:HB3	1:A:296:ARG:HH12	1.66	0.61
1:C:2431:LEU:HB3	1:C:2471:LEU:HD21	1.82	0.61
2:I:28:THR:HA	2:I:39:SER:HA	1.81	0.61
1:B:59:PRO:HB3	1:B:296:ARG:HH12	1.66	0.61
1:B:1902:LYS:HG3	1:B:2079:LEU:HD11	1.82	0.61
1:C:1733:GLU:HG3	1:C:1754:LEU:HD21	1.82	0.61
1:C:4018:MET:HE1	1:C:4064:PHE:HB3	1.81	0.61
1:D:386:SER:HB3	1:D:388:GLN:HE22	1.66	0.61
1:D:606:ARG:NH2	1:D:1635:GLU:OE1	2.30	0.61
1:D:2229:ALA:HA	1:D:2292:VAL:HG11	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1139:GLY:O	1:B:1155:SER:OG	2.16	0.61
1:B:1684:PRO:HA	1:B:1687:LEU:HD12	1.82	0.61
1:B:2197:ARG:HB3	1:B:2236:SER:OG	2.01	0.61
1:B:2290:ASN:HD22	1:B:2291:PRO:HD2	1.64	0.61
1:C:2228:LEU:HD21	1:C:2237:THR:HG21	1.83	0.61
1:D:2470:PHE:O	1:D:2474:VAL:HG12	2.01	0.61
1:A:4193:GLU:CD	1:A:4607:ARG:HH22	2.09	0.61
1:B:235:ARG:NH1	1:B:268:SER:O	2.34	0.61
1:C:646:THR:OG1	1:C:1685:GLN:NE2	2.33	0.61
1:D:1143:GLN:OE1	1:D:1149:ASN:ND2	2.32	0.61
1:A:2470:PHE:O	1:A:2474:VAL:HG12	2.01	0.60
1:B:1733:GLU:HG3	1:B:1754:LEU:HD21	1.82	0.60
1:B:4049:LYS:HA	1:B:4052:GLU:HG2	1.83	0.60
1:A:119:ILE:HD13	1:A:162:ILE:HD11	1.84	0.60
1:B:2470:PHE:O	1:B:2474:VAL:HG12	2.01	0.60
2:H:28:THR:HA	2:H:39:SER:HA	1.81	0.60
1:C:1902:LYS:HG3	1:C:2079:LEU:HD11	1.82	0.60
1:D:3728:ALA:HA	1:D:3731:HIS:CE1	2.36	0.60
1:D:3759:LYS:NZ	1:D:3837:ASP:OD2	2.34	0.60
1:D:4049:LYS:HA	1:D:4052:GLU:HG2	1.83	0.60
1:C:3633:HIS:HD2	1:C:3635:PHE:HD1	1.48	0.60
1:A:4824:GLY:O	1:B:4821:ARG:NH1	2.34	0.60
1:C:933:LEU:O	1:C:937:LEU:HG	2.01	0.60
1:C:3728:ALA:HA	1:C:3731:HIS:CE1	2.36	0.60
1:D:119:ILE:HD13	1:D:162:ILE:HD11	1.84	0.60
1:D:933:LEU:O	1:D:937:LEU:HG	2.01	0.60
1:A:933:LEU:O	1:A:937:LEU:HG	2.01	0.60
1:B:4193:GLU:CD	1:B:4607:ARG:HH22	2.09	0.60
1:C:1761:ARG:HE	1:C:2116:ILE:HG21	1.67	0.60
1:C:2229:ALA:HA	1:C:2292:VAL:HG11	1.83	0.60
1:D:1733:GLU:HG3	1:D:1754:LEU:HD21	1.82	0.60
1:D:1761:ARG:HH12	1:D:1763:ARG:HH12	1.50	0.60
1:B:646:THR:OG1	1:B:1685:GLN:NE2	2.33	0.60
1:D:1006:VAL:HG13	1:D:1009:ARG:HH21	1.67	0.60
1:A:1684:PRO:HA	1:A:1687:LEU:HD12	1.82	0.60
1:A:1761:ARG:HH12	1:A:1763:ARG:HH12	1.50	0.60
1:A:3728:ALA:HA	1:A:3731:HIS:CE1	2.36	0.60
1:A:3759:LYS:NZ	1:A:3837:ASP:OD2	2.34	0.60
1:A:4049:LYS:HA	1:A:4052:GLU:HG2	1.83	0.60
1:B:2228:LEU:HD21	1:B:2237:THR:HG21	1.83	0.60
1:C:59:PRO:HB3	1:C:296:ARG:HH12	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:59:PRO:HB3	1:D:296:ARG:HH12	1.66	0.60
1:A:1761:ARG:HE	1:A:2116:ILE:HG21	1.67	0.60
1:D:235:ARG:NH1	1:D:268:SER:O	2.34	0.60
1:D:1359:ILE:HG13	1:D:1360:ASP:H	1.67	0.60
1:D:1902:LYS:HG3	1:D:2079:LEU:HD11	1.82	0.60
1:D:4883:MET:SD	1:D:4884:GLU:HG2	2.42	0.60
1:A:1902:LYS:HG3	1:A:2079:LEU:HD11	1.82	0.60
1:C:235:ARG:NH1	1:C:268:SER:O	2.34	0.60
1:C:4193:GLU:CD	1:C:4607:ARG:HH22	2.09	0.60
1:A:4883:MET:SD	1:A:4884:GLU:HG2	2.42	0.60
1:B:386:SER:HB3	1:B:388:GLN:HE22	1.66	0.60
1:B:2229:ALA:HA	1:B:2292:VAL:HG11	1.83	0.60
1:B:3728:ALA:HA	1:B:3731:HIS:CE1	2.36	0.60
2:H:50:ARG:HE	2:H:53:LYS:HG3	1.67	0.60
1:C:386:SER:HB3	1:C:388:GLN:HE22	1.66	0.60
1:C:4049:LYS:HA	1:C:4052:GLU:HG2	1.84	0.60
1:A:1006:VAL:HG13	1:A:1009:ARG:HH21	1.67	0.59
1:A:2229:ALA:HA	1:A:2292:VAL:HG11	1.83	0.59
1:C:676:GLU:HB2	1:C:803:LEU:HB2	1.84	0.59
1:C:1006:VAL:HG13	1:C:1009:ARG:HH21	1.67	0.59
1:C:1359:ILE:HG13	1:C:1360:ASP:H	1.67	0.59
1:D:1761:ARG:HE	1:D:2116:ILE:HG21	1.67	0.59
1:D:2228:LEU:HD21	1:D:2237:THR:HG21	1.83	0.59
1:D:4193:GLU:CD	1:D:4607:ARG:HH22	2.09	0.59
1:A:235:ARG:NH1	1:A:268:SER:O	2.34	0.59
1:B:1761:ARG:HE	1:B:2116:ILE:HG21	1.67	0.59
1:C:1684:PRO:HA	1:C:1687:LEU:HD12	1.83	0.59
1:D:646:THR:OG1	1:D:1685:GLN:NE2	2.33	0.59
1:A:386:SER:HB3	1:A:388:GLN:HE22	1.66	0.59
1:B:119:ILE:HD13	1:B:162:ILE:HD11	1.84	0.59
1:B:601:LEU:HG	1:B:642:LEU:HD21	1.84	0.59
1:C:1048:ASP:HA	1:C:1051:ARG:HD2	1.84	0.59
1:B:2240:ASP:OD1	1:B:2296:ARG:NH2	2.36	0.59
1:C:4883:MET:SD	1:C:4884:GLU:HG2	2.42	0.59
1:A:125:TYR:OH	1:A:414:ARG:HA	2.03	0.59
1:A:606:ARG:NH2	1:A:1635:GLU:OE1	2.30	0.59
1:A:1048:ASP:HA	1:A:1051:ARG:HD2	1.84	0.59
1:B:1248:THR:HG1	1:B:1250:TRP:CD1	2.21	0.59
1:B:3633:HIS:HD2	1:B:3635:PHE:CD1	2.21	0.59
1:B:4883:MET:SD	1:B:4884:GLU:HG2	2.42	0.59
1:C:3759:LYS:NZ	1:C:3837:ASP:OD2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3831:ASP:HB3	1:C:3834:PHE:HB3	1.84	0.59
1:B:1682:ASP:HB3	1:B:1685:GLN:HB3	1.85	0.59
1:C:125:TYR:OH	1:C:414:ARG:HA	2.03	0.59
2:I:50:ARG:HE	2:I:53:LYS:HG3	1.67	0.59
1:D:3899:GLU:OE1	1:D:3899:GLU:N	2.30	0.59
1:A:646:THR:OG1	1:A:1685:GLN:NE2	2.33	0.59
2:G:50:ARG:HE	2:G:53:LYS:HG3	1.67	0.59
1:B:125:TYR:OH	1:B:414:ARG:HA	2.02	0.59
1:B:933:LEU:O	1:B:937:LEU:HG	2.01	0.59
1:B:1761:ARG:HH12	1:B:1763:ARG:HH12	1.50	0.59
1:C:1248:THR:HG1	1:C:1250:TRP:CD1	2.21	0.59
1:D:3831:ASP:HB3	1:D:3834:PHE:HB3	1.84	0.59
1:C:119:ILE:HD13	1:C:162:ILE:HD11	1.84	0.59
1:C:3633:HIS:HD2	1:C:3635:PHE:CD1	2.21	0.59
1:D:601:LEU:HG	1:D:642:LEU:HD21	1.84	0.59
1:D:1048:ASP:HA	1:D:1051:ARG:HD2	1.84	0.59
1:A:1359:ILE:HG13	1:A:1360:ASP:H	1.67	0.59
1:B:1006:VAL:HG13	1:B:1009:ARG:HH21	1.67	0.59
1:B:3636:GLU:HG2	1:B:3696:LYS:HE3	1.84	0.59
1:C:4873:ARG:O	1:C:4877:GLU:HG2	2.03	0.59
1:D:676:GLU:HB2	1:D:803:LEU:HB2	1.85	0.59
1:B:1048:ASP:HA	1:B:1051:ARG:HD2	1.84	0.59
1:B:1143:GLN:OE1	1:B:1149:ASN:ND2	2.32	0.59
1:C:601:LEU:HG	1:C:642:LEU:HD21	1.84	0.59
1:D:3688:MET:HE3	1:D:3752:PRO:HB2	1.85	0.59
1:A:329:PHE:HB3	1:A:363:ILE:HD11	1.85	0.58
1:A:1682:ASP:HB3	1:A:1685:GLN:HB3	1.85	0.58
1:B:1359:ILE:HG13	1:B:1360:ASP:H	1.67	0.58
1:B:3759:LYS:NZ	1:B:3837:ASP:OD2	2.34	0.58
1:A:601:LEU:HG	1:A:642:LEU:HD21	1.84	0.58
1:A:2240:ASP:OD1	1:A:2296:ARG:NH2	2.36	0.58
1:A:3831:ASP:HB3	1:A:3834:PHE:HB3	1.84	0.58
1:A:4186:GLU:HG3	1:A:4948:TRP:CZ3	2.38	0.58
1:B:329:PHE:HB3	1:B:363:ILE:HD11	1.85	0.58
1:B:4186:GLU:HG3	1:B:4948:TRP:CZ3	2.38	0.58
1:C:844:ARG:HE	1:C:845:THR:H	1.52	0.58
1:C:2240:ASP:OD1	1:C:2296:ARG:NH2	2.36	0.58
1:C:3636:GLU:HG2	1:C:3696:LYS:HE3	1.84	0.58
1:A:3633:HIS:HD2	1:A:3635:PHE:CD1	2.21	0.58
2:G:79:PRO:HD3	2:G:97:THR:HG22	1.85	0.58
1:B:676:GLU:HB2	1:B:803:LEU:HB2	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1682:ASP:HB3	1:C:1685:GLN:HB3	1.85	0.58
1:A:2747:SER:O	1:A:2753:GLN:NE2	2.36	0.58
1:A:4873:ARG:O	1:A:4877:GLU:HG2	2.03	0.58
1:B:844:ARG:HE	1:B:845:THR:H	1.51	0.58
1:B:4873:ARG:O	1:B:4877:GLU:HG2	2.03	0.58
1:C:1173:MET:O	1:C:1174:MET:HE2	2.03	0.58
1:D:329:PHE:HB3	1:D:363:ILE:HD11	1.85	0.58
1:A:3636:GLU:HG2	1:A:3696:LYS:HE3	1.84	0.58
1:A:4134:ARG:HG2	1:A:4146:ARG:HH11	1.68	0.58
1:C:1761:ARG:NH1	1:C:1761:ARG:HB2	2.19	0.58
1:D:1248:THR:HG1	1:D:1250:TRP:CD1	2.21	0.58
1:B:3688:MET:HE3	1:B:3752:PRO:HB2	1.85	0.58
1:C:2747:SER:O	1:C:2753:GLN:NE2	2.36	0.58
1:D:1273:ILE:HD11	1:D:1287:GLN:HB3	1.86	0.58
1:D:4139:GLY:HA2	1:D:4938:TYR:CE2	2.39	0.58
1:D:4186:GLU:HG3	1:D:4948:TRP:CZ3	2.38	0.58
1:A:4139:GLY:HA2	1:A:4938:TYR:CE2	2.39	0.58
1:B:1273:ILE:HD11	1:B:1287:GLN:HB3	1.86	0.58
1:B:4134:ARG:HG2	1:B:4146:ARG:HH11	1.68	0.58
1:C:606:ARG:NH2	1:C:1635:GLU:OE1	2.30	0.58
1:C:1273:ILE:HD11	1:C:1287:GLN:HB3	1.86	0.58
1:D:1682:ASP:HB3	1:D:1685:GLN:HB3	1.85	0.58
1:A:844:ARG:HE	1:A:845:THR:H	1.51	0.58
1:A:1173:MET:O	1:A:1174:MET:HE2	2.03	0.58
1:A:1248:THR:HG1	1:A:1250:TRP:CD1	2.21	0.58
1:C:1040:ASP:HA	1:C:1043:LYS:HG3	1.86	0.58
1:A:3688:MET:HE3	1:A:3752:PRO:HB2	1.85	0.58
1:C:1143:GLN:OE1	1:C:1149:ASN:ND2	2.32	0.58
1:D:3633:HIS:HD2	1:D:3635:PHE:CD1	2.21	0.58
1:A:676:GLU:HB2	1:A:803:LEU:HB2	1.85	0.58
1:A:2101:LEU:O	1:A:2104:THR:HG22	2.04	0.58
1:A:4196:ILE:HG23	1:A:4918:LEU:HD12	1.86	0.58
1:B:1173:MET:O	1:B:1174:MET:HE2	2.03	0.58
1:D:125:TYR:OH	1:D:414:ARG:HA	2.03	0.58
1:D:1761:ARG:NH1	1:D:1761:ARG:HB2	2.19	0.58
1:D:4196:ILE:HG23	1:D:4918:LEU:HD12	1.86	0.58
2:J:79:PRO:HD3	2:J:97:THR:HG22	1.85	0.58
1:A:2434:VAL:HG11	1:A:2467:MET:HE3	1.86	0.57
2:H:79:PRO:HD3	2:H:97:THR:HG22	1.85	0.57
1:C:908:ARG:HG2	1:C:916:PRO:HG3	1.86	0.57
1:C:4186:GLU:HG3	1:C:4948:TRP:CZ3	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:79:PRO:HD3	2:I:97:THR:HG22	1.85	0.57
1:D:908:ARG:HG2	1:D:916:PRO:HG3	1.86	0.57
1:D:2134:GLY:H	1:D:2137:GLU:HB2	1.69	0.57
2:J:50:ARG:HE	2:J:53:LYS:HG3	1.67	0.57
1:A:1273:ILE:HD11	1:A:1287:GLN:HB3	1.86	0.57
1:A:1761:ARG:NH1	1:A:1761:ARG:HB2	2.19	0.57
1:A:4889:ILE:HD13	1:A:4912:HIS:HB3	1.86	0.57
1:B:1761:ARG:HB2	1:B:1761:ARG:NH1	2.19	0.57
1:B:1840:LEU:HA	1:B:1843:ILE:HG12	1.86	0.57
1:B:4889:ILE:HD13	1:B:4912:HIS:HB3	1.86	0.57
1:C:3688:MET:HE3	1:C:3752:PRO:HB2	1.85	0.57
1:C:4139:GLY:HA2	1:C:4938:TYR:CE2	2.39	0.57
1:D:3636:GLU:HG2	1:D:3696:LYS:HE3	1.84	0.57
1:A:1009:ARG:O	1:A:1013:ARG:NH1	2.38	0.57
1:A:1840:LEU:HA	1:A:1843:ILE:HG12	1.86	0.57
1:A:2134:GLY:H	1:A:2137:GLU:HB2	1.70	0.57
1:A:2210:GLN:OE1	1:A:2249:ASN:ND2	2.37	0.57
1:B:2210:GLN:OE1	1:B:2249:ASN:ND2	2.37	0.57
1:C:1761:ARG:HH12	1:C:1763:ARG:HH12	1.50	0.57
1:D:2210:GLN:OE1	1:D:2249:ASN:ND2	2.37	0.57
1:A:748:LEU:HD12	1:A:749:LEU:H	1.69	0.57
1:A:2488:GLU:HA	1:A:2492:LEU:HD12	1.85	0.57
1:B:4938:TYR:CZ	1:B:4942:MET:HE1	2.40	0.57
1:C:748:LEU:HD12	1:C:749:LEU:H	1.69	0.57
1:C:2488:GLU:HA	1:C:2492:LEU:HD12	1.85	0.57
1:D:844:ARG:HE	1:D:845:THR:H	1.51	0.57
1:D:4852:PHE:O	1:D:4857:LEU:HD23	2.04	0.57
1:D:4873:ARG:O	1:D:4877:GLU:HG2	2.03	0.57
1:A:1272:ARG:NH2	1:A:1584:PRO:O	2.38	0.57
1:B:748:LEU:HD12	1:B:749:LEU:H	1.69	0.57
1:B:3729:ARG:O	1:B:3733:ARG:NH1	2.38	0.57
1:B:4885:THR:O	1:B:4894:ASN:N	2.38	0.57
1:C:329:PHE:HB3	1:C:363:ILE:HD11	1.85	0.57
1:C:4889:ILE:HD13	1:C:4912:HIS:HB3	1.86	0.57
1:D:1040:ASP:HA	1:D:1043:LYS:HG3	1.86	0.57
1:D:1173:MET:O	1:D:1174:MET:HE2	2.03	0.57
1:D:4134:ARG:HG2	1:D:4146:ARG:HH11	1.68	0.57
1:B:1244:ASN:ND2	1:B:1802:GLU:OE2	2.37	0.57
1:B:1677:LEU:HA	1:B:1680:HIS:HB2	1.87	0.57
1:B:2134:GLY:H	1:B:2137:GLU:HB2	1.70	0.57
1:B:3831:ASP:HB3	1:B:3834:PHE:HB3	1.84	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1244:ASN:ND2	1:C:1802:GLU:OE2	2.37	0.57
1:C:1297:THR:OG1	1:C:1346:LEU:O	2.18	0.57
1:C:2101:LEU:O	1:C:2104:THR:HG22	2.04	0.57
1:C:4907:HIS:HA	1:C:4911:GLU:OE1	2.05	0.57
1:D:2240:ASP:OD1	1:D:2296:ARG:NH2	2.36	0.57
1:D:4042:ILE:H	1:D:4076:THR:HG23	1.69	0.57
1:D:4938:TYR:CZ	1:D:4942:MET:HE1	2.40	0.57
1:A:1244:ASN:ND2	1:A:1802:GLU:OE2	2.37	0.57
1:A:4938:TYR:CZ	1:A:4942:MET:HE1	2.40	0.57
1:B:799:LYS:HG2	1:B:1621:GLN:HE22	1.70	0.57
1:B:1009:ARG:O	1:B:1013:ARG:NH1	2.38	0.57
1:B:2101:LEU:O	1:B:2104:THR:HG22	2.04	0.57
1:C:799:LYS:HG2	1:C:1621:GLN:HE22	1.70	0.57
1:C:1259:LEU:HD13	1:C:1593:SER:HB3	1.87	0.57
1:D:1009:ARG:O	1:D:1013:ARG:NH1	2.38	0.57
1:D:1719:ARG:NH2	1:D:1759:ARG:HE	2.03	0.57
1:D:1840:LEU:HA	1:D:1843:ILE:HG12	1.86	0.57
1:C:4808:MET:HG2	1:D:4516:LEU:HA	1.86	0.57
1:D:748:LEU:HD12	1:D:749:LEU:H	1.69	0.57
1:A:1040:ASP:HA	1:A:1043:LYS:HG3	1.86	0.57
1:A:2426:ILE:HG21	1:A:2470:PHE:CE2	2.40	0.57
1:B:2426:ILE:HG21	1:B:2470:PHE:CE2	2.40	0.57
1:C:4134:ARG:HG2	1:C:4146:ARG:HH11	1.68	0.57
1:D:1259:LEU:HD13	1:D:1593:SER:HB3	1.87	0.57
1:D:2101:LEU:O	1:D:2104:THR:HG22	2.04	0.57
1:D:2488:GLU:HA	1:D:2492:LEU:HD12	1.85	0.57
1:B:1297:THR:OG1	1:B:1346:LEU:O	2.18	0.57
1:C:1009:ARG:O	1:C:1013:ARG:NH1	2.38	0.57
1:C:3754:VAL:HA	1:C:3757:THR:HG22	1.87	0.57
1:C:4196:ILE:HG23	1:C:4918:LEU:HD12	1.86	0.57
1:C:4938:TYR:CZ	1:C:4942:MET:HE1	2.40	0.57
1:D:4907:HIS:HA	1:D:4911:GLU:OE1	2.05	0.57
1:A:28:ILE:O	1:A:31:GLU:HG3	2.05	0.56
1:A:1094:TYR:OH	1:A:1809:ASP:OD2	2.16	0.56
1:A:1267:HIS:HB2	1:A:1294:ASN:HB2	1.87	0.56
1:A:4902:HIS:CD2	1:D:4182:LYS:HA	2.40	0.56
1:B:2488:GLU:HA	1:B:2492:LEU:HD12	1.85	0.56
1:B:4852:PHE:O	1:B:4857:LEU:HD23	2.04	0.56
1:C:2067:ARG:HA	1:C:2070:GLN:HG2	1.87	0.56
1:D:2426:ILE:HG21	1:D:2470:PHE:CE2	2.40	0.56
1:D:4885:THR:O	1:D:4894:ASN:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2074:ILE:HD12	1:A:2083:MET:HE1	1.88	0.56
1:A:4885:THR:O	1:A:4894:ASN:N	2.38	0.56
1:B:28:ILE:O	1:B:31:GLU:HG3	2.05	0.56
1:B:908:ARG:HG2	1:B:916:PRO:HG3	1.86	0.56
1:B:1113:MET:HB2	1:B:1156:TRP:HZ2	1.70	0.56
1:B:2330:PHE:O	1:B:2335:ARG:NE	2.38	0.56
1:B:4139:GLY:HA2	1:B:4938:TYR:CE2	2.39	0.56
1:B:4196:ILE:HG23	1:B:4918:LEU:HD12	1.86	0.56
1:C:1719:ARG:NH2	1:C:1759:ARG:HE	2.03	0.56
1:C:1827:TYR:CZ	1:C:1831:ILE:HD11	2.41	0.56
1:A:1113:MET:HB2	1:A:1156:TRP:HZ2	1.70	0.56
1:A:1677:LEU:HA	1:A:1680:HIS:HB2	1.87	0.56
1:B:844:ARG:HE	1:B:845:THR:HG22	1.71	0.56
1:B:1040:ASP:HA	1:B:1043:LYS:HG3	1.86	0.56
1:B:1267:HIS:HB2	1:B:1294:ASN:HB2	1.87	0.56
1:B:2074:ILE:HD12	1:B:2083:MET:HE1	1.88	0.56
1:B:2434:VAL:HG11	1:B:2467:MET:HE3	1.86	0.56
1:B:4808:MET:HG2	1:C:4516:LEU:HA	1.86	0.56
1:B:4907:HIS:HA	1:B:4911:GLU:OE1	2.05	0.56
1:C:1008:ALA:O	1:C:1012:ILE:HG23	2.06	0.56
1:C:2210:GLN:OE1	1:C:2249:ASN:ND2	2.37	0.56
1:C:4852:PHE:O	1:C:4857:LEU:HD23	2.04	0.56
1:C:4885:THR:O	1:C:4894:ASN:N	2.38	0.56
1:D:1113:MET:HB2	1:D:1156:TRP:HZ2	1.70	0.56
1:D:1244:ASN:ND2	1:D:1802:GLU:OE2	2.37	0.56
1:D:1267:HIS:HB2	1:D:1294:ASN:HB2	1.87	0.56
1:D:3754:VAL:HA	1:D:3757:THR:HG22	1.88	0.56
1:D:4889:ILE:HD13	1:D:4912:HIS:HB3	1.86	0.56
1:A:125:TYR:OH	1:A:417:ARG:HB3	2.05	0.56
1:A:799:LYS:HG2	1:A:1621:GLN:HE22	1.70	0.56
1:A:908:ARG:HG2	1:A:916:PRO:HG3	1.86	0.56
1:A:1008:ALA:O	1:A:1012:ILE:HG23	2.06	0.56
1:A:1719:ARG:NH2	1:A:1759:ARG:HE	2.03	0.56
1:A:4852:PHE:O	1:A:4857:LEU:HD23	2.04	0.56
1:B:4186:GLU:HG3	1:B:4948:TRP:HZ3	1.71	0.56
1:C:1267:HIS:HB2	1:C:1294:ASN:HB2	1.87	0.56
1:C:2426:ILE:HG21	1:C:2470:PHE:CE2	2.40	0.56
1:D:1008:ALA:O	1:D:1012:ILE:HG23	2.06	0.56
1:D:1272:ARG:NH2	1:D:1584:PRO:O	2.38	0.56
1:D:1827:TYR:CZ	1:D:1831:ILE:HD11	2.41	0.56
1:D:2330:PHE:O	1:D:2335:ARG:NE	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3729:ARG:O	1:A:3733:ARG:NH1	2.38	0.56
1:B:3754:VAL:HA	1:B:3757:THR:HG22	1.87	0.56
1:C:1113:MET:HB2	1:C:1156:TRP:HZ2	1.70	0.56
1:C:2434:VAL:HG11	1:C:2467:MET:HE3	1.86	0.56
1:D:2074:ILE:HD12	1:D:2083:MET:HE1	1.88	0.56
1:A:844:ARG:HE	1:A:845:THR:HG22	1.71	0.56
1:A:2067:ARG:HA	1:A:2070:GLN:HG2	1.87	0.56
1:A:4042:ILE:H	1:A:4076:THR:HG23	1.69	0.56
1:B:1715:TYR:CZ	1:B:1762:MET:HB3	2.41	0.56
1:B:2067:ARG:HA	1:B:2070:GLN:HG2	1.87	0.56
1:C:356:TYR:HA	1:C:405:LEU:HB2	1.88	0.56
1:C:844:ARG:HE	1:C:845:THR:HG22	1.71	0.56
1:C:2074:ILE:HD12	1:C:2083:MET:HE1	1.88	0.56
1:D:290:ARG:NH1	1:D:346:VAL:HG21	2.21	0.56
1:D:799:LYS:HG2	1:D:1621:GLN:HE22	1.70	0.56
1:B:1827:TYR:CZ	1:B:1831:ILE:HD11	2.41	0.56
1:C:1840:LEU:HA	1:C:1843:ILE:HG12	1.86	0.56
1:B:125:TYR:OH	1:B:417:ARG:HB3	2.05	0.56
1:C:258:ARG:NH1	1:C:316:LEU:O	2.39	0.56
1:C:1272:ARG:NH2	1:C:1584:PRO:O	2.38	0.56
1:D:2271:CYS:SG	1:D:2293:GLU:HB2	2.46	0.56
1:A:1715:TYR:CZ	1:A:1762:MET:HB3	2.41	0.56
1:B:1259:LEU:HD13	1:B:1593:SER:HB3	1.87	0.56
1:C:2134:GLY:H	1:C:2137:GLU:HB2	1.69	0.56
1:D:28:ILE:O	1:D:31:GLU:HG3	2.05	0.56
1:D:2434:VAL:HG11	1:D:2467:MET:HE3	1.86	0.56
1:D:3729:ARG:O	1:D:3733:ARG:NH1	2.38	0.56
1:A:2271:CYS:SG	1:A:2293:GLU:HB2	2.46	0.56
1:B:290:ARG:NH1	1:B:346:VAL:HG21	2.21	0.56
1:B:356:TYR:HA	1:B:405:LEU:HB2	1.88	0.56
1:B:3731:HIS:O	1:B:3775:LYS:NZ	2.39	0.56
1:C:1715:TYR:CZ	1:C:1762:MET:HB3	2.41	0.56
1:C:3731:HIS:O	1:C:3775:LYS:NZ	2.39	0.56
1:C:4042:ILE:H	1:C:4076:THR:HG23	1.69	0.56
1:C:4186:GLU:HG3	1:C:4948:TRP:HZ3	1.71	0.56
1:D:844:ARG:HE	1:D:845:THR:HG22	1.71	0.56
1:A:3754:VAL:HA	1:A:3757:THR:HG22	1.88	0.55
1:A:4846:ASP:OD1	1:A:4847:ILE:N	2.39	0.55
2:G:50:ARG:N	2:G:55:GLU:OE2	2.39	0.55
1:B:258:ARG:NH1	1:B:316:LEU:O	2.39	0.55
1:B:4042:ILE:H	1:B:4076:THR:HG23	1.69	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1677:LEU:HA	1:C:1680:HIS:HB2	1.87	0.55
1:C:2271:CYS:SG	1:C:2293:GLU:HB2	2.46	0.55
1:D:125:TYR:OH	1:D:417:ARG:HB3	2.05	0.55
1:D:258:ARG:NH1	1:D:316:LEU:O	2.39	0.55
1:D:2067:ARG:HA	1:D:2070:GLN:HG2	1.87	0.55
1:A:290:ARG:NH1	1:A:346:VAL:HG21	2.21	0.55
1:A:4907:HIS:HA	1:A:4911:GLU:OE1	2.05	0.55
1:C:28:ILE:O	1:C:31:GLU:HG3	2.05	0.55
1:C:3729:ARG:O	1:C:3733:ARG:NH1	2.38	0.55
1:D:70:GLU:OE2	1:D:122:ARG:NE	2.33	0.55
1:D:625:VAL:HG23	1:D:628:ASN:HB2	1.88	0.55
1:D:1835:PHE:O	1:D:1840:LEU:HG	2.07	0.55
1:A:2330:PHE:O	1:A:2335:ARG:NE	2.38	0.55
1:A:4801:PRO:HB2	1:A:4804:LYS:HD2	1.89	0.55
1:C:77:ALA:O	1:C:81:MET:HG2	2.06	0.55
1:C:2330:PHE:O	1:C:2335:ARG:NE	2.38	0.55
1:A:1259:LEU:HD13	1:A:1593:SER:HB3	1.87	0.55
1:C:290:ARG:NH1	1:C:346:VAL:HG21	2.21	0.55
1:D:77:ALA:O	1:D:81:MET:HG2	2.06	0.55
1:D:2747:SER:O	1:D:2753:GLN:NE2	2.36	0.55
1:B:2271:CYS:SG	1:B:2293:GLU:HB2	2.46	0.55
1:B:2747:SER:O	1:B:2753:GLN:NE2	2.36	0.55
2:H:50:ARG:N	2:H:55:GLU:OE2	2.40	0.55
1:C:2455:MET:HE2	1:C:2457:ALA:HB3	1.89	0.55
1:D:2455:MET:HE2	1:D:2457:ALA:HB3	1.89	0.55
1:A:1297:THR:OG1	1:A:1346:LEU:O	2.18	0.55
1:A:1827:TYR:CZ	1:A:1831:ILE:HD11	2.41	0.55
1:B:706:TYR:OH	1:B:851:LEU:HD11	2.07	0.55
1:C:3699:HIS:HB2	1:C:3723:LEU:HD12	1.89	0.55
1:D:1677:LEU:HA	1:D:1680:HIS:HB2	1.87	0.55
1:D:3731:HIS:O	1:D:3775:LYS:NZ	2.39	0.55
1:A:4186:GLU:HG3	1:A:4948:TRP:HZ3	1.71	0.55
2:I:50:ARG:N	2:I:55:GLU:OE2	2.39	0.55
1:B:1008:ALA:O	1:B:1012:ILE:HG23	2.06	0.55
1:B:1835:PHE:O	1:B:1840:LEU:HG	2.07	0.55
1:B:4846:ASP:OD1	1:B:4847:ILE:N	2.39	0.55
1:C:125:TYR:OH	1:C:417:ARG:HB3	2.05	0.55
1:C:706:TYR:OH	1:C:851:LEU:HD11	2.07	0.55
1:C:1835:PHE:O	1:C:1840:LEU:HG	2.07	0.55
1:C:2498:ALA:O	1:C:2501:LEU:HD23	2.07	0.55
1:D:356:TYR:HA	1:D:405:LEU:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1715:TYR:CZ	1:D:1762:MET:HB3	2.41	0.55
1:D:4846:ASP:OD1	1:D:4847:ILE:N	2.39	0.55
1:A:1205:CYS:HB3	1:A:1215:MET:HE1	1.89	0.55
1:A:1835:PHE:O	1:A:1840:LEU:HG	2.07	0.55
1:B:1719:ARG:NH2	1:B:1759:ARG:HE	2.03	0.55
1:B:2263:LYS:HG2	1:B:2266:ARG:HH21	1.72	0.55
1:B:4500:MET:HE3	1:B:4585:CYS:HA	1.89	0.55
1:C:625:VAL:HG23	1:C:628:ASN:HB2	1.88	0.55
1:C:3613:HIS:HA	1:C:3616:VAL:HG12	1.89	0.55
1:C:4846:ASP:OD1	1:C:4847:ILE:N	2.39	0.55
1:D:4801:PRO:HB2	1:D:4804:LYS:HD2	1.89	0.55
1:A:258:ARG:NH1	1:A:316:LEU:O	2.39	0.55
1:A:2474:VAL:HG13	1:A:2475:TYR:CD2	2.42	0.55
1:B:1119:ARG:NH2	1:B:1196:ASP:O	2.35	0.55
1:B:3699:HIS:HB2	1:B:3723:LEU:HD12	1.89	0.55
1:C:2263:LYS:HG2	1:C:2266:ARG:HH21	1.72	0.55
1:C:2474:VAL:HG13	1:C:2475:TYR:CD2	2.42	0.55
1:D:706:TYR:OH	1:D:851:LEU:HD11	2.07	0.55
1:A:427:ASN:HB3	1:A:431:ARG:NH1	2.22	0.54
1:B:2455:MET:HE2	1:B:2457:ALA:HB3	1.89	0.54
1:A:77:ALA:O	1:A:81:MET:HG2	2.06	0.54
1:A:644:LEU:H	1:A:644:LEU:HD12	1.73	0.54
1:A:1641:ASP:OD1	1:A:1641:ASP:N	2.40	0.54
1:B:606:ARG:NH2	1:B:1635:GLU:OE1	2.30	0.54
1:C:70:GLU:OE2	1:C:122:ARG:NE	2.34	0.54
1:A:299:HIS:CD2	1:A:302:THR:HG23	2.43	0.54
1:A:356:TYR:HA	1:A:405:LEU:HB2	1.88	0.54
1:A:702:GLY:O	1:A:786:GLY:HA2	2.07	0.54
1:A:3920:THR:HG22	1:A:3980:MET:HA	1.90	0.54
1:B:427:ASN:HB3	1:B:431:ARG:NH1	2.22	0.54
1:B:1205:CYS:HB3	1:B:1215:MET:HE1	1.89	0.54
1:B:1972:ILE:HA	1:B:1975:LEU:HG	1.89	0.54
1:D:427:ASN:HB3	1:D:431:ARG:NH1	2.23	0.54
1:D:2080:VAL:HG13	1:D:3669:LEU:HD22	1.90	0.54
1:D:2498:ALA:O	1:D:2501:LEU:HD23	2.07	0.54
1:D:4026:THR:O	1:D:4031:PHE:HB3	2.08	0.54
1:A:114:LEU:HB2	1:A:117:HIS:CD2	2.43	0.54
1:A:2080:VAL:HG13	1:A:3669:LEU:HD22	1.90	0.54
1:A:2455:MET:HE2	1:A:2457:ALA:HB3	1.89	0.54
1:B:299:HIS:CD2	1:B:302:THR:HG23	2.43	0.54
1:C:680:ASP:O	1:C:751:THR:OG1	2.26	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:702:GLY:O	1:C:786:GLY:HA2	2.07	0.54
1:C:2506:LEU:HD23	1:C:2506:LEU:H	1.73	0.54
1:C:4047:PHE:O	1:C:4051:MET:HG3	2.08	0.54
1:D:114:LEU:HB2	1:D:117:HIS:CD2	2.43	0.54
1:D:644:LEU:H	1:D:644:LEU:HD12	1.73	0.54
1:D:1124:PRO:HD2	1:D:1595:VAL:HG23	1.89	0.54
1:D:1845:GLN:HA	1:D:1848:GLU:HG2	1.89	0.54
1:D:2152:LYS:HG3	1:D:2156:GLN:HE22	1.72	0.54
1:D:2291:PRO:HB3	1:D:2387:ILE:HD13	1.89	0.54
1:D:4186:GLU:HG3	1:D:4948:TRP:HZ3	1.71	0.54
1:A:1119:ARG:NH2	1:A:1196:ASP:O	2.35	0.54
1:A:2506:LEU:HD23	1:A:2506:LEU:H	1.73	0.54
1:A:3613:HIS:HA	1:A:3616:VAL:HG12	1.89	0.54
1:B:77:ALA:O	1:B:81:MET:HG2	2.06	0.54
1:B:644:LEU:H	1:B:644:LEU:HD12	1.73	0.54
1:B:1769:PHE:O	2:H:83:TYR:OH	2.26	0.54
1:B:2474:VAL:HG13	1:B:2475:TYR:CD2	2.42	0.54
1:B:2498:ALA:O	1:B:2501:LEU:HD23	2.07	0.54
1:B:4182:LYS:HA	1:C:4902:HIS:CD2	2.42	0.54
1:C:299:HIS:CD2	1:C:302:THR:HG23	2.43	0.54
1:C:2080:VAL:HG13	1:C:3669:LEU:HD22	1.90	0.54
1:C:2291:PRO:HB3	1:C:2387:ILE:HD13	1.89	0.54
1:D:3920:THR:HG22	1:D:3980:MET:HA	1.90	0.54
1:A:426:PHE:HB3	1:A:497:LEU:HD21	1.90	0.54
1:A:625:VAL:HG23	1:A:628:ASN:HB2	1.88	0.54
1:A:2263:LYS:HG2	1:A:2266:ARG:HH21	1.72	0.54
1:A:4026:THR:O	1:A:4031:PHE:HB3	2.08	0.54
1:B:3730:LEU:HD11	1:B:3764:ILE:HD11	1.90	0.54
1:B:4801:PRO:HB2	1:B:4804:LYS:HD2	1.89	0.54
1:C:114:LEU:HB2	1:C:117:HIS:CD2	2.43	0.54
1:C:317:MET:HE1	1:C:321:LYS:C	2.33	0.54
1:C:3920:THR:HG22	1:C:3980:MET:HA	1.90	0.54
1:D:677:LEU:HD12	1:D:695:VAL:HG21	1.90	0.54
1:D:2474:VAL:HG13	1:D:2475:TYR:CD2	2.42	0.54
1:A:317:MET:HE1	1:A:321:LYS:C	2.33	0.54
1:A:677:LEU:HD12	1:A:695:VAL:HG21	1.90	0.54
1:A:2498:ALA:O	1:A:2501:LEU:HD23	2.07	0.54
1:B:1124:PRO:HD2	1:B:1595:VAL:HG23	1.89	0.54
1:B:1845:GLN:HA	1:B:1848:GLU:HG2	1.89	0.54
1:B:2231:PRO:HD3	1:B:2381:ILE:HD11	1.89	0.54
1:B:3613:HIS:HA	1:B:3616:VAL:HG12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4026:THR:O	1:B:4031:PHE:HB3	2.08	0.54
1:B:4047:PHE:O	1:B:4051:MET:HG3	2.08	0.54
1:D:2124:GLN:HE22	1:D:2140:LEU:HB3	1.73	0.54
1:D:4632:LEU:HB2	1:D:4703:LYS:HE2	1.90	0.54
1:A:2152:LYS:HG3	1:A:2156:GLN:HE22	1.73	0.54
1:A:3730:LEU:HD11	1:A:3764:ILE:HD11	1.90	0.54
1:A:4186:GLU:OE1	1:A:4186:GLU:N	2.40	0.54
1:A:4500:MET:HE3	1:A:4585:CYS:HA	1.89	0.54
1:B:70:GLU:OE2	1:B:122:ARG:NE	2.33	0.54
1:B:1272:ARG:NH2	1:B:1584:PRO:O	2.38	0.54
1:B:2506:LEU:HD23	1:B:2506:LEU:H	1.73	0.54
1:B:4632:LEU:HB2	1:B:4703:LYS:HE2	1.90	0.54
1:C:1691:GLU:HG2	1:C:1791:LYS:HE2	1.90	0.54
1:C:4570:THR:HA	1:C:4573:ILE:HG12	1.89	0.54
1:D:2506:LEU:HD23	1:D:2506:LEU:H	1.73	0.54
1:D:4570:THR:HA	1:D:4573:ILE:HG12	1.89	0.54
1:A:1972:ILE:HA	1:A:1975:LEU:HG	1.89	0.54
1:A:2172:GLU:HA	1:A:2175:VAL:HG12	1.90	0.54
1:A:4632:LEU:HB2	1:A:4703:LYS:HE2	1.90	0.54
1:B:426:PHE:HB3	1:B:497:LEU:HD21	1.90	0.54
1:B:702:GLY:O	1:B:786:GLY:HA2	2.07	0.54
1:C:1124:PRO:HD2	1:C:1595:VAL:HG23	1.89	0.54
1:C:2172:GLU:HA	1:C:2175:VAL:HG12	1.90	0.54
1:C:4026:THR:O	1:C:4031:PHE:HB3	2.08	0.54
1:C:4182:LYS:HA	1:D:4902:HIS:CD2	2.42	0.54
1:D:317:MET:HE1	1:D:321:LYS:C	2.33	0.54
1:D:702:GLY:O	1:D:786:GLY:HA2	2.07	0.54
1:D:1769:PHE:O	2:J:83:TYR:OH	2.26	0.54
1:D:3699:HIS:HB2	1:D:3723:LEU:HD12	1.89	0.54
1:A:706:TYR:OH	1:A:851:LEU:HD11	2.07	0.54
1:A:2231:PRO:HD3	1:A:2381:ILE:HD11	1.89	0.54
1:A:3731:HIS:O	1:A:3775:LYS:NZ	2.39	0.54
1:B:935:MET:O	1:B:939:THR:HG23	2.08	0.54
1:B:1641:ASP:N	1:B:1641:ASP:OD1	2.40	0.54
1:B:1691:GLU:HG2	1:B:1791:LYS:HE2	1.90	0.54
1:B:2291:PRO:HB3	1:B:2387:ILE:HD13	1.89	0.54
1:B:4570:THR:HA	1:B:4573:ILE:HG12	1.89	0.54
1:C:725:TYR:HB3	1:C:779:PHE:CD2	2.43	0.54
1:C:935:MET:O	1:C:939:THR:HG23	2.09	0.54
1:C:4632:LEU:HB2	1:C:4703:LYS:HE2	1.90	0.54
1:D:1205:CYS:HB3	1:D:1215:MET:HE1	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2008:ILE:HG13	1:A:3633:HIS:ND1	2.23	0.53
1:B:601:LEU:HB2	1:B:610:VAL:HG11	1.90	0.53
1:C:2124:GLN:HE22	1:C:2140:LEU:HB3	1.73	0.53
1:C:4792:TYR:HE1	1:C:4830:ILE:HD13	1.73	0.53
1:D:725:TYR:HB3	1:D:779:PHE:CD2	2.43	0.53
1:D:1139:GLY:O	1:D:1155:SER:OG	2.15	0.53
1:D:1347:MET:SD	1:D:1371:ASN:HB3	2.49	0.53
1:D:1641:ASP:OD1	1:D:1641:ASP:N	2.40	0.53
1:D:2263:LYS:HG2	1:D:2266:ARG:HH21	1.72	0.53
2:J:50:ARG:N	2:J:55:GLU:OE2	2.39	0.53
1:A:1124:PRO:HD2	1:A:1595:VAL:HG23	1.89	0.53
1:A:4902:HIS:CD2	1:D:4182:LYS:HD2	2.43	0.53
1:C:601:LEU:HB2	1:C:610:VAL:HG11	1.90	0.53
1:C:718:VAL:HG23	1:C:724:SER:HB3	1.90	0.53
1:C:1845:GLN:HA	1:C:1848:GLU:HG2	1.89	0.53
1:C:3730:LEU:HD11	1:C:3764:ILE:HD11	1.90	0.53
1:C:4500:MET:HE3	1:C:4585:CYS:HA	1.89	0.53
1:C:4767:VAL:HA	1:C:4770:VAL:HG22	1.90	0.53
1:D:1094:TYR:OH	1:D:1809:ASP:OD2	2.16	0.53
1:D:1691:GLU:HG2	1:D:1791:LYS:HE2	1.90	0.53
1:D:2172:GLU:HA	1:D:2175:VAL:HG12	1.90	0.53
1:D:3613:HIS:HA	1:D:3616:VAL:HG12	1.89	0.53
1:A:718:VAL:HG23	1:A:724:SER:HB3	1.90	0.53
1:A:1122:CYS:HA	1:A:1133:ARG:HD3	1.91	0.53
1:A:1845:GLN:HA	1:A:1848:GLU:HG2	1.89	0.53
1:B:625:VAL:HG23	1:B:628:ASN:HB2	1.89	0.53
1:B:725:TYR:HB3	1:B:779:PHE:CD2	2.43	0.53
1:B:1353:HIS:CE1	1:B:1367:LYS:HB3	2.44	0.53
1:B:2080:VAL:HG13	1:B:3669:LEU:HD22	1.90	0.53
1:B:3920:THR:HG22	1:B:3980:MET:HA	1.90	0.53
1:C:1769:PHE:O	2:I:83:TYR:OH	2.26	0.53
1:C:2231:PRO:HD3	1:C:2381:ILE:HD11	1.89	0.53
1:D:37:LEU:HD13	1:D:203:VAL:HG21	1.90	0.53
1:D:299:HIS:CD2	1:D:302:THR:HG23	2.43	0.53
1:D:4500:MET:HE3	1:D:4585:CYS:HA	1.89	0.53
1:A:601:LEU:HB2	1:A:610:VAL:HG11	1.90	0.53
1:B:677:LEU:HD12	1:B:695:VAL:HG21	1.90	0.53
1:B:1643:LEU:HD21	1:B:1692:ASN:ND2	2.24	0.53
1:B:2172:GLU:HA	1:B:2175:VAL:HG12	1.90	0.53
1:B:4186:GLU:OE1	1:B:4186:GLU:N	2.40	0.53
1:B:4792:TYR:HE1	1:B:4830:ILE:HD13	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:427:ASN:HB3	1:C:431:ARG:NH1	2.22	0.53
1:C:1972:ILE:HA	1:C:1975:LEU:HG	1.89	0.53
1:C:4801:PRO:HB2	1:C:4804:LYS:HD2	1.89	0.53
1:D:2231:PRO:HD3	1:D:2381:ILE:HD11	1.89	0.53
1:A:935:MET:O	1:A:939:THR:HG23	2.09	0.53
1:A:1347:MET:SD	1:A:1371:ASN:HB3	2.49	0.53
1:A:2124:GLN:HE22	1:A:2140:LEU:HB3	1.73	0.53
1:A:2291:PRO:HB3	1:A:2387:ILE:HD13	1.89	0.53
1:A:3699:HIS:HB2	1:A:3723:LEU:HD12	1.89	0.53
1:C:1122:CYS:HA	1:C:1133:ARG:HD3	1.91	0.53
1:C:1353:HIS:CE1	1:C:1367:LYS:HB3	2.44	0.53
1:C:2171:MET:HG2	1:C:2216:HIS:CD2	2.44	0.53
1:D:1643:LEU:HD21	1:D:1692:ASN:ND2	2.24	0.53
1:A:725:TYR:HB3	1:A:779:PHE:CD2	2.43	0.53
1:A:1121:GLY:O	1:A:1133:ARG:NH1	2.42	0.53
1:A:4047:PHE:O	1:A:4051:MET:HG3	2.08	0.53
1:A:4182:LYS:HA	1:B:4902:HIS:CD2	2.44	0.53
1:B:1122:CYS:HA	1:B:1133:ARG:HD3	1.90	0.53
1:B:2008:ILE:HG13	1:B:3633:HIS:ND1	2.23	0.53
1:C:426:PHE:HB3	1:C:497:LEU:HD21	1.90	0.53
1:C:2152:LYS:HG3	1:C:2156:GLN:HE22	1.73	0.53
1:D:1165:MET:HB3	1:D:1236:TYR:CD2	2.44	0.53
1:D:2008:ILE:HG13	1:D:3633:HIS:ND1	2.23	0.53
1:A:836:HIS:HE2	1:A:842:GLN:HG2	1.74	0.53
1:A:1165:MET:HB3	1:A:1236:TYR:CD2	2.44	0.53
1:A:1769:PHE:O	2:G:83:TYR:OH	2.26	0.53
1:B:114:LEU:HB2	1:B:117:HIS:CD2	2.43	0.53
1:B:2171:MET:HG2	1:B:2216:HIS:CD2	2.44	0.53
1:B:2763:SER:H	1:B:2766:GLU:HB2	1.74	0.53
1:B:4767:VAL:HA	1:B:4770:VAL:HG22	1.90	0.53
2:H:26:HIS:NE2	2:H:41:ARG:HG2	2.24	0.53
1:C:252:HIS:O	1:C:257:ARG:NH1	2.42	0.53
1:D:2171:MET:HG2	1:D:2216:HIS:CD2	2.44	0.53
1:D:4047:PHE:O	1:D:4051:MET:HG3	2.08	0.53
1:A:1691:GLU:HG2	1:A:1791:LYS:HE2	1.90	0.53
1:A:4570:THR:HA	1:A:4573:ILE:HG12	1.89	0.53
1:A:4792:TYR:HE1	1:A:4830:ILE:HD13	1.73	0.53
1:B:252:HIS:O	1:B:257:ARG:NH1	2.42	0.53
1:B:317:MET:HE1	1:B:321:LYS:C	2.33	0.53
1:B:490:GLN:NE2	1:B:550:GLN:HG2	2.24	0.53
1:C:1121:GLY:O	1:C:1133:ARG:NH1	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1165:MET:HB3	1:C:1236:TYR:CD2	2.44	0.53
1:C:1205:CYS:HB3	1:C:1215:MET:HE1	1.89	0.53
1:D:426:PHE:HB3	1:D:497:LEU:HD21	1.90	0.53
1:A:252:HIS:O	1:A:257:ARG:NH1	2.42	0.53
1:A:672:LYS:HB3	1:A:819:TYR:HA	1.91	0.53
1:A:4767:VAL:HA	1:A:4770:VAL:HG22	1.90	0.53
1:B:672:LYS:HB3	1:B:819:TYR:HA	1.91	0.53
1:B:840:TYR:CE2	1:B:850:LEU:HA	2.44	0.53
1:B:2152:LYS:HG3	1:B:2156:GLN:HE22	1.72	0.53
1:C:1139:GLY:O	1:C:1155:SER:OG	2.15	0.53
2:I:42:ASP:OD1	2:I:42:ASP:N	2.42	0.53
1:D:373:THR:OG1	1:D:392:ILE:O	2.21	0.53
1:D:1042:THR:O	1:D:1046:ASN:ND2	2.42	0.53
1:D:4792:TYR:HE1	1:D:4830:ILE:HD13	1.73	0.53
1:B:2124:GLN:HE22	1:B:2140:LEU:HB3	1.73	0.53
1:C:490:GLN:NE2	1:C:550:GLN:HG2	2.24	0.53
1:C:677:LEU:HD12	1:C:695:VAL:HG21	1.90	0.53
1:D:672:LYS:HB3	1:D:819:TYR:HA	1.91	0.53
1:D:1121:GLY:O	1:D:1133:ARG:NH1	2.42	0.53
1:D:1353:HIS:CE1	1:D:1367:LYS:HB3	2.44	0.53
1:D:1972:ILE:HA	1:D:1975:LEU:HG	1.89	0.53
1:D:3730:LEU:HD11	1:D:3764:ILE:HD11	1.90	0.53
1:A:490:GLN:NE2	1:A:550:GLN:HG2	2.24	0.52
1:A:1139:GLY:O	1:A:1155:SER:OG	2.15	0.52
1:A:2171:MET:HG2	1:A:2216:HIS:CD2	2.44	0.52
2:G:42:ASP:OD1	2:G:42:ASP:N	2.42	0.52
1:B:836:HIS:HE2	1:B:842:GLN:HG2	1.74	0.52
1:B:1165:MET:HB3	1:B:1236:TYR:CD2	2.44	0.52
1:C:644:LEU:HD12	1:C:644:LEU:H	1.73	0.52
1:C:1641:ASP:N	1:C:1641:ASP:OD1	2.40	0.52
1:D:601:LEU:HB2	1:D:610:VAL:HG11	1.90	0.52
1:D:1122:CYS:HA	1:D:1133:ARG:HD3	1.90	0.52
1:A:680:ASP:O	1:A:751:THR:OG1	2.26	0.52
1:A:1042:THR:O	1:A:1046:ASN:ND2	2.42	0.52
1:B:168:GLN:NE2	1:B:169:ARG:HG3	2.25	0.52
1:B:1359:ILE:HG13	1:B:1360:ASP:N	2.24	0.52
1:B:1791:LYS:NZ	1:B:1795:MET:SD	2.79	0.52
1:B:2079:LEU:HD23	1:B:2083:MET:HE2	1.91	0.52
2:H:42:ASP:OD1	2:H:42:ASP:N	2.42	0.52
1:C:763:ALA:HB3	1:C:764:PRO:HD3	1.91	0.52
1:C:840:TYR:CE2	1:C:850:LEU:HA	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:26:HIS:NE2	2:I:41:ARG:HG2	2.24	0.52
1:D:490:GLN:NE2	1:D:550:GLN:HG2	2.24	0.52
1:D:1366:PRO:O	1:D:1368:PRO:HD3	2.09	0.52
1:D:2716:LEU:O	1:D:2720:ILE:HG12	2.10	0.52
1:A:70:GLU:OE2	1:A:122:ARG:NE	2.33	0.52
1:A:168:GLN:NE2	1:A:169:ARG:HG3	2.25	0.52
1:A:840:TYR:CE2	1:A:850:LEU:HA	2.44	0.52
1:A:2254:LEU:O	1:A:3809:ARG:HD3	2.10	0.52
1:A:2716:LEU:O	1:A:2720:ILE:HG12	2.10	0.52
1:A:4055:LYS:NZ	1:D:4658:GLU:O	2.40	0.52
1:B:37:LEU:HD13	1:B:203:VAL:HG21	1.90	0.52
1:B:763:ALA:HB3	1:B:764:PRO:HD3	1.91	0.52
1:B:1972:ILE:HD12	1:B:1975:LEU:HD11	1.91	0.52
1:C:1166:VAL:HG22	1:C:1173:MET:HG2	1.92	0.52
1:C:1366:PRO:O	1:C:1368:PRO:HD3	2.09	0.52
1:C:2716:LEU:O	1:C:2720:ILE:HG12	2.10	0.52
1:D:718:VAL:HG23	1:D:724:SER:HB3	1.90	0.52
1:D:836:HIS:HE2	1:D:842:GLN:HG2	1.74	0.52
1:D:935:MET:O	1:D:939:THR:HG23	2.09	0.52
1:D:3961:SER:OG	1:D:3962:SER:N	2.42	0.52
1:A:1213:GLY:O	1:A:1214:ARG:HG2	2.10	0.52
2:G:26:HIS:NE2	2:G:41:ARG:HG2	2.24	0.52
1:C:677:LEU:HD23	1:C:802:PHE:HA	1.91	0.52
1:C:1347:MET:SD	1:C:1371:ASN:HB3	2.49	0.52
1:C:2254:LEU:O	1:C:3809:ARG:HD3	2.10	0.52
1:D:763:ALA:HB3	1:D:764:PRO:HD3	1.92	0.52
1:A:1643:LEU:HD21	1:A:1692:ASN:ND2	2.24	0.52
1:A:1972:ILE:HD12	1:A:1975:LEU:HD11	1.91	0.52
1:C:2079:LEU:HD23	1:C:2083:MET:HE2	1.91	0.52
1:D:252:HIS:O	1:D:257:ARG:NH1	2.42	0.52
1:A:763:ALA:HB3	1:A:764:PRO:HD3	1.91	0.52
1:A:1353:HIS:CE1	1:A:1367:LYS:HB3	2.44	0.52
1:B:1121:GLY:O	1:B:1133:ARG:NH1	2.42	0.52
1:B:2716:LEU:O	1:B:2720:ILE:HG12	2.10	0.52
1:B:3961:SER:OG	1:B:3962:SER:N	2.42	0.52
1:C:168:GLN:NE2	1:C:169:ARG:HG3	2.25	0.52
1:D:840:TYR:CE2	1:D:850:LEU:HA	2.44	0.52
1:A:37:LEU:HD13	1:A:203:VAL:HG21	1.90	0.52
1:A:1359:ILE:HG13	1:A:1360:ASP:N	2.25	0.52
1:A:2079:LEU:HD23	1:A:2083:MET:HE2	1.91	0.52
1:A:2763:SER:H	1:A:2766:GLU:HB2	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:718:VAL:HG23	1:B:724:SER:HB3	1.90	0.52
1:B:1190:LEU:HD21	1:B:1193:LYS:HB3	1.92	0.52
1:B:1347:MET:SD	1:B:1371:ASN:HB3	2.49	0.52
1:B:2136:GLU:O	1:B:2140:LEU:HG	2.10	0.52
1:B:2254:LEU:O	1:B:3809:ARG:HD3	2.10	0.52
1:C:3796:MET:HA	1:C:3799:CYS:SG	2.50	0.52
1:D:677:LEU:HD23	1:D:802:PHE:HA	1.91	0.52
1:D:1166:VAL:HG22	1:D:1173:MET:HG2	1.92	0.52
1:D:1761:ARG:HH12	1:D:1763:ARG:NH1	2.08	0.52
1:D:2079:LEU:HD23	1:D:2083:MET:HE2	1.91	0.52
1:A:3796:MET:HA	1:A:3799:CYS:SG	2.50	0.52
1:B:427:ASN:HB3	1:B:431:ARG:HH12	1.75	0.52
1:B:4621:SER:OG	1:B:4623:ASP:OD1	2.19	0.52
1:C:37:LEU:HD13	1:C:203:VAL:HG21	1.90	0.52
1:D:168:GLN:NE2	1:D:169:ARG:HG3	2.25	0.52
1:D:1213:GLY:O	1:D:1214:ARG:HG2	2.10	0.52
1:A:427:ASN:HB3	1:A:431:ARG:HH12	1.75	0.52
1:A:2136:GLU:O	1:A:2140:LEU:HG	2.10	0.52
1:B:637:LEU:HD12	1:B:637:LEU:O	2.10	0.52
1:B:2328:GLU:O	1:B:2335:ARG:NH2	2.43	0.52
1:C:1213:GLY:O	1:C:1214:ARG:HG2	2.10	0.52
1:C:2008:ILE:HG13	1:C:3633:HIS:ND1	2.23	0.52
1:C:2136:GLU:O	1:C:2140:LEU:HG	2.10	0.52
1:D:611:LEU:HD11	1:D:643:LEU:HD21	1.92	0.52
1:D:4767:VAL:HA	1:D:4770:VAL:HG22	1.90	0.52
1:A:611:LEU:HD11	1:A:643:LEU:HD21	1.92	0.52
1:B:1042:THR:O	1:B:1046:ASN:ND2	2.42	0.52
1:C:515:ALA:HB1	1:C:520:ARG:NH1	2.25	0.52
1:C:1400:UNK:O	1:C:1409:UNK:N	2.43	0.52
1:C:1643:LEU:HD21	1:C:1692:ASN:ND2	2.24	0.52
1:C:1972:ILE:HD12	1:C:1975:LEU:HD11	1.91	0.52
1:C:1985:CYS:SG	1:C:1992:ARG:HD2	2.50	0.52
1:D:427:ASN:HB3	1:D:431:ARG:HH12	1.75	0.52
1:D:2763:SER:H	1:D:2766:GLU:HB2	1.74	0.52
1:D:3786:VAL:HG11	1:D:3865:THR:HG23	1.92	0.52
1:D:3796:MET:HA	1:D:3799:CYS:SG	2.50	0.52
2:J:26:HIS:NE2	2:J:41:ARG:HG2	2.24	0.52
1:A:1400:UNK:O	1:A:1409:UNK:N	2.43	0.51
1:A:3961:SER:OG	1:A:3962:SER:N	2.42	0.51
1:A:4792:TYR:HD2	1:A:4805:CYS:HB3	1.76	0.51
1:B:1366:PRO:O	1:B:1368:PRO:HD3	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1761:ARG:HH12	1:B:1763:ARG:NH1	2.08	0.51
1:B:1985:CYS:SG	1:B:1992:ARG:HD2	2.50	0.51
1:B:3822:GLU:HB2	1:B:3826:GLU:HA	1.92	0.51
1:B:4115:GLN:O	1:B:4119:GLU:HG2	2.10	0.51
1:C:1042:THR:O	1:C:1046:ASN:ND2	2.42	0.51
1:C:2108:ASN:HD21	1:C:2111:SER:HB3	1.75	0.51
1:C:4830:ILE:HG22	1:C:4831:GLU:H	1.75	0.51
1:C:4895:ASP:OD1	1:C:4896:TYR:N	2.44	0.51
1:D:2136:GLU:O	1:D:2140:LEU:HG	2.10	0.51
1:A:441:LYS:HG2	1:A:442:LEU:HD23	1.92	0.51
1:A:3786:VAL:HG11	1:A:3865:THR:HG23	1.92	0.51
1:B:680:ASP:O	1:B:751:THR:OG1	2.26	0.51
1:B:1166:VAL:HG22	1:B:1173:MET:HG2	1.92	0.51
1:C:672:LYS:HB3	1:C:819:TYR:HA	1.91	0.51
1:D:1683:GLU:HB3	1:D:1684:PRO:HD3	1.92	0.51
1:A:1366:PRO:O	1:A:1368:PRO:HD3	2.09	0.51
1:A:1743:GLU:CD	1:A:1744:ASN:HD22	2.19	0.51
1:A:2108:ASN:HD21	1:A:2111:SER:HB3	1.75	0.51
1:B:3786:VAL:HG11	1:B:3865:THR:HG23	1.93	0.51
1:C:637:LEU:HD12	1:C:637:LEU:O	2.10	0.51
1:C:837:SER:H	1:C:841:LYS:HZ1	1.59	0.51
1:C:1761:ARG:HH12	1:C:1763:ARG:NH1	2.08	0.51
1:C:3822:GLU:HB2	1:C:3826:GLU:HA	1.93	0.51
1:D:698:ALA:HA	1:D:724:SER:HA	1.92	0.51
1:D:1190:LEU:HD21	1:D:1193:LYS:HB3	1.92	0.51
1:D:1985:CYS:SG	1:D:1992:ARG:HD2	2.50	0.51
2:G:104:LEU:HD11	2:G:107:LEU:HD12	1.93	0.51
1:B:1683:GLU:HB3	1:B:1684:PRO:HD3	1.92	0.51
1:B:2211:LYS:HD2	1:B:2252:LEU:HD11	1.93	0.51
1:B:3796:MET:HA	1:B:3799:CYS:SG	2.50	0.51
2:H:104:LEU:HD11	2:H:107:LEU:HD12	1.93	0.51
1:C:1683:GLU:HB3	1:C:1684:PRO:HD3	1.92	0.51
1:C:2211:LYS:HD2	1:C:2252:LEU:HD11	1.93	0.51
1:D:1972:ILE:HD12	1:D:1975:LEU:HD11	1.91	0.51
2:J:104:LEU:HD11	2:J:107:LEU:HD12	1.93	0.51
1:A:677:LEU:HD23	1:A:802:PHE:HA	1.91	0.51
1:A:1683:GLU:HB3	1:A:1684:PRO:HD3	1.92	0.51
1:A:4516:LEU:HA	1:D:4808:MET:HG2	1.92	0.51
1:A:4895:ASP:OD1	1:A:4896:TYR:N	2.44	0.51
1:B:677:LEU:HD23	1:B:802:PHE:HA	1.91	0.51
1:B:4583:PHE:O	1:B:4586:ILE:HG22	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:995:MET:HE3	1:C:995:MET:O	2.11	0.51
1:C:1743:GLU:CD	1:C:1744:ASN:HD22	2.19	0.51
1:C:2763:SER:H	1:C:2766:GLU:HB2	1.74	0.51
1:C:4830:ILE:HG22	1:C:4831:GLU:N	2.26	0.51
1:D:641:ASP:OD1	1:D:642:LEU:N	2.44	0.51
1:D:2254:LEU:O	1:D:3809:ARG:HD3	2.10	0.51
1:D:4792:TYR:HD2	1:D:4805:CYS:HB3	1.76	0.51
1:A:3664:HIS:O	1:A:3668:LEU:HD23	2.10	0.51
1:B:1743:GLU:CD	1:B:1744:ASN:HD22	2.19	0.51
1:B:3664:HIS:O	1:B:3668:LEU:HD23	2.10	0.51
1:B:4830:ILE:HG22	1:B:4831:GLU:H	1.75	0.51
1:C:1131:ASP:HB3	1:C:1133:ARG:HG2	1.93	0.51
1:C:1811:VAL:N	1:C:1818:LEU:HD12	2.18	0.51
1:C:4115:GLN:O	1:C:4119:GLU:HG2	2.10	0.51
1:D:515:ALA:HB1	1:D:520:ARG:NH1	2.25	0.51
1:D:1297:THR:OG1	1:D:1346:LEU:O	2.18	0.51
1:D:1743:GLU:CD	1:D:1744:ASN:HD22	2.19	0.51
1:D:3860:GLN:NE2	1:D:3867:VAL:H	2.08	0.51
1:D:4583:PHE:O	1:D:4586:ILE:HG22	2.11	0.51
2:J:22:THR:HB	2:J:48:LYS:HE3	1.93	0.51
1:A:36:CYS:HB2	1:A:52:THR:HG23	1.93	0.51
1:A:637:LEU:HD12	1:A:637:LEU:O	2.10	0.51
1:A:4830:ILE:HG22	1:A:4831:GLU:H	1.75	0.51
1:B:1400:UNK:O	1:B:1409:UNK:N	2.43	0.51
1:B:2064:THR:HG22	1:B:2067:ARG:HH12	1.76	0.51
1:B:3924:GLN:HA	1:B:3924:GLN:NE2	2.26	0.51
1:C:611:LEU:HD11	1:C:643:LEU:HD21	1.92	0.51
1:C:1119:ARG:NH2	1:C:1196:ASP:O	2.35	0.51
1:C:1190:LEU:HD21	1:C:1193:LYS:HB3	1.92	0.51
1:C:1708:ILE:HD12	1:C:1828:THR:HG21	1.93	0.51
1:C:3664:HIS:O	1:C:3668:LEU:HD23	2.10	0.51
1:C:4792:TYR:HD2	1:C:4805:CYS:HB3	1.76	0.51
1:D:2064:THR:HG22	1:D:2067:ARG:HH12	1.76	0.51
1:D:4186:GLU:OE1	1:D:4186:GLU:N	2.40	0.51
1:A:1985:CYS:SG	1:A:1992:ARG:HD2	2.50	0.51
1:A:4583:PHE:O	1:A:4586:ILE:HG22	2.11	0.51
1:A:4862:GLN:OE1	1:D:4859:ALA:HB2	2.11	0.51
1:B:515:ALA:HB1	1:B:520:ARG:NH1	2.25	0.51
1:B:995:MET:O	1:B:995:MET:HE3	2.11	0.51
1:C:337:LYS:NZ	1:C:369:GLY:O	2.38	0.51
1:C:441:LYS:HG2	1:C:442:LEU:HD23	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3786:VAL:HG11	1:C:3865:THR:HG23	1.93	0.51
1:D:4830:ILE:HG22	1:D:4831:GLU:H	1.75	0.51
1:A:892:LEU:HA	1:A:895:MET:HB2	1.93	0.51
1:A:1708:ILE:HD12	1:A:1828:THR:HG21	1.93	0.51
1:A:2107:ILE:HG13	1:A:2108:ASN:N	2.26	0.51
1:A:4830:ILE:HG22	1:A:4831:GLU:N	2.26	0.51
1:B:1213:GLY:O	1:B:1214:ARG:HG2	2.10	0.51
1:B:1893:LEU:O	1:B:2067:ARG:NH2	2.44	0.51
1:B:4182:LYS:HD2	1:C:4902:HIS:CD2	2.46	0.51
1:C:641:ASP:OD1	1:C:642:LEU:N	2.44	0.51
1:C:2395:ILE:HG21	1:C:2467:MET:SD	2.51	0.51
2:I:22:THR:HB	2:I:48:LYS:HE3	1.93	0.51
1:D:1131:ASP:HB3	1:D:1133:ARG:HG2	1.93	0.51
1:D:1359:ILE:HG13	1:D:1360:ASP:N	2.24	0.51
1:D:1400:UNK:O	1:D:1409:UNK:N	2.43	0.51
1:A:1166:VAL:HG22	1:A:1173:MET:HG2	1.92	0.51
1:A:1761:ARG:HH12	1:A:1763:ARG:NH1	2.08	0.51
1:A:2211:LYS:HD2	1:A:2252:LEU:HD11	1.93	0.51
1:B:442:LEU:HG	1:B:444:THR:HG22	1.93	0.51
1:B:3860:GLN:NE2	1:B:3867:VAL:H	2.08	0.51
1:B:3916:PHE:O	1:B:3920:THR:HG23	2.11	0.51
2:H:22:THR:HB	2:H:48:LYS:HE3	1.93	0.51
1:C:36:CYS:HB2	1:C:52:THR:HG23	1.93	0.51
1:C:158:CYS:HG	1:C:159:TRP:CD1	2.29	0.51
1:C:442:LEU:HG	1:C:444:THR:HG22	1.93	0.51
1:C:1359:ILE:HG13	1:C:1360:ASP:N	2.24	0.51
1:C:1893:LEU:O	1:C:2067:ARG:NH2	2.44	0.51
1:C:3860:GLN:NE2	1:C:3867:VAL:H	2.08	0.51
1:C:4182:LYS:HD2	1:D:4902:HIS:CD2	2.46	0.51
2:I:104:LEU:HD11	2:I:107:LEU:HD12	1.93	0.51
1:D:2108:ASN:HD21	1:D:2111:SER:HB3	1.75	0.51
1:D:2211:LYS:HD2	1:D:2252:LEU:HD11	1.93	0.51
1:D:4115:GLN:O	1:D:4119:GLU:HG2	2.10	0.51
1:D:4830:ILE:HG22	1:D:4831:GLU:N	2.26	0.51
1:A:1190:LEU:HD21	1:A:1193:LYS:HB3	1.92	0.50
1:A:3639:LEU:O	1:A:3643:LEU:HB2	2.11	0.50
1:A:4182:LYS:HD2	1:B:4902:HIS:CD2	2.46	0.50
1:B:2395:ILE:HG21	1:B:2467:MET:SD	2.51	0.50
1:B:3762:ILE:HD12	1:B:3840:ARG:HG3	1.93	0.50
1:B:4792:TYR:HD2	1:B:4805:CYS:HB3	1.76	0.50
1:B:4895:ASP:OD1	1:B:4896:TYR:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:281:ARG:O	1:C:285:SER:OG	2.29	0.50
1:C:2107:ILE:HG13	1:C:2108:ASN:N	2.26	0.50
1:A:1893:LEU:O	1:A:2067:ARG:NH2	2.44	0.50
1:A:3924:GLN:HA	1:A:3924:GLN:NE2	2.26	0.50
1:A:4046:ASP:OD1	1:A:4046:ASP:N	2.44	0.50
1:B:611:LEU:HD11	1:B:643:LEU:HD21	1.92	0.50
1:B:641:ASP:OD1	1:B:642:LEU:N	2.44	0.50
1:B:1761:ARG:HB2	1:B:1761:ARG:HH11	1.76	0.50
1:C:1761:ARG:HB2	1:C:1761:ARG:HH11	1.76	0.50
1:D:3916:PHE:O	1:D:3920:THR:HG23	2.11	0.50
2:J:42:ASP:OD1	2:J:42:ASP:N	2.42	0.50
1:A:4115:GLN:O	1:A:4119:GLU:HG2	2.10	0.50
1:B:36:CYS:HB2	1:B:52:THR:HG23	1.93	0.50
1:B:2277:GLN:HA	1:B:2280:VAL:HG12	1.94	0.50
1:C:1682:ASP:CG	1:C:1684:PRO:HD2	2.37	0.50
1:C:2328:GLU:O	1:C:2335:ARG:NH2	2.43	0.50
1:D:637:LEU:HD12	1:D:637:LEU:O	2.10	0.50
1:D:3822:GLU:HB2	1:D:3826:GLU:HA	1.93	0.50
1:A:995:MET:O	1:A:995:MET:HE3	2.11	0.50
1:A:2395:ILE:HG21	1:A:2467:MET:SD	2.51	0.50
1:A:3860:GLN:NE2	1:A:3867:VAL:H	2.08	0.50
1:B:698:ALA:HA	1:B:724:SER:HA	1.92	0.50
1:B:732:LEU:HB3	1:B:779:PHE:CZ	2.47	0.50
1:B:1131:ASP:HB3	1:B:1133:ARG:HG2	1.93	0.50
1:B:2065:MET:HE1	1:B:2083:MET:CB	2.42	0.50
1:B:2108:ASN:HD21	1:B:2111:SER:HB3	1.75	0.50
1:B:3639:LEU:O	1:B:3643:LEU:HB2	2.11	0.50
1:B:4830:ILE:HG22	1:B:4831:GLU:N	2.26	0.50
1:C:427:ASN:HB3	1:C:431:ARG:HH12	1.75	0.50
1:C:892:LEU:HA	1:C:895:MET:HB2	1.93	0.50
1:C:1567:LEU:HD22	1:C:1581:PRO:HB3	1.93	0.50
1:C:2320:VAL:O	1:C:2324:ILE:HG12	2.12	0.50
1:C:3916:PHE:O	1:C:3920:THR:HG23	2.11	0.50
1:C:4041:VAL:HG23	1:C:4076:THR:HG21	1.94	0.50
1:C:4186:GLU:OE1	1:C:4186:GLU:N	2.40	0.50
1:D:36:CYS:HB2	1:D:52:THR:HG23	1.93	0.50
1:D:1893:LEU:O	1:D:2067:ARG:NH2	2.44	0.50
1:D:2107:ILE:HG13	1:D:2108:ASN:N	2.26	0.50
1:D:4867:ASP:OD1	1:D:4868:ALA:N	2.45	0.50
1:D:4947:CYS:SG	1:D:4948:TRP:N	2.85	0.50
1:A:698:ALA:HA	1:A:724:SER:HA	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2265:VAL:HG21	1:A:2322:LEU:HB3	1.93	0.50
2:G:22:THR:HB	2:G:48:LYS:HE3	1.93	0.50
1:B:2289:TRP:CZ2	1:B:2387:ILE:HD12	2.47	0.50
1:C:698:ALA:HA	1:C:724:SER:HA	1.93	0.50
1:C:2065:MET:HE1	1:C:2083:MET:CB	2.42	0.50
1:C:2289:TRP:CZ2	1:C:2387:ILE:HD12	2.47	0.50
1:C:4583:PHE:O	1:C:4586:ILE:HG22	2.11	0.50
1:D:441:LYS:HG2	1:D:442:LEU:HD23	1.92	0.50
1:D:2265:VAL:HG21	1:D:2322:LEU:HB3	1.93	0.50
1:D:2289:TRP:CZ2	1:D:2387:ILE:HD12	2.47	0.50
1:D:3664:HIS:O	1:D:3668:LEU:HD23	2.10	0.50
1:D:4621:SER:OG	1:D:4623:ASP:OD1	2.20	0.50
1:D:4895:ASP:OD1	1:D:4896:TYR:N	2.44	0.50
1:A:435:ALA:HA	1:A:438:LYS:HE3	1.93	0.50
1:A:732:LEU:HB3	1:A:779:PHE:CZ	2.47	0.50
1:A:1131:ASP:HB3	1:A:1133:ARG:HG2	1.93	0.50
1:A:2289:TRP:CZ2	1:A:2387:ILE:HD12	2.47	0.50
1:A:3822:GLU:HB2	1:A:3826:GLU:HA	1.93	0.50
1:C:3639:LEU:O	1:C:3643:LEU:HB2	2.12	0.50
1:D:281:ARG:O	1:D:285:SER:OG	2.29	0.50
1:D:995:MET:O	1:D:995:MET:HE3	2.11	0.50
1:D:1708:ILE:HD12	1:D:1828:THR:HG21	1.93	0.50
1:D:1761:ARG:HB2	1:D:1761:ARG:HH11	1.77	0.50
1:D:3924:GLN:HA	1:D:3924:GLN:NE2	2.25	0.50
1:A:1981:ASP:OD1	1:A:1982:LYS:N	2.45	0.50
1:A:2064:THR:HG22	1:A:2067:ARG:HH12	1.76	0.50
1:B:1615:ARG:HD3	1:B:1615:ARG:N	2.27	0.50
1:B:4308:VAL:HG12	1:B:4485:TYR:HE1	1.77	0.50
1:C:1359:ILE:HG23	1:C:1363:LYS:NZ	2.27	0.50
1:C:2277:GLN:HA	1:C:2280:VAL:HG12	1.94	0.50
1:C:3961:SER:OG	1:C:3962:SER:N	2.42	0.50
1:C:4517:PHE:HB3	1:C:4562:GLU:CG	2.37	0.50
1:C:4867:ASP:OD1	1:C:4868:ALA:N	2.45	0.50
1:D:2328:GLU:O	1:D:2335:ARG:NH2	2.43	0.50
1:D:4594:VAL:O	1:D:4598:ILE:HG13	2.12	0.50
1:A:158:CYS:HG	1:A:159:TRP:CD1	2.29	0.50
1:B:441:LYS:HG2	1:B:442:LEU:HD23	1.92	0.50
1:B:4947:CYS:SG	1:B:4948:TRP:N	2.85	0.50
1:C:732:LEU:HB3	1:C:779:PHE:CZ	2.47	0.50
1:C:2265:VAL:HG21	1:C:2322:LEU:HB3	1.93	0.50
1:D:2320:VAL:O	1:D:2324:ILE:HG12	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:515:ALA:HB1	1:A:520:ARG:NH1	2.25	0.50
1:A:1362:ASP:OD1	1:A:1362:ASP:N	2.45	0.50
1:A:2320:VAL:O	1:A:2324:ILE:HG12	2.12	0.50
1:A:4005:SER:O	1:A:4009:VAL:HG12	2.12	0.50
1:B:1682:ASP:CG	1:B:1684:PRO:HD2	2.37	0.50
1:B:1811:VAL:N	1:B:1818:LEU:HD12	2.18	0.50
1:B:2320:VAL:O	1:B:2324:ILE:HG12	2.12	0.50
1:B:4005:SER:O	1:B:4009:VAL:HG12	2.12	0.50
1:B:4928:ASP:O	1:B:4932:HIS:NE2	2.45	0.50
1:C:3762:ILE:HD12	1:C:3840:ARG:HG3	1.93	0.50
1:D:1704:TYR:O	1:D:1708:ILE:HG12	2.12	0.50
1:D:3639:LEU:O	1:D:3643:LEU:HB2	2.11	0.50
1:D:4041:VAL:HG23	1:D:4076:THR:HG21	1.94	0.50
1:D:4308:VAL:HG12	1:D:4485:TYR:HE1	1.77	0.50
1:A:1117:TRP:CZ3	1:A:1166:VAL:HB	2.47	0.49
1:A:1567:LEU:HD22	1:A:1581:PRO:HB3	1.93	0.49
1:A:2328:GLU:O	1:A:2335:ARG:NH2	2.43	0.49
1:B:892:LEU:HA	1:B:895:MET:HB2	1.93	0.49
1:B:2107:ILE:HG13	1:B:2108:ASN:N	2.26	0.49
1:C:373:THR:OG1	1:C:392:ILE:O	2.21	0.49
1:C:890:HIS:O	1:C:894:VAL:HG23	2.12	0.49
1:C:1043:LYS:HE3	1:C:1047:LYS:NZ	2.27	0.49
1:D:1359:ILE:HG23	1:D:1363:LYS:NZ	2.27	0.49
1:D:1981:ASP:OD1	1:D:1982:LYS:N	2.45	0.49
1:A:298:ARG:NH1	1:A:319:LYS:HD3	2.26	0.49
1:A:1615:ARG:N	1:A:1615:ARG:HD3	2.27	0.49
1:A:1682:ASP:CG	1:A:1684:PRO:HD2	2.37	0.49
1:B:190:ARG:HG2	1:B:207:PHE:CE1	2.47	0.49
1:B:3954:GLN:NE2	1:B:3974:GLN:OE1	2.46	0.49
1:C:1704:TYR:O	1:C:1708:ILE:HG12	2.12	0.49
1:C:2064:THR:HG22	1:C:2067:ARG:HH12	1.76	0.49
1:D:2065:MET:HE1	1:D:2083:MET:CB	2.42	0.49
1:D:2395:ILE:HG21	1:D:2467:MET:SD	2.51	0.49
1:D:2848:HIS:NE2	1:D:2876:LEU:HD21	2.27	0.49
1:D:3995:GLY:HA3	1:D:4108:MET:HE3	1.94	0.49
1:D:4861:ILE:O	1:D:4865:ILE:HG12	2.13	0.49
1:A:641:ASP:OD1	1:A:642:LEU:N	2.44	0.49
1:A:890:HIS:O	1:A:894:VAL:HG23	2.12	0.49
1:A:3762:ILE:HD12	1:A:3840:ARG:HG3	1.93	0.49
1:A:3860:GLN:HE22	1:A:3867:VAL:H	1.61	0.49
1:B:837:SER:H	1:B:841:LYS:HZ1	1.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:890:HIS:O	1:B:894:VAL:HG23	2.12	0.49
1:C:1981:ASP:OD1	1:C:1982:LYS:N	2.45	0.49
1:C:3860:GLN:HE22	1:C:3867:VAL:H	1.61	0.49
1:C:4861:ILE:O	1:C:4865:ILE:HG12	2.13	0.49
1:D:732:LEU:HB3	1:D:779:PHE:CZ	2.47	0.49
1:D:1043:LYS:HE3	1:D:1047:LYS:NZ	2.28	0.49
1:D:2175:VAL:HG23	1:D:2219:TYR:OH	2.12	0.49
1:A:442:LEU:HG	1:A:444:THR:HG22	1.93	0.49
1:A:929:ARG:HG2	1:A:933:LEU:HG	1.95	0.49
1:A:1132:ASP:OD1	1:A:1147:GLN:NE2	2.45	0.49
1:A:2065:MET:HE1	1:A:2083:MET:CB	2.42	0.49
1:A:2080:VAL:HA	1:A:2083:MET:HE3	1.95	0.49
1:A:3916:PHE:O	1:A:3920:THR:HG23	2.11	0.49
1:A:3954:GLN:NE2	1:A:3974:GLN:OE1	2.46	0.49
1:A:3995:GLY:HA3	1:A:4108:MET:HE3	1.94	0.49
1:A:4594:VAL:O	1:A:4598:ILE:HG13	2.12	0.49
1:B:435:ALA:HA	1:B:438:LYS:HE3	1.94	0.49
1:B:1095:ALA:HB1	1:B:1200:GLY:HA3	1.95	0.49
1:B:1117:TRP:CZ3	1:B:1166:VAL:HB	2.47	0.49
1:B:1132:ASP:OD1	1:B:1147:GLN:NE2	2.46	0.49
1:B:1950:LEU:HD21	1:B:1952:MET:HG2	1.95	0.49
1:B:4792:TYR:CD2	1:B:4805:CYS:HB3	2.48	0.49
1:B:4867:ASP:OD1	1:B:4868:ALA:N	2.45	0.49
1:C:190:ARG:HG2	1:C:207:PHE:CE1	2.47	0.49
1:C:433:LEU:HD11	1:C:504:ARG:HD3	1.94	0.49
1:C:674:TYR:N	1:C:820:ALA:O	2.46	0.49
1:C:1950:LEU:HD21	1:C:1952:MET:HG2	1.95	0.49
1:C:4594:VAL:O	1:C:4598:ILE:HG13	2.12	0.49
1:C:4947:CYS:SG	1:C:4948:TRP:N	2.85	0.49
1:D:442:LEU:HG	1:D:444:THR:HG22	1.93	0.49
1:D:1095:ALA:HB1	1:D:1200:GLY:HA3	1.95	0.49
1:D:1682:ASP:CG	1:D:1684:PRO:HD2	2.37	0.49
1:D:1950:LEU:HD21	1:D:1952:MET:HG2	1.95	0.49
1:A:674:TYR:N	1:A:820:ALA:O	2.46	0.49
1:A:1704:TYR:O	1:A:1708:ILE:HG12	2.12	0.49
1:A:2175:VAL:HG23	1:A:2219:TYR:OH	2.12	0.49
1:A:2277:GLN:HA	1:A:2280:VAL:HG12	1.93	0.49
1:A:4041:VAL:HG23	1:A:4076:THR:HG21	1.94	0.49
1:A:4947:CYS:SG	1:A:4948:TRP:N	2.85	0.49
1:B:227:TYR:HA	1:B:355:LYS:HA	1.93	0.49
1:B:2080:VAL:HA	1:B:2083:MET:HE3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4041:VAL:HG23	1:B:4076:THR:HG21	1.94	0.49
1:C:1615:ARG:HD3	1:C:1615:ARG:N	2.27	0.49
1:C:4005:SER:O	1:C:4009:VAL:HG12	2.12	0.49
1:C:4046:ASP:OD1	1:C:4046:ASP:N	2.44	0.49
1:D:417:ARG:HG2	1:D:417:ARG:HH11	1.78	0.49
1:D:433:LEU:HD11	1:D:504:ARG:HD3	1.94	0.49
1:A:227:TYR:HA	1:A:355:LYS:HA	1.93	0.49
1:A:433:LEU:HD11	1:A:504:ARG:HD3	1.94	0.49
1:A:1190:LEU:HD11	1:A:1193:LYS:HB3	1.95	0.49
1:A:2487:LEU:HD12	1:A:2491:PHE:HB2	1.94	0.49
1:A:2848:HIS:NE2	1:A:2876:LEU:HD21	2.27	0.49
1:B:59:PRO:HG2	1:B:319:LYS:HD2	1.94	0.49
1:B:281:ARG:O	1:B:285:SER:OG	2.29	0.49
1:B:674:TYR:N	1:B:820:ALA:O	2.46	0.49
1:B:1704:TYR:O	1:B:1708:ILE:HG12	2.12	0.49
1:B:1708:ILE:HD12	1:B:1828:THR:HG21	1.93	0.49
1:B:2265:VAL:HG21	1:B:2322:LEU:HB3	1.93	0.49
1:C:929:ARG:HG2	1:C:933:LEU:HG	1.95	0.49
1:D:427:ASN:HB3	1:D:431:ARG:NH2	2.28	0.49
1:D:799:LYS:HG2	1:D:1621:GLN:NE2	2.28	0.49
1:D:4005:SER:O	1:D:4009:VAL:HG12	2.12	0.49
1:A:427:ASN:HB3	1:A:431:ARG:NH2	2.28	0.49
1:A:1095:ALA:HB1	1:A:1200:GLY:HA3	1.95	0.49
1:A:1678:CYS:SG	1:A:1679:SER:N	2.86	0.49
1:A:1950:LEU:HD21	1:A:1952:MET:HG2	1.95	0.49
1:B:433:LEU:HD11	1:B:504:ARG:HD3	1.94	0.49
1:B:1043:LYS:HE3	1:B:1047:LYS:NZ	2.28	0.49
1:B:1245:ARG:NH2	1:B:1809:ASP:OD1	2.46	0.49
1:B:2848:HIS:NE2	1:B:2876:LEU:HD21	2.27	0.49
1:B:3988:ASN:O	1:B:4143:ARG:NH2	2.46	0.49
1:C:1095:ALA:HB1	1:C:1200:GLY:HA3	1.95	0.49
1:C:2713:PRO:HG2	1:C:2716:LEU:HD12	1.95	0.49
1:C:2848:HIS:NE2	1:C:2876:LEU:HD21	2.27	0.49
1:C:2903:SER:OG	1:C:2904:ARG:N	2.46	0.49
1:C:3954:GLN:NE2	1:C:3974:GLN:OE1	2.46	0.49
1:C:3988:ASN:O	1:C:4143:ARG:NH2	2.46	0.49
1:D:1615:ARG:N	1:D:1615:ARG:HD3	2.27	0.49
1:D:2277:GLN:HA	1:D:2280:VAL:HG12	1.94	0.49
1:D:2903:SER:OG	1:D:2904:ARG:N	2.46	0.49
1:D:3762:ILE:HD12	1:D:3840:ARG:HG3	1.93	0.49
1:A:190:ARG:HG2	1:A:207:PHE:CE1	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3988:ASN:O	1:A:4143:ARG:NH2	2.46	0.49
1:B:1991:ILE:HA	1:B:1994:GLN:HG2	1.95	0.49
1:B:3995:GLY:HA3	1:B:4108:MET:HE3	1.94	0.49
1:C:2175:VAL:HG23	1:C:2219:TYR:OH	2.12	0.49
1:C:4308:VAL:HG12	1:C:4485:TYR:HE1	1.77	0.49
1:D:190:ARG:HG2	1:D:207:PHE:CE1	2.47	0.49
1:D:227:TYR:HA	1:D:355:LYS:HA	1.93	0.49
1:D:674:TYR:HD2	1:D:758:CYS:SG	2.36	0.49
1:D:1362:ASP:OD1	1:D:1362:ASP:N	2.46	0.49
1:D:1942:ARG:O	1:D:1945:GLU:HG3	2.13	0.49
1:D:2173:VAL:O	1:D:2177:VAL:HG23	2.12	0.49
1:D:3860:GLN:HE22	1:D:3867:VAL:H	1.61	0.49
1:D:3954:GLN:NE2	1:D:3974:GLN:OE1	2.46	0.49
1:A:1043:LYS:HE3	1:A:1047:LYS:NZ	2.27	0.49
1:B:929:ARG:HG2	1:B:933:LEU:HG	1.95	0.49
1:B:1567:LEU:HD22	1:B:1581:PRO:HB3	1.93	0.49
1:B:1687:LEU:HA	1:B:1690:ILE:HG12	1.94	0.49
1:B:2487:LEU:HD12	1:B:2491:PHE:HB2	1.94	0.49
1:B:4046:ASP:N	1:B:4046:ASP:OD1	2.44	0.49
1:C:1100:ARG:HB3	1:C:1236:TYR:CD2	2.48	0.49
1:C:1245:ARG:NH2	1:C:1809:ASP:OD1	2.46	0.49
1:C:1687:LEU:HA	1:C:1690:ILE:HG12	1.94	0.49
1:C:2080:VAL:HA	1:C:2083:MET:HE3	1.95	0.49
1:C:3995:GLY:HA3	1:C:4108:MET:HE3	1.94	0.49
1:D:892:LEU:HA	1:D:895:MET:HB2	1.93	0.49
1:D:1100:ARG:HB3	1:D:1236:TYR:CD2	2.48	0.49
1:D:1119:ARG:NH2	1:D:1196:ASP:O	2.35	0.49
1:D:4928:ASP:O	1:D:4932:HIS:NE2	2.45	0.49
1:A:373:THR:OG1	1:A:392:ILE:O	2.21	0.49
1:A:708:GLY:H	1:A:723:PHE:HD2	1.60	0.49
1:A:1223:THR:O	1:A:1225:LYS:HD3	2.13	0.49
1:A:1399:UNK:HA	1:A:1410:UNK:HA	1.95	0.49
1:A:2713:PRO:HG2	1:A:2716:LEU:HD12	1.95	0.49
1:A:4106:GLU:OE1	1:A:4148:TYR:OH	2.31	0.49
1:A:4308:VAL:HG12	1:A:4485:TYR:HE1	1.77	0.49
1:B:1223:THR:O	1:B:1225:LYS:HD3	2.13	0.49
1:B:3860:GLN:HE22	1:B:3867:VAL:H	1.61	0.49
1:B:3940:TRP:HA	1:B:3943:VAL:HG12	1.95	0.49
1:C:227:TYR:HA	1:C:355:LYS:HA	1.93	0.49
1:C:894:VAL:HG13	1:C:918:LEU:HD22	1.95	0.49
1:C:1002:ASN:O	1:C:1006:VAL:HG23	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3940:TRP:HA	1:C:3943:VAL:HG12	1.95	0.49
1:D:674:TYR:N	1:D:820:ALA:O	2.46	0.49
1:D:929:ARG:HG2	1:D:933:LEU:HG	1.95	0.49
1:D:1132:ASP:OD1	1:D:1147:GLN:NE2	2.46	0.49
1:D:1567:LEU:HD22	1:D:1581:PRO:HB3	1.93	0.49
1:D:2487:LEU:HD12	1:D:2491:PHE:HB2	1.95	0.49
1:A:417:ARG:HG2	1:A:417:ARG:HH11	1.78	0.48
1:A:1245:ARG:NH2	1:A:1809:ASP:OD1	2.46	0.48
1:A:1359:ILE:HG23	1:A:1363:LYS:NZ	2.27	0.48
1:A:1754:LEU:HG	1:A:1756:THR:HG23	1.95	0.48
1:A:1991:ILE:HA	1:A:1994:GLN:HG2	1.95	0.48
1:A:4928:ASP:O	1:A:4932:HIS:NE2	2.45	0.48
1:B:1981:ASP:OD1	1:B:1982:LYS:N	2.45	0.48
1:B:2713:PRO:HG2	1:B:2716:LEU:HD12	1.95	0.48
1:B:4594:VAL:O	1:B:4598:ILE:HG13	2.12	0.48
1:C:59:PRO:HG2	1:C:319:LYS:HD2	1.94	0.48
1:C:708:GLY:H	1:C:723:PHE:HD2	1.60	0.48
1:C:1942:ARG:O	1:C:1945:GLU:HG3	2.13	0.48
1:D:708:GLY:H	1:D:723:PHE:HD2	1.60	0.48
1:D:890:HIS:O	1:D:894:VAL:HG23	2.12	0.48
1:D:894:VAL:HG13	1:D:918:LEU:HD22	1.95	0.48
1:D:1245:ARG:NH2	1:D:1809:ASP:OD1	2.46	0.48
1:D:2080:VAL:HA	1:D:2083:MET:HE3	1.95	0.48
1:A:674:TYR:HD2	1:A:758:CYS:SG	2.36	0.48
1:A:1791:LYS:NZ	1:A:1795:MET:SD	2.79	0.48
1:A:2173:VAL:O	1:A:2177:VAL:HG23	2.12	0.48
1:A:4158:GLN:HB3	1:A:4199:MET:HG2	1.95	0.48
1:A:4515:LEU:HD11	1:A:4736:PHE:CE1	2.48	0.48
1:A:4867:ASP:OD1	1:A:4868:ALA:N	2.45	0.48
1:B:427:ASN:HB3	1:B:431:ARG:NH2	2.28	0.48
1:B:699:SER:OG	1:B:700:THR:N	2.46	0.48
1:B:1002:ASN:O	1:B:1006:VAL:HG23	2.13	0.48
1:B:1362:ASP:N	1:B:1362:ASP:OD1	2.45	0.48
1:B:2173:VAL:O	1:B:2177:VAL:HG23	2.12	0.48
1:C:4928:ASP:O	1:C:4932:HIS:NE2	2.45	0.48
1:D:1173:MET:HE3	1:D:1195:PHE:CE2	2.48	0.48
1:D:1687:LEU:HA	1:D:1690:ILE:HG12	1.94	0.48
1:D:1928:SER:OG	1:D:3616:VAL:HG23	2.13	0.48
1:A:699:SER:OG	1:A:700:THR:N	2.46	0.48
1:A:1100:ARG:HB3	1:A:1236:TYR:CD2	2.48	0.48
1:A:1173:MET:HE3	1:A:1195:PHE:CE2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4861:ILE:O	1:A:4865:ILE:HG12	2.13	0.48
1:B:1253:LYS:HE2	1:B:1253:LYS:HB2	1.63	0.48
1:C:435:ALA:HA	1:C:438:LYS:HE3	1.94	0.48
1:C:700:THR:HG1	1:C:787:LEU:H	1.60	0.48
1:C:1223:THR:O	1:C:1225:LYS:HD3	2.13	0.48
1:C:2173:VAL:O	1:C:2177:VAL:HG23	2.12	0.48
1:C:4106:GLU:OE1	1:C:4148:TYR:OH	2.31	0.48
1:D:298:ARG:NH1	1:D:319:LYS:HD3	2.26	0.48
1:D:1190:LEU:HD11	1:D:1193:LYS:HB3	1.95	0.48
1:D:1399:UNK:HA	1:D:1410:UNK:HA	1.95	0.48
1:D:3988:ASN:O	1:D:4143:ARG:NH2	2.46	0.48
1:A:281:ARG:O	1:A:285:SER:OG	2.29	0.48
1:B:337:LYS:NZ	1:B:369:GLY:O	2.38	0.48
1:B:417:ARG:HG2	1:B:417:ARG:HH11	1.78	0.48
1:B:1175:PHE:HB2	1:B:1182:LEU:HD22	1.96	0.48
1:B:1249:MET:HB3	1:B:1600:MET:HE2	1.96	0.48
1:B:1359:ILE:HG23	1:B:1363:LYS:NZ	2.27	0.48
1:B:1678:CYS:SG	1:B:1679:SER:N	2.86	0.48
1:B:4158:GLN:HB3	1:B:4199:MET:HG2	1.95	0.48
1:C:427:ASN:HB3	1:C:431:ARG:NH2	2.28	0.48
1:C:674:TYR:HD2	1:C:758:CYS:SG	2.36	0.48
1:C:845:THR:OG1	1:C:846:TYR:N	2.46	0.48
1:C:1754:LEU:HG	1:C:1756:THR:HG23	1.96	0.48
1:C:2487:LEU:HD12	1:C:2491:PHE:HB2	1.94	0.48
1:D:1117:TRP:CZ3	1:D:1166:VAL:HB	2.47	0.48
1:D:3660:VAL:HG13	1:D:3664:HIS:ND1	2.28	0.48
1:D:3758:LEU:O	1:D:3762:ILE:HG12	2.14	0.48
1:A:304:LYS:HB2	1:A:316:LEU:HD12	1.96	0.48
1:A:1942:ARG:O	1:A:1945:GLU:HG3	2.13	0.48
1:A:2903:SER:OG	1:A:2904:ARG:N	2.46	0.48
1:A:3660:VAL:HG13	1:A:3664:HIS:ND1	2.28	0.48
1:B:298:ARG:NH1	1:B:319:LYS:HD3	2.26	0.48
1:B:1928:SER:OG	1:B:3616:VAL:HG23	2.13	0.48
1:B:2175:VAL:HG23	1:B:2219:TYR:OH	2.12	0.48
1:B:3758:LEU:O	1:B:3762:ILE:HG12	2.14	0.48
1:B:4658:GLU:O	1:C:4055:LYS:NZ	2.40	0.48
1:C:304:LYS:HB2	1:C:316:LEU:HD12	1.96	0.48
1:C:799:LYS:HG2	1:C:1621:GLN:NE2	2.28	0.48
1:C:1362:ASP:N	1:C:1362:ASP:OD1	2.45	0.48
1:C:4792:TYR:CD2	1:C:4805:CYS:HB3	2.48	0.48
1:D:304:LYS:HB2	1:D:316:LEU:HD12	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:680:ASP:O	1:D:751:THR:OG1	2.26	0.48
1:A:799:LYS:HG2	1:A:1621:GLN:NE2	2.28	0.48
1:A:1928:SER:OG	1:A:3616:VAL:HG23	2.13	0.48
1:A:4792:TYR:CD2	1:A:4805:CYS:HB3	2.48	0.48
2:G:83:TYR:HB3	2:G:87:GLY:HA2	1.96	0.48
1:B:313:ASN:HD21	1:B:392:ILE:HA	1.79	0.48
1:B:799:LYS:HG2	1:B:1621:GLN:NE2	2.28	0.48
1:B:2766:GLU:HA	1:B:2769:ILE:HG23	1.95	0.48
1:B:4861:ILE:O	1:B:4865:ILE:HG12	2.13	0.48
1:C:1132:ASP:OD1	1:C:1147:GLN:NE2	2.46	0.48
1:C:1678:CYS:SG	1:C:1679:SER:N	2.86	0.48
1:C:1928:SER:OG	1:C:3616:VAL:HG23	2.13	0.48
1:C:4515:LEU:HD11	1:C:4736:PHE:CE1	2.48	0.48
1:D:59:PRO:HG2	1:D:319:LYS:HD2	1.94	0.48
1:D:298:ARG:NH1	1:D:305:TYR:OH	2.46	0.48
1:D:435:ALA:HA	1:D:438:LYS:HE3	1.94	0.48
1:D:845:THR:OG1	1:D:846:TYR:N	2.46	0.48
1:D:1643:LEU:HD21	1:D:1692:ASN:HD21	1.79	0.48
1:D:1678:CYS:SG	1:D:1679:SER:N	2.86	0.48
1:D:1681:VAL:O	1:D:1682:ASP:HB2	2.14	0.48
1:D:3967:LEU:O	1:D:3971:MET:HG2	2.14	0.48
1:B:298:ARG:NH1	1:B:305:TYR:OH	2.46	0.48
1:B:304:LYS:HB2	1:B:316:LEU:HD12	1.96	0.48
1:B:1173:MET:HE3	1:B:1195:PHE:CE2	2.48	0.48
1:B:2903:SER:OG	1:B:2904:ARG:N	2.46	0.48
1:B:3660:VAL:HG13	1:B:3664:HIS:ND1	2.28	0.48
1:C:417:ARG:HG2	1:C:417:ARG:HH11	1.78	0.48
1:C:1117:TRP:CZ3	1:C:1166:VAL:HB	2.47	0.48
1:C:1249:MET:HB3	1:C:1600:MET:HE2	1.96	0.48
1:C:1265:HIS:CD2	1:C:1268:ILE:HB	2.44	0.48
1:C:1399:UNK:HA	1:C:1410:UNK:HA	1.95	0.48
1:C:1643:LEU:HD21	1:C:1692:ASN:HD21	1.79	0.48
1:C:4158:GLN:HB3	1:C:4199:MET:HG2	1.95	0.48
1:A:1761:ARG:HB2	1:A:1761:ARG:HH11	1.76	0.48
1:A:4924:LEU:HD21	1:A:4936:GLU:HB3	1.96	0.48
1:B:1190:LEU:HD11	1:B:1193:LYS:HB3	1.95	0.48
1:B:2426:ILE:HG21	1:B:2470:PHE:HE2	1.78	0.48
1:C:1321:UNK:HA	1:C:1436:UNK:HA	1.96	0.48
1:C:4029:ASP:OD1	1:C:4029:ASP:N	2.47	0.48
1:D:1791:LYS:NZ	1:D:1795:MET:SD	2.79	0.48
1:D:2713:PRO:HG2	1:D:2716:LEU:HD12	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4515:LEU:HD11	1:D:4736:PHE:CE1	2.48	0.48
1:D:4792:TYR:CD2	1:D:4805:CYS:HB3	2.48	0.48
1:D:4858:LEU:O	1:D:4862:GLN:HG2	2.14	0.48
1:A:1687:LEU:HA	1:A:1690:ILE:HG12	1.94	0.48
1:A:2766:GLU:HA	1:A:2769:ILE:HG23	1.95	0.48
1:B:845:THR:OG1	1:B:846:TYR:N	2.46	0.48
1:C:699:SER:OG	1:C:700:THR:N	2.46	0.48
1:C:3660:VAL:HG13	1:C:3664:HIS:ND1	2.28	0.48
1:C:3924:GLN:HA	1:C:3924:GLN:NE2	2.26	0.48
1:D:711:GLU:HA	1:D:1255:LEU:CD1	2.43	0.48
1:A:692:HIS:HB3	1:A:795:SER:HB3	1.96	0.48
1:A:1002:ASN:O	1:A:1006:VAL:HG23	2.13	0.48
1:A:1966:SER:O	1:A:1966:SER:OG	2.31	0.48
1:A:2138:GLU:HG3	1:A:2191:MET:HB2	1.96	0.48
1:A:3905:PHE:O	1:A:3909:ILE:HG12	2.14	0.48
1:B:59:PRO:HB3	1:B:296:ARG:NH1	2.29	0.48
1:B:692:HIS:HB3	1:B:795:SER:HB3	1.96	0.48
1:C:1173:MET:HE3	1:C:1195:PHE:CE2	2.48	0.48
1:C:1991:ILE:HA	1:C:1994:GLN:HG2	1.95	0.48
1:C:2138:GLU:HG3	1:C:2191:MET:HB2	1.96	0.48
1:D:1223:THR:O	1:D:1225:LYS:HD3	2.13	0.48
1:D:3940:TRP:HA	1:D:3943:VAL:HG12	1.95	0.48
1:A:548:CYS:HA	1:A:551:PHE:CE1	2.49	0.47
1:A:1175:PHE:HB2	1:A:1182:LEU:HD22	1.96	0.47
1:A:1643:LEU:HD21	1:A:1692:ASN:HD21	1.79	0.47
1:A:1681:VAL:O	1:A:1682:ASP:HB2	2.14	0.47
1:A:2766:GLU:O	1:A:2769:ILE:HG12	2.14	0.47
1:A:3967:LEU:O	1:A:3971:MET:HG2	2.14	0.47
1:B:150:GLN:NE2	1:B:158:CYS:HB3	2.28	0.47
1:B:1942:ARG:O	1:B:1945:GLU:HG3	2.13	0.47
1:B:2138:GLU:HG3	1:B:2191:MET:HB2	1.96	0.47
1:B:2838:ALA:O	1:B:2841:GLU:HG3	2.14	0.47
1:B:3905:PHE:O	1:B:3909:ILE:HG12	2.14	0.47
1:C:270:HIS:NE2	1:C:491:GLU:HB3	2.29	0.47
1:C:298:ARG:NH1	1:C:305:TYR:OH	2.46	0.47
1:C:1190:LEU:HD11	1:C:1193:LYS:HB3	1.95	0.47
1:C:1966:SER:O	1:C:1966:SER:OG	2.31	0.47
1:C:2838:ALA:O	1:C:2841:GLU:HG3	2.14	0.47
1:C:4632:LEU:HD23	1:C:4632:LEU:H	1.79	0.47
1:C:4858:LEU:O	1:C:4862:GLN:HG2	2.14	0.47
2:I:26:HIS:HD2	2:I:41:ARG:NH1	2.12	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:59:PRO:HG2	1:A:319:LYS:HD2	1.94	0.47
1:A:150:GLN:NE2	1:A:158:CYS:HB3	2.28	0.47
1:A:894:VAL:HG13	1:A:918:LEU:HD22	1.95	0.47
1:A:3940:TRP:HA	1:A:3943:VAL:HG12	1.95	0.47
1:A:4808:MET:CG	1:B:4516:LEU:HA	2.44	0.47
1:B:270:HIS:NE2	1:B:491:GLU:HB3	2.29	0.47
1:B:708:GLY:H	1:B:723:PHE:HD2	1.60	0.47
1:B:2260:ASP:HA	1:B:2263:LYS:HZ3	1.79	0.47
1:C:548:CYS:HA	1:C:551:PHE:CE1	2.49	0.47
1:C:692:HIS:HB3	1:C:795:SER:HB3	1.96	0.47
1:C:2065:MET:HE1	1:C:2083:MET:HB3	1.96	0.47
1:C:2766:GLU:O	1:C:2769:ILE:HG12	2.14	0.47
1:D:1002:ASN:O	1:D:1006:VAL:HG23	2.13	0.47
1:D:2766:GLU:HA	1:D:2769:ILE:HG23	1.95	0.47
1:D:2838:ALA:O	1:D:2841:GLU:HG3	2.14	0.47
2:J:83:TYR:HB3	2:J:87:GLY:HA2	1.96	0.47
1:A:313:ASN:HD21	1:A:392:ILE:HA	1.79	0.47
1:B:1321:UNK:HA	1:B:1436:UNK:HA	1.96	0.47
1:C:711:GLU:HA	1:C:1255:LEU:CD1	2.43	0.47
1:C:2342:LEU:HB3	1:C:2434:VAL:HG21	1.97	0.47
1:C:2766:GLU:HA	1:C:2769:ILE:HG23	1.95	0.47
1:C:3758:LEU:O	1:C:3762:ILE:HG12	2.14	0.47
1:C:3905:PHE:O	1:C:3909:ILE:HG12	2.14	0.47
1:D:59:PRO:HB3	1:D:296:ARG:NH1	2.29	0.47
1:D:1991:ILE:HA	1:D:1994:GLN:HG2	1.95	0.47
1:D:4924:LEU:HD21	1:D:4936:GLU:HB3	1.96	0.47
1:A:2426:ILE:HG21	1:A:2470:PHE:HE2	1.78	0.47
1:A:3758:LEU:O	1:A:3762:ILE:HG12	2.14	0.47
1:B:548:CYS:HA	1:B:551:PHE:CE1	2.49	0.47
1:B:1754:LEU:HG	1:B:1756:THR:HG23	1.96	0.47
1:B:2065:MET:HE1	1:B:2083:MET:HB3	1.97	0.47
1:B:2731:TRP:CE2	1:B:2762:LEU:HD12	2.49	0.47
1:C:1681:VAL:O	1:C:1682:ASP:HB2	2.14	0.47
1:C:2426:ILE:HG21	1:C:2470:PHE:HE2	1.78	0.47
1:C:3714:GLU:OE2	1:C:4646:LYS:HB2	2.15	0.47
1:D:1249:MET:HB3	1:D:1600:MET:HE2	1.96	0.47
1:D:3832:ASP:OD1	1:D:3833:GLU:N	2.47	0.47
1:D:4106:GLU:OE1	1:D:4148:TYR:OH	2.31	0.47
1:D:4158:GLN:HB3	1:D:4199:MET:HG2	1.95	0.47
1:A:760:ASP:OD2	1:A:764:PRO:HD2	2.15	0.47
2:G:26:HIS:HD2	2:G:41:ARG:NH1	2.11	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:674:TYR:HD2	1:B:758:CYS:SG	2.36	0.47
1:B:1643:LEU:HD21	1:B:1692:ASN:HD21	1.79	0.47
1:B:2771:ARG:HH22	1:B:2775:LYS:HD2	1.80	0.47
1:B:3748:GLY:HA2	1:B:3795:LEU:HG	1.97	0.47
1:B:4079:TYR:HA	1:B:4082:PHE:HB3	1.96	0.47
2:H:83:TYR:HB3	2:H:87:GLY:HA2	1.96	0.47
1:C:2238:PRO:HA	1:C:2241:VAL:HG12	1.96	0.47
1:C:3967:LEU:O	1:C:3971:MET:HG2	2.14	0.47
1:D:1321:UNK:HA	1:D:1436:UNK:HA	1.96	0.47
1:D:2343:LEU:HD23	1:D:2434:VAL:HG23	1.97	0.47
1:D:3714:GLU:OE2	1:D:4646:LYS:HB2	2.15	0.47
1:A:298:ARG:NH1	1:A:305:TYR:OH	2.46	0.47
1:A:2238:PRO:HA	1:A:2241:VAL:HG12	1.96	0.47
1:A:4079:TYR:HA	1:A:4082:PHE:HB3	1.96	0.47
1:B:133:LEU:N	1:B:146:ASP:O	2.47	0.47
1:B:1681:VAL:O	1:B:1682:ASP:HB2	2.14	0.47
1:C:59:PRO:HB3	1:C:296:ARG:NH1	2.29	0.47
1:C:133:LEU:N	1:C:146:ASP:O	2.47	0.47
1:C:150:GLN:NE2	1:C:158:CYS:HB3	2.28	0.47
1:C:1175:PHE:HB2	1:C:1182:LEU:HD22	1.96	0.47
1:D:1966:SER:O	1:D:1966:SER:OG	2.31	0.47
1:D:4273:MET:HE2	1:D:4273:MET:HA	1.97	0.47
2:J:26:HIS:HD2	2:J:41:ARG:NH1	2.11	0.47
1:A:133:LEU:N	1:A:146:ASP:O	2.47	0.47
1:A:2262:GLU:O	1:A:2266:ARG:NE	2.48	0.47
1:A:4632:LEU:H	1:A:4632:LEU:HD23	1.79	0.47
1:A:4844:ILE:O	1:A:4848:THR:OG1	2.25	0.47
1:B:587:ASN:HA	1:B:2132:ARG:HH12	1.80	0.47
1:B:894:VAL:HG13	1:B:918:LEU:HD22	1.95	0.47
1:B:1399:UNK:HA	1:B:1410:UNK:HA	1.96	0.47
1:B:1767:PRO:HG3	1:B:1781:PRO:HB3	1.97	0.47
1:B:2766:GLU:O	1:B:2769:ILE:HG12	2.14	0.47
1:B:4106:GLU:OE1	1:B:4148:TYR:OH	2.31	0.47
2:H:78:THR:HB	2:H:81:VAL:HG22	1.96	0.47
1:C:760:ASP:OD2	1:C:764:PRO:HD2	2.15	0.47
1:C:2778:LEU:O	1:C:2782:LEU:HG	2.15	0.47
1:C:3727:GLN:C	1:C:3731:HIS:HD1	2.23	0.47
2:I:83:TYR:HB3	2:I:87:GLY:HA2	1.96	0.47
1:D:137:ARG:CZ	1:D:202:HIS:HB2	2.45	0.47
1:D:548:CYS:HA	1:D:551:PHE:CE1	2.49	0.47
1:D:692:HIS:HB3	1:D:795:SER:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1754:LEU:HG	1:D:1756:THR:HG23	1.96	0.47
1:D:2771:ARG:HH22	1:D:2775:LYS:HD2	1.80	0.47
1:D:3905:PHE:O	1:D:3909:ILE:HG12	2.14	0.47
1:A:59:PRO:HB3	1:A:296:ARG:NH1	2.29	0.47
1:A:1174:MET:HE1	1:A:1190:LEU:HA	1.97	0.47
1:A:2343:LEU:HD23	1:A:2434:VAL:HG23	1.97	0.47
1:A:3748:GLY:HA2	1:A:3795:LEU:HG	1.97	0.47
1:A:4273:MET:HE2	1:A:4273:MET:HA	1.97	0.47
2:H:26:HIS:HD2	2:H:41:ARG:NH1	2.12	0.47
1:C:2343:LEU:HD23	1:C:2434:VAL:HG23	1.97	0.47
1:C:2731:TRP:CE2	1:C:2762:LEU:HD12	2.49	0.47
1:C:4182:LYS:HD3	1:D:4905:GLU:OE2	2.15	0.47
2:I:54:GLN:N	2:I:54:GLN:OE1	2.48	0.47
1:D:2138:GLU:HG3	1:D:2191:MET:HB2	1.96	0.47
1:D:2205:ILE:HG13	1:D:2205:ILE:O	2.15	0.47
1:D:2731:TRP:CE2	1:D:2762:LEU:HD12	2.49	0.47
1:D:3717:GLU:HG2	1:D:4647:PHE:CE2	2.50	0.47
1:A:1118:SER:HA	1:A:1134:ALA:HA	1.97	0.47
1:A:1249:MET:HB3	1:A:1600:MET:HE2	1.96	0.47
1:A:2771:ARG:HH22	1:A:2775:LYS:HD2	1.80	0.47
1:B:1118:SER:HA	1:B:1134:ALA:HA	1.97	0.47
1:B:1908:LEU:O	1:B:1912:LEU:HD23	2.15	0.47
1:B:4515:LEU:HD11	1:B:4736:PHE:CE1	2.48	0.47
1:B:4836:ASP:OD2	1:D:4273:MET:N	2.48	0.47
1:B:4858:LEU:O	1:B:4862:GLN:HG2	2.14	0.47
1:C:587:ASN:HA	1:C:2132:ARG:HH12	1.80	0.47
1:C:1767:PRO:HG3	1:C:1781:PRO:HB3	1.97	0.47
1:C:2205:ILE:HG13	1:C:2205:ILE:O	2.15	0.47
1:C:2771:ARG:HH22	1:C:2775:LYS:HD2	1.80	0.47
2:I:78:THR:HB	2:I:81:VAL:HG22	1.96	0.47
1:D:587:ASN:HA	1:D:2132:ARG:HH12	1.80	0.47
1:D:760:ASP:OD2	1:D:764:PRO:HD2	2.15	0.47
1:D:2238:PRO:HA	1:D:2241:VAL:HG12	1.96	0.47
1:D:2342:LEU:HB3	1:D:2434:VAL:HG21	1.97	0.47
1:D:2778:LEU:O	1:D:2782:LEU:HG	2.15	0.47
1:A:587:ASN:HA	1:A:2132:ARG:HH12	1.80	0.47
1:A:758:CYS:SG	1:A:769:ARG:NH1	2.81	0.47
1:A:1631:LEU:HD11	1:A:1642:ILE:HD12	1.96	0.47
1:A:3714:GLU:OE2	1:A:4646:LYS:HB2	2.15	0.47
1:A:3832:ASP:OD1	1:A:3833:GLU:N	2.47	0.47
2:G:78:THR:HB	2:G:81:VAL:HG22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1631:LEU:HD11	1:B:1642:ILE:HD12	1.97	0.47
1:B:3714:GLU:OE2	1:B:4646:LYS:HB2	2.15	0.47
1:B:3727:GLN:C	1:B:3731:HIS:HD1	2.23	0.47
2:H:54:GLN:OE1	2:H:54:GLN:N	2.48	0.47
1:C:313:ASN:HD21	1:C:392:ILE:HA	1.79	0.47
1:C:637:LEU:HD11	1:C:1680:HIS:ND1	2.30	0.47
1:C:4094:GLY:HA2	1:C:4097:VAL:HG22	1.97	0.47
1:D:313:ASN:HD21	1:D:392:ILE:HA	1.79	0.47
1:D:699:SER:OG	1:D:700:THR:N	2.46	0.47
1:D:1811:VAL:N	1:D:1818:LEU:HD12	2.18	0.47
1:D:2766:GLU:O	1:D:2769:ILE:HG12	2.14	0.47
1:D:4632:LEU:HD23	1:D:4632:LEU:H	1.79	0.47
1:A:250:GLY:HA2	1:A:257:ARG:HH11	1.81	0.46
1:A:270:HIS:NE2	1:A:491:GLU:HB3	2.29	0.46
1:A:380:LYS:HD2	1:A:380:LYS:HA	1.76	0.46
1:A:2065:MET:HE1	1:A:2083:MET:HB3	1.96	0.46
2:G:54:GLN:OE1	2:G:54:GLN:N	2.48	0.46
1:B:711:GLU:HA	1:B:1255:LEU:CD1	2.43	0.46
1:B:1174:MET:HE1	1:B:1190:LEU:HA	1.97	0.46
1:B:3717:GLU:HG2	1:B:4647:PHE:CE2	2.50	0.46
1:B:3967:LEU:O	1:B:3971:MET:HG2	2.14	0.46
1:C:1908:LEU:O	1:C:1912:LEU:HD23	2.15	0.46
1:D:270:HIS:NE2	1:D:491:GLU:HB3	2.29	0.46
1:D:1175:PHE:HB2	1:D:1182:LEU:HD22	1.96	0.46
1:D:2426:ILE:HG21	1:D:2470:PHE:HE2	1.78	0.46
1:D:4193:GLU:OE2	1:D:4607:ARG:NH2	2.47	0.46
2:J:78:THR:HB	2:J:81:VAL:HG22	1.96	0.46
1:A:1321:UNK:HA	1:A:1436:UNK:HA	1.96	0.46
1:A:1908:LEU:O	1:A:1912:LEU:HD23	2.15	0.46
1:B:1255:LEU:CD2	1:B:1384:LEU:HB2	2.46	0.46
1:B:2778:LEU:O	1:B:2782:LEU:HG	2.15	0.46
1:B:4517:PHE:HB3	1:B:4562:GLU:CG	2.37	0.46
1:C:298:ARG:NH1	1:C:319:LYS:HD3	2.26	0.46
1:C:3832:ASP:OD1	1:C:3833:GLU:N	2.47	0.46
1:C:4924:LEU:HD21	1:C:4936:GLU:HB3	1.96	0.46
1:D:1908:LEU:O	1:D:1912:LEU:HD23	2.15	0.46
1:D:4914:LEU:O	1:D:4918:LEU:HD23	2.16	0.46
2:J:54:GLN:OE1	2:J:54:GLN:N	2.48	0.46
1:A:137:ARG:CZ	1:A:202:HIS:HB2	2.45	0.46
1:A:1752:ILE:HD11	1:A:1840:LEU:HB2	1.98	0.46
1:A:4582:SER:C	1:A:4725:MET:HE1	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:760:ASP:OD2	1:B:764:PRO:HD2	2.15	0.46
1:B:1100:ARG:HB3	1:B:1236:TYR:CD2	2.48	0.46
1:B:2205:ILE:O	1:B:2205:ILE:HG13	2.15	0.46
1:B:2238:PRO:HA	1:B:2241:VAL:HG12	1.96	0.46
1:B:3832:ASP:OD1	1:B:3833:GLU:N	2.47	0.46
1:B:4632:LEU:HD23	1:B:4632:LEU:H	1.79	0.46
1:C:1089:ARG:HD2	1:C:1202:ILE:HD12	1.98	0.46
1:C:3717:GLU:HG2	1:C:4647:PHE:CE2	2.50	0.46
1:C:4273:MET:HA	1:C:4273:MET:HE2	1.97	0.46
1:C:4621:SER:OG	1:C:4623:ASP:OD1	2.19	0.46
1:D:1118:SER:HA	1:D:1134:ALA:HA	1.97	0.46
1:D:1631:LEU:HD11	1:D:1642:ILE:HD12	1.96	0.46
1:D:4046:ASP:OD1	1:D:4046:ASP:N	2.44	0.46
1:A:2731:TRP:CE2	1:A:2762:LEU:HD12	2.49	0.46
1:B:1629:MET:HE3	1:B:1685:GLN:NE2	2.17	0.46
1:B:1752:ILE:HD11	1:B:1840:LEU:HB2	1.98	0.46
1:B:2074:ILE:HG21	1:B:2079:LEU:HD22	1.98	0.46
1:B:4094:GLY:HA2	1:B:4097:VAL:HG22	1.97	0.46
1:B:4182:LYS:HD3	1:C:4905:GLU:OE2	2.15	0.46
1:C:1118:SER:HA	1:C:1134:ALA:HA	1.97	0.46
1:C:1174:MET:HE1	1:C:1190:LEU:HA	1.97	0.46
1:C:1255:LEU:CD2	1:C:1384:LEU:HB2	2.46	0.46
1:C:1631:LEU:HD11	1:C:1642:ILE:HD12	1.96	0.46
1:D:337:LYS:NZ	1:D:369:GLY:O	2.38	0.46
1:D:1767:PRO:HG3	1:D:1781:PRO:HB3	1.97	0.46
1:D:2074:ILE:HG21	1:D:2079:LEU:HD22	1.98	0.46
1:D:4009:VAL:HA	1:D:4012:ILE:HG22	1.98	0.46
1:A:696:GLY:HA3	1:A:725:TYR:O	2.16	0.46
1:A:1800:VAL:HG12	1:A:1892:LEU:HD13	1.98	0.46
1:A:4858:LEU:O	1:A:4862:GLN:HG2	2.14	0.46
1:B:370:LEU:CB	1:B:393:MET:HG2	2.45	0.46
1:B:450:GLU:H	1:B:450:GLU:CD	2.24	0.46
1:B:1089:ARG:HD2	1:B:1202:ILE:HD12	1.98	0.46
1:B:1567:LEU:HD11	1:B:1579:PRO:C	2.41	0.46
1:B:2156:GLN:O	1:B:3614:ARG:NH2	2.49	0.46
1:B:2342:LEU:HB3	1:B:2434:VAL:HG21	1.97	0.46
1:B:4582:SER:C	1:B:4725:MET:HE1	2.40	0.46
1:C:1035:TYR:OH	1:C:1046:ASN:HB2	2.16	0.46
2:I:58:LYS:HB2	2:I:58:LYS:HE2	1.77	0.46
1:D:250:GLY:HA2	1:D:257:ARG:HH11	1.81	0.46
1:D:1253:LYS:HE2	1:D:1253:LYS:HB2	1.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2784:TRP:HH2	1:D:2846:ASN:HB2	1.81	0.46
1:A:882:ARG:HD2	1:A:937:LEU:HD23	1.98	0.46
1:A:2205:ILE:HG13	1:A:2205:ILE:O	2.15	0.46
1:A:2778:LEU:O	1:A:2782:LEU:HG	2.15	0.46
1:A:3717:GLU:HG2	1:A:4647:PHE:CE2	2.50	0.46
1:B:882:ARG:HD2	1:B:937:LEU:HD23	1.98	0.46
1:C:137:ARG:CZ	1:C:202:HIS:HB2	2.45	0.46
1:C:2074:ILE:HG21	1:C:2079:LEU:HD22	1.98	0.46
1:C:4193:GLU:OE2	1:C:4607:ARG:NH2	2.47	0.46
1:C:4579:THR:OG1	1:C:4732:HIS:NE2	2.44	0.46
1:C:4582:SER:C	1:C:4725:MET:HE1	2.40	0.46
1:D:882:ARG:HD2	1:D:937:LEU:HD23	1.98	0.46
1:A:711:GLU:HA	1:A:1255:LEU:CD1	2.43	0.46
1:A:1035:TYR:OH	1:A:1046:ASN:HB2	2.16	0.46
1:A:1143:GLN:HG2	1:A:1151:HIS:HA	1.98	0.46
1:A:2784:TRP:HH2	1:A:2846:ASN:HB2	1.81	0.46
1:A:4029:ASP:OD1	1:A:4029:ASP:N	2.47	0.46
1:A:4193:GLU:OE2	1:A:4607:ARG:NH2	2.47	0.46
1:A:4517:PHE:HB3	1:A:4562:GLU:CG	2.37	0.46
1:B:137:ARG:CZ	1:B:202:HIS:HB2	2.45	0.46
1:C:4914:LEU:O	1:C:4918:LEU:HD23	2.16	0.46
1:D:1035:TYR:OH	1:D:1046:ASN:HB2	2.16	0.46
1:D:1752:ILE:HD11	1:D:1840:LEU:HB2	1.98	0.46
1:D:2065:MET:HE1	1:D:2083:MET:HB3	1.96	0.46
1:D:2348:GLU:HA	1:D:2351:LYS:HE3	1.98	0.46
1:D:3712:SER:O	1:D:3712:SER:OG	2.34	0.46
1:D:4582:SER:C	1:D:4725:MET:HE1	2.40	0.46
1:A:1767:PRO:HG3	1:A:1781:PRO:HB3	1.97	0.46
1:A:2074:ILE:HG21	1:A:2079:LEU:HD22	1.98	0.46
1:A:4757:SER:O	1:A:4761:HIS:HB2	2.16	0.46
1:B:1265:HIS:CD2	1:B:1268:ILE:HB	2.44	0.46
1:B:2343:LEU:HD23	1:B:2434:VAL:HG23	1.97	0.46
1:B:4029:ASP:OD1	1:B:4029:ASP:N	2.47	0.46
1:B:4273:MET:N	1:D:4836:ASP:OD2	2.48	0.46
1:C:882:ARG:HD2	1:C:937:LEU:HD23	1.98	0.46
1:C:1752:ILE:HD11	1:C:1840:LEU:HB2	1.98	0.46
1:C:1800:VAL:HG12	1:C:1892:LEU:HD13	1.98	0.46
1:D:499:LEU:HD23	1:D:502:ILE:HD11	1.97	0.46
1:D:1174:MET:HE1	1:D:1190:LEU:HA	1.97	0.46
1:D:1800:VAL:HG12	1:D:1892:LEU:HD13	1.98	0.46
1:D:4757:SER:O	1:D:4761:HIS:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:637:LEU:HD11	1:A:1680:HIS:ND1	2.30	0.46
1:A:2342:LEU:HB3	1:A:2434:VAL:HG21	1.96	0.46
1:A:2405:MET:C	1:A:2406:HIS:HD1	2.24	0.46
1:A:4298:ALA:HA	1:A:4301:CYS:SG	2.56	0.46
1:A:4905:GLU:OE2	1:D:4182:LYS:HD3	2.15	0.46
1:B:4273:MET:HE2	1:B:4273:MET:HA	1.97	0.46
1:B:4808:MET:CG	1:C:4516:LEU:HA	2.46	0.46
1:C:450:GLU:H	1:C:450:GLU:CD	2.24	0.46
1:C:732:LEU:HB3	1:C:779:PHE:CE1	2.51	0.46
1:C:2156:GLN:O	1:C:3614:ARG:NH2	2.49	0.46
1:C:4079:TYR:HA	1:C:4082:PHE:HB3	1.96	0.46
1:C:4298:ALA:HA	1:C:4301:CYS:SG	2.56	0.46
1:C:4757:SER:O	1:C:4761:HIS:HB2	2.16	0.46
1:D:637:LEU:HD11	1:D:1680:HIS:ND1	2.31	0.46
1:D:1910:GLN:HG2	1:D:2086:LEU:HD13	1.98	0.46
1:D:2156:GLN:O	1:D:3614:ARG:NH2	2.49	0.46
1:D:4079:TYR:HA	1:D:4082:PHE:HB3	1.96	0.46
1:D:4579:THR:OG1	1:D:4732:HIS:NE2	2.44	0.46
1:A:337:LYS:NZ	1:A:369:GLY:O	2.38	0.46
1:A:1255:LEU:CD2	1:A:1384:LEU:HB2	2.46	0.46
1:A:1265:HIS:CD2	1:A:1268:ILE:HB	2.44	0.46
1:A:2838:ALA:O	1:A:2841:GLU:HG3	2.14	0.46
1:A:4094:GLY:HA2	1:A:4097:VAL:HG22	1.97	0.46
2:G:17:PRO:HG2	2:G:64:ALA:O	2.16	0.46
1:B:250:GLY:HA2	1:B:257:ARG:HH11	1.80	0.46
1:B:758:CYS:SG	1:B:769:ARG:NH1	2.81	0.46
1:B:1357:ASP:HB3	1:B:1363:LYS:CE	2.47	0.46
1:B:1704:TYR:OH	1:B:1795:MET:HE1	2.16	0.46
1:B:4298:ALA:HA	1:B:4301:CYS:SG	2.56	0.46
1:B:4757:SER:O	1:B:4761:HIS:HB2	2.16	0.46
2:H:17:PRO:HG2	2:H:64:ALA:O	2.17	0.46
1:C:328:ALA:O	1:C:365:HIS:ND1	2.49	0.46
1:C:1910:GLN:HG2	1:C:2086:LEU:HD13	1.98	0.46
1:C:3748:GLY:HA2	1:C:3795:LEU:HG	1.97	0.46
1:C:4009:VAL:HA	1:C:4012:ILE:HG22	1.98	0.46
1:C:4717:SER:O	1:C:4721:LEU:HD23	2.16	0.46
1:D:328:ALA:O	1:D:365:HIS:ND1	2.49	0.46
1:A:1089:ARG:HD2	1:A:1202:ILE:HD12	1.98	0.45
1:A:1383:ARG:NH2	1:A:1385:LYS:HB2	2.32	0.45
1:A:1629:MET:HE3	1:A:1685:GLN:NE2	2.17	0.45
1:B:380:LYS:HD2	1:B:380:LYS:HA	1.76	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:732:LEU:HB3	1:B:779:PHE:CE1	2.51	0.45
1:B:1113:MET:HE3	1:B:1211:GLN:HB3	1.98	0.45
1:B:2405:MET:C	1:B:2406:HIS:HD1	2.24	0.45
1:B:3786:VAL:HG12	1:B:3790:GLN:HG3	1.98	0.45
1:B:4914:LEU:O	1:B:4918:LEU:HD23	2.16	0.45
1:C:2262:GLU:O	1:C:2266:ARG:NE	2.48	0.45
1:C:4808:MET:CG	1:D:4516:LEU:HA	2.46	0.45
1:D:732:LEU:HB3	1:D:779:PHE:CE1	2.51	0.45
1:D:1089:ARG:HD2	1:D:1202:ILE:HD12	1.98	0.45
1:D:3748:GLY:HA2	1:D:3795:LEU:HG	1.97	0.45
1:A:3640:ILE:HD12	1:A:3697:SER:HB3	1.98	0.45
1:A:4717:SER:O	1:A:4721:LEU:HD23	2.16	0.45
1:B:1035:TYR:OH	1:B:1046:ASN:HB2	2.16	0.45
1:B:1910:GLN:HG2	1:B:2086:LEU:HD13	1.98	0.45
1:C:380:LYS:HA	1:C:380:LYS:HD2	1.76	0.45
1:C:696:GLY:HA3	1:C:725:TYR:O	2.16	0.45
1:C:2784:TRP:HH2	1:C:2846:ASN:HB2	1.81	0.45
1:C:3760:LEU:O	1:C:3764:ILE:HG12	2.17	0.45
1:D:133:LEU:N	1:D:146:ASP:O	2.47	0.45
1:D:1255:LEU:CD2	1:D:1384:LEU:HB2	2.46	0.45
1:D:1704:TYR:OH	1:D:1795:MET:HE1	2.16	0.45
1:D:3715:GLU:OE2	1:D:3716:LYS:NZ	2.49	0.45
1:D:4298:ALA:HA	1:D:4301:CYS:SG	2.56	0.45
1:A:732:LEU:HB3	1:A:779:PHE:CE1	2.51	0.45
1:A:4694:SER:O	1:A:4694:SER:OG	2.33	0.45
1:B:499:LEU:HD23	1:B:502:ILE:HD11	1.97	0.45
1:B:696:GLY:HA3	1:B:725:TYR:O	2.16	0.45
1:B:2784:TRP:HH2	1:B:2846:ASN:HB2	1.81	0.45
1:B:4009:VAL:HA	1:B:4012:ILE:HG22	1.98	0.45
1:C:1704:TYR:OH	1:C:1795:MET:HE1	2.16	0.45
1:C:1715:TYR:OH	1:C:1719:ARG:NH1	2.47	0.45
1:D:2262:GLU:O	1:D:2266:ARG:NE	2.48	0.45
1:D:3727:GLN:C	1:D:3731:HIS:HD1	2.23	0.45
1:A:450:GLU:H	1:A:450:GLU:CD	2.24	0.45
1:A:845:THR:OG1	1:A:846:TYR:N	2.46	0.45
1:A:1253:LYS:HE2	1:A:1253:LYS:HB2	1.63	0.45
1:A:1704:TYR:OH	1:A:1795:MET:HE1	2.16	0.45
1:A:1811:VAL:N	1:A:1818:LEU:HD12	2.18	0.45
1:A:3786:VAL:HG12	1:A:3790:GLN:HG3	1.98	0.45
1:B:637:LEU:HD11	1:B:1680:HIS:ND1	2.30	0.45
1:B:1143:GLN:HG2	1:B:1151:HIS:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3640:ILE:HD12	1:B:3697:SER:HB3	1.98	0.45
1:B:4273:MET:HG3	1:B:4277:ASP:OD2	2.16	0.45
1:C:4611:PHE:CZ	1:C:4946:ARG:HG3	2.52	0.45
1:D:150:GLN:NE2	1:D:158:CYS:HB3	2.28	0.45
1:D:1087:ILE:HD12	1:D:1124:PRO:HA	1.99	0.45
1:D:1245:ARG:NH1	1:D:1809:ASP:O	2.46	0.45
1:D:2414:GLU:OE2	1:D:2417:ARG:NH2	2.50	0.45
1:A:1910:GLN:HG2	1:A:2086:LEU:HD13	1.98	0.45
1:A:2156:GLN:O	1:A:3614:ARG:NH2	2.49	0.45
1:A:3727:GLN:C	1:A:3731:HIS:HD1	2.23	0.45
1:A:4611:PHE:CZ	1:A:4946:ARG:HG3	2.52	0.45
1:A:4914:LEU:O	1:A:4918:LEU:HD23	2.16	0.45
1:B:336:GLU:HG3	1:B:338:LEU:HD22	1.98	0.45
1:B:559:ILE:HD11	1:B:575:LEU:HD13	1.99	0.45
1:B:1094:TYR:OH	1:B:1809:ASP:OD2	2.16	0.45
1:B:1629:MET:HG2	1:B:1688:TYR:CE2	2.52	0.45
1:B:1800:VAL:HG12	1:B:1892:LEU:HD13	1.98	0.45
1:C:250:GLY:HA2	1:C:257:ARG:HH11	1.81	0.45
1:C:499:LEU:HD23	1:C:502:ILE:HD11	1.97	0.45
1:C:1113:MET:HE3	1:C:1211:GLN:HB3	1.98	0.45
1:C:4112:THR:HA	1:C:4115:GLN:HB2	1.99	0.45
2:I:18:LYS:HG3	2:I:21:GLN:OE1	2.17	0.45
2:J:17:PRO:HG2	2:J:64:ALA:O	2.16	0.45
1:A:499:LEU:HD23	1:A:502:ILE:HD11	1.97	0.45
1:A:1370:PHE:N	1:A:1370:PHE:CD1	2.85	0.45
1:A:1729:PRO:HD2	1:A:1756:THR:O	2.17	0.45
1:A:1744:ASN:ND2	1:A:1746:LYS:HE2	2.27	0.45
1:A:2414:GLU:OE2	1:A:2417:ARG:NH2	2.50	0.45
1:A:3760:LEU:O	1:A:3764:ILE:HG12	2.17	0.45
1:B:838:ARG:H	1:B:841:LYS:NZ	2.15	0.45
1:B:872:ILE:HD13	1:B:944:LEU:HD22	1.99	0.45
1:B:2282:LYS:HA	1:B:2282:LYS:HD2	1.86	0.45
1:B:4717:SER:O	1:B:4721:LEU:HD23	2.16	0.45
1:C:1567:LEU:HD11	1:C:1579:PRO:C	2.41	0.45
1:C:2853:LYS:HA	1:C:2856:LYS:HG2	1.99	0.45
1:C:4859:ALA:HB2	1:D:4862:GLN:OE1	2.17	0.45
1:D:433:LEU:HD12	1:D:434:ASP:N	2.32	0.45
1:D:3760:LEU:O	1:D:3764:ILE:HG12	2.17	0.45
1:D:4094:GLY:HA2	1:D:4097:VAL:HG22	1.97	0.45
1:A:328:ALA:O	1:A:365:HIS:ND1	2.49	0.45
1:A:1166:VAL:CG2	1:A:1173:MET:HG2	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:328:ALA:O	1:B:365:HIS:ND1	2.49	0.45
1:B:433:LEU:HD12	1:B:434:ASP:N	2.32	0.45
1:B:1729:PRO:HD2	1:B:1756:THR:O	2.17	0.45
1:B:1737:ILE:HD11	1:B:1922:GLU:HB3	1.98	0.45
1:B:2105:TYR:HE1	1:B:2157:HIS:ND1	2.15	0.45
1:B:2414:GLU:OE2	1:B:2417:ARG:NH2	2.50	0.45
1:B:4099:VAL:HB	1:B:4132:LEU:HD21	1.99	0.45
1:B:4611:PHE:CZ	1:B:4946:ARG:HG3	2.52	0.45
1:B:4924:LEU:HD21	1:B:4936:GLU:HB3	1.96	0.45
1:C:1087:ILE:HD12	1:C:1124:PRO:HA	1.99	0.45
1:C:3715:GLU:OE2	1:C:3716:LYS:NZ	2.49	0.45
1:D:872:ILE:HD13	1:D:944:LEU:HD22	1.99	0.45
1:D:1113:MET:HE3	1:D:1211:GLN:HB3	1.98	0.45
1:D:2405:MET:C	1:D:2406:HIS:HD1	2.24	0.45
1:D:3726:GLN:HG2	1:D:3729:ARG:NH2	2.32	0.45
1:D:4273:MET:HG3	1:D:4277:ASP:OD2	2.17	0.45
1:A:427:ASN:HB3	1:A:431:ARG:HH22	1.82	0.45
1:A:677:LEU:N	1:A:755:ILE:O	2.50	0.45
1:A:872:ILE:HD13	1:A:944:LEU:HD22	1.99	0.45
1:A:1629:MET:HG2	1:A:1688:TYR:CE2	2.52	0.45
1:A:3726:GLN:HG2	1:A:3729:ARG:NH2	2.32	0.45
1:B:1245:ARG:NH1	1:B:1809:ASP:O	2.46	0.45
1:C:872:ILE:HD13	1:C:944:LEU:HD22	1.99	0.45
1:C:1124:PRO:HB2	1:C:1252:SER:OG	2.17	0.45
1:C:1357:ASP:HB3	1:C:1363:LYS:CE	2.46	0.45
1:C:2348:GLU:HA	1:C:2351:LYS:HE3	1.98	0.45
1:C:2428:LEU:O	1:C:2432:VAL:HG23	2.16	0.45
1:D:838:ARG:H	1:D:841:LYS:NZ	2.15	0.45
1:D:1383:ARG:NH2	1:D:1385:LYS:HB2	2.32	0.45
1:D:1729:PRO:HD2	1:D:1756:THR:O	2.17	0.45
1:D:3786:VAL:HG12	1:D:3790:GLN:HG3	1.98	0.45
1:D:4138:MET:HE2	1:D:4138:MET:HB2	1.86	0.45
1:D:4717:SER:O	1:D:4721:LEU:HD23	2.16	0.45
1:A:838:ARG:H	1:A:841:LYS:NZ	2.15	0.45
1:A:1245:ARG:NH1	1:A:1809:ASP:O	2.46	0.45
1:A:1737:ILE:HD11	1:A:1922:GLU:HB3	1.98	0.45
1:A:1942:ARG:HA	1:A:1945:GLU:HG3	1.99	0.45
1:A:2254:LEU:O	1:A:3809:ARG:NH1	2.50	0.45
1:A:2428:LEU:O	1:A:2432:VAL:HG23	2.17	0.45
1:A:3676:THR:OG1	1:A:3678:LYS:NZ	2.50	0.45
1:A:3712:SER:O	1:A:3712:SER:OG	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4009:VAL:HA	1:A:4012:ILE:HG22	1.98	0.45
1:B:606:ARG:HH12	1:B:1635:GLU:CD	2.24	0.45
1:B:1165:MET:HB3	1:B:1236:TYR:CE2	2.52	0.45
1:B:1383:ARG:NH2	1:B:1385:LYS:HB2	2.32	0.45
1:B:2170:VAL:HG21	1:B:2198:PHE:CD2	2.52	0.45
1:B:2348:GLU:HA	1:B:2351:LYS:HE3	1.98	0.45
1:B:3760:LEU:O	1:B:3764:ILE:HG12	2.17	0.45
1:B:4193:GLU:OE2	1:B:4607:ARG:NH2	2.47	0.45
1:C:606:ARG:HH12	1:C:1635:GLU:CD	2.24	0.45
1:C:1931:PHE:CE1	1:C:1995:LEU:HB2	2.52	0.45
1:C:1967:PRO:HD2	1:C:1970:GLU:OE2	2.17	0.45
1:C:2257:ARG:HH21	1:C:3806:ALA:HB1	1.82	0.45
1:C:2405:MET:C	1:C:2406:HIS:HD1	2.24	0.45
1:D:427:ASN:HB3	1:D:431:ARG:HH22	1.82	0.45
1:D:450:GLU:CD	1:D:450:GLU:H	2.24	0.45
1:D:606:ARG:HH12	1:D:1635:GLU:CD	2.24	0.45
1:D:1166:VAL:CG2	1:D:1173:MET:HG2	2.47	0.45
1:D:1368:PRO:HD2	1:D:1434:UNK:C	2.47	0.45
1:D:1967:PRO:HD2	1:D:1970:GLU:OE2	2.17	0.45
1:D:2257:ARG:HH21	1:D:3806:ALA:HB1	1.82	0.45
1:D:3802:LEU:HD23	1:D:3829:LEU:HD13	1.99	0.45
1:A:1117:TRP:HZ3	1:A:1166:VAL:HB	1.82	0.45
1:A:2105:TYR:HE1	1:A:2157:HIS:ND1	2.15	0.45
1:B:1166:VAL:CG2	1:B:1173:MET:HG2	2.47	0.45
1:B:1966:SER:O	1:B:1966:SER:OG	2.31	0.45
1:B:3676:THR:OG1	1:B:3678:LYS:NZ	2.50	0.45
2:H:18:LYS:HG3	2:H:21:GLN:OE1	2.17	0.45
1:C:559:ILE:HD11	1:C:575:LEU:HD13	1.99	0.45
1:C:1791:LYS:NZ	1:C:1795:MET:SD	2.79	0.45
1:C:2414:GLU:OE2	1:C:2417:ARG:NH2	2.50	0.45
1:C:3640:ILE:HD12	1:C:3697:SER:HB3	1.98	0.45
1:C:3802:LEU:HD23	1:C:3829:LEU:HD13	1.99	0.45
1:C:4273:MET:HG3	1:C:4277:ASP:OD2	2.16	0.45
1:D:1143:GLN:HG2	1:D:1151:HIS:HA	1.98	0.45
1:D:1357:ASP:HB3	1:D:1363:LYS:CE	2.46	0.45
1:D:1737:ILE:HD11	1:D:1922:GLU:HB3	1.98	0.45
2:J:18:LYS:HG3	2:J:21:GLN:OE1	2.17	0.45
1:A:370:LEU:CB	1:A:393:MET:HG2	2.45	0.44
1:A:661:LEU:HD13	1:A:673:TRP:CD1	2.52	0.44
1:A:1644:GLU:OE1	1:A:1648:GLN:NE2	2.50	0.44
1:A:2170:VAL:HG21	1:A:2198:PHE:CD2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3901:GLY:O	1:A:3905:PHE:HD2	2.00	0.44
1:B:1942:ARG:HA	1:B:1945:GLU:HG3	1.99	0.44
1:B:2428:LEU:O	1:B:2432:VAL:HG23	2.16	0.44
1:C:323:ASP:O	1:C:327:THR:OG1	2.30	0.44
1:C:1143:GLN:HG2	1:C:1151:HIS:HA	1.98	0.44
1:C:1253:LYS:HB2	1:C:1253:LYS:HE2	1.63	0.44
1:C:1644:GLU:OE1	1:C:1648:GLN:NE2	2.50	0.44
1:D:115:TYR:CE2	1:D:175:VAL:HG22	2.52	0.44
1:D:587:ASN:HA	1:D:2132:ARG:NH1	2.32	0.44
1:D:696:GLY:HA3	1:D:725:TYR:O	2.16	0.44
1:D:1370:PHE:N	1:D:1370:PHE:CD1	2.85	0.44
1:D:2853:LYS:HA	1:D:2856:LYS:HG2	1.99	0.44
1:D:2858:GLU:O	1:D:2862:LYS:HG2	2.18	0.44
1:D:3676:THR:OG1	1:D:3678:LYS:NZ	2.50	0.44
1:D:4643:TYR:HD2	1:D:4645:ASP:OD1	2.00	0.44
1:A:587:ASN:HA	1:A:2132:ARG:NH1	2.32	0.44
1:A:837:SER:H	1:A:841:LYS:HZ1	1.64	0.44
1:A:1165:MET:HB3	1:A:1236:TYR:CE2	2.52	0.44
1:A:1567:LEU:HD11	1:A:1579:PRO:C	2.41	0.44
1:A:1931:PHE:CE1	1:A:1995:LEU:HB2	2.52	0.44
1:A:3715:GLU:OE2	1:A:3716:LYS:NZ	2.49	0.44
1:A:4643:TYR:HD2	1:A:4645:ASP:OD1	2.00	0.44
1:A:4859:ALA:HB2	1:B:4862:GLN:OE1	2.18	0.44
2:G:18:LYS:HG3	2:G:21:GLN:OE1	2.17	0.44
2:G:39:SER:O	2:G:43:ARG:NH1	2.51	0.44
1:B:427:ASN:HB3	1:B:431:ARG:HH22	1.82	0.44
1:B:2061:ILE:O	1:B:2065:MET:HG2	2.18	0.44
1:B:2262:GLU:O	1:B:2266:ARG:NE	2.48	0.44
1:B:2348:GLU:O	1:B:2352:ILE:HG12	2.17	0.44
1:B:3898:ASP:OD1	1:B:3898:ASP:N	2.45	0.44
1:B:4640:PRO:O	1:B:4646:LYS:NZ	2.43	0.44
1:B:4759:VAL:HG13	1:B:4760:THR:HG23	1.99	0.44
1:C:436:LEU:HD21	1:C:517:VAL:HG12	2.00	0.44
1:C:1629:MET:HG2	1:C:1688:TYR:CE2	2.52	0.44
1:C:3676:THR:OG1	1:C:3678:LYS:NZ	2.50	0.44
1:C:3786:VAL:HG12	1:C:3790:GLN:HG3	1.98	0.44
1:C:4759:VAL:HG13	1:C:4760:THR:HG23	1.99	0.44
1:D:1124:PRO:HB2	1:D:1252:SER:OG	2.17	0.44
1:D:1567:LEU:HD11	1:D:1579:PRO:C	2.41	0.44
1:D:2290:ASN:HD22	1:D:2291:PRO:CD	2.30	0.44
1:A:1113:MET:HE3	1:A:1211:GLN:HB3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2061:ILE:O	1:A:2065:MET:HG2	2.18	0.44
1:A:2321:ARG:NH2	1:D:189:GLU:OE2	2.49	0.44
1:B:35:LEU:HB3	1:B:49:LEU:HD22	1.99	0.44
1:B:1124:PRO:HB2	1:B:1252:SER:OG	2.17	0.44
1:B:2254:LEU:O	1:B:3809:ARG:NH1	2.50	0.44
1:B:2858:GLU:O	1:B:2862:LYS:HG2	2.17	0.44
1:B:4112:THR:HA	1:B:4115:GLN:HB2	1.99	0.44
1:B:4643:TYR:HD2	1:B:4645:ASP:OD1	2.00	0.44
2:H:39:SER:O	2:H:43:ARG:NH1	2.51	0.44
1:C:1572:PHE:HZ	1:C:1587:LEU:HD11	1.83	0.44
1:C:4643:TYR:HD2	1:C:4645:ASP:OD1	2.00	0.44
1:D:336:GLU:HG3	1:D:338:LEU:HD22	1.98	0.44
1:D:1931:PHE:CE1	1:D:1995:LEU:HB2	2.52	0.44
1:D:2061:ILE:O	1:D:2065:MET:HG2	2.18	0.44
1:D:2254:LEU:O	1:D:3809:ARG:NH1	2.50	0.44
1:A:115:TYR:CE2	1:A:175:VAL:HG22	2.52	0.44
1:A:882:ARG:HG2	1:A:940:LEU:HD22	2.00	0.44
1:A:1087:ILE:HD12	1:A:1124:PRO:HA	1.99	0.44
1:A:4759:VAL:HG13	1:A:4760:THR:HG23	1.99	0.44
1:B:549:ALA:HA	1:B:584:GLU:OE2	2.18	0.44
1:B:1370:PHE:N	1:B:1370:PHE:CD1	2.85	0.44
1:B:1572:PHE:HZ	1:B:1587:LEU:HD11	1.83	0.44
1:B:3802:LEU:HD23	1:B:3829:LEU:HD13	1.99	0.44
1:B:4512:ASN:HD22	1:B:4742:LEU:HD21	1.83	0.44
1:C:587:ASN:HA	1:C:2132:ARG:NH1	2.32	0.44
1:C:661:LEU:HD13	1:C:673:TRP:CD1	2.52	0.44
1:C:670:TYR:HE2	1:C:818:GLY:O	2.00	0.44
1:C:838:ARG:H	1:C:841:LYS:NZ	2.15	0.44
1:C:1368:PRO:HD2	1:C:1434:UNK:C	2.47	0.44
1:C:2121:SER:O	1:C:2125:ILE:HG12	2.18	0.44
1:C:3712:SER:O	1:C:3712:SER:OG	2.34	0.44
2:I:17:PRO:HG2	2:I:64:ALA:O	2.17	0.44
1:D:190:ARG:HD3	1:D:205:ALA:O	2.18	0.44
1:D:549:ALA:HA	1:D:584:GLU:OE2	2.18	0.44
1:D:1165:MET:HB3	1:D:1236:TYR:CE2	2.52	0.44
1:D:1629:MET:HG2	1:D:1688:TYR:CE2	2.52	0.44
1:D:3640:ILE:HD12	1:D:3697:SER:HB3	1.98	0.44
1:D:4512:ASN:HD22	1:D:4742:LEU:HD21	1.83	0.44
1:D:4517:PHE:HB3	1:D:4562:GLU:CG	2.37	0.44
1:A:433:LEU:HD12	1:A:434:ASP:N	2.32	0.44
1:A:1357:ASP:HB3	1:A:1363:LYS:CE	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2858:GLU:O	1:A:2862:LYS:HG2	2.18	0.44
1:A:3802:LEU:HD23	1:A:3829:LEU:HD13	1.99	0.44
1:A:4099:VAL:HB	1:A:4132:LEU:HD21	1.99	0.44
1:A:4512:ASN:HD22	1:A:4742:LEU:HD21	1.83	0.44
1:B:115:TYR:CE2	1:B:175:VAL:HG22	2.52	0.44
1:B:311:ASP:OD1	1:B:311:ASP:N	2.51	0.44
1:B:661:LEU:HD13	1:B:673:TRP:CD1	2.52	0.44
1:B:670:TYR:HE2	1:B:818:GLY:O	2.00	0.44
1:B:837:SER:N	1:B:841:LYS:HZ1	2.16	0.44
1:B:1967:PRO:HD2	1:B:1970:GLU:OE2	2.17	0.44
1:B:2257:ARG:HH21	1:B:3806:ALA:HB1	1.82	0.44
1:B:4859:ALA:HB2	1:C:4862:GLN:OE1	2.17	0.44
1:C:311:ASP:OD1	1:C:311:ASP:N	2.51	0.44
1:C:336:GLU:HG3	1:C:338:LEU:HD22	1.98	0.44
1:C:2061:ILE:O	1:C:2065:MET:HG2	2.18	0.44
2:I:39:SER:O	2:I:43:ARG:NH1	2.51	0.44
1:D:1572:PHE:HZ	1:D:1587:LEU:HD11	1.83	0.44
1:D:1789:LYS:HB2	1:D:1835:PHE:HE1	1.83	0.44
1:D:2105:TYR:HE1	1:D:2157:HIS:ND1	2.15	0.44
1:A:670:TYR:HE2	1:A:818:GLY:O	2.00	0.44
1:A:1255:LEU:HD22	1:A:1384:LEU:HB2	2.00	0.44
1:A:1368:PRO:HD2	1:A:1434:UNK:C	2.47	0.44
1:A:2271:CYS:SG	1:A:2294:GLY:N	2.91	0.44
1:A:2348:GLU:HA	1:A:2351:LYS:HE3	1.98	0.44
1:A:2348:GLU:O	1:A:2352:ILE:HG12	2.17	0.44
1:A:4273:MET:HG3	1:A:4277:ASP:OD2	2.16	0.44
1:A:4789:ARG:NH2	1:A:4805:CYS:O	2.51	0.44
1:B:1644:GLU:OE1	1:B:1648:GLN:NE2	2.50	0.44
1:B:3621:GLN:O	1:B:3624:GLU:HG3	2.18	0.44
1:B:3715:GLU:OE2	1:B:3716:LYS:NZ	2.49	0.44
1:C:549:ALA:HA	1:C:584:GLU:OE2	2.18	0.44
1:C:1383:ARG:NH2	1:C:1385:LYS:HB2	2.32	0.44
1:C:2105:TYR:HE1	1:C:2157:HIS:ND1	2.15	0.44
1:C:2335:ARG:O	1:C:2335:ARG:HG3	2.18	0.44
1:C:2348:GLU:O	1:C:2352:ILE:HG12	2.17	0.44
1:C:2712:ILE:HD13	1:C:2775:LYS:HE2	2.00	0.44
1:C:3901:GLY:O	1:C:3905:PHE:HD2	2.01	0.44
1:C:4099:VAL:HB	1:C:4132:LEU:HD21	1.99	0.44
1:D:641:ASP:O	1:D:1634:PRO:HG2	2.18	0.44
1:D:837:SER:H	1:D:841:LYS:HZ1	1.63	0.44
1:D:839:GLU:HG2	1:D:840:TYR:N	2.29	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1249:MET:HE2	1:D:1249:MET:HB2	1.84	0.44
1:D:1370:PHE:N	1:D:1370:PHE:HD1	2.16	0.44
1:D:4611:PHE:CZ	1:D:4946:ARG:HG3	2.52	0.44
1:A:641:ASP:O	1:A:1634:PRO:HG2	2.18	0.44
1:A:1967:PRO:HD2	1:A:1970:GLU:OE2	2.17	0.44
1:A:2065:MET:HE1	1:A:2083:MET:CG	2.48	0.44
1:A:2121:SER:O	1:A:2125:ILE:HG12	2.18	0.44
1:A:2335:ARG:O	1:A:2335:ARG:HG3	2.18	0.44
1:A:2343:LEU:O	1:A:2347:GLU:HG2	2.18	0.44
1:A:3621:GLN:O	1:A:3624:GLU:HG3	2.18	0.44
1:B:587:ASN:HA	1:B:2132:ARG:NH1	2.32	0.44
1:B:769:ARG:HA	1:B:774:PRO:HA	1.99	0.44
1:B:839:GLU:HG2	1:B:840:TYR:N	2.29	0.44
1:B:4143:ARG:NH1	1:B:4961:TYR:OH	2.51	0.44
1:C:115:TYR:CE2	1:C:175:VAL:HG22	2.52	0.44
1:C:433:LEU:HD12	1:C:434:ASP:N	2.32	0.44
1:C:1165:MET:HB3	1:C:1236:TYR:CE2	2.52	0.44
1:C:1729:PRO:HD2	1:C:1756:THR:O	2.17	0.44
1:C:1737:ILE:HD11	1:C:1922:GLU:HB3	1.98	0.44
1:C:1744:ASN:ND2	1:C:1746:LYS:HE2	2.27	0.44
1:C:1747:HIS:O	1:C:1747:HIS:ND1	2.51	0.44
1:C:1942:ARG:HA	1:C:1945:GLU:HG3	1.98	0.44
1:D:670:TYR:HE2	1:D:818:GLY:O	2.00	0.44
1:D:882:ARG:HG2	1:D:940:LEU:HD22	2.00	0.44
1:D:3901:GLY:O	1:D:3905:PHE:HD2	2.00	0.44
1:A:336:GLU:HG3	1:A:338:LEU:HD22	1.98	0.44
1:A:436:LEU:HD21	1:A:517:VAL:HG12	2.00	0.44
1:A:2712:ILE:HD13	1:A:2775:LYS:HE2	2.00	0.44
1:A:4112:THR:HA	1:A:4115:GLN:HB2	1.99	0.44
1:B:1087:ILE:HD12	1:B:1124:PRO:HA	1.99	0.44
1:B:1117:TRP:HZ3	1:B:1166:VAL:HB	1.82	0.44
1:B:1255:LEU:HD22	1:B:1384:LEU:HB2	2.00	0.44
1:B:1931:PHE:CE1	1:B:1995:LEU:HB2	2.52	0.44
1:B:3730:LEU:HD11	1:B:3764:ILE:CD1	2.48	0.44
1:B:4138:MET:HE2	1:B:4138:MET:HB2	1.86	0.44
1:C:35:LEU:HB3	1:C:49:LEU:HD22	1.99	0.44
1:C:659:ILE:HG13	1:C:822:CYS:HB3	2.00	0.44
1:C:769:ARG:HA	1:C:774:PRO:HA	1.99	0.44
1:C:1643:LEU:HD22	1:C:1694:TYR:O	2.18	0.44
1:C:2856:LYS:HA	1:C:2859:LEU:HG	2.00	0.44
1:D:559:ILE:HD11	1:D:575:LEU:HD13	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:758:CYS:SG	1:D:769:ARG:NH1	2.81	0.44
1:D:4126:ASN:HA	1:D:4129:GLN:HG2	2.00	0.44
1:A:541:ILE:HG22	1:A:541:ILE:O	2.18	0.44
1:A:2853:LYS:HA	1:A:2856:LYS:HG2	1.99	0.44
1:A:4653:MET:O	1:A:4657:GLY:N	2.51	0.44
1:B:436:LEU:HD21	1:B:517:VAL:HG12	2.00	0.44
1:B:4274:THR:OG1	1:B:4278:MET:HE3	2.18	0.44
1:C:677:LEU:CD1	1:C:695:VAL:HG21	2.48	0.44
1:C:2858:GLU:O	1:C:2862:LYS:HG2	2.18	0.44
1:D:589:ILE:C	1:D:590:LYS:HE2	2.43	0.44
1:D:661:LEU:HD13	1:D:673:TRP:CD1	2.52	0.44
1:D:1644:GLU:OE1	1:D:1648:GLN:NE2	2.50	0.44
1:D:2170:VAL:HG21	1:D:2198:PHE:CD2	2.52	0.44
1:D:2348:GLU:O	1:D:2352:ILE:HG12	2.17	0.44
1:A:559:ILE:HD11	1:A:575:LEU:HD13	1.99	0.43
1:A:1124:PRO:HB2	1:A:1252:SER:OG	2.17	0.43
1:A:1789:LYS:HB2	1:A:1835:PHE:HE1	1.83	0.43
1:A:4579:THR:OG1	1:A:4732:HIS:NE2	2.44	0.43
1:B:659:ILE:HG13	1:B:822:CYS:HB3	2.00	0.43
1:C:758:CYS:SG	1:C:769:ARG:NH1	2.81	0.43
1:C:1370:PHE:N	1:C:1370:PHE:CD1	2.85	0.43
1:C:4143:ARG:NH1	1:C:4961:TYR:OH	2.51	0.43
2:I:28:THR:O	2:I:28:THR:OG1	2.35	0.43
1:D:1117:TRP:HZ3	1:D:1166:VAL:HB	1.82	0.43
1:D:4112:THR:HA	1:D:4115:GLN:HB2	1.99	0.43
1:D:4274:THR:OG1	1:D:4278:MET:HE3	2.18	0.43
1:A:446:ASP:O	1:A:448:PRO:HD3	2.18	0.43
1:A:1370:PHE:N	1:A:1370:PHE:HD1	2.16	0.43
1:A:1572:PHE:HZ	1:A:1587:LEU:HD11	1.83	0.43
2:G:27:TYR:O	2:G:40:SER:N	2.45	0.43
1:B:900:LEU:HD23	1:B:902:TRP:HE1	1.84	0.43
1:B:1370:PHE:N	1:B:1370:PHE:HD1	2.16	0.43
1:B:2271:CYS:SG	1:B:2294:GLY:N	2.91	0.43
1:B:3726:GLN:HG2	1:B:3729:ARG:NH2	2.32	0.43
1:B:4773:LEU:HD12	1:B:4857:LEU:HB3	2.00	0.43
1:C:1091:GLU:HG2	1:C:1248:THR:OG1	2.18	0.43
1:C:1370:PHE:N	1:C:1370:PHE:HD1	2.16	0.43
1:C:4512:ASN:HD22	1:C:4742:LEU:HD21	1.83	0.43
1:C:4773:LEU:HD12	1:C:4857:LEU:HB3	2.00	0.43
1:C:4789:ARG:NH2	1:C:4805:CYS:O	2.51	0.43
1:D:541:ILE:O	1:D:541:ILE:HG22	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1942:ARG:HA	1:D:1945:GLU:HG3	1.99	0.43
1:D:2856:LYS:HA	1:D:2859:LEU:HG	2.00	0.43
1:D:4182:LYS:HA	1:D:4182:LYS:HD2	1.85	0.43
1:D:4789:ARG:NH2	1:D:4805:CYS:O	2.51	0.43
1:A:190:ARG:HD3	1:A:205:ALA:O	2.18	0.43
1:A:418:VAL:O	1:A:422:THR:HG22	2.19	0.43
1:A:656:ARG:NH2	1:A:835:GLU:OE2	2.52	0.43
1:A:2257:ARG:HH21	1:A:3806:ALA:HB1	1.82	0.43
1:A:3612:ARG:O	1:A:3612:ARG:NH1	2.51	0.43
1:A:4274:THR:OG1	1:A:4278:MET:HE3	2.18	0.43
1:B:323:ASP:O	1:B:327:THR:OG1	2.30	0.43
1:B:589:ILE:C	1:B:590:LYS:HE2	2.43	0.43
1:B:882:ARG:HG2	1:B:940:LEU:HD22	2.00	0.43
1:B:1368:PRO:HD2	1:B:1434:UNK:C	2.47	0.43
1:B:2121:SER:O	1:B:2125:ILE:HG12	2.18	0.43
1:C:418:VAL:O	1:C:422:THR:HG22	2.19	0.43
1:C:589:ILE:C	1:C:590:LYS:HE2	2.43	0.43
1:C:882:ARG:HG2	1:C:940:LEU:HD22	2.00	0.43
1:C:1681:VAL:HG23	1:C:1682:ASP:N	2.28	0.43
1:C:1970:GLU:HA	1:C:1973:ASN:HB2	2.00	0.43
1:C:4614:LEU:HA	1:C:4618:GLU:HG3	2.00	0.43
1:D:19:GLU:CD	1:D:218:SER:HB3	2.44	0.43
1:D:558:LEU:HG	1:D:571:ILE:HG23	2.01	0.43
1:D:1691:GLU:HG2	1:D:1791:LYS:CE	2.48	0.43
1:D:1715:TYR:OH	1:D:1719:ARG:NH1	2.47	0.43
1:D:1968:PRO:HA	1:D:1971:GLN:HB3	2.00	0.43
1:D:2121:SER:O	1:D:2125:ILE:HG12	2.18	0.43
1:D:2343:LEU:O	1:D:2347:GLU:HG2	2.18	0.43
1:D:2428:LEU:O	1:D:2432:VAL:HG23	2.17	0.43
1:A:4143:ARG:NH1	1:A:4961:TYR:OH	2.51	0.43
1:B:1744:ASN:ND2	1:B:1746:LYS:HE2	2.27	0.43
1:B:1962:ARG:HB3	1:B:1974:MET:HE1	2.00	0.43
1:B:1970:GLU:HA	1:B:1973:ASN:HB2	2.00	0.43
1:B:2065:MET:HE1	1:B:2083:MET:CG	2.48	0.43
1:B:2722:LYS:HD2	1:B:2722:LYS:HA	1.88	0.43
1:B:2853:LYS:HA	1:B:2856:LYS:HG2	1.99	0.43
1:C:641:ASP:O	1:C:1634:PRO:HG2	2.18	0.43
1:C:1914:ASP:OD1	1:C:2089:ARG:NH2	2.48	0.43
1:C:2278:MET:HE3	1:C:2278:MET:HB3	1.92	0.43
1:C:2455:MET:HE3	1:C:2455:MET:HB2	1.87	0.43
1:C:4889:ILE:HD11	1:C:4914:LEU:HD23	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1970:GLU:HA	1:D:1973:ASN:HB2	2.00	0.43
1:D:4640:PRO:HG2	1:D:4646:LYS:HA	2.00	0.43
1:D:4789:ARG:NE	1:D:4805:CYS:SG	2.87	0.43
1:A:360:ILE:HG23	1:A:402:GLY:HA2	2.00	0.43
1:A:4640:PRO:HG2	1:A:4646:LYS:HA	2.00	0.43
1:A:4793:ASN:O	1:A:4795:SER:N	2.49	0.43
1:B:575:LEU:HA	1:B:578:VAL:HG12	2.01	0.43
1:B:3954:GLN:OE1	1:B:4012:ILE:HG13	2.19	0.43
1:B:4764:LYS:O	1:B:4767:VAL:HG22	2.19	0.43
1:B:4789:ARG:NH2	1:B:4805:CYS:O	2.51	0.43
1:B:4850:PHE:CD1	1:B:4854:ILE:HD11	2.54	0.43
1:C:446:ASP:O	1:C:448:PRO:HD3	2.18	0.43
1:C:1166:VAL:CG2	1:C:1173:MET:HG2	2.47	0.43
1:C:1968:PRO:HA	1:C:1971:GLN:HB3	2.00	0.43
1:C:2170:VAL:HG21	1:C:2198:PHE:CD2	2.52	0.43
1:C:2271:CYS:SG	1:C:2294:GLY:N	2.91	0.43
1:C:2282:LYS:HA	1:C:2282:LYS:HD2	1.86	0.43
1:C:2776:GLU:O	1:C:2780:THR:HG23	2.19	0.43
1:C:3726:GLN:HG2	1:C:3729:ARG:NH2	2.32	0.43
1:D:3621:GLN:O	1:D:3624:GLU:HG3	2.18	0.43
1:A:35:LEU:HB3	1:A:49:LEU:HD22	1.99	0.43
1:A:900:LEU:HD23	1:A:902:TRP:HE1	1.83	0.43
1:A:1091:GLU:HG2	1:A:1248:THR:OG1	2.18	0.43
1:A:1970:GLU:HA	1:A:1973:ASN:HB2	2.01	0.43
1:A:2290:ASN:HD22	1:A:2291:PRO:CD	2.30	0.43
1:A:3925:GLY:O	1:A:3927:CYS:N	2.51	0.43
1:A:3974:GLN:NE2	1:A:4012:ILE:HD11	2.34	0.43
1:B:541:ILE:O	1:B:541:ILE:HG22	2.18	0.43
1:B:1091:GLU:HG2	1:B:1248:THR:OG1	2.18	0.43
1:C:49:LEU:HD12	1:C:201:TRP:HB3	2.00	0.43
1:C:190:ARG:HD3	1:C:205:ALA:O	2.18	0.43
1:C:837:SER:N	1:C:841:LYS:HZ1	2.16	0.43
1:C:4789:ARG:NE	1:C:4805:CYS:SG	2.87	0.43
1:D:1091:GLU:HG2	1:D:1248:THR:OG1	2.18	0.43
1:D:1744:ASN:ND2	1:D:1746:LYS:HE2	2.27	0.43
1:D:2271:CYS:SG	1:D:2294:GLY:N	2.91	0.43
1:D:2712:ILE:HD13	1:D:2775:LYS:HE2	2.00	0.43
1:D:4759:VAL:HG13	1:D:4760:THR:HG23	1.99	0.43
1:A:549:ALA:HA	1:A:584:GLU:OE2	2.18	0.43
1:A:603:LYS:O	1:A:1586:ARG:HG3	2.19	0.43
1:A:2385:ASN:ND2	1:A:2458:GLY:O	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:58:LYS:HB2	2:G:58:LYS:HE2	1.77	0.43
1:B:49:LEU:HD12	1:B:201:TRP:HB3	2.00	0.43
1:B:360:ILE:HG23	1:B:402:GLY:HA2	2.00	0.43
1:B:656:ARG:NH2	1:B:835:GLU:OE2	2.52	0.43
1:B:695:VAL:HG11	1:B:755:ILE:HD12	2.01	0.43
1:B:1643:LEU:HD22	1:B:1694:TYR:O	2.18	0.43
1:B:1691:GLU:HG2	1:B:1791:LYS:CE	2.48	0.43
1:B:2191:MET:HE2	1:B:2195:CYS:SG	2.59	0.43
1:B:4126:ASN:HA	1:B:4129:GLN:HG2	2.00	0.43
1:B:4653:MET:O	1:B:4657:GLY:N	2.51	0.43
1:C:1962:ARG:HB3	1:C:1974:MET:HE1	2.00	0.43
1:C:2343:LEU:O	1:C:2347:GLU:HG2	2.18	0.43
1:C:3730:LEU:HD11	1:C:3764:ILE:CD1	2.48	0.43
1:C:3860:GLN:NE2	1:C:3866:THR:HA	2.34	0.43
1:C:4850:PHE:CD1	1:C:4854:ILE:HD11	2.54	0.43
1:D:3730:LEU:HD11	1:D:3764:ILE:CD1	2.48	0.43
1:D:4099:VAL:HB	1:D:4132:LEU:HD21	1.99	0.43
1:D:4764:LYS:O	1:D:4767:VAL:HG22	2.19	0.43
2:J:27:TYR:O	2:J:40:SER:N	2.45	0.43
2:J:58:LYS:HE2	2:J:58:LYS:HB2	1.77	0.43
1:A:19:GLU:CD	1:A:218:SER:HB3	2.44	0.43
1:A:575:LEU:HA	1:A:578:VAL:HG12	2.01	0.43
1:A:589:ILE:C	1:A:590:LYS:HE2	2.43	0.43
1:A:1643:LEU:HD22	1:A:1694:TYR:O	2.18	0.43
1:B:641:ASP:O	1:B:1634:PRO:HG2	2.18	0.43
1:B:3974:GLN:NE2	1:B:4012:ILE:HD11	2.34	0.43
1:C:427:ASN:HB3	1:C:431:ARG:CZ	2.49	0.43
1:C:575:LEU:HA	1:C:578:VAL:HG12	2.01	0.43
1:C:656:ARG:NH2	1:C:835:GLU:OE2	2.52	0.43
1:C:695:VAL:HG11	1:C:755:ILE:HD12	2.01	0.43
1:C:697:TRP:HB2	1:C:766:ILE:HD13	2.01	0.43
1:C:900:LEU:HD23	1:C:902:TRP:HE1	1.84	0.43
1:C:1117:TRP:HZ3	1:C:1166:VAL:HB	1.82	0.43
1:C:1255:LEU:HD22	1:C:1384:LEU:HD12	2.00	0.43
1:C:2191:MET:HE2	1:C:2195:CYS:SG	2.59	0.43
1:C:4199:MET:HE3	1:C:4199:MET:HB3	1.91	0.43
1:C:4640:PRO:HG2	1:C:4646:LYS:HA	2.00	0.43
1:C:4649:LYS:HA	1:C:4652:VAL:HG12	2.01	0.43
1:D:1255:LEU:HD22	1:D:1384:LEU:HB2	2.00	0.43
1:D:1643:LEU:HD22	1:D:1694:TYR:O	2.18	0.43
1:D:3860:GLN:NE2	1:D:3866:THR:HA	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3950:PHE:CD1	1:D:3970:LEU:HD21	2.54	0.43
2:J:39:SER:O	2:J:43:ARG:NH1	2.51	0.43
1:A:769:ARG:HA	1:A:774:PRO:HA	1.99	0.43
1:A:3730:LEU:HD11	1:A:3764:ILE:CD1	2.48	0.43
1:A:4182:LYS:HD3	1:B:4905:GLU:OE2	2.18	0.43
1:A:4889:ILE:HD11	1:A:4914:LEU:HD23	2.00	0.43
1:B:370:LEU:HB2	1:B:393:MET:HE2	2.01	0.43
1:B:1747:HIS:O	1:B:1747:HIS:ND1	2.51	0.43
1:B:2712:ILE:HD13	1:B:2775:LYS:HE2	2.00	0.43
1:B:3860:GLN:NE2	1:B:3866:THR:HA	2.34	0.43
1:B:4659:PHE:HD2	1:B:4660:TYR:CE1	2.37	0.43
1:C:360:ILE:HG23	1:C:402:GLY:HA2	2.00	0.43
1:C:558:LEU:HG	1:C:571:ILE:HG23	2.01	0.43
1:C:1255:LEU:HD22	1:C:1384:LEU:HB2	2.00	0.43
1:C:1789:LYS:HB2	1:C:1835:PHE:HE1	1.83	0.43
1:C:4653:MET:O	1:C:4657:GLY:N	2.51	0.43
1:D:311:ASP:N	1:D:311:ASP:OD1	2.51	0.43
1:D:677:LEU:CD1	1:D:695:VAL:HG21	2.48	0.43
1:D:695:VAL:HG11	1:D:755:ILE:HD12	2.01	0.43
1:D:900:LEU:HD23	1:D:902:TRP:HE1	1.83	0.43
1:D:1255:LEU:HD22	1:D:1384:LEU:HD12	2.00	0.43
1:D:2335:ARG:O	1:D:2335:ARG:HG3	2.18	0.43
1:D:4044:LYS:HE2	1:D:4044:LYS:HB3	1.91	0.43
1:D:4143:ARG:NH1	1:D:4961:TYR:OH	2.51	0.43
1:D:4614:LEU:HA	1:D:4618:GLU:HG3	2.00	0.43
1:A:2191:MET:HE2	1:A:2195:CYS:SG	2.59	0.43
1:A:4126:ASN:HA	1:A:4129:GLN:HG2	2.00	0.43
1:A:4773:LEU:HD12	1:A:4857:LEU:HB3	2.00	0.43
1:B:190:ARG:HD3	1:B:205:ALA:O	2.18	0.43
1:B:603:LYS:O	1:B:1586:ARG:HG3	2.19	0.43
1:B:2335:ARG:O	1:B:2335:ARG:HG3	2.18	0.43
1:B:4793:ASN:O	1:B:4795:SER:N	2.49	0.43
1:C:541:ILE:HG22	1:C:541:ILE:O	2.18	0.43
1:C:2234:ARG:HA	1:C:2234:ARG:HD2	1.87	0.43
1:C:3954:GLN:OE1	1:C:4012:ILE:HG13	2.19	0.43
1:C:3992:GLY:N	1:C:4108:MET:HE1	2.34	0.43
1:C:4274:THR:OG1	1:C:4278:MET:HE3	2.18	0.43
1:D:659:ILE:HG13	1:D:822:CYS:HB3	2.00	0.43
1:D:769:ARG:HA	1:D:774:PRO:HA	1.99	0.43
1:D:1962:ARG:HB3	1:D:1974:MET:HE1	2.00	0.43
1:D:4850:PHE:CD1	1:D:4854:ILE:HD11	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4889:ILE:HD11	1:D:4914:LEU:HD23	2.00	0.43
1:A:370:LEU:HB2	1:A:393:MET:HE2	2.01	0.42
1:A:1255:LEU:HD22	1:A:1384:LEU:HD12	2.00	0.42
1:A:1906:CYS:O	1:A:1910:GLN:HG3	2.19	0.42
1:A:1962:ARG:HB3	1:A:1974:MET:HE1	2.00	0.42
1:A:2776:GLU:O	1:A:2780:THR:HG23	2.19	0.42
1:A:2856:LYS:HA	1:A:2859:LEU:HG	2.00	0.42
1:A:4850:PHE:CD1	1:A:4854:ILE:HD11	2.54	0.42
1:B:446:ASP:O	1:B:448:PRO:HD3	2.18	0.42
1:B:677:LEU:CD1	1:B:695:VAL:HG21	2.48	0.42
1:B:1706:LEU:O	1:B:1710:ILE:HG13	2.19	0.42
1:B:2343:LEU:O	1:B:2347:GLU:HG2	2.18	0.42
1:B:2776:GLU:O	1:B:2780:THR:HG23	2.19	0.42
1:B:4614:LEU:HA	1:B:4618:GLU:HG3	2.00	0.42
1:C:189:GLU:OE2	1:D:2321:ARG:NH2	2.52	0.42
1:C:427:ASN:HB3	1:C:431:ARG:HH22	1.82	0.42
1:C:839:GLU:HG2	1:C:840:TYR:N	2.29	0.42
1:C:3621:GLN:O	1:C:3624:GLU:HG3	2.18	0.42
1:C:4116:THR:HA	1:C:4119:GLU:HG2	2.01	0.42
1:D:446:ASP:O	1:D:448:PRO:HD3	2.18	0.42
1:D:530:LEU:HD23	1:D:530:LEU:HA	1.87	0.42
1:D:603:LYS:O	1:D:1586:ARG:HG3	2.19	0.42
1:D:669:GLN:HB3	1:D:673:TRP:HZ2	1.84	0.42
1:D:2383:MET:O	1:D:2387:ILE:HG12	2.19	0.42
1:D:4773:LEU:HD12	1:D:4857:LEU:HB3	2.00	0.42
1:A:49:LEU:HD12	1:A:201:TRP:HB3	2.00	0.42
1:A:677:LEU:CD1	1:A:695:VAL:HG21	2.48	0.42
1:A:1249:MET:HE2	1:A:1249:MET:HB2	1.84	0.42
1:A:1629:MET:HE2	1:A:1642:ILE:HD13	2.01	0.42
1:A:4494:ALA:HB1	1:A:4592:LEU:HD13	2.01	0.42
1:B:655:MET:HE1	1:B:836:HIS:ND1	2.35	0.42
1:B:798:ILE:HD12	1:B:798:ILE:HA	1.92	0.42
1:B:1906:CYS:O	1:B:1910:GLN:HG3	2.20	0.42
1:B:4649:LYS:HA	1:B:4652:VAL:HG12	2.01	0.42
1:B:4889:ILE:HD11	1:B:4914:LEU:HD23	2.00	0.42
1:C:1629:MET:HE3	1:C:1685:GLN:NE2	2.17	0.42
1:C:1906:CYS:O	1:C:1910:GLN:HG3	2.19	0.42
1:C:2065:MET:HE1	1:C:2083:MET:CG	2.48	0.42
1:C:2477:ILE:HG21	1:C:2483:LEU:HD13	2.01	0.42
1:C:3950:PHE:CD1	1:C:3970:LEU:HD21	2.54	0.42
1:C:4126:ASN:HA	1:C:4129:GLN:HG2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4659:PHE:HD2	1:C:4660:TYR:CE1	2.37	0.42
1:D:49:LEU:HD12	1:D:201:TRP:HB3	2.00	0.42
1:D:418:VAL:O	1:D:422:THR:HG22	2.19	0.42
1:D:1771:SER:HA	2:J:56:VAL:HA	2.02	0.42
1:D:2065:MET:HE1	1:D:2083:MET:CG	2.48	0.42
1:D:3992:GLY:N	1:D:4108:MET:HE1	2.34	0.42
1:D:4640:PRO:O	1:D:4646:LYS:NZ	2.43	0.42
1:D:4649:LYS:HA	1:D:4652:VAL:HG12	2.01	0.42
1:A:1102:TYR:O	1:A:1238:PRO:HA	2.20	0.42
1:A:2383:MET:O	1:A:2387:ILE:HG12	2.19	0.42
1:A:4614:LEU:HA	1:A:4618:GLU:HG3	2.00	0.42
1:B:418:VAL:O	1:B:422:THR:HG22	2.19	0.42
1:B:427:ASN:HB3	1:B:431:ARG:CZ	2.49	0.42
1:B:1700:ARG:NH1	1:B:1817:PHE:O	2.53	0.42
1:B:2856:LYS:HA	1:B:2859:LEU:HG	2.00	0.42
1:B:3901:GLY:O	1:B:3905:PHE:HD2	2.01	0.42
1:B:4494:ALA:HB1	1:B:4592:LEU:HD13	2.02	0.42
1:B:4694:SER:O	1:B:4694:SER:OG	2.33	0.42
1:C:669:GLN:HB3	1:C:673:TRP:HZ2	1.84	0.42
1:C:2128:LEU:HD11	1:C:2140:LEU:HB2	2.01	0.42
1:C:4764:LYS:O	1:C:4767:VAL:HG22	2.19	0.42
1:D:35:LEU:HB3	1:D:49:LEU:HD22	1.99	0.42
1:D:370:LEU:CB	1:D:393:MET:HG2	2.45	0.42
1:D:436:LEU:HD21	1:D:517:VAL:HG12	2.00	0.42
1:D:697:TRP:HB2	1:D:766:ILE:HD13	2.01	0.42
1:D:1906:CYS:O	1:D:1910:GLN:HG3	2.19	0.42
1:D:2191:MET:HE2	1:D:2195:CYS:SG	2.59	0.42
1:A:946:LEU:HD23	1:A:946:LEU:HA	1.90	0.42
1:A:1968:PRO:HA	1:A:1971:GLN:HB3	2.00	0.42
1:A:3732:ASP:HA	1:A:3775:LYS:HZ1	1.85	0.42
1:A:3878:LEU:HD21	1:A:3938:ARG:HH21	1.85	0.42
1:A:3954:GLN:OE1	1:A:4012:ILE:HG13	2.19	0.42
1:A:4659:PHE:HD2	1:A:4660:TYR:CE1	2.37	0.42
1:A:4764:LYS:O	1:A:4767:VAL:HG22	2.19	0.42
1:B:697:TRP:HB2	1:B:766:ILE:HD13	2.01	0.42
1:B:773:GLN:H	1:B:773:GLN:HG2	1.70	0.42
1:B:1789:LYS:HB2	1:B:1835:PHE:HE1	1.83	0.42
1:B:2850:ILE:HG13	1:B:2851:TRP:N	2.35	0.42
1:B:4753:ARG:HH11	1:B:4756:LEU:HD22	1.85	0.42
1:C:24:CYS:HB3	1:C:212:TRP:CE3	2.55	0.42
1:C:1706:LEU:O	1:C:1710:ILE:HG13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2850:ILE:HG13	1:C:2851:TRP:N	2.34	0.42
1:C:4645:ASP:OD1	1:C:4645:ASP:C	2.62	0.42
1:D:370:LEU:HB2	1:D:393:MET:HE2	2.01	0.42
1:D:427:ASN:HB3	1:D:431:ARG:CZ	2.49	0.42
1:D:575:LEU:HA	1:D:578:VAL:HG12	2.01	0.42
1:D:655:MET:HE1	1:D:836:HIS:ND1	2.34	0.42
1:D:656:ARG:NH2	1:D:835:GLU:OE2	2.52	0.42
1:D:1747:HIS:O	1:D:1747:HIS:ND1	2.51	0.42
1:D:2161:MET:HE2	1:D:2161:MET:N	2.34	0.42
1:D:3612:ARG:NH1	1:D:3612:ARG:O	2.51	0.42
1:D:3878:LEU:HD21	1:D:3938:ARG:HH21	1.85	0.42
1:D:3925:GLY:O	1:D:3927:CYS:N	2.51	0.42
1:D:3954:GLN:OE1	1:D:4012:ILE:HG13	2.19	0.42
1:D:4494:ALA:HB1	1:D:4592:LEU:HD13	2.01	0.42
1:D:4653:MET:O	1:D:4657:GLY:N	2.51	0.42
1:A:695:VAL:HG11	1:A:755:ILE:HD12	2.01	0.42
1:A:4138:MET:HE2	1:A:4138:MET:HB2	1.86	0.42
2:G:8:ILE:HD12	2:G:72:ARG:HG2	2.02	0.42
1:B:1771:SER:HA	2:H:56:VAL:HA	2.02	0.42
1:B:2128:LEU:HD11	1:B:2140:LEU:HB2	2.01	0.42
1:B:3950:PHE:CD1	1:B:3970:LEU:HD21	2.54	0.42
1:B:3992:GLY:N	1:B:4108:MET:HE1	2.34	0.42
1:B:4116:THR:HA	1:B:4119:GLU:HG2	2.01	0.42
1:B:4778:TYR:OH	1:C:4515:LEU:HD23	2.20	0.42
1:C:603:LYS:O	1:C:1586:ARG:HG3	2.19	0.42
1:C:2161:MET:HE2	1:C:2161:MET:N	2.34	0.42
1:C:2254:LEU:O	1:C:3809:ARG:NH1	2.50	0.42
1:C:3720:LYS:HE3	1:C:3720:LYS:HB2	1.87	0.42
1:C:3898:ASP:OD1	1:C:3898:ASP:N	2.45	0.42
1:C:4494:ALA:HB1	1:C:4592:LEU:HD13	2.01	0.42
1:C:4778:TYR:OH	1:D:4515:LEU:HD23	2.19	0.42
1:D:24:CYS:HB3	1:D:212:TRP:CE3	2.55	0.42
1:D:360:ILE:HG23	1:D:402:GLY:HA2	2.00	0.42
1:D:3974:GLN:NE2	1:D:4012:ILE:HD11	2.34	0.42
1:A:659:ILE:HG13	1:A:822:CYS:HB3	2.00	0.42
1:A:1591:PHE:CZ	1:A:1593:SER:HB2	2.55	0.42
1:A:1706:LEU:O	1:A:1710:ILE:HG13	2.19	0.42
1:A:1715:TYR:OH	1:A:1719:ARG:NH1	2.47	0.42
1:A:2161:MET:HE2	1:A:2161:MET:N	2.34	0.42
1:A:3950:PHE:CD1	1:A:3970:LEU:HD21	2.54	0.42
1:A:4753:ARG:HH11	1:A:4756:LEU:HD22	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:868:ASP:OD1	1:B:868:ASP:N	2.53	0.42
1:B:1715:TYR:OH	1:B:1719:ARG:NH1	2.47	0.42
1:B:2492:LEU:O	1:B:2496:ARG:HG3	2.19	0.42
1:B:3712:SER:O	1:B:3712:SER:OG	2.34	0.42
1:B:4159:TRP:NE1	1:B:4915:ALA:HB2	2.35	0.42
1:C:19:GLU:CD	1:C:218:SER:HB3	2.44	0.42
1:C:370:LEU:HB2	1:C:393:MET:HE2	2.01	0.42
1:C:1102:TYR:O	1:C:1238:PRO:HA	2.20	0.42
1:C:2492:LEU:O	1:C:2496:ARG:HG3	2.19	0.42
1:C:2722:LYS:HD2	1:C:2722:LYS:HA	1.88	0.42
1:D:447:LEU:HD23	1:D:447:LEU:HA	1.93	0.42
1:D:2492:LEU:O	1:D:2496:ARG:HG3	2.19	0.42
1:A:558:LEU:HG	1:A:571:ILE:HG23	2.01	0.42
1:A:2477:ILE:HG21	1:A:2483:LEU:HD13	2.01	0.42
1:A:3992:GLY:N	1:A:4108:MET:HE1	2.34	0.42
1:B:19:GLU:CD	1:B:218:SER:HB3	2.44	0.42
1:B:250:GLY:HA2	1:B:257:ARG:HD3	2.02	0.42
1:B:1968:PRO:HA	1:B:1971:GLN:HB3	2.00	0.42
1:C:2144:GLY:O	1:C:2148:ILE:HG12	2.20	0.42
1:D:137:ARG:NH1	1:D:138:SER:OG	2.53	0.42
1:D:1102:TYR:O	1:D:1238:PRO:HA	2.20	0.42
1:D:1700:ARG:NH1	1:D:1817:PHE:O	2.53	0.42
1:A:2316:ALA:O	1:A:2320:VAL:HG23	2.20	0.42
1:A:3860:GLN:NE2	1:A:3866:THR:HA	2.34	0.42
1:A:4273:MET:N	1:C:4836:ASP:OD2	2.53	0.42
1:A:4513:PHE:O	1:A:4516:LEU:HB2	2.20	0.42
1:B:558:LEU:HG	1:B:571:ILE:HG23	2.01	0.42
1:B:1100:ARG:HB3	1:B:1236:TYR:CG	2.55	0.42
1:B:2161:MET:HE2	1:B:2161:MET:N	2.34	0.42
1:B:2334:LEU:HA	1:B:2341:GLY:HA2	2.02	0.42
1:B:4173:PHE:CD1	1:B:4879:VAL:HG21	2.55	0.42
2:H:8:ILE:HD12	2:H:72:ARG:HG2	2.02	0.42
1:C:692:HIS:O	1:C:794:PHE:HA	2.20	0.42
1:C:1106:GLU:HG2	1:C:1161:VAL:HG12	2.02	0.42
1:C:1691:GLU:HG2	1:C:1791:LYS:CE	2.48	0.42
1:C:2278:MET:O	1:C:2282:LYS:HG2	2.20	0.42
1:C:3802:LEU:HB2	1:C:3883:SER:OG	2.20	0.42
1:C:4159:TRP:NE1	1:C:4915:ALA:HB2	2.35	0.42
1:C:4490:LEU:HG	1:C:4591:CYS:SG	2.60	0.42
1:C:4793:ASN:O	1:C:4795:SER:N	2.49	0.42
1:D:692:HIS:O	1:D:794:PHE:HA	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2776:GLU:O	1:D:2780:THR:HG23	2.19	0.42
1:D:2850:ILE:HG13	1:D:2851:TRP:N	2.35	0.42
1:A:137:ARG:NH1	1:A:138:SER:OG	2.53	0.42
1:A:189:GLU:OE2	1:B:2321:ARG:NH2	2.51	0.42
1:A:669:GLN:HB3	1:A:673:TRP:HZ2	1.84	0.42
1:A:1254:ARG:NH1	1:A:1254:ARG:CB	2.73	0.42
1:A:1691:GLU:HG2	1:A:1791:LYS:CE	2.48	0.42
1:A:1771:SER:HA	2:G:56:VAL:HA	2.02	0.42
1:A:2334:LEU:HA	1:A:2341:GLY:HA2	2.02	0.42
1:A:2850:ILE:HG13	1:A:2851:TRP:N	2.34	0.42
1:A:3802:LEU:HB2	1:A:3883:SER:OG	2.20	0.42
1:A:4116:THR:HA	1:A:4119:GLU:HG2	2.01	0.42
1:A:4159:TRP:NE1	1:A:4915:ALA:HB2	2.35	0.42
1:B:189:GLU:OE2	1:C:2321:ARG:NH2	2.52	0.42
1:B:459:LEU:HG	1:B:463:PHE:HE2	1.85	0.42
1:B:894:VAL:O	1:B:898:ILE:HG13	2.20	0.42
1:B:1106:GLU:HG2	1:B:1161:VAL:HG12	2.02	0.42
1:B:1294:ASN:ND2	1:B:1296:ASN:OD1	2.52	0.42
1:B:2250:ASN:OD1	1:B:3816:LEU:HD12	2.20	0.42
1:B:3888:TYR:CD1	1:B:3953:MET:HE1	2.55	0.42
1:B:4640:PRO:HG2	1:B:4646:LYS:HA	2.00	0.42
1:B:4941:LYS:HE2	1:B:4941:LYS:HB3	1.90	0.42
1:C:801:ARG:NH1	1:C:1614:GLU:OE2	2.48	0.42
1:C:929:ARG:HA	1:C:932:ASN:HD21	1.85	0.42
1:C:1679:SER:HB3	1:C:1769:PHE:CE2	2.55	0.42
1:C:1700:ARG:NH1	1:C:1817:PHE:O	2.53	0.42
1:C:3732:ASP:HA	1:C:3775:LYS:HZ1	1.85	0.42
1:C:3878:LEU:HD21	1:C:3938:ARG:HH21	1.85	0.42
1:C:4594:VAL:N	1:C:4595:PRO:HD2	2.35	0.42
1:D:19:GLU:HG3	1:D:68:VAL:HG22	2.02	0.42
1:D:837:SER:N	1:D:841:LYS:HZ1	2.17	0.42
1:D:982:ASP:OD2	1:D:985:PHE:HB2	2.20	0.42
1:D:1043:LYS:HE3	1:D:1047:LYS:HZ1	1.83	0.42
1:D:2086:LEU:O	1:D:2090:GLN:HG2	2.20	0.42
1:D:4645:ASP:OD1	1:D:4645:ASP:C	2.62	0.42
1:A:24:CYS:HB3	1:A:212:TRP:CE3	2.55	0.42
1:A:427:ASN:HB3	1:A:431:ARG:CZ	2.49	0.42
1:A:837:SER:N	1:A:841:LYS:HZ1	2.17	0.42
1:A:1100:ARG:HB3	1:A:1236:TYR:CG	2.55	0.42
1:A:1679:SER:HB3	1:A:1769:PHE:CE2	2.55	0.42
1:A:2492:LEU:O	1:A:2496:ARG:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4594:VAL:N	1:A:4595:PRO:HD2	2.35	0.42
1:B:19:GLU:HG3	1:B:68:VAL:HG22	2.02	0.42
1:B:467:ASP:OD1	1:B:468:GLU:N	2.53	0.42
1:B:669:GLN:HB3	1:B:673:TRP:HZ2	1.84	0.42
1:B:1255:LEU:HD22	1:B:1384:LEU:HD12	2.00	0.42
1:B:2144:GLY:O	1:B:2148:ILE:HG12	2.20	0.42
1:B:2477:ILE:HG21	1:B:2483:LEU:HD13	2.01	0.42
1:C:161:THR:HG23	1:C:184:VAL:HB	2.02	0.42
1:C:250:GLY:HA2	1:C:257:ARG:HD3	2.02	0.42
1:C:677:LEU:N	1:C:755:ILE:O	2.50	0.42
1:C:1100:ARG:HB3	1:C:1236:TYR:CG	2.55	0.42
1:C:1100:ARG:HB2	1:C:1236:TYR:HA	2.02	0.42
1:C:2079:LEU:CD2	1:C:2083:MET:HE2	2.50	0.42
1:C:2383:MET:O	1:C:2387:ILE:HG12	2.20	0.42
1:C:3974:GLN:NE2	1:C:4012:ILE:HD11	2.34	0.42
1:D:1591:PHE:CZ	1:D:1593:SER:HB2	2.55	0.42
1:D:1679:SER:HB3	1:D:1769:PHE:CE2	2.55	0.42
1:D:2722:LYS:HD2	1:D:2722:LYS:HA	1.88	0.42
1:D:4513:PHE:O	1:D:4516:LEU:HB2	2.20	0.42
1:A:250:GLY:HA2	1:A:257:ARG:HD3	2.02	0.41
1:A:459:LEU:HG	1:A:463:PHE:HE2	1.85	0.41
1:A:606:ARG:HH12	1:A:1635:GLU:CD	2.24	0.41
1:A:655:MET:HE1	1:A:836:HIS:ND1	2.35	0.41
1:A:982:ASP:OD2	1:A:985:PHE:HB2	2.20	0.41
1:A:1700:ARG:NH1	1:A:1817:PHE:O	2.53	0.41
1:A:2079:LEU:CD2	1:A:2083:MET:HE2	2.50	0.41
1:A:2128:LEU:HD11	1:A:2140:LEU:HB2	2.01	0.41
1:A:3985:LEU:HD22	1:A:3988:ASN:ND2	2.35	0.41
1:A:4813:MET:SD	1:D:4843:ILE:HD11	2.60	0.41
1:B:24:CYS:HB3	1:B:212:TRP:CE3	2.55	0.41
1:B:677:LEU:N	1:B:755:ILE:O	2.50	0.41
1:B:1100:ARG:HB2	1:B:1236:TYR:HA	2.02	0.41
1:B:1591:PHE:CZ	1:B:1593:SER:HB2	2.55	0.41
1:B:2316:ALA:O	1:B:2320:VAL:HG23	2.20	0.41
1:B:3612:ARG:O	1:B:3612:ARG:NH1	2.51	0.41
1:B:3878:LEU:HD21	1:B:3938:ARG:HH21	1.85	0.41
1:B:4490:LEU:HG	1:B:4591:CYS:SG	2.60	0.41
1:B:4645:ASP:OD1	1:B:4645:ASP:C	2.63	0.41
1:C:137:ARG:NH1	1:C:138:SER:OG	2.53	0.41
1:C:516:ASP:OD1	1:C:516:ASP:N	2.53	0.41
1:C:894:VAL:O	1:C:898:ILE:HG13	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3664:HIS:HD2	1:C:3733:ARG:O	2.03	0.41
1:C:4173:PHE:CD1	1:C:4879:VAL:HG21	2.55	0.41
1:C:4753:ARG:HH11	1:C:4756:LEU:HD22	1.85	0.41
1:D:459:LEU:HG	1:D:463:PHE:HE2	1.85	0.41
1:D:801:ARG:NH1	1:D:1619:LEU:HB2	2.35	0.41
1:D:1789:LYS:HB2	1:D:1835:PHE:CE1	2.55	0.41
1:D:4159:TRP:NE1	1:D:4915:ALA:HB2	2.35	0.41
1:D:4173:PHE:CD1	1:D:4879:VAL:HG21	2.55	0.41
1:A:227:TYR:CD2	1:A:352:SER:HB2	2.55	0.41
1:A:692:HIS:O	1:A:794:PHE:HA	2.20	0.41
1:A:894:VAL:O	1:A:898:ILE:HG13	2.20	0.41
1:A:900:LEU:HD23	1:A:902:TRP:NE1	2.36	0.41
1:A:1730:MET:SD	1:A:2106:THR:OG1	2.77	0.41
1:A:2250:ASN:OD1	1:A:3816:LEU:HD12	2.20	0.41
1:A:4173:PHE:CD1	1:A:4879:VAL:HG21	2.55	0.41
1:A:4649:LYS:HA	1:A:4652:VAL:HG12	2.01	0.41
1:B:138:SER:HB3	1:B:140:THR:HG22	2.03	0.41
1:B:358:ASP:OD1	1:B:358:ASP:N	2.46	0.41
1:B:3802:LEU:HB2	1:B:3883:SER:OG	2.20	0.41
1:C:1629:MET:HE2	1:C:1642:ILE:HD13	2.02	0.41
1:D:658:ASN:HB2	1:D:832:LEU:HD12	2.03	0.41
1:D:2144:GLY:O	1:D:2148:ILE:HG12	2.20	0.41
1:A:795:SER:OG	1:A:796:ALA:N	2.54	0.41
1:A:2086:LEU:O	1:A:2090:GLN:HG2	2.20	0.41
1:B:658:ASN:HB2	1:B:832:LEU:HD12	2.03	0.41
1:B:929:ARG:HA	1:B:932:ASN:HD21	1.85	0.41
1:B:2290:ASN:HD22	1:B:2291:PRO:CD	2.30	0.41
1:B:2383:MET:O	1:B:2387:ILE:HG12	2.19	0.41
1:C:564:ARG:O	1:C:565:LEU:HB3	2.21	0.41
1:C:795:SER:OG	1:C:796:ALA:N	2.54	0.41
1:C:1571:LEU:HD23	1:C:1571:LEU:HA	1.87	0.41
1:C:2086:LEU:O	1:C:2090:GLN:HG2	2.20	0.41
1:C:2250:ASN:OD1	1:C:3816:LEU:HD12	2.20	0.41
1:C:4505:LEU:HD22	1:C:4749:PHE:CE2	2.55	0.41
1:C:4513:PHE:O	1:C:4516:LEU:HB2	2.20	0.41
1:D:250:GLY:HA2	1:D:257:ARG:HD3	2.02	0.41
1:D:894:VAL:O	1:D:898:ILE:HG13	2.20	0.41
1:D:900:LEU:HD23	1:D:902:TRP:NE1	2.36	0.41
1:D:2316:ALA:O	1:D:2320:VAL:HG23	2.20	0.41
1:D:4659:PHE:HD2	1:D:4660:TYR:CE1	2.37	0.41
1:D:4753:ARG:HH11	1:D:4756:LEU:HD22	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3923:ILE:HD12	1:A:3984:MET:HG2	2.03	0.41
1:A:4604:GLU:HG3	1:A:4605:VAL:N	2.36	0.41
1:A:4941:LYS:HE2	1:A:4941:LYS:HB3	1.90	0.41
1:B:373:THR:OG1	1:B:392:ILE:O	2.21	0.41
1:B:721:ASP:OD1	1:B:724:SER:HB2	2.21	0.41
1:B:982:ASP:OD2	1:B:985:PHE:HB2	2.20	0.41
1:B:1764:PHE:HD1	1:B:1780:SER:HB2	1.86	0.41
1:B:2086:LEU:O	1:B:2090:GLN:HG2	2.20	0.41
1:B:2278:MET:O	1:B:2282:LYS:HG2	2.20	0.41
1:B:3925:GLY:O	1:B:3927:CYS:N	2.51	0.41
1:B:4009:VAL:O	1:B:4012:ILE:HG22	2.20	0.41
1:B:4505:LEU:HD22	1:B:4749:PHE:CE2	2.55	0.41
1:C:370:LEU:CB	1:C:393:MET:HG2	2.45	0.41
1:C:459:LEU:HG	1:C:463:PHE:HE2	1.85	0.41
1:C:530:LEU:HD23	1:C:530:LEU:HA	1.86	0.41
1:C:1969:GLN:O	1:C:1972:ILE:HG22	2.21	0.41
1:C:4042:ILE:CG2	1:C:4047:PHE:HB2	2.46	0.41
2:I:43:ARG:H	2:I:43:ARG:HG2	1.71	0.41
1:D:1629:MET:HE2	1:D:1642:ILE:HD13	2.02	0.41
1:D:4009:VAL:O	1:D:4012:ILE:HG22	2.20	0.41
1:D:4116:THR:HA	1:D:4119:GLU:HG2	2.01	0.41
1:D:4490:LEU:HG	1:D:4591:CYS:SG	2.60	0.41
1:D:4594:VAL:N	1:D:4595:PRO:HD2	2.35	0.41
1:A:467:ASP:OD1	1:A:468:GLU:N	2.53	0.41
1:A:697:TRP:HB2	1:A:766:ILE:HD13	2.01	0.41
1:A:801:ARG:NH1	1:A:1619:LEU:HB2	2.35	0.41
1:A:929:ARG:HA	1:A:932:ASN:HD21	1.85	0.41
1:A:1969:GLN:O	1:A:1972:ILE:HG22	2.21	0.41
1:A:2278:MET:O	1:A:2282:LYS:HG2	2.20	0.41
1:A:4039:LYS:HB2	1:A:4039:LYS:HE2	1.88	0.41
1:A:4720:TYR:OH	1:A:4744:ASP:HA	2.21	0.41
1:B:161:THR:HG23	1:B:184:VAL:HB	2.02	0.41
1:B:332:ARG:NH1	1:B:364:GLN:OE1	2.54	0.41
1:B:564:ARG:O	1:B:565:LEU:HB3	2.20	0.41
1:B:692:HIS:O	1:B:794:PHE:HA	2.20	0.41
1:B:1629:MET:HE2	1:B:1642:ILE:HD13	2.01	0.41
1:B:1969:GLN:O	1:B:1972:ILE:HG22	2.21	0.41
1:B:4509:PHE:HZ	1:B:4745:ILE:HD12	1.86	0.41
1:B:4513:PHE:O	1:B:4516:LEU:HB2	2.20	0.41
1:C:1294:ASN:ND2	1:C:1296:ASN:OD1	2.52	0.41
1:C:2193:ALA:HA	1:C:2236:SER:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3888:TYR:CD1	1:C:3953:MET:HE1	2.55	0.41
1:C:3923:ILE:HD12	1:C:3984:MET:HG2	2.03	0.41
1:C:4604:GLU:HG3	1:C:4605:VAL:N	2.36	0.41
1:C:4860:ILE:HD13	1:D:4755:ILE:CG2	2.50	0.41
2:I:63:GLY:O	2:I:66:GLN:HG3	2.20	0.41
1:D:4070:GLU:OE1	1:D:4070:GLU:N	2.51	0.41
1:A:161:THR:HG23	1:A:184:VAL:HB	2.02	0.41
1:A:3888:TYR:CD1	1:A:3953:MET:HE1	2.55	0.41
1:A:4621:SER:OG	1:A:4623:ASP:OD1	2.19	0.41
1:B:137:ARG:NH1	1:B:138:SER:OG	2.53	0.41
1:B:801:ARG:NH1	1:B:1619:LEU:HB2	2.35	0.41
1:B:1571:LEU:HD23	1:B:1571:LEU:HA	1.87	0.41
1:B:3664:HIS:HD2	1:B:3733:ARG:O	2.03	0.41
1:C:837:SER:HB3	1:C:841:LYS:NZ	2.35	0.41
1:C:900:LEU:HD23	1:C:902:TRP:NE1	2.36	0.41
1:C:1676:ALA:HB1	1:C:1680:HIS:CE1	2.56	0.41
1:C:3985:LEU:HD22	1:C:3988:ASN:ND2	2.35	0.41
1:C:4720:TYR:OH	1:C:4744:ASP:HA	2.21	0.41
1:D:467:ASP:OD1	1:D:468:GLU:N	2.53	0.41
1:D:1706:LEU:O	1:D:1710:ILE:HG13	2.19	0.41
2:J:8:ILE:HD12	2:J:72:ARG:HG2	2.02	0.41
1:A:1681:VAL:HG23	1:A:1682:ASP:N	2.28	0.41
1:A:2144:GLY:O	1:A:2148:ILE:HG12	2.20	0.41
1:A:3539:UNK:HA	1:D:1241:VAL:HG21	2.01	0.41
1:B:343:ARG:HH21	1:B:345:GLU:H	1.69	0.41
1:B:3923:ILE:HD12	1:B:3984:MET:HG2	2.03	0.41
1:B:4579:THR:OG1	1:B:4732:HIS:NE2	2.44	0.41
1:B:4720:TYR:OH	1:B:4744:ASP:HA	2.21	0.41
2:H:27:TYR:O	2:H:40:SER:N	2.45	0.41
2:H:28:THR:O	2:H:28:THR:OG1	2.35	0.41
1:C:152:ASP:OD2	1:C:154:THR:OG1	2.39	0.41
1:C:801:ARG:NH1	1:C:1619:LEU:HB2	2.35	0.41
1:C:982:ASP:OD2	1:C:985:PHE:HB2	2.20	0.41
1:C:2479:VAL:HB	1:C:2482:PHE:HB3	2.03	0.41
1:C:3799:CYS:HB3	1:C:3835:THR:OG1	2.21	0.41
1:C:4182:LYS:HA	1:C:4182:LYS:HD2	1.85	0.41
1:D:161:THR:HG23	1:D:184:VAL:HB	2.02	0.41
1:D:1764:PHE:HD1	1:D:1780:SER:HB2	1.86	0.41
1:D:2278:MET:O	1:D:2282:LYS:HG2	2.20	0.41
1:D:3732:ASP:HA	1:D:3775:LYS:HZ1	1.86	0.41
1:D:4505:LEU:HD22	1:D:4749:PHE:CE2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4720:TYR:OH	1:D:4744:ASP:HA	2.21	0.41
2:J:63:GLY:O	2:J:66:GLN:HG3	2.20	0.41
1:A:138:SER:HB3	1:A:140:THR:HG22	2.03	0.41
1:A:564:ARG:HD2	1:A:566:GLU:OE2	2.21	0.41
1:A:658:ASN:HB2	1:A:832:LEU:HD12	2.03	0.41
1:A:837:SER:HB3	1:A:841:LYS:NZ	2.35	0.41
1:A:868:ASP:OD1	1:A:868:ASP:N	2.53	0.41
1:A:1676:ALA:HB1	1:A:1680:HIS:CE1	2.56	0.41
1:A:2193:ALA:HA	1:A:2236:SER:HB3	2.03	0.41
1:B:2479:VAL:HB	1:B:2482:PHE:HB3	2.03	0.41
1:B:3740:LEU:HD23	1:B:3740:LEU:HA	1.94	0.41
2:H:5:ILE:HG12	2:H:66:GLN:HE21	1.86	0.41
1:C:19:GLU:HG3	1:C:68:VAL:HG22	2.02	0.41
1:C:658:ASN:HB2	1:C:832:LEU:HD12	2.03	0.41
1:C:1771:SER:HA	2:I:56:VAL:HA	2.02	0.41
1:C:3849:HIS:HE1	1:C:3924:GLN:HG3	1.86	0.41
1:D:332:ARG:NH1	1:D:364:GLN:OE1	2.54	0.41
1:D:380:LYS:HD2	1:D:380:LYS:HA	1.76	0.41
1:D:696:GLY:HA3	1:D:726:GLY:HA2	2.03	0.41
1:D:1676:ALA:HB1	1:D:1680:HIS:CE1	2.56	0.41
1:D:2193:ALA:HA	1:D:2236:SER:HB3	2.03	0.41
1:D:2455:MET:HE3	1:D:2455:MET:HB2	1.86	0.41
1:D:2876:LEU:HB2	1:D:2881:LYS:HE3	2.03	0.41
1:D:3923:ILE:HD12	1:D:3984:MET:HG2	2.03	0.41
1:D:4604:GLU:HG3	1:D:4605:VAL:N	2.36	0.41
1:A:19:GLU:HG3	1:A:68:VAL:HG22	2.02	0.41
1:A:365:HIS:CD2	1:A:367:ASP:HB3	2.56	0.41
1:A:849:ASP:HA	1:A:1213:GLY:O	2.21	0.41
1:A:1719:ARG:CZ	1:A:1759:ARG:HE	2.34	0.41
1:A:1747:HIS:O	1:A:1747:HIS:ND1	2.51	0.41
1:A:3664:HIS:HD2	1:A:3733:ARG:O	2.03	0.41
1:A:3930:ASN:O	1:A:3934:LEU:HD23	2.21	0.41
1:A:4490:LEU:HG	1:A:4591:CYS:SG	2.60	0.41
1:A:4505:LEU:HD22	1:A:4749:PHE:CE2	2.55	0.41
1:A:4785:PHE:CG	1:A:4808:MET:HE1	2.56	0.41
1:A:4860:ILE:HD13	1:B:4755:ILE:CG2	2.51	0.41
2:G:63:GLY:O	2:G:66:GLN:HG3	2.20	0.41
1:B:795:SER:OG	1:B:796:ALA:N	2.54	0.41
1:B:837:SER:HB3	1:B:841:LYS:NZ	2.35	0.41
1:B:1102:TYR:O	1:B:1238:PRO:HA	2.20	0.41
1:B:1254:ARG:NH1	1:B:1254:ARG:CB	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1303:ARG:HG2	1:B:1304:LEU:N	2.36	0.41
1:B:1681:VAL:HG23	1:B:1682:ASP:N	2.28	0.41
1:B:2193:ALA:HA	1:B:2236:SER:HB3	2.03	0.41
1:B:3985:LEU:HD22	1:B:3988:ASN:ND2	2.35	0.41
1:B:4705:GLN:O	1:B:4709:LEU:HD23	2.21	0.41
1:B:4860:ILE:HD13	1:C:4755:ILE:CG2	2.50	0.41
2:H:63:GLY:O	2:H:66:GLN:HG3	2.20	0.41
1:C:138:SER:HB3	1:C:140:THR:HG22	2.02	0.41
1:C:227:TYR:CD2	1:C:352:SER:HB2	2.55	0.41
1:C:343:ARG:HH21	1:C:345:GLU:H	1.69	0.41
1:C:721:ASP:OD1	1:C:724:SER:HB2	2.21	0.41
1:C:1591:PHE:CZ	1:C:1593:SER:HB2	2.55	0.41
1:C:2316:ALA:O	1:C:2320:VAL:HG23	2.20	0.41
1:C:2328:GLU:HA	1:C:2335:ARG:CZ	2.51	0.41
1:C:2876:LEU:HB2	1:C:2881:LYS:HE3	2.03	0.41
1:C:4051:MET:HE1	1:C:4062:THR:HG22	2.03	0.41
1:C:4904:PHE:O	1:C:4908:THR:HG23	2.21	0.41
1:D:138:SER:HB3	1:D:140:THR:HG22	2.03	0.41
1:D:334:SER:OG	1:D:335:LYS:N	2.54	0.41
1:D:677:LEU:N	1:D:755:ILE:O	2.50	0.41
1:D:798:ILE:HD12	1:D:798:ILE:HA	1.92	0.41
1:D:1100:ARG:HB3	1:D:1236:TYR:CG	2.55	0.41
1:D:1303:ARG:HG2	1:D:1304:LEU:N	2.36	0.41
1:D:1680:HIS:HE2	2:J:91:VAL:HG22	1.86	0.41
1:D:2128:LEU:HD11	1:D:2140:LEU:HB2	2.01	0.41
1:D:2250:ASN:OD1	1:D:3816:LEU:HD12	2.20	0.41
1:D:2328:GLU:HA	1:D:2335:ARG:CZ	2.51	0.41
1:D:3664:HIS:HD2	1:D:3733:ARG:O	2.03	0.41
1:D:3849:HIS:HE1	1:D:3924:GLN:HG3	1.86	0.41
1:D:3888:TYR:CD1	1:D:3953:MET:HE1	2.55	0.41
1:D:3985:LEU:HD22	1:D:3988:ASN:ND2	2.35	0.41
1:D:4793:ASN:O	1:D:4795:SER:N	2.49	0.41
1:D:4904:PHE:O	1:D:4908:THR:HG23	2.21	0.41
1:A:1359:ILE:HG23	1:A:1363:LYS:HZ2	1.85	0.41
1:A:1680:HIS:HE2	2:G:91:VAL:HG22	1.86	0.41
1:A:1764:PHE:HD1	1:A:1780:SER:HB2	1.86	0.41
1:A:1789:LYS:HB2	1:A:1835:PHE:CE1	2.55	0.41
1:A:2762:LEU:HD23	1:A:2762:LEU:HA	1.93	0.41
1:A:4009:VAL:O	1:A:4012:ILE:HG22	2.20	0.41
1:A:4645:ASP:OD1	1:A:4645:ASP:C	2.63	0.41
1:A:4904:PHE:O	1:A:4908:THR:HG23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1676:ALA:HB1	1:B:1680:HIS:CE1	2.56	0.41
1:B:1761:ARG:HH11	1:B:1761:ARG:CB	2.34	0.41
1:B:4051:MET:HE1	1:B:4062:THR:HG22	2.03	0.41
1:C:564:ARG:HD2	1:C:566:GLU:OE2	2.21	0.41
1:C:849:ASP:HA	1:C:1213:GLY:O	2.21	0.41
1:C:1764:PHE:HD1	1:C:1780:SER:HB2	1.86	0.41
1:C:1789:LYS:HB2	1:C:1835:PHE:CE1	2.55	0.41
1:C:1970:GLU:O	1:C:1974:MET:HG2	2.21	0.41
1:C:2334:LEU:HA	1:C:2341:GLY:HA2	2.02	0.41
1:C:4183:GLU:O	1:C:4187:LEU:HG	2.21	0.41
2:I:5:ILE:HG12	2:I:66:GLN:HE21	1.86	0.41
2:I:8:ILE:HD12	2:I:72:ARG:HG2	2.02	0.41
1:D:365:HIS:CD2	1:D:367:ASP:HB3	2.56	0.41
1:D:849:ASP:HA	1:D:1213:GLY:O	2.21	0.41
1:D:888:ASN:HA	1:D:891:GLU:HG2	2.02	0.41
1:D:1571:LEU:HD23	1:D:1571:LEU:HA	1.87	0.41
1:D:1969:GLN:O	1:D:1972:ILE:HG22	2.21	0.41
1:D:2477:ILE:HG21	1:D:2483:LEU:HD13	2.01	0.41
1:D:3799:CYS:HB3	1:D:3835:THR:OG1	2.21	0.41
1:D:3802:LEU:HB2	1:D:3883:SER:OG	2.20	0.41
1:D:4183:GLU:O	1:D:4187:LEU:HG	2.21	0.41
1:D:4509:PHE:HZ	1:D:4745:ILE:HD12	1.86	0.41
1:A:311:ASP:OD1	1:A:311:ASP:N	2.51	0.40
1:A:332:ARG:NH1	1:A:364:GLN:OE1	2.54	0.40
1:A:851:LEU:CB	1:A:1212:VAL:HG12	2.50	0.40
1:A:1035:TYR:CE2	1:A:1043:LYS:HD2	2.57	0.40
1:A:1088:PHE:O	1:A:1204:VAL:HA	2.21	0.40
1:A:1100:ARG:HB2	1:A:1236:TYR:HA	2.02	0.40
1:A:1106:GLU:HG2	1:A:1161:VAL:HG12	2.02	0.40
1:A:3740:LEU:HD23	1:A:3740:LEU:HA	1.94	0.40
1:A:4126:ASN:O	1:A:4129:GLN:HG2	2.22	0.40
1:B:1680:HIS:NE2	2:H:91:VAL:HG22	2.36	0.40
1:B:1914:ASP:OD1	1:B:2089:ARG:NH2	2.48	0.40
1:B:1924:ILE:HD13	1:B:1998:PHE:CE2	2.56	0.40
1:B:2079:LEU:CD2	1:B:2083:MET:HE2	2.50	0.40
1:B:2328:GLU:HA	1:B:2335:ARG:CZ	2.51	0.40
1:B:3732:ASP:HA	1:B:3775:LYS:HZ1	1.85	0.40
1:C:1680:HIS:NE2	2:I:91:VAL:HG22	2.36	0.40
1:C:1761:ARG:HH11	1:C:1761:ARG:CB	2.34	0.40
1:C:2290:ASN:HD22	1:C:2291:PRO:CD	2.31	0.40
1:C:3779:TYR:CE1	1:C:3783:LYS:HD2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4009:VAL:O	1:C:4012:ILE:HG22	2.20	0.40
1:C:4509:PHE:HZ	1:C:4745:ILE:HD12	1.86	0.40
1:C:4589:TYR:OH	1:C:4715:ASP:OD2	2.36	0.40
1:D:152:ASP:OD2	1:D:154:THR:OG1	2.39	0.40
1:D:227:TYR:CD2	1:D:352:SER:HB2	2.56	0.40
1:D:313:ASN:ND2	1:D:392:ILE:HA	2.36	0.40
1:A:564:ARG:O	1:A:565:LEU:HB3	2.21	0.40
1:A:888:ASN:HA	1:A:891:GLU:HG2	2.02	0.40
1:A:1680:HIS:NE2	2:G:91:VAL:HG22	2.36	0.40
1:A:2306:PHE:CD1	1:A:2400:ARG:HB3	2.57	0.40
1:A:3779:TYR:CE1	1:A:3783:LYS:HD2	2.56	0.40
1:A:4051:MET:HE1	1:A:4062:THR:HG22	2.03	0.40
1:A:4705:GLN:O	1:A:4709:LEU:HD23	2.21	0.40
1:B:891:GLU:HG3	1:B:892:LEU:HD12	2.03	0.40
1:B:1679:SER:HB3	1:B:1769:PHE:CE2	2.55	0.40
1:B:3747:LYS:HE3	1:B:3747:LYS:HB3	1.93	0.40
1:B:3799:CYS:HB3	1:B:3835:THR:OG1	2.21	0.40
1:B:4126:ASN:O	1:B:4129:GLN:HG2	2.22	0.40
1:B:4594:VAL:N	1:B:4595:PRO:HD2	2.35	0.40
1:B:4924:LEU:HD23	1:B:4924:LEU:HA	1.87	0.40
1:C:19:GLU:HB3	1:C:66:THR:CG2	2.52	0.40
1:C:332:ARG:NH1	1:C:364:GLN:OE1	2.54	0.40
1:C:4705:GLN:O	1:C:4709:LEU:HD23	2.21	0.40
1:D:449:ILE:HD13	1:D:449:ILE:HA	1.95	0.40
1:D:676:GLU:HA	1:D:756:SER:HA	2.03	0.40
1:D:839:GLU:CG	1:D:840:TYR:H	2.30	0.40
1:D:929:ARG:HA	1:D:932:ASN:HD21	1.85	0.40
1:D:1035:TYR:CE2	1:D:1043:LYS:HD2	2.57	0.40
1:D:2334:LEU:HA	1:D:2341:GLY:HA2	2.02	0.40
1:D:2763:SER:N	1:D:2766:GLU:HB2	2.36	0.40
1:D:2855:LYS:HE3	1:D:2859:LEU:HD23	2.03	0.40
1:D:4705:GLN:O	1:D:4709:LEU:HD23	2.21	0.40
1:A:313:ASN:ND2	1:A:392:ILE:HA	2.36	0.40
1:A:892:LEU:HD22	1:A:1052:GLU:HG2	2.03	0.40
1:A:1303:ARG:HG2	1:A:1304:LEU:N	2.36	0.40
1:A:2763:SER:N	1:A:2766:GLU:HB2	2.36	0.40
1:A:4509:PHE:HZ	1:A:4745:ILE:HD12	1.86	0.40
2:G:5:ILE:HG12	2:G:66:GLN:HE21	1.86	0.40
1:B:564:ARG:HD2	1:B:566:GLU:OE2	2.21	0.40
1:B:631:LEU:HD23	1:B:631:LEU:HA	1.92	0.40
1:B:713:TRP:NE1	1:B:841:LYS:HG2	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:900:LEU:HD23	1:B:902:TRP:NE1	2.36	0.40
1:B:1719:ARG:CZ	1:B:1759:ARG:HE	2.34	0.40
1:B:2876:LEU:HB2	1:B:2881:LYS:HE3	2.03	0.40
1:B:4070:GLU:OE1	1:B:4070:GLU:N	2.51	0.40
1:C:696:GLY:HA3	1:C:726:GLY:HA2	2.03	0.40
1:C:1245:ARG:NH1	1:C:1809:ASP:O	2.46	0.40
1:C:2348:GLU:HA	1:C:2351:LYS:HG2	2.03	0.40
1:C:2385:ASN:ND2	1:C:2458:GLY:O	2.48	0.40
1:C:2762:LEU:HD23	1:C:2762:LEU:HA	1.93	0.40
1:C:3612:ARG:O	1:C:3612:ARG:NH1	2.51	0.40
1:C:4081:GLU:HG3	1:C:4085:ARG:HE	1.87	0.40
1:C:4135:ILE:O	1:C:4147:VAL:HG12	2.22	0.40
1:C:4785:PHE:CG	1:C:4808:MET:HE1	2.56	0.40
2:I:27:TYR:O	2:I:40:SER:N	2.45	0.40
1:D:19:GLU:HB3	1:D:66:THR:CG2	2.52	0.40
1:D:892:LEU:HD22	1:D:1052:GLU:HG2	2.03	0.40
1:D:1106:GLU:HG2	1:D:1161:VAL:HG12	2.02	0.40
1:D:2079:LEU:CD2	1:D:2083:MET:HE2	2.50	0.40
1:D:2282:LYS:HA	1:D:2282:LYS:HD2	1.86	0.40
1:D:4081:GLU:HG3	1:D:4085:ARG:HE	1.87	0.40
1:D:4785:PHE:CG	1:D:4808:MET:HE1	2.56	0.40
1:A:343:ARG:HH21	1:A:345:GLU:H	1.69	0.40
1:A:516:ASP:OD1	1:A:516:ASP:N	2.53	0.40
1:A:2348:GLU:HA	1:A:2351:LYS:HG2	2.03	0.40
1:A:3849:HIS:HE1	1:A:3924:GLN:HG3	1.86	0.40
1:A:3954:GLN:HB3	1:A:4015:PHE:CE2	2.57	0.40
1:A:4789:ARG:NE	1:A:4805:CYS:SG	2.87	0.40
1:B:227:TYR:CD2	1:B:352:SER:HB2	2.55	0.40
1:B:2855:LYS:HE3	1:B:2859:LEU:HD23	2.04	0.40
1:B:4039:LYS:HB2	1:B:4039:LYS:HE2	1.88	0.40
1:B:4135:ILE:O	1:B:4147:VAL:HG12	2.22	0.40
1:B:4904:PHE:O	1:B:4908:THR:HG23	2.21	0.40
1:C:467:ASP:OD1	1:C:468:GLU:N	2.53	0.40
1:C:713:TRP:NE1	1:C:841:LYS:HG2	2.37	0.40
1:C:1727:ILE:HD12	1:C:2119:LEU:HD11	2.04	0.40
1:C:2105:TYR:CG	1:C:2160:LEU:HD13	2.57	0.40
1:D:564:ARG:O	1:D:565:LEU:HB3	2.21	0.40
1:D:564:ARG:HD2	1:D:566:GLU:OE2	2.21	0.40
1:D:837:SER:HB3	1:D:841:LYS:NZ	2.35	0.40
1:D:946:LEU:HD23	1:D:946:LEU:HA	1.91	0.40
1:D:1629:MET:HE3	1:D:1685:GLN:NE2	2.17	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1719:ARG:CZ	1:D:1759:ARG:HE	2.34	0.40
1:D:1970:GLU:O	1:D:1974:MET:HG2	2.21	0.40
1:D:2105:TYR:CG	1:D:2160:LEU:HD13	2.57	0.40
1:D:2289:TRP:CH2	1:D:2387:ILE:HD12	2.57	0.40
1:D:3930:ASN:O	1:D:3934:LEU:HD23	2.21	0.40
1:D:4836:ASP:C	1:D:4838:TYR:H	2.29	0.40
2:J:5:ILE:HG12	2:J:66:GLN:HE21	1.86	0.40
1:A:334:SER:OG	1:A:335:LYS:N	2.54	0.40
1:A:1213:GLY:C	1:A:1214:ARG:HG2	2.47	0.40
1:A:1938:ASN:ND2	1:A:1988:PRO:HB3	2.36	0.40
1:A:1970:GLU:O	1:A:1974:MET:HG2	2.21	0.40
1:A:2855:LYS:HE3	1:A:2859:LEU:HD23	2.04	0.40
1:A:3799:CYS:HB3	1:A:3835:THR:OG1	2.21	0.40
1:A:4183:GLU:O	1:A:4187:LEU:HG	2.21	0.40
1:B:849:ASP:HA	1:B:1213:GLY:O	2.21	0.40
1:B:1035:TYR:CE2	1:B:1043:LYS:HD2	2.57	0.40
1:B:3779:TYR:CE1	1:B:3783:LYS:HD2	2.56	0.40
1:B:3849:HIS:HE1	1:B:3924:GLN:HG3	1.86	0.40
1:C:334:SER:OG	1:C:335:LYS:N	2.54	0.40
1:C:888:ASN:HA	1:C:891:GLU:HG2	2.02	0.40
1:C:2855:LYS:HE3	1:C:2859:LEU:HD23	2.04	0.40
2:I:104:LEU:HD21	2:I:107:LEU:HB2	2.04	0.40
1:D:1088:PHE:O	1:D:1204:VAL:HA	2.21	0.40
1:D:1213:GLY:C	1:D:1214:ARG:HG2	2.47	0.40
1:D:1680:HIS:NE2	2:J:91:VAL:HG22	2.36	0.40
1:D:1730:MET:SD	1:D:2106:THR:OG1	2.77	0.40
1:D:1924:ILE:HD13	1:D:1998:PHE:CE2	2.56	0.40
1:D:2306:PHE:CD1	1:D:2400:ARG:HB3	2.57	0.40
1:D:2352:ILE:HG23	1:D:2358:ARG:HB3	2.04	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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%)	3052 (94%)	203 (6%)	0	100	100
1	B	3255/4966 (66%)	3051 (94%)	204 (6%)	0	100	100
1	C	3255/4966 (66%)	3052 (94%)	203 (6%)	0	100	100
1	D	3255/4966 (66%)	3053 (94%)	202 (6%)	0	100	100
2	G	105/176 (60%)	100 (95%)	5 (5%)	0	100	100
2	H	105/176 (60%)	100 (95%)	5 (5%)	0	100	100
2	I	105/176 (60%)	100 (95%)	5 (5%)	0	100	100
2	J	105/176 (60%)	100 (95%)	5 (5%)	0	100	100
All	All	13440/20568 (65%)	12608 (94%)	832 (6%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	2861/3386 (84%)	2856 (100%)	5 (0%)	87	87
1	B	2861/3386 (84%)	2856 (100%)	5 (0%)	87	87
1	C	2861/3386 (84%)	2856 (100%)	5 (0%)	87	87
1	D	2861/3386 (84%)	2856 (100%)	5 (0%)	87	87
2	G	88/140 (63%)	87 (99%)	1 (1%)	65	73
2	H	88/140 (63%)	87 (99%)	1 (1%)	65	73
2	I	88/140 (63%)	87 (99%)	1 (1%)	65	73
2	J	88/140 (63%)	87 (99%)	1 (1%)	65	73
All	All	11796/14104 (84%)	11772 (100%)	24 (0%)	85	87

All (24) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	1253	LYS
1	A	1254	ARG

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Mol	Chain	Res	Type
1	A	1370	PHE
1	A	3924	GLN
1	A	4112	THR
2	G	9	SER
1	B	1253	LYS
1	B	1254	ARG
1	B	1370	PHE
1	B	3924	GLN
1	B	4112	THR
2	H	9	SER
1	C	1253	LYS
1	C	1254	ARG
1	C	1370	PHE
1	C	3924	GLN
1	C	4112	THR
2	I	9	SER
1	D	1253	LYS
1	D	1254	ARG
1	D	1370	PHE
1	D	3924	GLN
1	D	4112	THR
2	J	9	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (156) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	12	GLN
1	A	23	GLN
1	A	44	ASN
1	A	150	GLN
1	A	238	HIS
1	A	299	HIS
1	A	394	HIS
1	A	487	ASN
1	A	531	ASN
1	A	776	GLN
1	A	971	GLN
1	A	1002	ASN
1	A	1151	HIS
1	A	1242	ASN
1	A	1265	HIS
1	A	1287	GLN

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Mol	Chain	Res	Type
1	A	1351	HIS
1	A	1386	GLN
1	A	1616	GLN
1	A	1621	GLN
1	A	1685	GLN
1	A	1711	HIS
1	A	1744	ASN
1	A	2124	GLN
1	A	2151	ASN
1	A	2156	GLN
1	A	2216	HIS
1	A	2308	ASN
1	A	3633	HIS
1	A	3773	GLN
1	A	3850	ASN
1	A	3860	GLN
1	A	3924	GLN
1	A	3954	GLN
1	A	3974	GLN
1	A	4735	ASN
1	A	4761	HIS
1	A	4762	ASN
1	A	4875	GLN
2	G	26	HIS
1	B	12	GLN
1	B	23	GLN
1	B	44	ASN
1	B	150	GLN
1	B	238	HIS
1	B	299	HIS
1	B	313	ASN
1	B	394	HIS
1	B	487	ASN
1	B	531	ASN
1	B	776	GLN
1	B	971	GLN
1	B	1002	ASN
1	B	1151	HIS
1	B	1265	HIS
1	B	1287	GLN
1	B	1351	HIS
1	B	1386	GLN

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Mol	Chain	Res	Type
1	B	1616	GLN
1	B	1621	GLN
1	B	1685	GLN
1	B	1711	HIS
1	B	1744	ASN
1	B	1806	HIS
1	B	2124	GLN
1	B	2151	ASN
1	B	2156	GLN
1	B	2216	HIS
1	B	2308	ASN
1	B	2889	GLN
1	B	3633	HIS
1	B	3773	GLN
1	B	3850	ASN
1	B	3854	GLN
1	B	3860	GLN
1	B	3924	GLN
1	B	3954	GLN
1	B	3974	GLN
1	B	4761	HIS
1	B	4786	ASN
1	B	4875	GLN
2	H	26	HIS
1	C	12	GLN
1	C	23	GLN
1	C	44	ASN
1	C	150	GLN
1	C	238	HIS
1	C	299	HIS
1	C	394	HIS
1	C	487	ASN
1	C	531	ASN
1	C	1002	ASN
1	C	1265	HIS
1	C	1287	GLN
1	C	1351	HIS
1	C	1386	GLN
1	C	1621	GLN
1	C	1685	GLN
1	C	1711	HIS
1	C	1744	ASN

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Mol	Chain	Res	Type
1	C	1806	HIS
1	C	1842	HIS
1	C	2124	GLN
1	C	2151	ASN
1	C	2156	GLN
1	C	2216	HIS
1	C	2249	ASN
1	C	2308	ASN
1	C	3633	HIS
1	C	3860	GLN
1	C	3924	GLN
1	C	3954	GLN
1	C	3974	GLN
1	C	4761	HIS
1	C	4875	GLN
2	I	26	HIS
1	D	12	GLN
1	D	23	GLN
1	D	44	ASN
1	D	150	GLN
1	D	238	HIS
1	D	299	HIS
1	D	394	HIS
1	D	487	ASN
1	D	531	ASN
1	D	776	GLN
1	D	808	HIS
1	D	971	GLN
1	D	1002	ASN
1	D	1151	HIS
1	D	1265	HIS
1	D	1287	GLN
1	D	1351	HIS
1	D	1386	GLN
1	D	1616	GLN
1	D	1621	GLN
1	D	1685	GLN
1	D	1711	HIS
1	D	1744	ASN
1	D	2124	GLN
1	D	2151	ASN
1	D	2156	GLN

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Mol	Chain	Res	Type
1	D	2216	HIS
1	D	2308	ASN
1	D	3633	HIS
1	D	3773	GLN
1	D	3830	GLN
1	D	3850	ASN
1	D	3860	GLN
1	D	3924	GLN
1	D	3954	GLN
1	D	3974	GLN
1	D	4735	ASN
1	D	4761	HIS
1	D	4762	ASN
2	J	26	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 oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 8 ligands modelled in this entry, 8 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

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

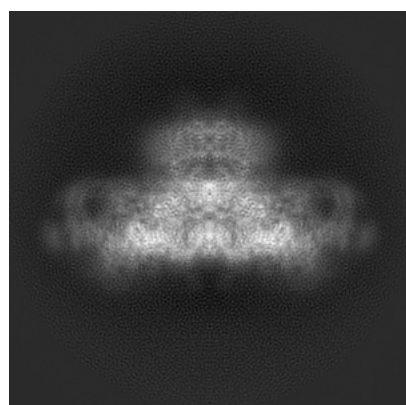
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-32037. These allow visual inspection of the internal detail of the map and identification of artifacts.

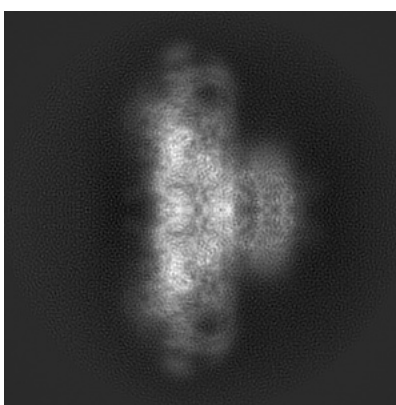
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

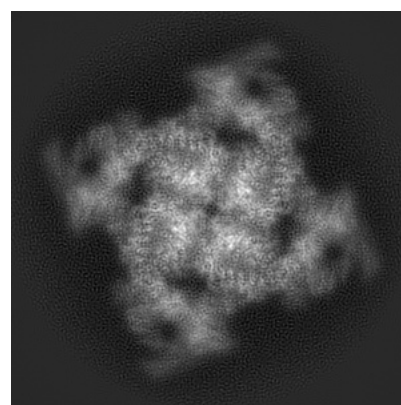
6.1.1 Primary map



X



Y



Z

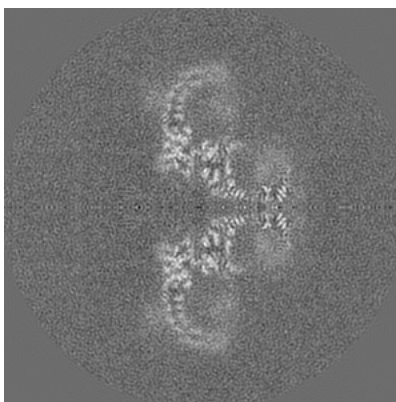
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

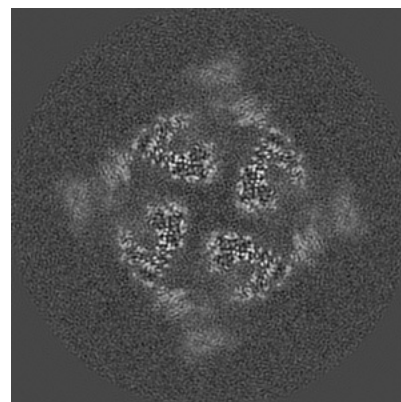
6.2.1 Primary map



X Index: 160



Y Index: 160

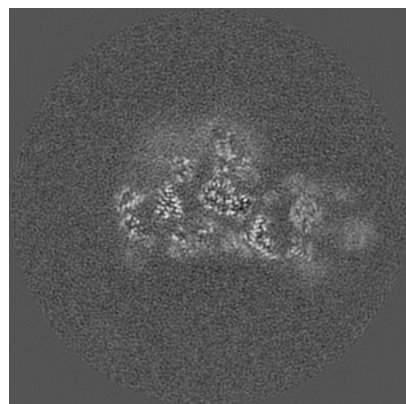


Z Index: 160

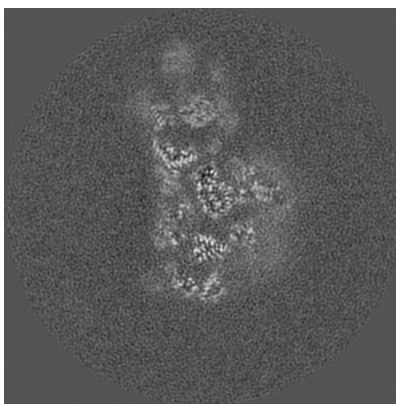
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

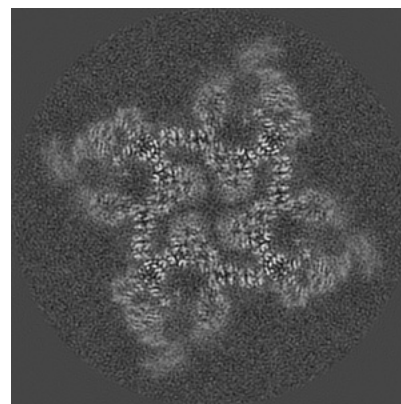
6.3.1 Primary map



X Index: 189



Y Index: 131

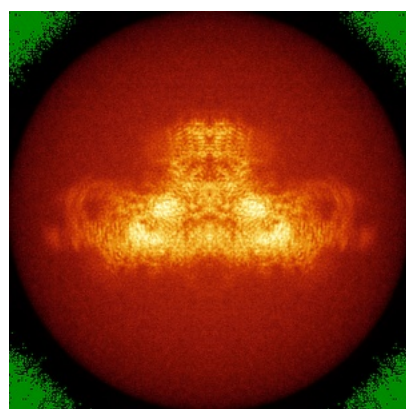


Z Index: 136

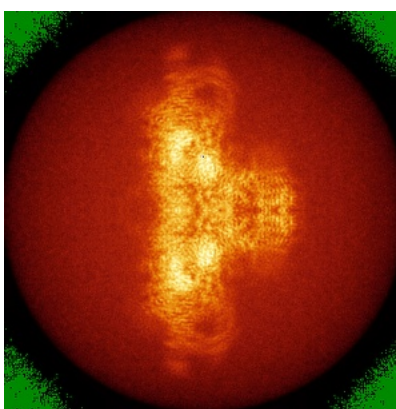
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

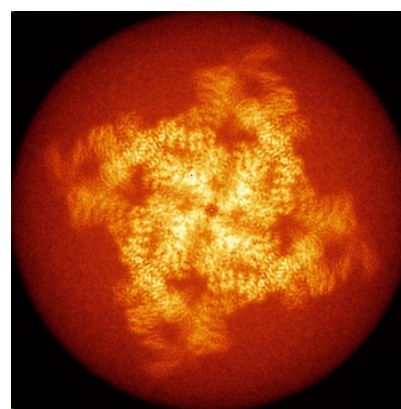
6.4.1 Primary map



X



Y

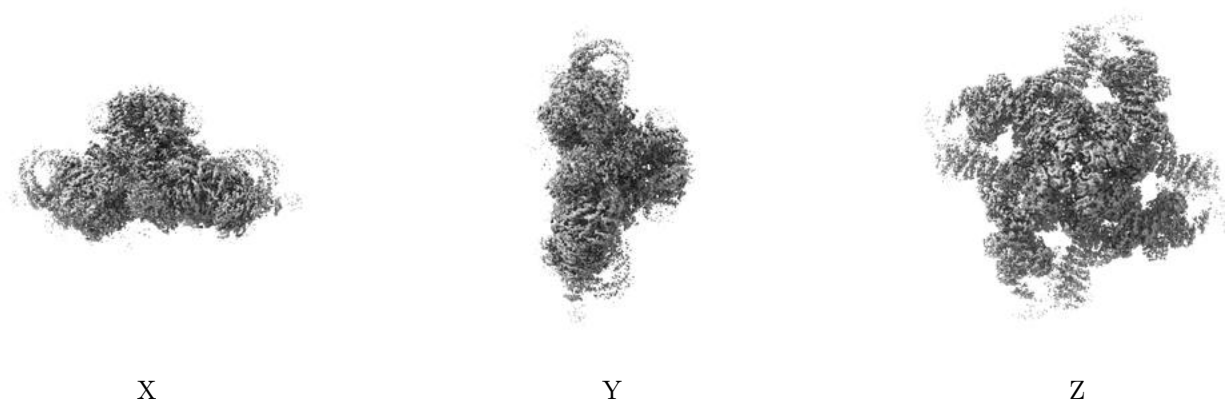


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.034. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

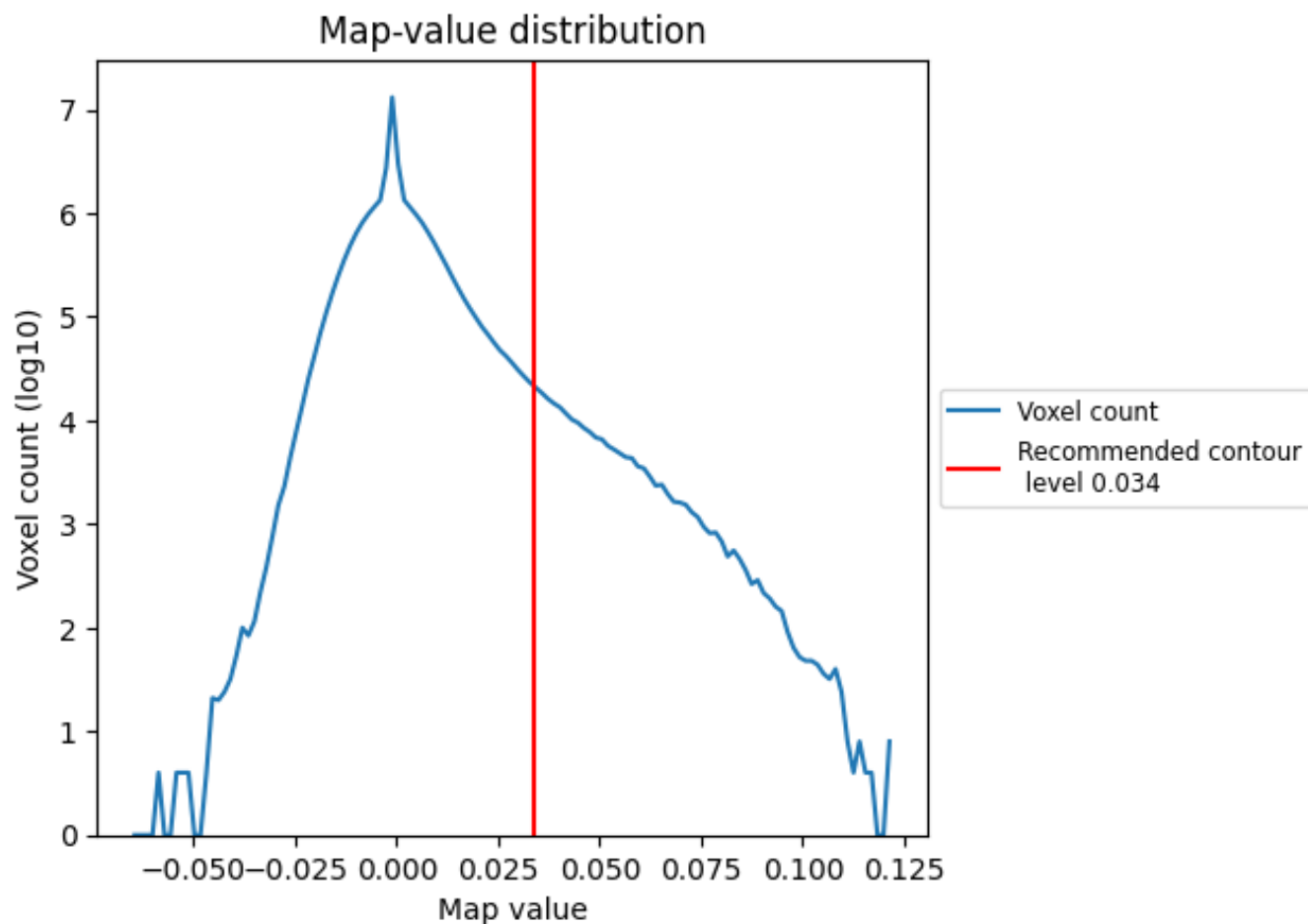
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

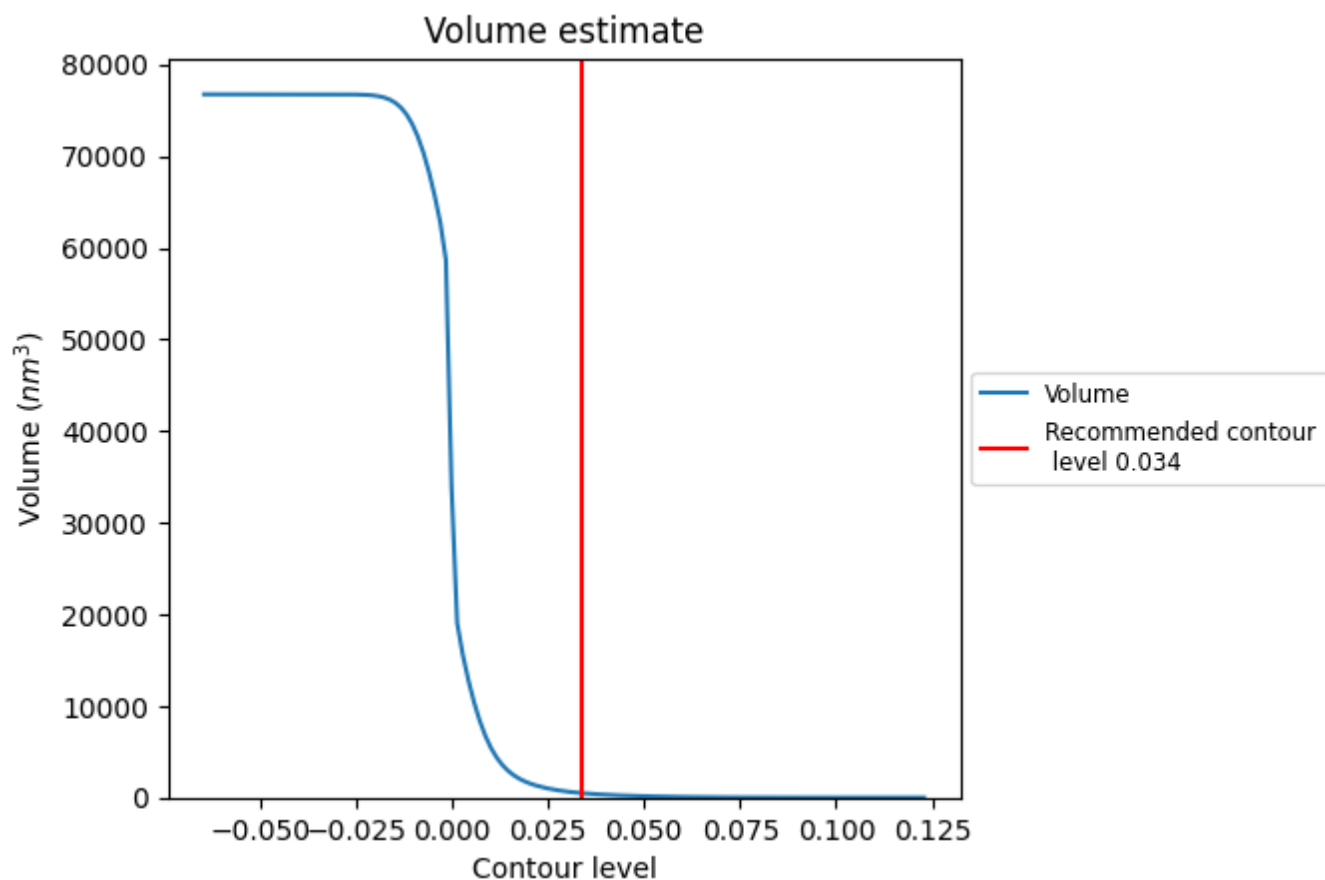
This section contains the results of statistical analysis of the map.

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.

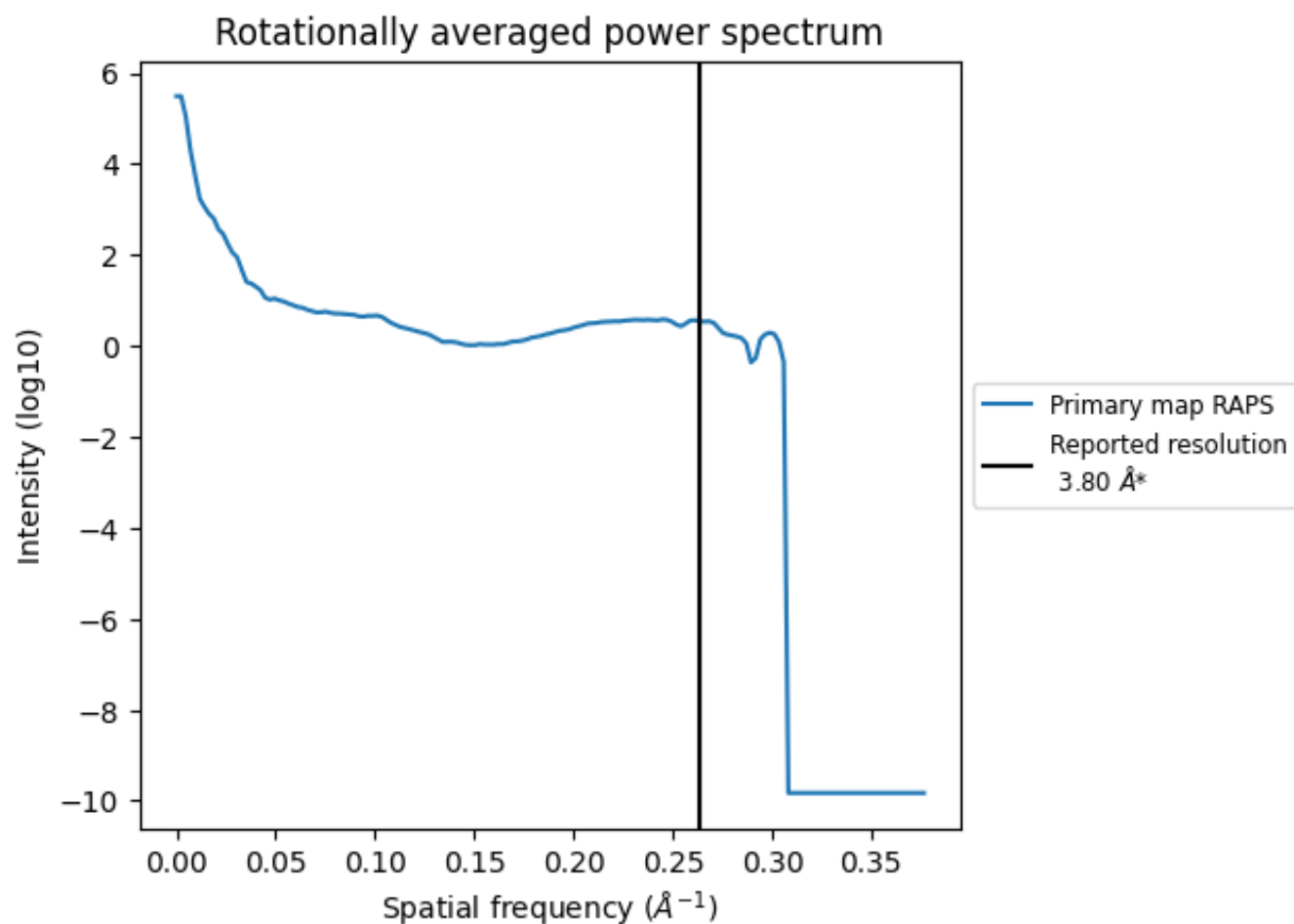
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 478 nm³; this corresponds to an approximate mass of 432 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 ⓘ



*Reported resolution corresponds to spatial frequency of 0.263 $\text{\AA}^{-1}$

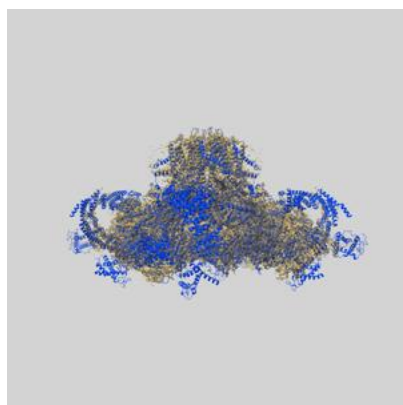
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

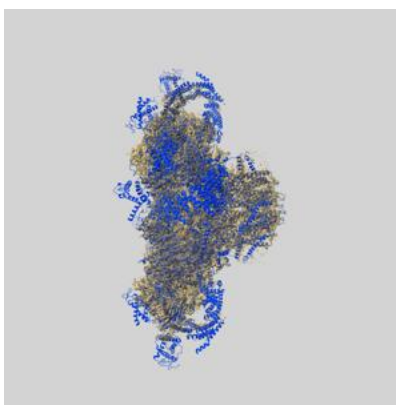
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-32037 and PDB model 7VMS. Per-residue inclusion information can be found in section [3](#) on page [13](#).

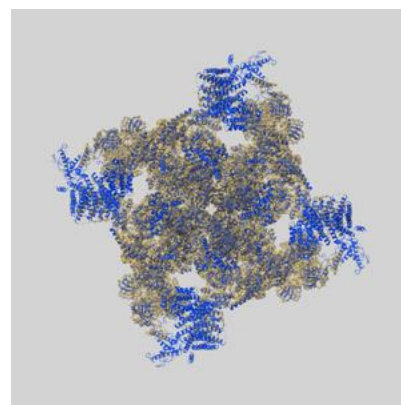
9.1 Map-model overlay [i](#)



X



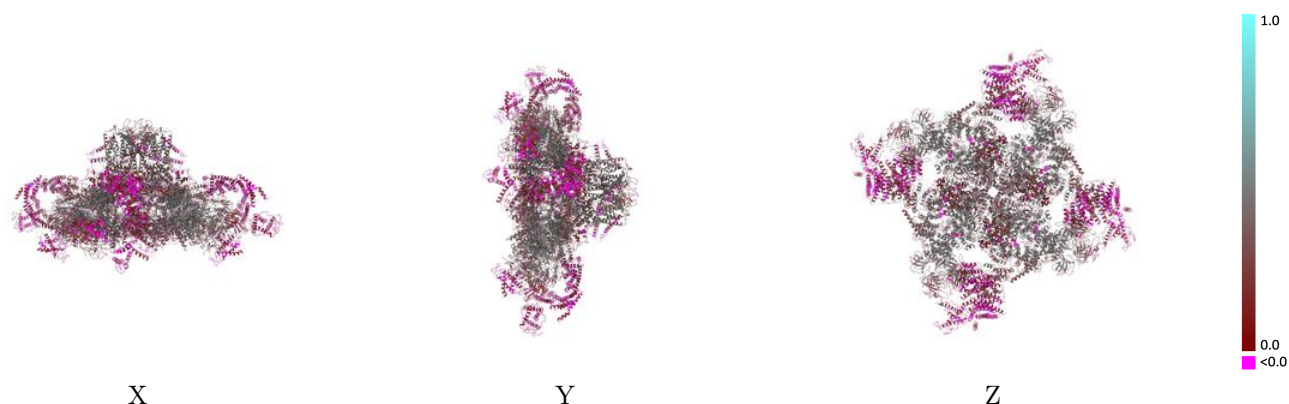
Y



Z

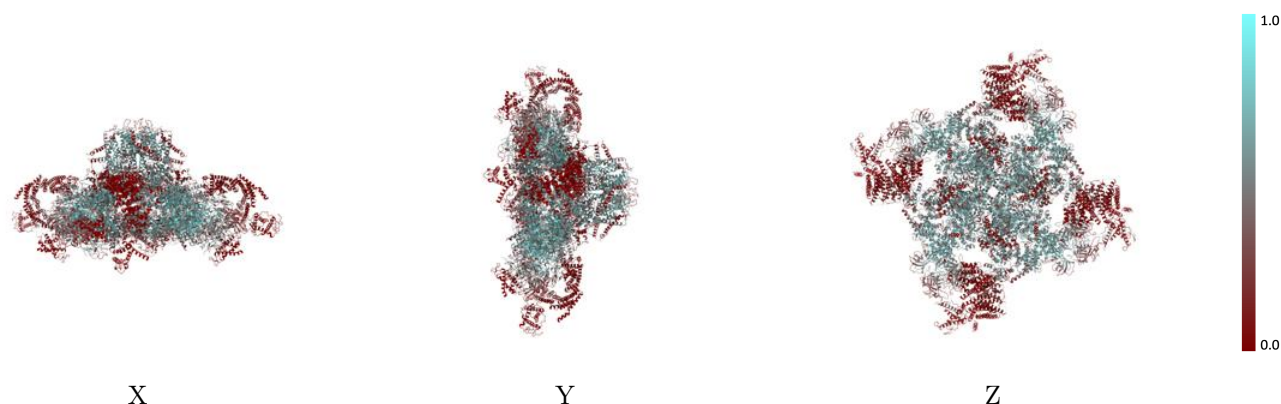
The images above show the 3D surface view of the map at the recommended contour level 0.034 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



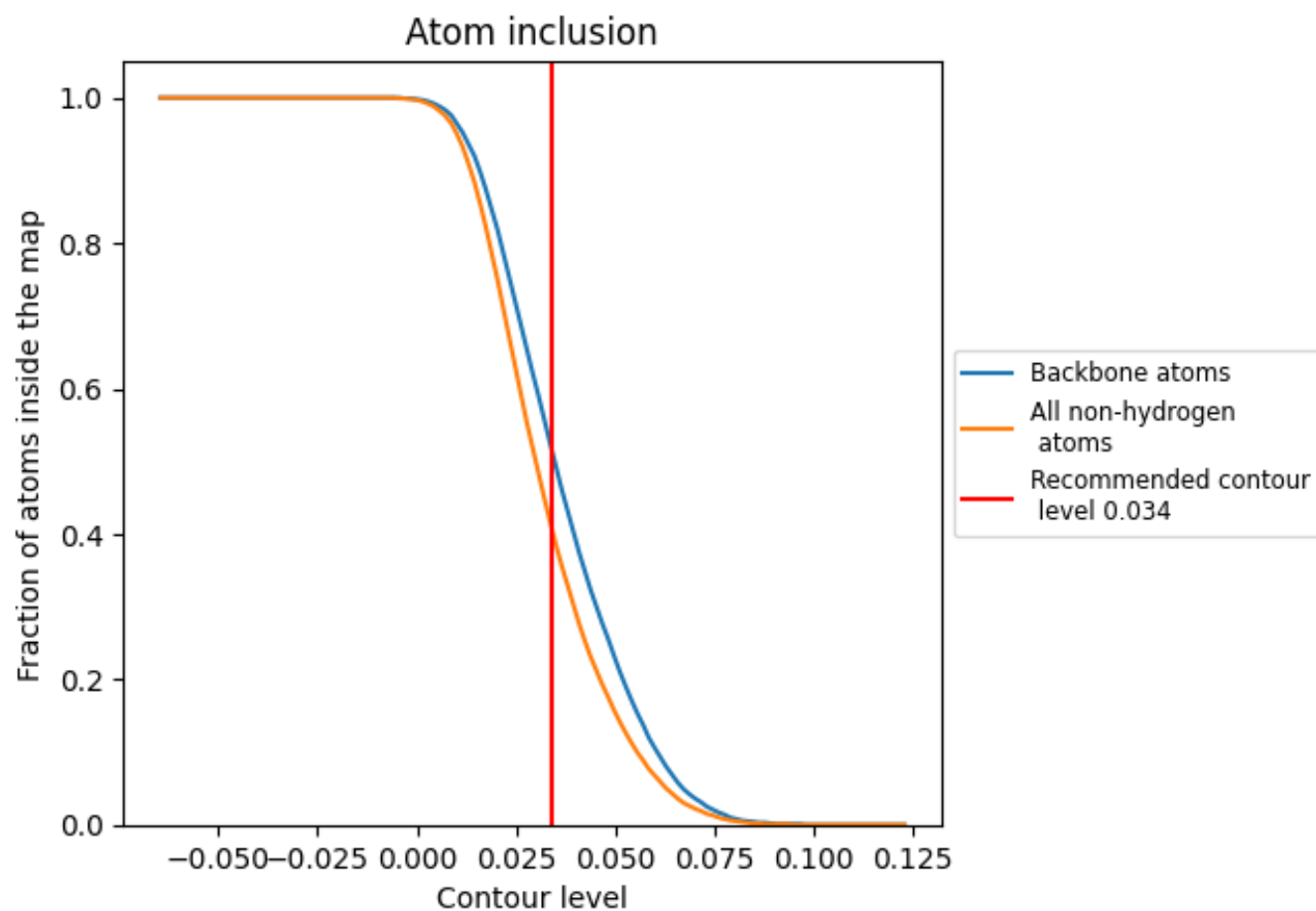
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.034).

9.4 Atom inclusion [i](#)



At the recommended contour level, 52% of all backbone atoms, 41% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.034) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.4070	0.2990
A	0.4070	0.2980
B	0.4070	0.2980
C	0.4070	0.2970
D	0.4070	0.2980
G	0.4160	0.3720
H	0.4180	0.3690
I	0.4150	0.3670
J	0.4160	0.3690

