



Full wwPDB EM Validation Report ⓘ

Feb 24, 2025 – 01:33 PM EST

PDB ID : 9MLH
EMDB ID : EMD-48372
Title : Xenorhabdus nematophilus XptA2, wild type State 2
Authors : Aller, S.G.; Martin, C.L.
Deposited on : 2024-12-19
Resolution : 3.90 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.dev117
MolProbity : 4.02b-467
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.41.4

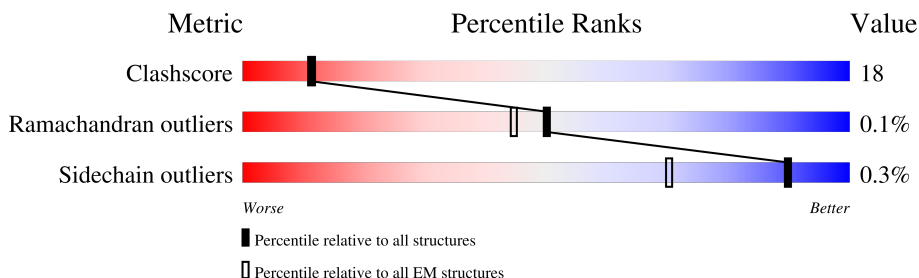
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.90 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

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	2538	
1	B	2538	
1	C	2538	
1	D	2538	
1	E	2538	

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 100034 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 XptA2 protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	2537	Total	C	N	O	S	0	0
			20006	12625	3414	3894	73		
1	B	2537	Total	C	N	O	S	0	0
			20007	12625	3415	3894	73		
1	C	2537	Total	C	N	O	S	0	0
			20007	12625	3415	3894	73		
1	D	2537	Total	C	N	O	S	0	0
			20007	12625	3415	3894	73		
1	E	2537	Total	C	N	O	S	0	0
			20007	12625	3415	3894	73		

There are 605 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	172	HIS	PRO	conflict	UNP Q93RN7
A	343	ASN	HIS	conflict	UNP Q93RN7
A	344	ILE	VAL	conflict	UNP Q93RN7
A	360	ARG	CYS	conflict	UNP Q93RN7
A	365	VAL	ILE	conflict	UNP Q93RN7
A	377	ALA	SER	conflict	UNP Q93RN7
A	379	PRO	THR	conflict	UNP Q93RN7
A	391	ILE	VAL	conflict	UNP Q93RN7
A	407	SER	ASN	conflict	UNP Q93RN7
A	410	LYS	ARG	conflict	UNP Q93RN7
A	566	VAL	ILE	conflict	UNP Q93RN7
A	583	ALA	THR	conflict	UNP Q93RN7
A	586	THR	ILE	conflict	UNP Q93RN7
A	587	ILE	LEU	conflict	UNP Q93RN7
A	592	PHE	PRO	conflict	UNP Q93RN7
A	606	VAL	ALA	conflict	UNP Q93RN7
A	620	LEU	PHE	conflict	UNP Q93RN7
A	637	PRO	SER	conflict	UNP Q93RN7
A	682	ASN	THR	conflict	UNP Q93RN7
A	686	SER	ARG	conflict	UNP Q93RN7

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Chain	Residue	Modelled	Actual	Comment	Reference
A	695	HIS	SER	conflict	UNP Q93RN7
A	696	ASN	ASP	conflict	UNP Q93RN7
A	736	ASP	ASN	conflict	UNP Q93RN7
A	742	THR	MET	conflict	UNP Q93RN7
A	748	SER	THR	conflict	UNP Q93RN7
A	750	ASN	SER	conflict	UNP Q93RN7
A	751	ALA	ASP	conflict	UNP Q93RN7
A	752	ASN	GLU	conflict	UNP Q93RN7
A	788	GLY	ASP	conflict	UNP Q93RN7
A	790	ALA	VAL	conflict	UNP Q93RN7
A	795	LYS	ARG	conflict	UNP Q93RN7
A	796	ASN	SER	conflict	UNP Q93RN7
A	799	ALA	PRO	conflict	UNP Q93RN7
A	800	GLY	ASP	conflict	UNP Q93RN7
A	801	GLN	ASN	conflict	UNP Q93RN7
A	?	-	THR	deletion	UNP Q93RN7
A	?	-	ILE	deletion	UNP Q93RN7
A	?	-	LEU	deletion	UNP Q93RN7
A	?	-	ILE	deletion	UNP Q93RN7
A	?	-	LEU	deletion	UNP Q93RN7
A	?	-	CYS	deletion	UNP Q93RN7
A	?	-	SER	deletion	UNP Q93RN7
A	803	ASN	SER	conflict	UNP Q93RN7
A	804	ILE	THR	conflict	UNP Q93RN7
A	806	THR	SER	conflict	UNP Q93RN7
A	807	LEU	THR	conflict	UNP Q93RN7
A	808	PHE	SER	conflict	UNP Q93RN7
A	809	SER	GLY	conflict	UNP Q93RN7
A	811	TYR	MET	conflict	UNP Q93RN7
A	812	ARG	-	insertion	UNP Q93RN7
A	813	PHE	-	insertion	UNP Q93RN7
A	814	HIS	-	insertion	UNP Q93RN7
A	815	GLN	-	insertion	UNP Q93RN7
A	816	TRP	-	insertion	UNP Q93RN7
A	817	ILE	-	insertion	UNP Q93RN7
A	818	ASN	-	insertion	UNP Q93RN7
A	820	LEU	TRP	conflict	UNP Q93RN7
A	821	GLY	GLU	conflict	UNP Q93RN7
A	822	ASN	ILE	conflict	UNP Q93RN7
A	824	GLY	ALA	conflict	UNP Q93RN7
A	825	SER	LEU	conflict	UNP Q93RN7
A	826	ASP	THR	conflict	UNP Q93RN7

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Chain	Residue	Modelled	Actual	Comment	Reference
A	827	THR	ARG	conflict	UNP Q93RN7
A	828	LEU	TRP	conflict	UNP Q93RN7
A	829	ASP	ILE	conflict	UNP Q93RN7
A	830	MET	CYS	conflict	UNP Q93RN7
A	831	LEU	CYS	conflict	UNP Q93RN7
A	832	ARG	ALA	conflict	UNP Q93RN7
A	833	GLN	LYS	conflict	UNP Q93RN7
A	838	ALA	GLY	conflict	UNP Q93RN7
A	842	ALA	GLY	conflict	UNP Q93RN7
A	843	SER	LEU	conflict	UNP Q93RN7
A	844	VAL	ARG	conflict	UNP Q93RN7
A	845	MET	ASP	conflict	UNP Q93RN7
A	847	LEU	ALA	conflict	UNP Q93RN7
A	848	ASP	GLY	conflict	UNP Q93RN7
A	849	ILE	HIS	conflict	UNP Q93RN7
A	850	SER	GLN	conflict	UNP Q93RN7
A	851	MET	TYR	conflict	UNP Q93RN7
A	852	VAL	GLY	conflict	UNP Q93RN7
A	853	THR	ASN	conflict	UNP Q93RN7
A	854	GLN	ALA	conflict	UNP Q93RN7
A	855	ALA	GLY	conflict	UNP Q93RN7
A	856	MET	HIS	conflict	UNP Q93RN7
A	857	VAL	GLY	conflict	UNP Q93RN7
A	872	THR	PRO	conflict	UNP Q93RN7
A	878	ASP	HIS	conflict	UNP Q93RN7
A	884	HIS	ILE	conflict	UNP Q93RN7
A	911	SER	ALA	conflict	UNP Q93RN7
A	914	GLU	LYS	conflict	UNP Q93RN7
A	923	GLU	ALA	conflict	UNP Q93RN7
A	1067	LYS	GLN	conflict	UNP Q93RN7
A	1075	ASP	GLU	conflict	UNP Q93RN7
A	1126	ASP	ASN	conflict	UNP Q93RN7
A	1250	LYS	VAL	conflict	UNP Q93RN7
A	1253	SER	PRO	conflict	UNP Q93RN7
A	1257	GLY	ASP	conflict	UNP Q93RN7
A	1258	SER	ASN	conflict	UNP Q93RN7
A	1514	ILE	VAL	conflict	UNP Q93RN7
A	1519	MET	VAL	conflict	UNP Q93RN7
A	1877	ASN	TYR	conflict	UNP Q93RN7
A	1880	MET	THR	conflict	UNP Q93RN7
A	1884	ILE	VAL	conflict	UNP Q93RN7
A	1920	THR	ALA	conflict	UNP Q93RN7

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Chain	Residue	Modelled	Actual	Comment	Reference
A	1943	GLY	VAL	conflict	UNP Q93RN7
A	1947	GLN	HIS	conflict	UNP Q93RN7
A	1959	MET	ALA	conflict	UNP Q93RN7
A	1961	GLY	ASP	conflict	UNP Q93RN7
A	1962	ARG	ASN	conflict	UNP Q93RN7
A	1964	GLY	GLU	conflict	UNP Q93RN7
A	1966	SER	ALA	conflict	UNP Q93RN7
A	1967	LYS	THR	conflict	UNP Q93RN7
A	1968	ASN	GLN	conflict	UNP Q93RN7
A	1969	LEU	PRO	conflict	UNP Q93RN7
A	2028	THR	PRO	conflict	UNP Q93RN7
A	2057	THR	ALA	conflict	UNP Q93RN7
A	2149	LEU	PHE	conflict	UNP Q93RN7
A	2161	VAL	ALA	conflict	UNP Q93RN7
A	2164	ILE	VAL	conflict	UNP Q93RN7
A	2178	LEU	PHE	conflict	UNP Q93RN7
A	2430	LEU	PHE	conflict	UNP Q93RN7
B	172	HIS	PRO	conflict	UNP Q93RN7
B	343	ASN	HIS	conflict	UNP Q93RN7
B	344	ILE	VAL	conflict	UNP Q93RN7
B	360	ARG	CYS	conflict	UNP Q93RN7
B	365	VAL	ILE	conflict	UNP Q93RN7
B	377	ALA	SER	conflict	UNP Q93RN7
B	379	PRO	THR	conflict	UNP Q93RN7
B	391	ILE	VAL	conflict	UNP Q93RN7
B	407	SER	ASN	conflict	UNP Q93RN7
B	410	LYS	ARG	conflict	UNP Q93RN7
B	566	VAL	ILE	conflict	UNP Q93RN7
B	583	ALA	THR	conflict	UNP Q93RN7
B	586	THR	ILE	conflict	UNP Q93RN7
B	587	ILE	LEU	conflict	UNP Q93RN7
B	592	PHE	PRO	conflict	UNP Q93RN7
B	606	VAL	ALA	conflict	UNP Q93RN7
B	620	LEU	PHE	conflict	UNP Q93RN7
B	637	PRO	SER	conflict	UNP Q93RN7
B	682	ASN	THR	conflict	UNP Q93RN7
B	686	SER	ARG	conflict	UNP Q93RN7
B	695	HIS	SER	conflict	UNP Q93RN7
B	696	ASN	ASP	conflict	UNP Q93RN7
B	736	ASP	ASN	conflict	UNP Q93RN7
B	742	THR	MET	conflict	UNP Q93RN7
B	748	SER	THR	conflict	UNP Q93RN7

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Chain	Residue	Modelled	Actual	Comment	Reference
B	750	ASN	SER	conflict	UNP Q93RN7
B	751	ALA	ASP	conflict	UNP Q93RN7
B	752	ASN	GLU	conflict	UNP Q93RN7
B	788	GLY	ASP	conflict	UNP Q93RN7
B	790	ALA	VAL	conflict	UNP Q93RN7
B	795	LYS	ARG	conflict	UNP Q93RN7
B	796	ASN	SER	conflict	UNP Q93RN7
B	799	ALA	PRO	conflict	UNP Q93RN7
B	800	GLY	ASP	conflict	UNP Q93RN7
B	801	GLN	ASN	conflict	UNP Q93RN7
B	?	-	THR	deletion	UNP Q93RN7
B	?	-	ILE	deletion	UNP Q93RN7
B	?	-	LEU	deletion	UNP Q93RN7
B	?	-	ILE	deletion	UNP Q93RN7
B	?	-	LEU	deletion	UNP Q93RN7
B	?	-	CYS	deletion	UNP Q93RN7
B	?	-	SER	deletion	UNP Q93RN7
B	803	ASN	SER	conflict	UNP Q93RN7
B	804	ILE	THR	conflict	UNP Q93RN7
B	806	THR	SER	conflict	UNP Q93RN7
B	807	LEU	THR	conflict	UNP Q93RN7
B	808	PHE	SER	conflict	UNP Q93RN7
B	809	SER	GLY	conflict	UNP Q93RN7
B	811	TYR	MET	conflict	UNP Q93RN7
B	812	ARG	-	insertion	UNP Q93RN7
B	813	PHE	-	insertion	UNP Q93RN7
B	814	HIS	-	insertion	UNP Q93RN7
B	815	GLN	-	insertion	UNP Q93RN7
B	816	TRP	-	insertion	UNP Q93RN7
B	817	ILE	-	insertion	UNP Q93RN7
B	818	ASN	-	insertion	UNP Q93RN7
B	820	LEU	TRP	conflict	UNP Q93RN7
B	821	GLY	GLU	conflict	UNP Q93RN7
B	822	ASN	ILE	conflict	UNP Q93RN7
B	824	GLY	ALA	conflict	UNP Q93RN7
B	825	SER	LEU	conflict	UNP Q93RN7
B	826	ASP	THR	conflict	UNP Q93RN7
B	827	THR	ARG	conflict	UNP Q93RN7
B	828	LEU	TRP	conflict	UNP Q93RN7
B	829	ASP	ILE	conflict	UNP Q93RN7
B	830	MET	CYS	conflict	UNP Q93RN7
B	831	LEU	CYS	conflict	UNP Q93RN7

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Chain	Residue	Modelled	Actual	Comment	Reference
B	832	ARG	ALA	conflict	UNP Q93RN7
B	833	GLN	LYS	conflict	UNP Q93RN7
B	838	ALA	GLY	conflict	UNP Q93RN7
B	842	ALA	GLY	conflict	UNP Q93RN7
B	843	SER	LEU	conflict	UNP Q93RN7
B	844	VAL	ARG	conflict	UNP Q93RN7
B	845	MET	ASP	conflict	UNP Q93RN7
B	847	LEU	ALA	conflict	UNP Q93RN7
B	848	ASP	GLY	conflict	UNP Q93RN7
B	849	ILE	HIS	conflict	UNP Q93RN7
B	850	SER	GLN	conflict	UNP Q93RN7
B	851	MET	TYR	conflict	UNP Q93RN7
B	852	VAL	GLY	conflict	UNP Q93RN7
B	853	THR	ASN	conflict	UNP Q93RN7
B	854	GLN	ALA	conflict	UNP Q93RN7
B	855	ALA	GLY	conflict	UNP Q93RN7
B	856	MET	HIS	conflict	UNP Q93RN7
B	857	VAL	GLY	conflict	UNP Q93RN7
B	872	THR	PRO	conflict	UNP Q93RN7
B	878	ASP	HIS	conflict	UNP Q93RN7
B	884	HIS	ILE	conflict	UNP Q93RN7
B	911	SER	ALA	conflict	UNP Q93RN7
B	914	GLU	LYS	conflict	UNP Q93RN7
B	923	GLU	ALA	conflict	UNP Q93RN7
B	1067	LYS	GLN	conflict	UNP Q93RN7
B	1075	ASP	GLU	conflict	UNP Q93RN7
B	1126	ASP	ASN	conflict	UNP Q93RN7
B	1250	LYS	VAL	conflict	UNP Q93RN7
B	1253	SER	PRO	conflict	UNP Q93RN7
B	1257	GLY	ASP	conflict	UNP Q93RN7
B	1258	SER	ASN	conflict	UNP Q93RN7
B	1514	ILE	VAL	conflict	UNP Q93RN7
B	1519	MET	VAL	conflict	UNP Q93RN7
B	1877	ASN	TYR	conflict	UNP Q93RN7
B	1880	MET	THR	conflict	UNP Q93RN7
B	1884	ILE	VAL	conflict	UNP Q93RN7
B	1920	THR	ALA	conflict	UNP Q93RN7
B	1943	GLY	VAL	conflict	UNP Q93RN7
B	1947	GLN	HIS	conflict	UNP Q93RN7
B	1959	MET	ALA	conflict	UNP Q93RN7
B	1961	GLY	ASP	conflict	UNP Q93RN7
B	1962	ARG	ASN	conflict	UNP Q93RN7

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Chain	Residue	Modelled	Actual	Comment	Reference
B	1964	GLY	GLU	conflict	UNP Q93RN7
B	1966	SER	ALA	conflict	UNP Q93RN7
B	1967	LYS	THR	conflict	UNP Q93RN7
B	1968	ASN	GLN	conflict	UNP Q93RN7
B	1969	LEU	PRO	conflict	UNP Q93RN7
B	2028	THR	PRO	conflict	UNP Q93RN7
B	2057	THR	ALA	conflict	UNP Q93RN7
B	2149	LEU	PHE	conflict	UNP Q93RN7
B	2161	VAL	ALA	conflict	UNP Q93RN7
B	2164	ILE	VAL	conflict	UNP Q93RN7
B	2178	LEU	PHE	conflict	UNP Q93RN7
B	2430	LEU	PHE	conflict	UNP Q93RN7
C	172	HIS	PRO	conflict	UNP Q93RN7
C	343	ASN	HIS	conflict	UNP Q93RN7
C	344	ILE	VAL	conflict	UNP Q93RN7
C	360	ARG	CYS	conflict	UNP Q93RN7
C	365	VAL	ILE	conflict	UNP Q93RN7
C	377	ALA	SER	conflict	UNP Q93RN7
C	379	PRO	THR	conflict	UNP Q93RN7
C	391	ILE	VAL	conflict	UNP Q93RN7
C	407	SER	ASN	conflict	UNP Q93RN7
C	410	LYS	ARG	conflict	UNP Q93RN7
C	566	VAL	ILE	conflict	UNP Q93RN7
C	583	ALA	THR	conflict	UNP Q93RN7
C	586	THR	ILE	conflict	UNP Q93RN7
C	587	ILE	LEU	conflict	UNP Q93RN7
C	592	PHE	PRO	conflict	UNP Q93RN7
C	606	VAL	ALA	conflict	UNP Q93RN7
C	620	LEU	PHE	conflict	UNP Q93RN7
C	637	PRO	SER	conflict	UNP Q93RN7
C	682	ASN	THR	conflict	UNP Q93RN7
C	686	SER	ARG	conflict	UNP Q93RN7
C	695	HIS	SER	conflict	UNP Q93RN7
C	696	ASN	ASP	conflict	UNP Q93RN7
C	736	ASP	ASN	conflict	UNP Q93RN7
C	742	THR	MET	conflict	UNP Q93RN7
C	748	SER	THR	conflict	UNP Q93RN7
C	750	ASN	SER	conflict	UNP Q93RN7
C	751	ALA	ASP	conflict	UNP Q93RN7
C	752	ASN	GLU	conflict	UNP Q93RN7
C	788	GLY	ASP	conflict	UNP Q93RN7
C	790	ALA	VAL	conflict	UNP Q93RN7

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Chain	Residue	Modelled	Actual	Comment	Reference
C	795	LYS	ARG	conflict	UNP Q93RN7
C	796	ASN	SER	conflict	UNP Q93RN7
C	799	ALA	PRO	conflict	UNP Q93RN7
C	800	GLY	ASP	conflict	UNP Q93RN7
C	801	GLN	ASN	conflict	UNP Q93RN7
C	?	-	THR	deletion	UNP Q93RN7
C	?	-	ILE	deletion	UNP Q93RN7
C	?	-	LEU	deletion	UNP Q93RN7
C	?	-	ILE	deletion	UNP Q93RN7
C	?	-	LEU	deletion	UNP Q93RN7
C	?	-	CYS	deletion	UNP Q93RN7
C	?	-	SER	deletion	UNP Q93RN7
C	803	ASN	SER	conflict	UNP Q93RN7
C	804	ILE	THR	conflict	UNP Q93RN7
C	806	THR	SER	conflict	UNP Q93RN7
C	807	LEU	THR	conflict	UNP Q93RN7
C	808	PHE	SER	conflict	UNP Q93RN7
C	809	SER	GLY	conflict	UNP Q93RN7
C	811	TYR	MET	conflict	UNP Q93RN7
C	812	ARG	-	insertion	UNP Q93RN7
C	813	PHE	-	insertion	UNP Q93RN7
C	814	HIS	-	insertion	UNP Q93RN7
C	815	GLN	-	insertion	UNP Q93RN7
C	816	TRP	-	insertion	UNP Q93RN7
C	817	ILE	-	insertion	UNP Q93RN7
C	818	ASN	-	insertion	UNP Q93RN7
C	820	LEU	TRP	conflict	UNP Q93RN7
C	821	GLY	GLU	conflict	UNP Q93RN7
C	822	ASN	ILE	conflict	UNP Q93RN7
C	824	GLY	ALA	conflict	UNP Q93RN7
C	825	SER	LEU	conflict	UNP Q93RN7
C	826	ASP	THR	conflict	UNP Q93RN7
C	827	THR	ARG	conflict	UNP Q93RN7
C	828	LEU	TRP	conflict	UNP Q93RN7
C	829	ASP	ILE	conflict	UNP Q93RN7
C	830	MET	CYS	conflict	UNP Q93RN7
C	831	LEU	CYS	conflict	UNP Q93RN7
C	832	ARG	ALA	conflict	UNP Q93RN7
C	833	GLN	LYS	conflict	UNP Q93RN7
C	838	ALA	GLY	conflict	UNP Q93RN7
C	842	ALA	GLY	conflict	UNP Q93RN7
C	843	SER	LEU	conflict	UNP Q93RN7

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Chain	Residue	Modelled	Actual	Comment	Reference
C	844	VAL	ARG	conflict	UNP Q93RN7
C	845	MET	ASP	conflict	UNP Q93RN7
C	847	LEU	ALA	conflict	UNP Q93RN7
C	848	ASP	GLY	conflict	UNP Q93RN7
C	849	ILE	HIS	conflict	UNP Q93RN7
C	850	SER	GLN	conflict	UNP Q93RN7
C	851	MET	TYR	conflict	UNP Q93RN7
C	852	VAL	GLY	conflict	UNP Q93RN7
C	853	THR	ASN	conflict	UNP Q93RN7
C	854	GLN	ALA	conflict	UNP Q93RN7
C	855	ALA	GLY	conflict	UNP Q93RN7
C	856	MET	HIS	conflict	UNP Q93RN7
C	857	VAL	GLY	conflict	UNP Q93RN7
C	872	THR	PRO	conflict	UNP Q93RN7
C	878	ASP	HIS	conflict	UNP Q93RN7
C	884	HIS	ILE	conflict	UNP Q93RN7
C	911	SER	ALA	conflict	UNP Q93RN7
C	914	GLU	LYS	conflict	UNP Q93RN7
C	923	GLU	ALA	conflict	UNP Q93RN7
C	1067	LYS	GLN	conflict	UNP Q93RN7
C	1075	ASP	GLU	conflict	UNP Q93RN7
C	1126	ASP	ASN	conflict	UNP Q93RN7
C	1250	LYS	VAL	conflict	UNP Q93RN7
C	1253	SER	PRO	conflict	UNP Q93RN7
C	1257	GLY	ASP	conflict	UNP Q93RN7
C	1258	SER	ASN	conflict	UNP Q93RN7
C	1514	ILE	VAL	conflict	UNP Q93RN7
C	1519	MET	VAL	conflict	UNP Q93RN7
C	1877	ASN	TYR	conflict	UNP Q93RN7
C	1880	MET	THR	conflict	UNP Q93RN7
C	1884	ILE	VAL	conflict	UNP Q93RN7
C	1920	THR	ALA	conflict	UNP Q93RN7
C	1943	GLY	VAL	conflict	UNP Q93RN7
C	1947	GLN	HIS	conflict	UNP Q93RN7
C	1959	MET	ALA	conflict	UNP Q93RN7
C	1961	GLY	ASP	conflict	UNP Q93RN7
C	1962	ARG	ASN	conflict	UNP Q93RN7
C	1964	GLY	GLU	conflict	UNP Q93RN7
C	1966	SER	ALA	conflict	UNP Q93RN7
C	1967	LYS	THR	conflict	UNP Q93RN7
C	1968	ASN	GLN	conflict	UNP Q93RN7
C	1969	LEU	PRO	conflict	UNP Q93RN7

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Chain	Residue	Modelled	Actual	Comment	Reference
C	2028	THR	PRO	conflict	UNP Q93RN7
C	2057	THR	ALA	conflict	UNP Q93RN7
C	2149	LEU	PHE	conflict	UNP Q93RN7
C	2161	VAL	ALA	conflict	UNP Q93RN7
C	2164	ILE	VAL	conflict	UNP Q93RN7
C	2178	LEU	PHE	conflict	UNP Q93RN7
C	2430	LEU	PHE	conflict	UNP Q93RN7
D	172	HIS	PRO	conflict	UNP Q93RN7
D	343	ASN	HIS	conflict	UNP Q93RN7
D	344	ILE	VAL	conflict	UNP Q93RN7
D	360	ARG	CYS	conflict	UNP Q93RN7
D	365	VAL	ILE	conflict	UNP Q93RN7
D	377	ALA	SER	conflict	UNP Q93RN7
D	379	PRO	THR	conflict	UNP Q93RN7
D	391	ILE	VAL	conflict	UNP Q93RN7
D	407	SER	ASN	conflict	UNP Q93RN7
D	410	LYS	ARG	conflict	UNP Q93RN7
D	566	VAL	ILE	conflict	UNP Q93RN7
D	583	ALA	THR	conflict	UNP Q93RN7
D	586	THR	ILE	conflict	UNP Q93RN7
D	587	ILE	LEU	conflict	UNP Q93RN7
D	592	PHE	PRO	conflict	UNP Q93RN7
D	606	VAL	ALA	conflict	UNP Q93RN7
D	620	LEU	PHE	conflict	UNP Q93RN7
D	637	PRO	SER	conflict	UNP Q93RN7
D	682	ASN	THR	conflict	UNP Q93RN7
D	686	SER	ARG	conflict	UNP Q93RN7
D	695	HIS	SER	conflict	UNP Q93RN7
D	696	ASN	ASP	conflict	UNP Q93RN7
D	736	ASP	ASN	conflict	UNP Q93RN7
D	742	THR	MET	conflict	UNP Q93RN7
D	748	SER	THR	conflict	UNP Q93RN7
D	750	ASN	SER	conflict	UNP Q93RN7
D	751	ALA	ASP	conflict	UNP Q93RN7
D	752	ASN	GLU	conflict	UNP Q93RN7
D	788	GLY	ASP	conflict	UNP Q93RN7
D	790	ALA	VAL	conflict	UNP Q93RN7
D	795	LYS	ARG	conflict	UNP Q93RN7
D	796	ASN	SER	conflict	UNP Q93RN7
D	799	ALA	PRO	conflict	UNP Q93RN7
D	800	GLY	ASP	conflict	UNP Q93RN7
D	801	GLN	ASN	conflict	UNP Q93RN7

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Chain	Residue	Modelled	Actual	Comment	Reference
D	?	-	THR	deletion	UNP Q93RN7
D	?	-	ILE	deletion	UNP Q93RN7
D	?	-	LEU	deletion	UNP Q93RN7
D	?	-	ILE	deletion	UNP Q93RN7
D	?	-	LEU	deletion	UNP Q93RN7
D	?	-	CYS	deletion	UNP Q93RN7
D	?	-	SER	deletion	UNP Q93RN7
D	803	ASN	SER	conflict	UNP Q93RN7
D	804	ILE	THR	conflict	UNP Q93RN7
D	806	THR	SER	conflict	UNP Q93RN7
D	807	LEU	THR	conflict	UNP Q93RN7
D	808	PHE	SER	conflict	UNP Q93RN7
D	809	SER	GLY	conflict	UNP Q93RN7
D	811	TYR	MET	conflict	UNP Q93RN7
D	812	ARG	-	insertion	UNP Q93RN7
D	813	PHE	-	insertion	UNP Q93RN7
D	814	HIS	-	insertion	UNP Q93RN7
D	815	GLN	-	insertion	UNP Q93RN7
D	816	TRP	-	insertion	UNP Q93RN7
D	817	ILE	-	insertion	UNP Q93RN7
D	818	ASN	-	insertion	UNP Q93RN7
D	820	LEU	TRP	conflict	UNP Q93RN7
D	821	GLY	GLU	conflict	UNP Q93RN7
D	822	ASN	ILE	conflict	UNP Q93RN7
D	824	GLY	ALA	conflict	UNP Q93RN7
D	825	SER	LEU	conflict	UNP Q93RN7
D	826	ASP	THR	conflict	UNP Q93RN7
D	827	THR	ARG	conflict	UNP Q93RN7
D	828	LEU	TRP	conflict	UNP Q93RN7
D	829	ASP	ILE	conflict	UNP Q93RN7
D	830	MET	CYS	conflict	UNP Q93RN7
D	831	LEU	CYS	conflict	UNP Q93RN7
D	832	ARG	ALA	conflict	UNP Q93RN7
D	833	GLN	LYS	conflict	UNP Q93RN7
D	838	ALA	GLY	conflict	UNP Q93RN7
D	842	ALA	GLY	conflict	UNP Q93RN7
D	843	SER	LEU	conflict	UNP Q93RN7
D	844	VAL	ARG	conflict	UNP Q93RN7
D	845	MET	ASP	conflict	UNP Q93RN7
D	847	LEU	ALA	conflict	UNP Q93RN7
D	848	ASP	GLY	conflict	UNP Q93RN7
D	849	ILE	HIS	conflict	UNP Q93RN7

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Chain	Residue	Modelled	Actual	Comment	Reference
D	850	SER	GLN	conflict	UNP Q93RN7
D	851	MET	TYR	conflict	UNP Q93RN7
D	852	VAL	GLY	conflict	UNP Q93RN7
D	853	THR	ASN	conflict	UNP Q93RN7
D	854	GLN	ALA	conflict	UNP Q93RN7
D	855	ALA	GLY	conflict	UNP Q93RN7
D	856	MET	HIS	conflict	UNP Q93RN7
D	857	VAL	GLY	conflict	UNP Q93RN7
D	872	THR	PRO	conflict	UNP Q93RN7
D	878	ASP	HIS	conflict	UNP Q93RN7
D	884	HIS	ILE	conflict	UNP Q93RN7
D	911	SER	ALA	conflict	UNP Q93RN7
D	914	GLU	LYS	conflict	UNP Q93RN7
D	923	GLU	ALA	conflict	UNP Q93RN7
D	1067	LYS	GLN	conflict	UNP Q93RN7
D	1075	ASP	GLU	conflict	UNP Q93RN7
D	1126	ASP	ASN	conflict	UNP Q93RN7
D	1250	LYS	VAL	conflict	UNP Q93RN7
D	1253	SER	PRO	conflict	UNP Q93RN7
D	1257	GLY	ASP	conflict	UNP Q93RN7
D	1258	SER	ASN	conflict	UNP Q93RN7
D	1514	ILE	VAL	conflict	UNP Q93RN7
D	1519	MET	VAL	conflict	UNP Q93RN7
D	1877	ASN	TYR	conflict	UNP Q93RN7
D	1880	MET	THR	conflict	UNP Q93RN7
D	1884	ILE	VAL	conflict	UNP Q93RN7
D	1920	THR	ALA	conflict	UNP Q93RN7
D	1943	GLY	VAL	conflict	UNP Q93RN7
D	1947	GLN	HIS	conflict	UNP Q93RN7
D	1959	MET	ALA	conflict	UNP Q93RN7
D	1961	GLY	ASP	conflict	UNP Q93RN7
D	1962	ARG	ASN	conflict	UNP Q93RN7
D	1964	GLY	GLU	conflict	UNP Q93RN7
D	1966	SER	ALA	conflict	UNP Q93RN7
D	1967	LYS	THR	conflict	UNP Q93RN7
D	1968	ASN	GLN	conflict	UNP Q93RN7
D	1969	LEU	PRO	conflict	UNP Q93RN7
D	2028	THR	PRO	conflict	UNP Q93RN7
D	2057	THR	ALA	conflict	UNP Q93RN7
D	2149	LEU	PHE	conflict	UNP Q93RN7
D	2161	VAL	ALA	conflict	UNP Q93RN7
D	2164	ILE	VAL	conflict	UNP Q93RN7

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Chain	Residue	Modelled	Actual	Comment	Reference
D	2178	LEU	PHE	conflict	UNP Q93RN7
D	2430	LEU	PHE	conflict	UNP Q93RN7
E	172	HIS	PRO	conflict	UNP Q93RN7
E	343	ASN	HIS	conflict	UNP Q93RN7
E	344	ILE	VAL	conflict	UNP Q93RN7
E	360	ARG	CYS	conflict	UNP Q93RN7
E	365	VAL	ILE	conflict	UNP Q93RN7
E	377	ALA	SER	conflict	UNP Q93RN7
E	379	PRO	THR	conflict	UNP Q93RN7
E	391	ILE	VAL	conflict	UNP Q93RN7
E	407	SER	ASN	conflict	UNP Q93RN7
E	410	LYS	ARG	conflict	UNP Q93RN7
E	566	VAL	ILE	conflict	UNP Q93RN7
E	583	ALA	THR	conflict	UNP Q93RN7
E	586	THR	ILE	conflict	UNP Q93RN7
E	587	ILE	LEU	conflict	UNP Q93RN7
E	592	PHE	PRO	conflict	UNP Q93RN7
E	606	VAL	ALA	conflict	UNP Q93RN7
E	620	LEU	PHE	conflict	UNP Q93RN7
E	637	PRO	SER	conflict	UNP Q93RN7
E	682	ASN	THR	conflict	UNP Q93RN7
E	686	SER	ARG	conflict	UNP Q93RN7
E	695	HIS	SER	conflict	UNP Q93RN7
E	696	ASN	ASP	conflict	UNP Q93RN7
E	736	ASP	ASN	conflict	UNP Q93RN7
E	742	THR	MET	conflict	UNP Q93RN7
E	748	SER	THR	conflict	UNP Q93RN7
E	750	ASN	SER	conflict	UNP Q93RN7
E	751	ALA	ASP	conflict	UNP Q93RN7
E	752	ASN	GLU	conflict	UNP Q93RN7
E	788	GLY	ASP	conflict	UNP Q93RN7
E	790	ALA	VAL	conflict	UNP Q93RN7
E	795	LYS	ARG	conflict	UNP Q93RN7
E	796	ASN	SER	conflict	UNP Q93RN7
E	799	ALA	PRO	conflict	UNP Q93RN7
E	800	GLY	ASP	conflict	UNP Q93RN7
E	801	GLN	ASN	conflict	UNP Q93RN7
E	?	-	THR	deletion	UNP Q93RN7
E	?	-	ILE	deletion	UNP Q93RN7
E	?	-	LEU	deletion	UNP Q93RN7
E	?	-	ILE	deletion	UNP Q93RN7
E	?	-	LEU	deletion	UNP Q93RN7

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Chain	Residue	Modelled	Actual	Comment	Reference
E	?	-	CYS	deletion	UNP Q93RN7
E	?	-	SER	deletion	UNP Q93RN7
E	803	ASN	SER	conflict	UNP Q93RN7
E	804	ILE	THR	conflict	UNP Q93RN7
E	806	THR	SER	conflict	UNP Q93RN7
E	807	LEU	THR	conflict	UNP Q93RN7
E	808	PHE	SER	conflict	UNP Q93RN7
E	809	SER	GLY	conflict	UNP Q93RN7
E	811	TYR	MET	conflict	UNP Q93RN7
E	812	ARG	-	insertion	UNP Q93RN7
E	813	PHE	-	insertion	UNP Q93RN7
E	814	HIS	-	insertion	UNP Q93RN7
E	815	GLN	-	insertion	UNP Q93RN7
E	816	TRP	-	insertion	UNP Q93RN7
E	817	ILE	-	insertion	UNP Q93RN7
E	818	ASN	-	insertion	UNP Q93RN7
E	820	LEU	TRP	conflict	UNP Q93RN7
E	821	GLY	GLU	conflict	UNP Q93RN7
E	822	ASN	ILE	conflict	UNP Q93RN7
E	824	GLY	ALA	conflict	UNP Q93RN7
E	825	SER	LEU	conflict	UNP Q93RN7
E	826	ASP	THR	conflict	UNP Q93RN7
E	827	THR	ARG	conflict	UNP Q93RN7
E	828	LEU	TRP	conflict	UNP Q93RN7
E	829	ASP	ILE	conflict	UNP Q93RN7
E	830	MET	CYS	conflict	UNP Q93RN7
E	831	LEU	CYS	conflict	UNP Q93RN7
E	832	ARG	ALA	conflict	UNP Q93RN7
E	833	GLN	LYS	conflict	UNP Q93RN7
E	838	ALA	GLY	conflict	UNP Q93RN7
E	842	ALA	GLY	conflict	UNP Q93RN7
E	843	SER	LEU	conflict	UNP Q93RN7
E	844	VAL	ARG	conflict	UNP Q93RN7
E	845	MET	ASP	conflict	UNP Q93RN7
E	847	LEU	ALA	conflict	UNP Q93RN7
E	848	ASP	GLY	conflict	UNP Q93RN7
E	849	ILE	HIS	conflict	UNP Q93RN7
E	850	SER	GLN	conflict	UNP Q93RN7
E	851	MET	TYR	conflict	UNP Q93RN7
E	852	VAL	GLY	conflict	UNP Q93RN7
E	853	THR	ASN	conflict	UNP Q93RN7
E	854	GLN	ALA	conflict	UNP Q93RN7

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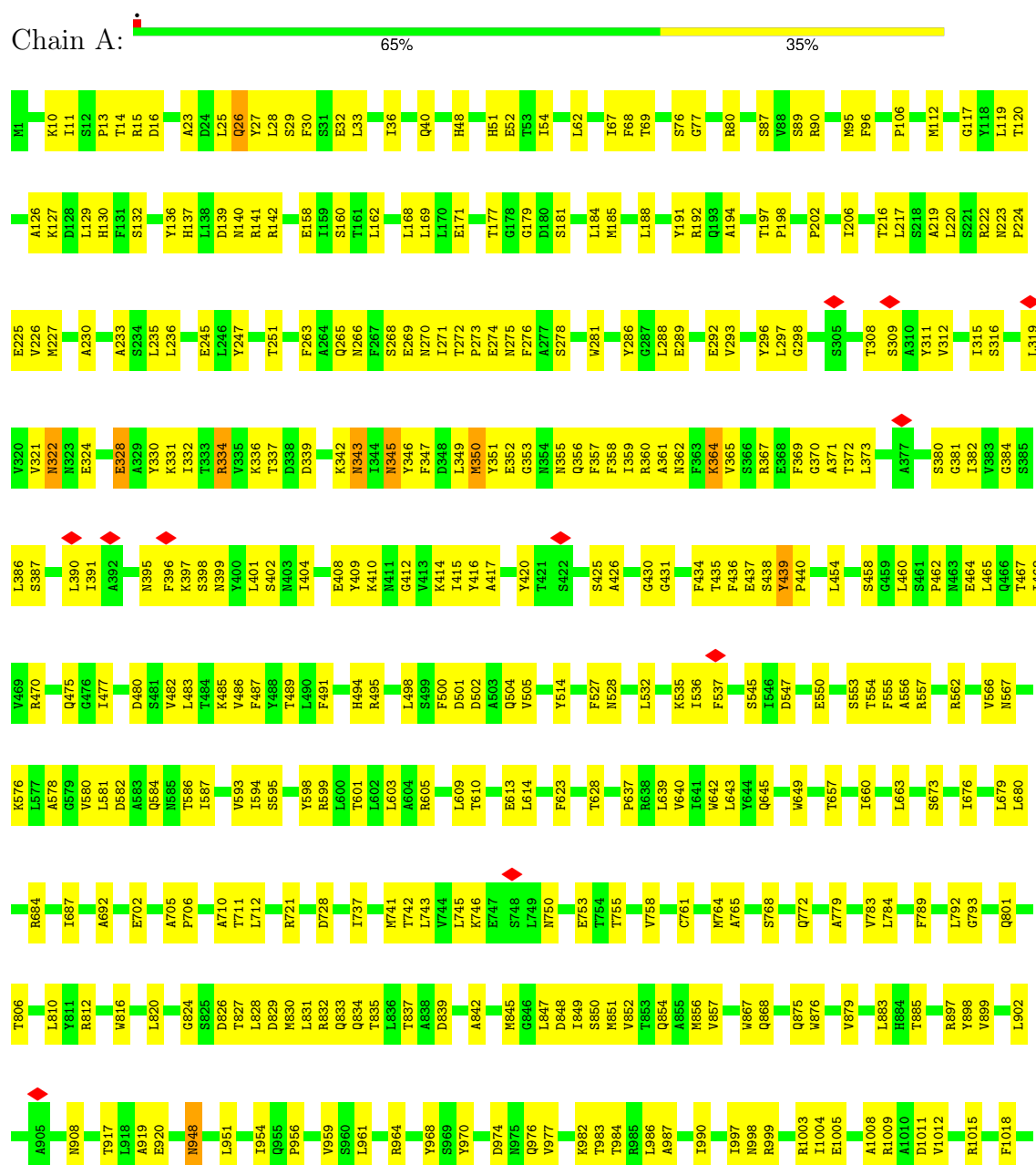
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Chain	Residue	Modelled	Actual	Comment	Reference
E	855	ALA	GLY	conflict	UNP Q93RN7
E	856	MET	HIS	conflict	UNP Q93RN7
E	857	VAL	GLY	conflict	UNP Q93RN7
E	872	THR	PRO	conflict	UNP Q93RN7
E	878	ASP	HIS	conflict	UNP Q93RN7
E	884	HIS	ILE	conflict	UNP Q93RN7
E	911	SER	ALA	conflict	UNP Q93RN7
E	914	GLU	LYS	conflict	UNP Q93RN7
E	923	GLU	ALA	conflict	UNP Q93RN7
E	1067	LYS	GLN	conflict	UNP Q93RN7
E	1075	ASP	GLU	conflict	UNP Q93RN7
E	1126	ASP	ASN	conflict	UNP Q93RN7
E	1250	LYS	VAL	conflict	UNP Q93RN7
E	1253	SER	PRO	conflict	UNP Q93RN7
E	1257	GLY	ASP	conflict	UNP Q93RN7
E	1258	SER	ASN	conflict	UNP Q93RN7
E	1514	ILE	VAL	conflict	UNP Q93RN7
E	1519	MET	VAL	conflict	UNP Q93RN7
E	1877	ASN	TYR	conflict	UNP Q93RN7
E	1880	MET	THR	conflict	UNP Q93RN7
E	1884	ILE	VAL	conflict	UNP Q93RN7
E	1920	THR	ALA	conflict	UNP Q93RN7
E	1943	GLY	VAL	conflict	UNP Q93RN7
E	1947	GLN	HIS	conflict	UNP Q93RN7
E	1959	MET	ALA	conflict	UNP Q93RN7
E	1961	GLY	ASP	conflict	UNP Q93RN7
E	1962	ARG	ASN	conflict	UNP Q93RN7
E	1964	GLY	GLU	conflict	UNP Q93RN7
E	1966	SER	ALA	conflict	UNP Q93RN7
E	1967	LYS	THR	conflict	UNP Q93RN7
E	1968	ASN	GLN	conflict	UNP Q93RN7
E	1969	LEU	PRO	conflict	UNP Q93RN7
E	2028	THR	PRO	conflict	UNP Q93RN7
E	2057	THR	ALA	conflict	UNP Q93RN7
E	2149	LEU	PHE	conflict	UNP Q93RN7
E	2161	VAL	ALA	conflict	UNP Q93RN7
E	2164	ILE	VAL	conflict	UNP Q93RN7
E	2178	LEU	PHE	conflict	UNP Q93RN7
E	2430	LEU	PHE	conflict	UNP Q93RN7

3 Residue-property plots

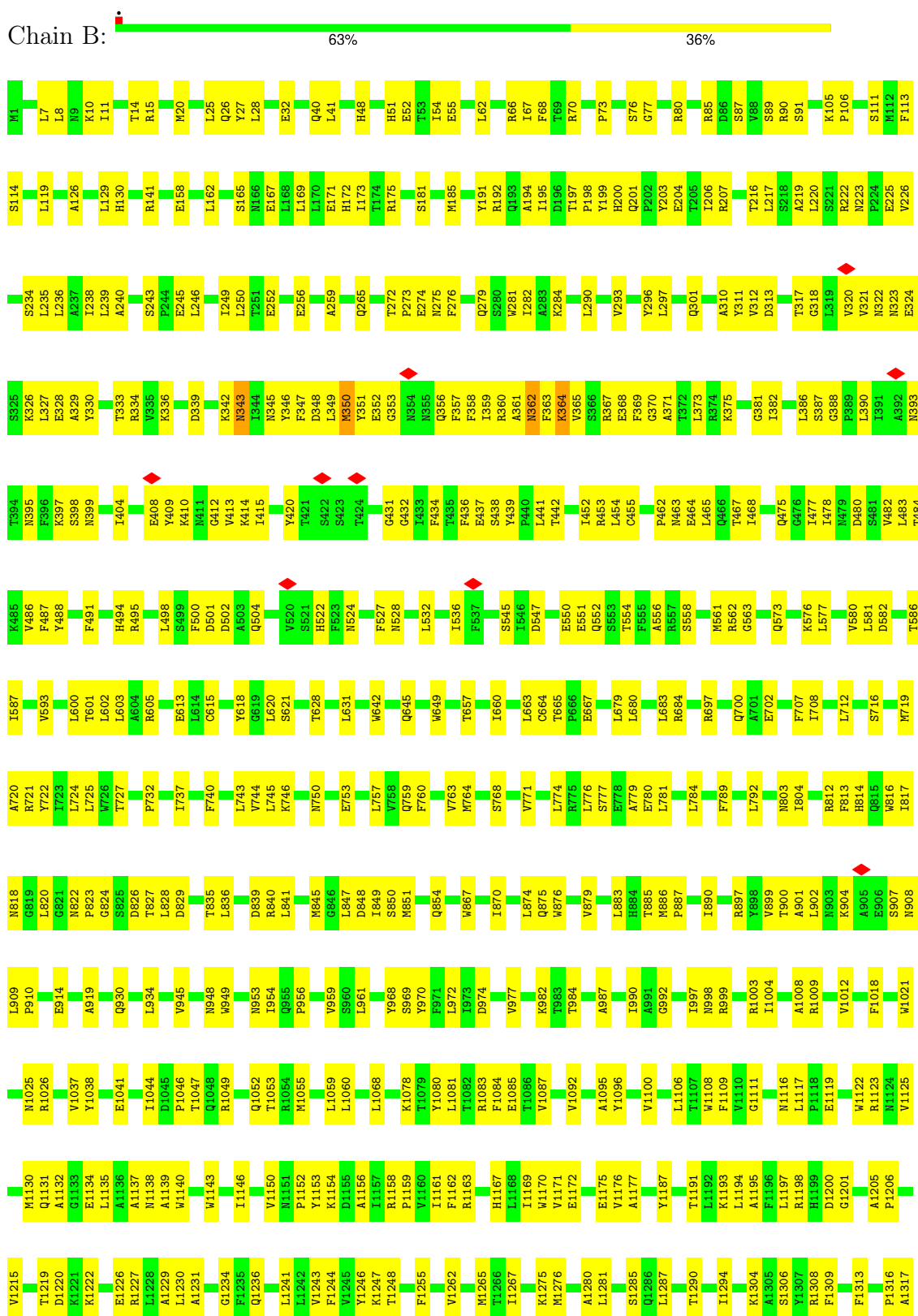
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: XptA2 protein





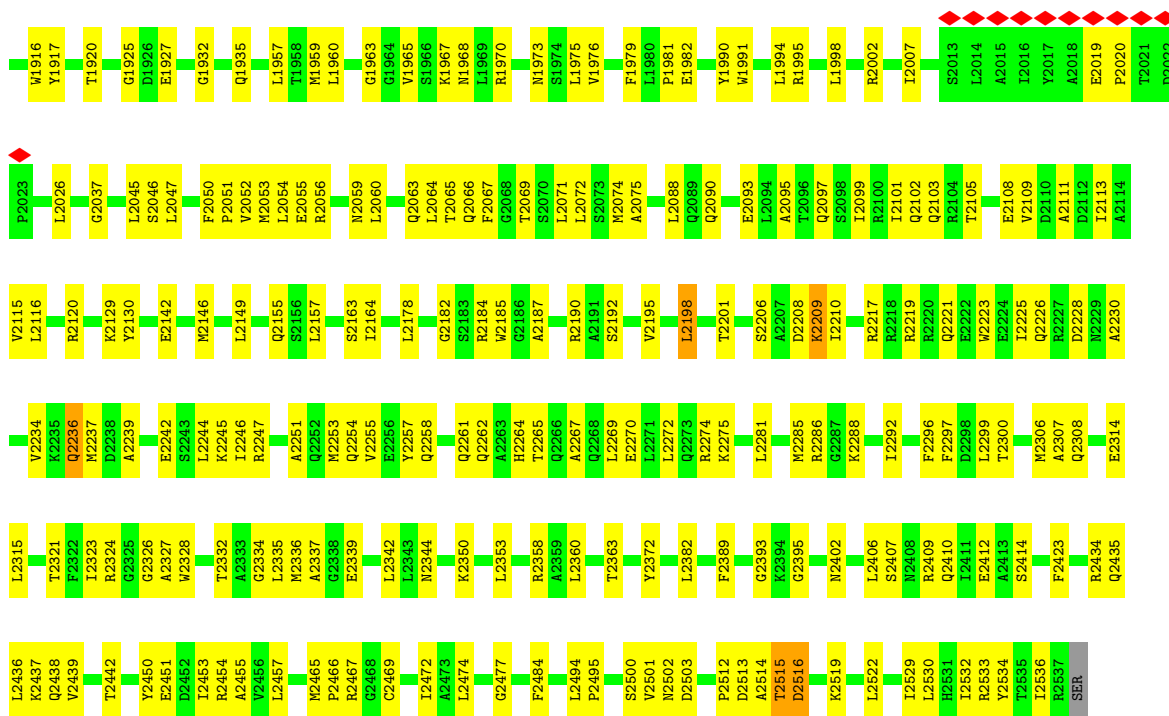
● Molecule 1: XptA2 protein



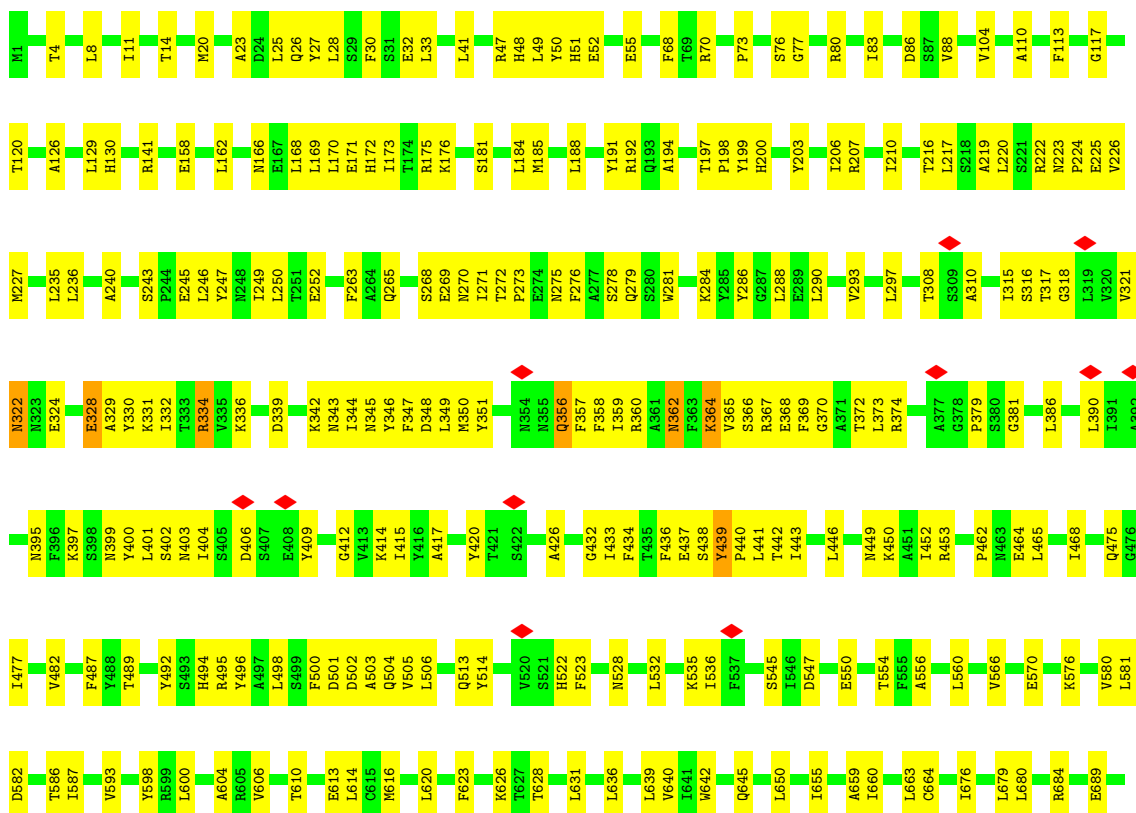
L246	Y247	N248	I249	L250	T251	E252	E256	A259	Q265	S268	E269	N270	I271	T272	F273	E274	N275	F276	F277	S278	W281	Y285	G287	L288	E289	L290	V293	Y296	L297	Q301	S307	T308	S309	A310	Y311	V312	S316	T317	G318	L319	V320	V321	N322	N323	E324	A329							
Y330	K331	I332	T333	Q334	V335	K336	T337	D338	D339	K342	N343	I344	N345	F346	D348	L349	M350	Y351	E352	F357	F358	L359	R360	A361	N362	F363	K364	V365	S366	R367	E368	F369	G370	A371	T372	L373	R374	K375	S380	G381	I382	V383	L386	S387	L390	I391	A392	V393	K397	S398	N399	L404	
E408	Y409	K410	N411	G412	V413	K414	I415	Y416	Y420	T421	S422	S425	Q429	G430	G431	F434	T435	F436	E437	S438	Y439	I443	F444	K447	K450	A451	L452	C455	L460	S461	P462	M463	E464	L465	I468	V469	R470	Q475	G476	I477	V482	V486	I487	Y488	T489								
F500	A503	Q504	V505	L506	N507	I511	Y514	V520	F523	N528	L532	I536	F537	E538	S545	I546	D547	E550	T554	F555	A556	L560	L571	Y572	Q573	L574	G575	K576	L577	A578	G579	V580	L581	D582	A583	Q584	N585	T586	I587	V593	I594	S595	Y598										
R599	L600	T601	L602	L603	A604	R605	V606	H607	T610	E613	L614	C615	T628	L631	S632	E635	L636	P637	V640	I641	W642	Q645	I676	L679	L680	R684	E689	A692	R697	E698	L699	Q700	E701	E702	I703	L704	A705	P706	F707	T708	W715	A710	T711	L712	H713	L714							
M719	A720	R721	G739	F740	M741	T742	L743	V744	T745	E746	E747	S748	E753	T754	Q756	W757	S758	M764	S768	Q772	R775	L776	S777	E778	A779	L784	F789	L792	A799	G800	Q801	T806	L807	F808	F813	H814	Q815	W816	I817	N818	G819	L820	Y824	S825									
D826	T827	L828	D829	M830	Q833	Q834	T835	L836	T837	D839	R840	Y868	S869	F871	L872	S880	M886	S887	W881	L884	W887	I870	Q875	W876	P887	R891	R897	T898	Y899	L900	A901	L902	N903	K904	S907	N908	L909	P910	Y915	A919	I1044	R1049	I1050										
N948	W949	N953	T1161	F1162	Q955	P956	Y959	L961	Y968	S969	Y970	K1078	T1079	L1080	R1081	L973	D974	T1191	F1083	F1084	E1085	T984	R985	L1194	A987	E988	Q992	I997	N998	R999	T1003	R1104	E1005	N1116	L1117	W1122	D1011	Y898	V899	T900	A901	L902	N903	K904	S907	N908	L909	P910	T1029	E1041	I1044	R1049	I1050
G1051	Q1052	E1058	L1059	L1060	E1061	L1068	V1073	E1074	Y968	S969	Y970	K1078	T1079	L1080	R1081	L973	D974	T1191	F1083	F1084	E1085	T984	R985	L1194	A987	E988	Q992	I997	N998	R999	T1003	R1104	E1005	N1116	L1117	W1122	D1011	Y898	V899	T900	A901	L902	N903	K904	S907	N908	L909	P910	T1029	E1041	I1044	R1049	I1050
R1158	P1159	T1160	K1275	M1276	A1280	L1281	H1167	L1168	S960	L1169	W1170	K1173	E1174	R1189	F1190	T1191	L1192	K1193	L1194	F1196	L1197	G1201	S1202	W1203	L1319	N1323	A1324	I1325	M1333	E1334	T1338	P1339	Q1340	T1341	T1342	T1343	K1344	Y1345	S1346	N1349	L1350	T1353	L1354	H1355	Y1363	D1364	G1365	S1366	G1367				
I1370	R1371	M1372	K1373	Q1374	I1375	S1376	L1377	M1378	K1379	L1380	T1381	K1386	A1392	I1395	V1399	Y1405	G1410	P1411	I1412	T1413	V1414	Y1415	N1416	K1417	T1418	R1419	M1420	I1422	A1423	S1424	V1425	L1426	L1429	M1430	M1431	Y1434	T1435	H1436	R1437	L1438	I1439	L1440	T1441	P1442	R1450	L1451	F1452	E1453	F1454				
P1455	T1461	N1463	F1466	L1467	V1468	F1471	K1472	D1475	F1476	K1477	C1479	V1483	D1484	G1485	N1486	N1487	S1488	Q1489	Q1492	T1493	F1494	Y1497	Q1498	T1507	G1508	K1515	T1516	T1517	V1518	M1519	A1520	K1523	F1527	H1532	T1533	A1534	S1535	L1536	P1537	F1541	F1548	L1551	E1552										
I1553	D1554	A1555	L1556	D1568	I1569	F1570	F1571	E1572	K1576	G1582	K1583	I1584	K1585	L1588	S1589	V1590	K1591	R1592	V1593	L1601	F1602	L1603	R1604	R1621	T1624	L1625	L1626	A1627	S1628	Q1629	L1630	V1631	S1632	A1634	N1635	T1636	H1637	I1638	D1639	T1640	I1641	L1642	T1643	M1644	E1645	T1646	Q1647	R1648	L1649	P1650			







• Molecule 1: XptA2 protein



G2103	L2007	T1886	D1735	R1633	P1537	R1436	V1332	K1222	E1119	G992	I870	V785	A692
R2104	S2013	R1889	F1742	A1634	F1541	R1437	M1333	E1226	W1122	I997	N871	F789	Q700
L2109	L2014	L1890	F1743	T1636	D1543	L1438	I1338	E1227	R1123	N938	L874	A790	I703
L2116	L2015	D1892	D1746	D1639	A1543	L1440	P1339	L1228	N1124	R999	W875	V791	I708
E2118	L2016	Q1893		T1640	M1544	P1442	I1341	L1230	V1125	R1003	W876	G793	
S2119	L1896	L1897	K1749	L1641	F1546	Y1447	L1350	G1234	D1126	I1004	V879	A799	T111
R2120	R1897			L1642	T1547		A1351	F1235	M1130	R1009	M886	G800	T112
R2121	A2018		I1755	M1644	F1548	R1450	H1355	F1236	L1135	R1015	P887	H713	L714
Q2124	Y1902		A1758	R1648	E1552	L1451		T1240	L1139	F1018	I890	N803	W119
W2125	A1913		D1759	L1649	I1553	F1452	V1361	L1241	W1140			H802	A721
R2126	K1914		H1760	P1650	D1554	E1453	R1362	L1242	Y1143	W1021		N806	R720
L2127	M1915		E1651	E1651	S1556	F1454	Y1363	V1243	W1143			L810	Y722
E2128	W1916		Q1766	P1652	S1557	P1456	G1367	Y1245	N1024	N1025	A905	F813	I723
K2129	Y1917		Q1767			S1457		K1247	N1024			H814	L724
Y2130	W1918		I1784	F1659	D1568	P1458	R1371	T1248	I1146			Q815	
	R1919				I1569		M1372		D1147			W816	L730
	T1920		Y1801	L1664	I1570	I1461	K1373	F1255	I1148	W1030	N908	R815	P732
	L1921			K1666	F1571	F1466	Q1374		A1149		P910	W816	
	G1925		E1804	Y1667	E1572	T1467	I1375	V1262	V1150	Y1038	E914	N818	
			Y1808	D1668	T1573	V1468			P1152	E1041	W915	G819	D736
	G1932		T1809	E1671	K1574	T1473	K1379	M1265	R1158	P1046	A919	L820	I737
	S1933		P1810	A1675	K1576		T1381	T1267	P1159			G824	G738
	Q1934		M1811	E1675		F1476	K1386	Y1268	F1162	I1050	E923	S825	T742
	Q1935		L1817	R1676	L1581	C1479	S1387	F1273	H1167	T1053	L926	R826	K746
	Q1985		K1821	F1677	G1582		Q1388	K1274	L1168	R1054	S927	L828	E747
	D1986			F1678	I1584	A1482	Y1389	L1281	I1169	M1055	Q930	M830	S748
	L1957		W1829	V1685	L1588	G1485	I1395		W1170	L1059	L834	L749	L749
	L1960		I1830		S1589			L1287		L1060		T835	N750
	G1963		N1831	R1691	V1593	Q1489	V1399	F1291	K1173	K1078	V945	L836	A751
	G1964		Y1832	L1699		G1490	K1400	D1292	E1174	T1079		N752	N752
	V1965		Y1834		L1601	F1491	H1401	I1293	E1175	Y1080	I954	D839	E753
	S1966			S1703	F1602	Q1492	G1409	I1294	D1182	L1081	Q955	R840	T754
	K1967		G1838	E1704	E1605	F1494	G1410		P1183	T1082	P956	A842	T755
	N1968		Y1839	T1705			P1411	L1301	L1192	F1084		S843	V758
					Q1611	Y1497	I1412	K1304	L1193	F1084	Y968	A842	
	L1975		A1846	F1710	Y1612	Q1498	T1413	A1306	K1193	E1085	S969	D848	F759
	V1976		P1847	Y1713	M1613	S1499	Y1414	S1306	L1194	T1086	Y970	S850	Q761
	P1981		W1848	A1714			Y1415	N1416			L972	V851	H762
					I1620	T1507	N1416	R1308	L1197	D1089	I973	M851	V763
	W1981		N1851	Y1717	I1620	G1508	K1417	F1309		Y1096	D974	V852	M764
	Q1992		R1852	Y1718	R1621	I1509	M1420	P1316	D1200			T853	L769
	T1993		C1853	M1719	L1622	K1515	Y1421	P1317	G1201	V1100	V977	Q854	S770
	L1994		L1855	H1720	M1623	I1516	I1422	A1317	S1202			M854	
	R1995			E1721	L1626	T1517	A1423	S1318	W1203	L1106	I981	M856	L776
	L1996		D1870	G1722	A1627	V1518	S1424	L1319	A1205	L1106	K982	S777	S777
	L1997		H1881	L1725	Q1628	M1519		A1324	P1206	R1114	T983	V861	A778
	L1998		Y1882	Y1729	Q1629	K1523	G1427		W1207	E1115	T984	W867	E780
	L2001		A1885	Q1730	L1630	K1523	M1431	L1330	D1220	L1117		Q868	
	R2002				S1632	A1534		T1331	K1221	P1118	A987	D869	L784



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C5	Depositor
Number of particles used	42561	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	75	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.046	Depositor
Minimum map value	-0.027	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.002	Depositor
Recommended contour level	0.00379	Depositor
Map size (Å)	438.728, 438.728, 438.728	wwPDB
Map dimensions	346, 346, 346	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.268, 1.268, 1.268	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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	0.35	0/20412	0.58	3/27712 (0.0%)
1	B	0.36	0/20413	0.59	5/27714 (0.0%)
1	C	0.35	0/20413	0.57	2/27714 (0.0%)
1	D	0.35	0/20413	0.59	5/27714 (0.0%)
1	E	0.36	0/20413	0.59	3/27714 (0.0%)
All	All	0.35	0/102064	0.58	18/138568 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	9
1	B	0	1
1	C	0	1
1	D	0	3
1	E	0	7
All	All	0	21

There are no bond length outliers.

All (18) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	359	ILE	CG1-CB-CG2	-8.84	91.96	111.40
1	C	2515	THR	C-N-CA	7.64	140.80	121.70
1	D	2515	THR	C-N-CA	7.38	140.14	121.70
1	B	2515	THR	C-N-CA	7.07	139.37	121.70
1	E	2515	THR	C-N-CA	6.60	138.21	121.70
1	A	2515	THR	C-N-CA	6.20	137.21	121.70
1	D	346	TYR	CA-CB-CG	6.20	125.18	113.40
1	A	1056	MET	CB-CG-SD	-6.18	93.85	112.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	2021	THR	C-N-CA	5.98	136.64	121.70
1	C	2021	THR	C-N-CA	5.81	136.23	121.70
1	B	2157	LEU	CA-CB-CG	5.80	128.65	115.30
1	E	836	LEU	CA-CB-CG	5.50	127.95	115.30
1	B	350	MET	CG-SD-CE	-5.34	91.66	100.20
1	A	1055	MET	CB-CG-SD	5.29	128.27	112.40
1	D	2198	LEU	CA-CB-CG	5.28	127.44	115.30
1	B	2022	ASP	CB-CG-OD1	5.14	122.92	118.30
1	D	2208	ASP	CB-CG-OD1	5.07	122.87	118.30
1	B	2253	MET	CB-CG-SD	5.00	127.41	112.40

There are no chirality outliers.

All (21) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1052	GLN	Peptide
1	A	2515	THR	Peptide
1	A	26	GLN	Peptide
1	A	312	VAL	Peptide
1	A	322	ASN	Peptide
1	A	328	GLU	Peptide
1	A	345	ASN	Peptide
1	A	350	MET	Peptide
1	A	439	TYR	Peptide
1	B	362	ASN	Peptide
1	C	312	VAL	Peptide
1	D	26	GLN	Peptide
1	D	312	VAL	Peptide
1	D	345	ASN	Peptide
1	E	322	ASN	Peptide
1	E	328	GLU	Peptide
1	E	350	MET	Peptide
1	E	356	GLN	Peptide
1	E	362	ASN	Peptide
1	E	439	TYR	Peptide
1	E	840	ARG	Sidechain

5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen

atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	20006	0	19588	744	0
1	B	20007	0	19592	757	0
1	C	20007	0	19592	720	0
1	D	20007	0	19592	731	0
1	E	20007	0	19592	710	0
All	All	100034	0	97956	3503	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 18.

All (3503) 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:316:SER:HA	1:C:331:LYS:HE3	1.37	1.03
1:D:2515:THR:H	1:D:2516:ASP:HB2	1.19	1.03
1:E:369:PHE:HA	1:E:386:LEU:O	1.56	1.03
1:B:2515:THR:H	1:B:2516:ASP:HB2	1.19	1.02
1:C:2242:GLU:HA	1:C:2245:LYS:HD3	1.43	0.99
1:A:1416:ASN:O	1:A:1420:ASN:HA	1.62	0.99
1:E:1367:GLY:HA2	1:E:1371:ARG:HE	1.29	0.97
1:D:1367:GLY:HA2	1:D:1371:ARG:HE	1.30	0.96
1:A:369:PHE:HA	1:A:386:LEU:O	1.66	0.96
1:A:1440:LEU:HB2	1:A:1452:PHE:HB2	1.45	0.95
1:B:1117:LEU:HD21	1:C:1205:ALA:HB3	1.49	0.93
1:D:1437:ARG:HG2	1:D:1455:PRO:HA	1.48	0.93
1:E:2515:THR:H	1:E:2516:ASP:HB2	1.32	0.92
1:C:369:PHE:HA	1:C:386:LEU:O	1.67	0.92
1:B:369:PHE:HA	1:B:386:LEU:O	1.69	0.92
1:D:1439:ILE:HG23	1:D:1450:ARG:HG3	1.52	0.92
1:E:336:LYS:HG2	1:E:339:ASP:HB2	1.51	0.91
1:A:358:PHE:HB3	1:A:398:SER:HB3	1.53	0.91
1:D:1440:LEU:HB2	1:D:1452:PHE:HB2	1.50	0.90
1:C:28:LEU:HD12	1:C:32:GLU:HG2	1.52	0.90
1:C:1440:LEU:HB2	1:C:1452:PHE:HB2	1.50	0.90
1:A:964:ARG:HB3	1:A:976:GLN:HE22	1.36	0.89
1:C:1367:GLY:HA2	1:C:1371:ARG:HE	1.35	0.89
1:E:1440:LEU:HB2	1:E:1452:PHE:HB2	1.55	0.88
1:D:901:ALA:H	1:D:907:SER:HB2	1.39	0.88
1:C:2515:THR:H	1:C:2516:ASP:HB2	1.37	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2026:LEU:HD21	1:C:818:ASN:HB3	1.57	0.86
1:B:2515:THR:N	1:B:2516:ASP:HB2	1.90	0.86
1:A:468:ILE:HD13	1:A:486:VAL:HG12	1.57	0.86
1:B:350:MET:HE1	1:B:359:ILE:HG13	1.57	0.86
1:A:1647:GLN:HE22	1:A:1852:CYS:HA	1.40	0.86
1:C:901:ALA:H	1:C:907:SER:HB3	1.40	0.86
1:A:1117:LEU:HD21	1:B:1205:ALA:HB3	1.57	0.85
1:C:236:LEU:HD13	1:C:487:PHE:HB2	1.57	0.85
1:E:528:ASN:HD21	1:E:536:ILE:HB	1.42	0.85
1:E:1241:LEU:HB2	1:E:1267:ILE:HG22	1.58	0.85
1:E:1437:ARG:HG3	1:E:1455:PRO:HA	1.58	0.85
1:D:1649:LEU:HD12	1:D:1650:PRO:HD2	1.59	0.85
1:B:901:ALA:H	1:B:907:SER:HB2	1.43	0.84
1:C:360:ARG:HG2	1:C:365:VAL:HG22	1.60	0.84
1:B:708:ILE:O	1:B:712:LEU:HB3	1.77	0.84
1:C:358:PHE:HB3	1:C:398:SER:HB3	1.60	0.84
1:A:324:GLU:HB3	1:A:351:TYR:CE1	2.13	0.84
1:B:1416:ASN:O	1:B:1420:ASN:HA	1.78	0.83
1:E:1416:ASN:O	1:E:1420:ASN:HA	1.79	0.83
1:A:324:GLU:HB3	1:A:351:TYR:HE1	1.40	0.83
1:C:1340:GLN:HB3	1:C:1355:HIS:HB2	1.60	0.83
1:B:1487:ASN:H	1:B:1489:GLN:HE22	1.26	0.83
1:B:1399:VAL:HA	1:B:1498:GLN:O	1.79	0.82
1:A:2372:TYR:HA	1:A:2375:LEU:HD23	1.60	0.82
1:D:1422:ILE:HG12	1:D:1468:VAL:HG22	1.59	0.82
1:E:1722:GLY:H	1:E:1766:GLN:HG2	1.43	0.82
1:A:2372:TYR:HB2	1:A:2382:LEU:HD21	1.61	0.82
1:B:206:ILE:HD11	1:B:919:ALA:HA	1.61	0.82
1:B:649:TRP:HD1	1:B:812:ARG:HH12	1.26	0.82
1:A:528:ASN:HD21	1:A:536:ILE:HB	1.44	0.82
1:C:2465:MET:HG2	1:C:2466:PRO:HD2	1.62	0.82
1:E:330:TYR:HA	1:E:437:GLU:O	1.80	0.81
1:B:1362:ARG:HH21	1:B:1363:TYR:HB2	1.44	0.81
1:C:2037:GLY:HA3	1:C:2326:GLY:HA2	1.62	0.81
1:B:1742:PHE:HB3	1:B:1755:ILE:HD12	1.63	0.81
1:D:1241:LEU:HB2	1:D:1267:ILE:HG22	1.62	0.81
1:A:1742:PHE:HB3	1:A:1755:ILE:HD12	1.62	0.81
1:B:2494:LEU:HD12	1:B:2495:PRO:HD2	1.62	0.81
1:D:1742:PHE:HB3	1:D:1755:ILE:HD12	1.61	0.81
1:A:1399:VAL:HA	1:A:1498:GLN:O	1.82	0.80
1:D:1319:LEU:HD21	1:D:1586:GLN:HG2	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1742:PHE:HB3	1:E:1755:ILE:HD12	1.61	0.80
1:D:1965:VAL:HG12	1:D:1967:LYS:H	1.45	0.80
1:B:1422:ILE:HG12	1:B:1468:VAL:HG22	1.64	0.80
1:D:249:ILE:HG22	1:D:450:LYS:HE3	1.61	0.80
1:B:318:GLY:HA2	1:B:329:ALA:HA	1.62	0.80
1:A:1241:LEU:HB2	1:A:1267:ILE:HG22	1.63	0.80
1:B:77:GLY:H	1:B:1925:GLY:HA3	1.43	0.80
1:D:28:LEU:HD12	1:D:32:GLU:HG2	1.63	0.80
1:B:1722:GLY:H	1:B:1766:GLN:HG2	1.47	0.80
1:E:1668:ASP:HB3	1:E:1671:GLU:HG2	1.62	0.80
1:C:528:ASN:HD21	1:C:536:ILE:HB	1.45	0.79
1:E:1422:ILE:HB	1:E:1466:PHE:HB2	1.63	0.79
1:B:198:PRO:HG3	1:B:245:GLU:HB3	1.64	0.79
1:B:1319:LEU:HD21	1:B:1586:GLN:HG2	1.65	0.79
1:C:1742:PHE:HB3	1:C:1755:ILE:HD12	1.64	0.79
1:A:1399:VAL:HG22	1:A:1499:SER:HA	1.65	0.79
1:D:77:GLY:H	1:D:1925:GLY:HA3	1.47	0.78
1:D:95:MET:HG2	1:D:1960:LEU:HD21	1.64	0.78
1:E:1115:GLU:HG3	1:E:1117:LEU:H	1.48	0.78
1:D:899:VAL:HG11	1:D:904:LYS:HB2	1.65	0.78
1:A:206:ILE:HD11	1:A:919:ALA:HA	1.65	0.78
1:A:2272:LEU:HD21	1:E:2083:LEU:HD12	1.65	0.78
1:B:1440:LEU:HB2	1:B:1452:PHE:HB2	1.64	0.78
1:D:2515:THR:N	1:D:2516:ASP:HB2	1.97	0.78
1:E:1439:ILE:HG23	1:E:1450:ARG:HG3	1.65	0.77
1:E:1053:THR:HG22	1:E:1055:MET:H	1.47	0.77
1:A:2051:PRO:HA	1:A:2054:LEU:HD12	1.64	0.77
1:A:346:TYR:HE1	1:A:360:ARG:HA	1.50	0.77
1:B:2142:GLU:HG2	1:B:2216:TYR:HE2	1.48	0.77
1:B:2465:MET:HG2	1:B:2466:PRO:HD2	1.65	0.77
1:C:826:ASP:O	1:C:829:ASP:HB3	1.85	0.77
1:C:2061:VAL:HA	1:C:2064:LEU:HD12	1.65	0.77
1:A:2148:LEU:HD22	1:B:2207:ALA:HB2	1.65	0.77
1:E:839:ASP:HA	1:E:849:ILE:HD13	1.66	0.76
1:D:2075:ALA:HA	1:D:2286:ARG:NH2	1.99	0.76
1:E:1965:VAL:HG12	1:E:1967:LYS:H	1.50	0.76
1:E:824:GLY:O	1:E:827:THR:HB	1.84	0.76
1:E:2457:LEU:HB2	1:E:2472:ILE:HG22	1.68	0.76
1:C:2455:ALA:HB3	1:C:2474:LEU:HB2	1.67	0.76
1:D:2130:TYR:HE1	1:E:2225:ILE:HD12	1.49	0.76
1:B:2250:ALA:HA	1:B:2253:MET:SD	2.26	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:760:PHE:HE1	1:D:764:MET:HE3	1.51	0.76
1:E:1442:PRO:HD3	1:E:1451:LEU:HG	1.68	0.76
1:C:77:GLY:H	1:C:1925:GLY:HA3	1.49	0.76
1:B:1889:ARG:O	1:B:1892:ASP:HB2	1.86	0.75
1:B:26:GLN:HG3	1:B:27:TYR:HA	1.68	0.75
1:B:158:GLU:HG3	1:B:982:LYS:HG2	1.68	0.75
1:D:1890:LEU:O	1:D:1893:GLN:HG2	1.85	0.75
1:A:2113:ILE:HG22	1:A:2244:LEU:HB3	1.69	0.75
1:E:2053:MET:HA	1:E:2056:ARG:HG2	1.67	0.75
1:E:77:GLY:H	1:E:1925:GLY:HA3	1.52	0.75
1:B:820:LEU:HB3	1:B:824:GLY:HA3	1.68	0.75
1:E:1422:ILE:HG12	1:E:1468:VAL:HG22	1.69	0.75
1:A:824:GLY:O	1:A:827:THR:HB	1.87	0.74
1:A:554:THR:HG22	1:A:556:ALA:H	1.51	0.74
1:C:1117:LEU:HD13	1:E:2164:ILE:HG21	1.69	0.74
1:C:347:PHE:HB3	1:C:415:ILE:HG23	1.67	0.74
1:D:826:ASP:O	1:D:829:ASP:HB3	1.87	0.74
1:E:1574:LYS:HA	1:E:1581:LEU:H	1.52	0.74
1:A:1340:GLN:HB3	1:A:1355:HIS:HB2	1.67	0.74
1:A:2043:GLY:HA2	1:A:2305:LEU:HD13	1.69	0.74
1:D:1638:ILE:H	1:D:1638:ILE:HD12	1.53	0.74
1:C:2113:ILE:HG22	1:C:2244:LEU:HB3	1.70	0.74
1:D:2155:GLN:HE22	1:E:2200:ALA:HB2	1.53	0.74
1:B:826:ASP:O	1:B:829:ASP:HB3	1.87	0.73
1:E:349:LEU:HD13	1:E:356:GLN:HE21	1.52	0.73
1:E:1921:LEU:HD12	1:E:1994:LEU:HD21	1.68	0.73
1:A:77:GLY:H	1:A:1925:GLY:HA3	1.52	0.73
1:B:1117:LEU:HD12	1:D:2164:ILE:HG22	1.69	0.73
1:C:206:ILE:HD11	1:C:919:ALA:HA	1.69	0.73
1:D:1340:GLN:HB3	1:D:1355:HIS:HB2	1.70	0.73
1:E:348:ASP:H	1:E:359:ILE:HG22	1.53	0.73
1:A:28:LEU:HD12	1:A:32:GLU:HG2	1.70	0.73
1:A:1371:ARG:O	1:A:1375:ILE:HG12	1.88	0.73
1:A:1461:ILE:HG13	1:A:1463:ASN:H	1.52	0.73
1:C:820:LEU:HB3	1:C:824:GLY:HA3	1.71	0.73
1:D:1880:MET:O	1:D:1883:LYS:HB2	1.89	0.73
1:A:1422:ILE:HB	1:A:1466:PHE:HB2	1.71	0.73
1:E:2515:THR:N	1:E:2516:ASP:HB2	2.03	0.73
1:B:1410:GLY:HA3	1:B:1497:TYR:HE2	1.54	0.72
1:C:1932:GLY:HA2	1:C:1935:GLN:HE21	1.54	0.72
1:A:2308:GLN:HE22	1:A:2321:THR:HG23	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1571:PHE:HB2	1:A:1584:ILE:HB	1.70	0.72
1:C:1376:SER:HA	1:C:1379:LYS:HE3	1.72	0.72
1:E:406:ASP:HA	1:E:409:TYR:HB2	1.71	0.72
1:B:2031:VAL:HG12	1:C:779:ALA:HB3	1.72	0.72
1:E:2272:LEU:HD12	1:E:2275:LYS:HD2	1.72	0.72
1:C:505:VAL:HG11	1:C:598:TYR:HD2	1.55	0.72
1:C:1429:LEU:HD21	1:C:1436:ARG:HD3	1.71	0.72
1:B:256:GLU:HA	1:B:259:ALA:HB2	1.72	0.72
1:E:342:LYS:HD2	1:E:346:TYR:HB3	1.70	0.72
1:B:105:LYS:HD3	1:B:106:PRO:HD2	1.72	0.71
1:A:1381:THR:HG21	1:A:1386:LYS:HA	1.71	0.71
1:C:2515:THR:N	1:C:2516:ASP:HB2	2.05	0.71
1:B:1442:PRO:HD3	1:B:1451:LEU:HG	1.72	0.71
1:C:1965:VAL:HG12	1:C:1967:LYS:H	1.54	0.71
1:E:404:ILE:HG21	1:E:414:LYS:HD2	1.72	0.71
1:E:2045:LEU:HD13	1:E:2309:GLU:HG2	1.73	0.71
1:A:347:PHE:HD1	1:A:358:PHE:HZ	1.39	0.71
1:B:2061:VAL:HA	1:B:2064:LEU:HD12	1.71	0.71
1:C:1536:LEU:HD12	1:C:1537:PRO:HD2	1.72	0.71
1:E:1381:THR:HG21	1:E:1386:LYS:HA	1.71	0.71
1:B:436:PHE:HE1	1:B:438:SER:HB3	1.54	0.71
1:E:334:ARG:HG3	1:E:415:ILE:HD11	1.72	0.71
1:C:554:THR:HG22	1:C:556:ALA:H	1.55	0.71
1:A:1489:GLN:HE21	1:A:1492:GLN:HG3	1.56	0.70
1:D:1416:ASN:O	1:D:1420:ASN:HA	1.91	0.70
1:A:1919:ARG:HG2	1:B:998:ASN:ND2	2.06	0.70
1:C:867:TRP:HA	1:C:870:ILE:HD12	1.73	0.70
1:D:357:PHE:CZ	1:D:397:LYS:HG2	2.27	0.70
1:A:26:GLN:HG3	1:A:27:TYR:HA	1.73	0.70
1:A:1439:ILE:HG23	1:A:1450:ARG:HG3	1.74	0.70
1:A:1999:PHE:HE1	1:A:2003:HIS:CE1	2.09	0.70
1:B:1340:GLN:HB3	1:B:1355:HIS:HB2	1.73	0.70
1:D:2075:ALA:HA	1:D:2286:ARG:HH22	1.55	0.70
1:E:826:ASP:O	1:E:829:ASP:HB3	1.91	0.70
1:C:337:THR:HB	1:C:430:GLY:HA2	1.73	0.70
1:B:2102:GLN:HB3	1:B:2255:VAL:HG22	1.74	0.70
1:B:2437:LYS:HD2	1:B:2438:GLN:HB2	1.73	0.70
1:B:1437:ARG:NE	1:B:1455:PRO:HA	2.06	0.70
1:D:26:GLN:HG3	1:D:27:TYR:HA	1.74	0.70
1:D:158:GLU:HG3	1:D:982:LYS:HG2	1.74	0.70
1:C:276:PHE:HA	1:C:281:TRP:CZ3	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:321:VAL:HG22	1:B:322:ASN:H	1.57	0.69
1:B:367:ARG:HB2	1:B:390:LEU:HD21	1.72	0.69
1:D:2297:PHE:HE2	1:D:2328:TRP:HB2	1.57	0.69
1:B:1461:ILE:HG12	1:B:1463:ASN:H	1.58	0.69
1:C:2515:THR:HB	1:C:2516:ASP:CG	2.12	0.69
1:E:2037:GLY:HA3	1:E:2326:GLY:HA2	1.75	0.69
1:A:349:LEU:HD21	1:A:356:GLN:HG3	1.73	0.69
1:A:404:ILE:HG21	1:A:414:LYS:HG2	1.74	0.69
1:D:2469:CYS:HB3	1:D:2495:PRO:HA	1.73	0.69
1:A:1436:ARG:HE	1:A:1494:PHE:HD2	1.40	0.69
1:C:272:THR:HG23	1:C:275:ASN:H	1.56	0.69
1:C:334:ARG:HH21	1:C:342:LYS:HB3	1.57	0.69
1:C:1437:ARG:HH11	1:C:1453:GLU:HB2	1.58	0.69
1:E:554:THR:HG22	1:E:556:ALA:H	1.58	0.69
1:A:370:GLY:H	1:A:386:LEU:HB2	1.58	0.69
1:D:328:GLU:HB2	1:D:438:SER:HB2	1.74	0.69
1:E:610:THR:HG22	1:E:613:GLU:HG3	1.75	0.69
1:A:1365:GLY:H	1:A:1371:ARG:HG3	1.58	0.68
1:A:468:ILE:HD11	1:A:500:PHE:HZ	1.57	0.68
1:E:2102:GLN:HB3	1:E:2255:VAL:HG22	1.74	0.68
1:A:1437:ARG:HD3	1:A:1455:PRO:HG3	1.74	0.68
1:A:2516:ASP:H	1:A:2519:LYS:HB2	1.58	0.68
1:B:1649:LEU:HD12	1:B:1650:PRO:HD2	1.74	0.68
1:A:465:LEU:HA	1:A:468:ILE:HD12	1.75	0.68
1:A:587:ILE:HG12	1:A:593:VAL:HG21	1.75	0.68
1:A:964:ARG:HB3	1:A:976:GLN:NE2	2.09	0.68
1:D:236:LEU:HD13	1:D:487:PHE:HB2	1.75	0.68
1:D:2439:VAL:HG22	1:D:2532:ILE:HG13	1.75	0.68
1:D:1487:ASN:H	1:D:1489:GLN:HE22	1.41	0.68
1:A:347:PHE:HB3	1:A:415:ILE:HG23	1.75	0.68
1:B:2417:LEU:HA	1:B:2420:LEU:HD12	1.76	0.68
1:B:2469:CYS:HB3	1:B:2495:PRO:HA	1.75	0.68
1:D:70:ARG:HE	1:D:1880:MET:HG2	1.59	0.68
1:D:1395:ILE:HG22	1:D:1414:VAL:HG23	1.76	0.68
1:A:332:ILE:HD11	1:A:350:MET:HE3	1.76	0.68
1:B:1626:LEU:HD12	1:B:1630:LEU:HD21	1.76	0.68
1:C:1049:ARG:H	1:C:1052:GLN:HE21	1.40	0.68
1:A:334:ARG:HH21	1:A:342:LYS:HB3	1.59	0.68
1:C:1639:ASP:HA	1:C:1832:TYR:HE2	1.58	0.68
1:A:826:ASP:O	1:A:829:ASP:HB3	1.94	0.68
1:A:998:ASN:ND2	1:E:1919:ARG:HG2	2.09	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1852:CYS:HB3	1:A:1855:LEU:HD12	1.75	0.68
1:C:1675:GLU:OE1	1:C:1963:GLY:HA2	1.94	0.68
1:D:573:GLN:HA	1:D:576:LYS:HE2	1.76	0.68
1:A:1442:PRO:HD3	1:A:1451:LEU:HG	1.76	0.68
1:C:2102:GLN:HB3	1:C:2255:VAL:HG22	1.76	0.68
1:D:434:PHE:CZ	1:D:436:PHE:HB2	2.29	0.68
1:E:468:ILE:HG22	1:E:482:VAL:HG13	1.76	0.68
1:D:404:ILE:HG21	1:D:414:LYS:HB2	1.76	0.67
1:E:26:GLN:HG3	1:E:27:TYR:HA	1.76	0.67
1:E:680:LEU:HD12	1:E:684:ARG:HE	1.58	0.67
1:D:372:THR:HG23	1:D:386:LEU:HD11	1.76	0.67
1:C:1489:GLN:HG3	1:C:1492:GLN:HB2	1.77	0.67
1:B:273:PRO:HG2	1:B:442:THR:HG22	1.77	0.67
1:B:1172:GLU:HG3	1:B:1193:LYS:HD2	1.76	0.67
1:C:375:LYS:HG3	1:C:413:VAL:HG21	1.75	0.67
1:C:2423:PHE:HD2	1:C:2502:ASN:HD22	1.40	0.67
1:A:1921:LEU:HD13	1:A:1994:LEU:HD21	1.77	0.67
1:D:274:GLU:HB3	1:D:1405:TYR:HE1	1.59	0.67
1:E:2455:ALA:HB3	1:E:2474:LEU:HB3	1.75	0.67
1:E:545:SER:HA	1:E:586:THR:HA	1.77	0.67
1:E:1330:LEU:HD12	1:E:1331:THR:HG23	1.76	0.67
1:A:2102:GLN:HB3	1:A:2255:VAL:HG22	1.75	0.67
1:C:1092:VAL:HG21	1:C:1109:PHE:HD1	1.60	0.67
1:C:1437:ARG:NH1	1:C:1453:GLU:HB2	2.08	0.67
1:D:1376:SER:HA	1:D:1379:LYS:HE3	1.76	0.67
1:E:332:ILE:HG22	1:E:334:ARG:HD2	1.77	0.67
1:C:1367:GLY:HA2	1:C:1371:ARG:NE	2.10	0.66
1:B:824:GLY:O	1:B:827:THR:HB	1.96	0.66
1:B:14:THR:HB	1:B:20:MET:HB3	1.78	0.66
1:B:360:ARG:HD3	1:B:398:SER:HB2	1.77	0.66
1:B:573:GLN:HA	1:B:576:LYS:HE2	1.77	0.66
1:B:1675:GLU:OE1	1:B:1963:GLY:HA2	1.95	0.66
1:B:2064:LEU:HD11	1:B:2300:THR:HG21	1.78	0.66
1:C:129:LEU:HD11	1:C:1018:PHE:HE2	1.60	0.66
1:D:318:GLY:HA2	1:D:329:ALA:HA	1.77	0.66
1:B:1897:ARG:HG2	1:B:1916:TRP:CE2	2.31	0.66
1:C:436:PHE:HE1	1:C:438:SER:HB3	1.60	0.66
1:C:547:ASP:HB3	1:C:550:GLU:HB2	1.77	0.66
1:C:676:ILE:HA	1:C:679:LEU:HD12	1.76	0.66
1:C:2119:SER:HB3	1:D:2236:GLN:HG3	1.78	0.66
1:A:545:SER:HA	1:A:586:THR:HA	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1241:LEU:HB2	1:C:1267:ILE:HG22	1.77	0.66
1:C:1919:ARG:HD2	1:D:998:ASN:HD21	1.60	0.66
1:D:1117:LEU:HD21	1:E:1205:ALA:HB3	1.76	0.66
1:D:2102:GLN:HB3	1:D:2255:VAL:HG22	1.77	0.66
1:E:1410:GLY:HA3	1:E:1497:TYR:HE2	1.61	0.66
1:A:1720:HIS:HA	1:A:1766:GLN:NE2	2.11	0.66
1:B:1998:LEU:HD21	1:B:2002:ARG:HH21	1.61	0.66
1:C:235:LEU:HG	1:C:487:PHE:HZ	1.60	0.66
1:E:545:SER:HB2	1:E:586:THR:HG22	1.76	0.66
1:A:637:PRO:HA	1:A:640:VAL:HG12	1.78	0.66
1:B:358:PHE:HB3	1:B:398:SER:HB3	1.78	0.66
1:A:710:ALA:HB2	1:E:2287:GLY:HA3	1.78	0.66
1:B:1167:HIS:HB3	1:B:1194:LEU:HD11	1.77	0.66
1:B:1965:VAL:HG12	1:B:1967:LYS:H	1.60	0.66
1:C:1439:ILE:HB	1:C:1483:VAL:HB	1.78	0.66
1:D:1461:ILE:HG12	1:D:1463:ASN:H	1.61	0.66
1:D:2455:ALA:HB3	1:D:2474:LEU:HB3	1.78	0.66
1:A:416:TYR:HD1	1:A:431:GLY:HA3	1.61	0.65
1:A:660:ILE:HA	1:A:663:LEU:HB2	1.78	0.65
1:A:1255:PHE:HB3	1:A:1281:LEU:HG	1.79	0.65
1:B:311:TYR:CZ	1:B:342:LYS:HD3	2.31	0.65
1:B:347:PHE:HB3	1:B:415:ILE:HD12	1.78	0.65
1:B:1376:SER:HA	1:B:1379:LYS:HG2	1.78	0.65
1:B:1880:MET:O	1:B:1883:LYS:HB2	1.94	0.65
1:C:1991:TRP:HB3	1:C:1995:ARG:HH12	1.61	0.65
1:B:219:ALA:HA	1:B:222:ARG:HE	1.61	0.65
1:C:112:MET:HG3	1:C:1979:PHE:HB2	1.76	0.65
1:C:321:VAL:HG22	1:C:322:ASN:H	1.62	0.65
1:D:760:PHE:CE1	1:D:764:MET:HE3	2.31	0.65
1:E:349:LEU:HD13	1:E:356:GLN:NE2	2.10	0.65
1:D:412:GLY:HA3	1:D:434:PHE:HD2	1.60	0.65
1:B:25:LEU:HA	1:B:27:TYR:HB2	1.79	0.65
1:C:198:PRO:HG2	1:C:245:GLU:HB3	1.78	0.65
1:D:272:THR:H	1:D:275:ASN:HD21	1.44	0.65
1:D:2053:MET:HA	1:D:2056:ARG:HG2	1.78	0.65
1:E:434:PHE:CZ	1:E:436:PHE:HB2	2.31	0.65
1:A:1437:ARG:HG3	1:A:1454:PHE:C	2.16	0.65
1:B:243:SER:H	1:B:246:LEU:HD12	1.61	0.65
1:B:1241:LEU:HB2	1:B:1267:ILE:HG22	1.77	0.65
1:C:1344:LYS:HA	1:C:1344:LYS:HE3	1.79	0.65
1:A:470:ARG:HD2	1:A:514:TYR:HE2	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:346:TYR:CZ	1:D:360:ARG:HB3	2.32	0.65
1:E:1399:VAL:HG22	1:E:1499:SER:HA	1.78	0.65
1:C:1162:PHE:CD2	1:C:1163:ARG:HG2	2.31	0.65
1:D:321:VAL:HG22	1:D:322:ASN:H	1.62	0.65
1:E:412:GLY:HA3	1:E:434:PHE:HD2	1.61	0.65
1:B:1675:GLU:HB3	1:B:1677:TRP:CD1	2.32	0.65
1:B:1855:LEU:HD12	1:B:1883:LYS:HG3	1.79	0.65
1:B:2423:PHE:HE1	1:B:2502:ASN:HB2	1.60	0.65
1:C:792:LEU:HA	1:C:867:TRP:HB3	1.79	0.65
1:C:1338:ILE:HG21	1:C:1354:LEU:HD22	1.79	0.65
1:C:1704:GLU:HG2	1:C:1780:LEU:HD13	1.78	0.65
1:C:2356:ASP:HB3	1:D:2047:LEU:HD12	1.78	0.65
1:C:1373:LYS:HE2	1:C:1412:ILE:HB	1.79	0.64
1:D:1442:PRO:HD3	1:D:1451:LEU:HG	1.79	0.64
1:D:1991:TRP:HB3	1:D:1995:ARG:HH12	1.62	0.64
1:E:999:ARG:HA	1:E:1004:ILE:HD11	1.77	0.64
1:E:1316:PRO:HG2	1:E:1319:LEU:HD21	1.77	0.64
1:E:1720:HIS:HA	1:E:1766:GLN:NE2	2.13	0.64
1:E:587:ILE:HD11	1:E:593:VAL:HG11	1.79	0.64
1:E:2494:LEU:HD12	1:E:2495:PRO:HD2	1.80	0.64
1:A:1518:VAL:HG11	1:A:1553:ILE:HD13	1.78	0.64
1:C:2494:LEU:HD12	1:C:2495:PRO:HD2	1.80	0.64
1:D:446:LEU:O	1:D:450:LYS:HG2	1.98	0.64
1:E:368:GLU:OE2	1:E:420:TYR:HB2	1.97	0.64
1:E:1489:GLN:NE2	1:E:1492:GLN:HB2	2.13	0.64
1:A:67:ILE:HD11	1:A:89:SER:HA	1.77	0.64
1:C:350:MET:HG3	1:C:359:ILE:HG13	1.79	0.64
1:C:2184:ARG:HG2	1:C:2187:ALA:HB2	1.79	0.64
1:E:977:VAL:HB	1:E:981:ILE:HD13	1.78	0.64
1:A:1704:GLU:HG2	1:A:1780:LEU:HD13	1.79	0.64
1:B:1197:LEU:HD11	1:B:1201:GLY:HA2	1.79	0.64
1:B:1331:THR:HG23	1:B:1363:TYR:HD1	1.61	0.64
1:B:1919:ARG:HG2	1:C:998:ASN:ND2	2.12	0.64
1:C:235:LEU:HG	1:C:487:PHE:CZ	2.32	0.64
1:D:440:PRO:HB2	1:D:442:THR:HG23	1.78	0.64
1:A:219:ALA:HA	1:A:222:ARG:HE	1.63	0.64
1:A:2455:ALA:HB3	1:A:2474:LEU:HB2	1.80	0.64
1:C:129:LEU:HD13	1:C:1012:VAL:HG13	1.80	0.64
1:C:1316:PRO:HG2	1:C:1319:LEU:HD21	1.77	0.64
1:C:1638:ILE:H	1:C:1638:ILE:HD12	1.63	0.64
1:D:272:THR:H	1:D:275:ASN:ND2	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2251:ALA:O	1:D:2254:GLN:HG3	1.98	0.64
1:E:349:LEU:HG	1:E:414:LYS:HD2	1.78	0.64
1:B:1555:ALA:HB1	1:B:1558:LEU:HD21	1.78	0.64
1:A:1167:HIS:HB3	1:A:1194:LEU:HD11	1.78	0.64
1:C:368:GLU:OE2	1:C:420:TYR:HB2	1.98	0.64
1:C:637:PRO:HA	1:C:640:VAL:HG12	1.78	0.64
1:C:1426:GLN:HB3	1:C:1461:ILE:HD13	1.79	0.64
1:D:2037:GLY:HA3	1:D:2326:GLY:HA2	1.79	0.64
1:B:1714:ALA:HB3	1:B:1717:TYR:HB2	1.80	0.64
1:E:158:GLU:OE1	1:E:982:LYS:HB3	1.97	0.64
1:B:1489:GLN:HG3	1:B:1492:GLN:HB2	1.80	0.63
1:C:1304:LYS:HG2	1:C:1602:PHE:HB3	1.79	0.63
1:D:1255:PHE:HB3	1:D:1281:LEU:HG	1.80	0.63
1:E:2250:ALA:HA	1:E:2253:MET:SD	2.38	0.63
1:C:2361:GLU:HB3	1:D:2484:PHE:CZ	2.32	0.63
1:E:792:LEU:HA	1:E:867:TRP:HB3	1.79	0.63
1:C:371:ALA:HA	1:C:382:ILE:HG23	1.79	0.63
1:D:198:PRO:HG2	1:D:245:GLU:HB3	1.79	0.63
1:D:676:ILE:HA	1:D:679:LEU:HD12	1.81	0.63
1:E:1371:ARG:O	1:E:1375:ILE:HG22	1.99	0.63
1:C:1425:VAL:HA	1:C:1463:ASN:HB3	1.80	0.63
1:A:328:GLU:HB3	1:A:330:TYR:HB3	1.80	0.63
1:B:1570:VAL:HA	1:B:1584:ILE:O	1.99	0.63
1:D:845:MET:HB3	1:D:847:LEU:HD23	1.79	0.63
1:A:1049:ARG:HB3	1:A:1872:ASP:OD2	1.98	0.63
1:A:1744:TYR:CE2	1:A:1746:ASP:HB2	2.34	0.63
1:C:1100:VAL:HB	1:C:1593:VAL:HG22	1.81	0.63
1:E:761:CYS:HA	1:E:764:MET:SD	2.39	0.63
1:E:2142:GLU:O	1:E:2146:MET:HG2	1.97	0.63
1:C:364:LYS:HD2	1:C:364:LYS:O	1.98	0.63
1:C:2109:VAL:HG23	1:C:2247:ARG:HH21	1.64	0.63
1:E:2289:LEU:HD13	1:E:2292:ILE:HD11	1.80	0.63
1:A:2031:VAL:HG12	1:B:779:ALA:HB3	1.80	0.63
1:B:311:TYR:CE1	1:B:342:LYS:HB3	2.34	0.63
1:B:867:TRP:HA	1:B:870:ILE:HD12	1.79	0.63
1:B:1053:THR:HG22	1:B:1055:MET:H	1.64	0.63
1:C:1714:ALA:HB3	1:C:1717:TYR:HB2	1.81	0.63
1:D:334:ARG:HH21	1:D:342:LYS:HB3	1.64	0.63
1:E:219:ALA:HA	1:E:222:ARG:HE	1.64	0.63
1:A:712:LEU:HD11	1:A:765:ALA:HA	1.80	0.62
1:E:1135:LEU:HD11	1:E:1140:TRP:HE1	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:777:SER:HB3	1:B:2274:ARG:HE	1.64	0.62
1:E:501:ASP:HB2	1:E:522:HIS:CE1	2.35	0.62
1:E:1255:PHE:HB3	1:E:1281:LEU:HG	1.80	0.62
1:B:388:GLY:HA2	1:B:390:LEU:HD12	1.80	0.62
1:B:839:ASP:HA	1:B:849:ILE:HD13	1.81	0.62
1:C:387:SER:H	1:C:399:ASN:HB2	1.64	0.62
1:D:410:LYS:HA	1:D:436:PHE:O	1.99	0.62
1:D:1639:ASP:HA	1:D:1832:TYR:HE2	1.63	0.62
1:A:483:LEU:HA	1:A:486:VAL:HG22	1.82	0.62
1:A:1633:ARG:HB2	1:A:1641:ILE:HD13	1.81	0.62
1:B:357:PHE:CZ	1:B:397:LYS:HG2	2.34	0.62
1:C:1287:LEU:HD11	1:C:1309:PHE:HB2	1.81	0.62
1:D:346:TYR:CE2	1:D:360:ARG:HB3	2.35	0.62
1:B:792:LEU:HA	1:B:867:TRP:HB3	1.80	0.62
1:B:2104:ARG:HG2	1:C:2253:MET:HE3	1.80	0.62
1:C:310:ALA:HB2	1:C:317:THR:HB	1.81	0.62
1:C:761:CYS:O	1:C:764:MET:HB2	2.00	0.62
1:D:1100:VAL:HB	1:D:1593:VAL:HG22	1.82	0.62
1:A:112:MET:HG3	1:A:1979:PHE:HB2	1.80	0.62
1:A:1999:PHE:CE1	1:A:2003:HIS:CE1	2.87	0.62
1:B:276:PHE:HA	1:B:281:TRP:CZ3	2.34	0.62
1:B:1368:ASN:HB2	1:B:1370:ILE:HG22	1.81	0.62
1:B:2455:ALA:HB3	1:B:2474:LEU:HB3	1.82	0.62
1:E:276:PHE:HA	1:E:281:TRP:CE3	2.35	0.62
1:A:321:VAL:HG11	1:A:352:GLU:HA	1.82	0.62
1:D:235:LEU:HG	1:D:487:PHE:CZ	2.35	0.62
1:D:959:VAL:HG13	1:D:961:LEU:HD22	1.81	0.62
1:E:1304:LYS:HG2	1:E:1602:PHE:HB3	1.80	0.62
1:A:680:LEU:HD13	1:A:684:ARG:HH21	1.65	0.62
1:A:1991:TRP:HB3	1:A:1995:ARG:HH12	1.65	0.62
1:B:1363:TYR:HB3	1:B:1375:ILE:HD11	1.81	0.62
1:B:1720:HIS:HA	1:B:1766:GLN:NE2	2.14	0.62
1:D:1410:GLY:HA3	1:D:1497:TYR:HE2	1.65	0.62
1:A:337:THR:HB	1:A:430:GLY:HA2	1.82	0.62
1:A:1426:GLN:HG3	1:A:1463:ASN:OD1	1.99	0.62
1:B:528:ASN:HD21	1:B:536:ILE:HG21	1.62	0.62
1:C:1855:LEU:HD12	1:C:1883:LYS:HG3	1.81	0.62
1:C:2031:VAL:HG12	1:D:779:ALA:HB3	1.81	0.62
1:A:954:ILE:HG22	1:A:956:PRO:HD3	1.81	0.62
1:C:1049:ARG:H	1:C:1052:GLN:NE2	1.96	0.62
1:D:235:LEU:HG	1:D:487:PHE:HZ	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1049:ARG:HG3	1:D:1872:ASP:OD2	2.00	0.62
1:D:2515:THR:HB	1:D:2516:ASP:CG	2.19	0.62
1:E:776:LEU:HD11	1:E:814:HIS:HB2	1.81	0.62
1:A:129:LEU:HD13	1:A:1012:VAL:HG13	1.82	0.61
1:B:7:LEU:HA	1:B:10:LYS:HD3	1.81	0.61
1:C:296:TYR:CZ	1:C:462:PRO:HG3	2.35	0.61
1:D:373:LEU:HD23	1:D:381:GLY:H	1.63	0.61
1:D:1243:VAL:HG23	1:D:1265:MET:HB3	1.82	0.61
1:E:1046:PRO:HG2	1:E:1889:ARG:HH11	1.65	0.61
1:E:1340:GLN:HB3	1:E:1355:HIS:HB2	1.82	0.61
1:B:1519:MET:HB2	1:B:1568:ASP:OD1	2.00	0.61
1:E:370:GLY:H	1:E:386:LEU:HB2	1.65	0.61
1:E:505:VAL:HG11	1:E:598:TYR:HD2	1.66	0.61
1:A:1230:LEU:HA	1:A:1244:PHE:O	1.99	0.61
1:A:1644:MET:HG3	1:A:1848:TRP:CE2	2.35	0.61
1:E:679:LEU:HB2	1:E:711:THR:HG21	1.83	0.61
1:E:2100:ARG:HH21	1:E:2104:ARG:HH21	1.47	0.61
1:A:168:LEU:O	1:A:171:GLU:HG3	2.01	0.61
1:B:357:PHE:CE2	1:B:397:LYS:HE3	2.36	0.61
1:C:29:SER:HB2	1:C:1015:ARG:HA	1.82	0.61
1:E:14:THR:HB	1:E:20:MET:HB3	1.82	0.61
1:E:663:LEU:HD21	1:E:769:LEU:HD22	1.82	0.61
1:E:1197:LEU:HD11	1:E:1201:GLY:HA2	1.81	0.61
1:E:1998:LEU:HD11	1:E:2002:ARG:HH11	1.66	0.61
1:D:66:ARG:HH21	1:D:1878:ASP:HB3	1.65	0.61
1:D:112:MET:HG3	1:D:1979:PHE:HB2	1.82	0.61
1:E:1100:VAL:HB	1:E:1593:VAL:HG22	1.83	0.61
1:A:87:SER:HA	1:A:90:ARG:HD3	1.83	0.61
1:A:332:ILE:HG22	1:A:334:ARG:HD2	1.81	0.61
1:A:367:ARG:HD3	1:A:390:LEU:HD21	1.82	0.61
1:A:2251:ALA:O	1:A:2254:GLN:HG3	2.01	0.61
1:C:1639:ASP:HA	1:C:1832:TYR:CE2	2.36	0.61
1:D:1749:LYS:HB3	1:D:1751:GLN:HG2	1.83	0.61
1:D:2308:GLN:NE2	1:D:2321:THR:HA	2.15	0.61
1:E:867:TRP:HA	1:E:870:ILE:HD12	1.83	0.61
1:E:1518:VAL:HG11	1:E:1553:ILE:HD13	1.83	0.61
1:A:1919:ARG:HG2	1:B:998:ASN:HD21	1.65	0.61
1:B:1362:ARG:NH2	1:B:1363:TYR:HB2	2.16	0.61
1:B:1399:VAL:HG22	1:B:1499:SER:HA	1.83	0.61
1:C:595:SER:O	1:C:599:ARG:HG3	2.00	0.61
1:E:1415:TYR:HE1	1:E:1473:THR:HG22	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1991:TRP:HB3	1:E:1995:ARG:HH12	1.66	0.61
1:A:2515:THR:HB	1:A:2516:ASP:OD1	2.00	0.61
1:C:1169:ILE:HD13	1:C:1194:LEU:HB2	1.83	0.61
1:A:1437:ARG:HH11	1:A:1453:GLU:HB2	1.66	0.61
1:C:321:VAL:HG21	1:C:352:GLU:HG2	1.81	0.61
1:D:602:LEU:HD23	1:D:605:ARG:HD3	1.83	0.61
1:E:224:PRO:HA	1:E:227:MET:HB2	1.83	0.61
1:E:1436:ARG:HB2	1:E:1485:GLY:HA2	1.83	0.61
1:B:11:ILE:HD11	1:B:41:LEU:HD23	1.83	0.60
1:A:198:PRO:HG2	1:A:245:GLU:HB3	1.82	0.60
1:A:2239:ALA:O	1:A:2242:GLU:HG3	2.00	0.60
1:B:1255:PHE:HB3	1:B:1281:LEU:HG	1.82	0.60
1:B:2099:ILE:HD13	1:B:2258:GLN:HB3	1.81	0.60
1:C:2410:GLN:HB3	1:C:2512:PRO:HA	1.83	0.60
1:D:2026:LEU:HD21	1:E:818:ASN:HB3	1.82	0.60
1:E:1890:LEU:O	1:E:1893:GLN:HG2	2.00	0.60
1:E:2436:LEU:HD12	1:E:2501:VAL:HA	1.82	0.60
1:A:1516:ILE:HD11	1:A:1569:ILE:HG23	1.83	0.60
1:B:999:ARG:HG2	1:B:1004:ILE:HD11	1.83	0.60
1:C:330:TYR:HB2	1:C:436:PHE:CZ	2.36	0.60
1:A:1162:PHE:CG	1:A:1241:LEU:HD21	2.36	0.60
1:A:1662:PHE:HZ	1:A:1725:LEU:HD13	1.67	0.60
1:C:901:ALA:N	1:C:907:SER:HB3	2.13	0.60
1:C:1371:ARG:HG3	1:C:1372:ASN:H	1.66	0.60
1:A:298:GLY:HA3	1:A:315:ILE:HG23	1.83	0.60
1:B:250:LEU:HD11	1:B:454:LEU:HB2	1.82	0.60
1:B:501:ASP:HB3	1:B:522:HIS:CE1	2.37	0.60
1:B:910:PRO:HB3	1:B:914:GLU:HG3	1.83	0.60
1:C:1162:PHE:CG	1:C:1241:LEU:HD21	2.37	0.60
1:D:1394:ILE:HG12	1:D:1417:LYS:HZ2	1.66	0.60
1:E:321:VAL:HG22	1:E:322:ASN:H	1.67	0.60
1:E:450:LYS:HG2	1:E:453:ARG:HH22	1.67	0.60
1:A:321:VAL:HG22	1:A:322:ASN:H	1.66	0.60
1:A:1691:ARG:HH22	1:A:1733:THR:HG21	1.66	0.60
1:A:1993:THR:O	1:A:1997:ARG:HG2	2.00	0.60
1:A:2184:ARG:HH12	1:E:2184:ARG:HH12	1.48	0.60
1:A:2457:LEU:HD12	1:A:2507:LEU:HD21	1.84	0.60
1:B:28:LEU:HD12	1:B:32:GLU:HB3	1.82	0.60
1:B:1633:ARG:HG3	1:B:1640:THR:HG22	1.83	0.60
1:C:2469:CYS:HB3	1:C:2495:PRO:HA	1.82	0.60
1:D:1804:GLU:HA	1:D:1808:TYR:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:792:LEU:HA	1:A:867:TRP:HB3	1.84	0.60
1:B:954:ILE:HG22	1:B:956:PRO:HD3	1.84	0.60
1:C:67:ILE:HD11	1:C:89:SER:HA	1.82	0.60
1:D:663:LEU:HD21	1:D:769:LEU:HD22	1.84	0.60
1:A:352:GLU:N	1:A:357:PHE:HZ	2.00	0.60
1:B:2341:LEU:O	1:B:2345:LEU:HG	2.01	0.60
1:C:954:ILE:HG22	1:C:956:PRO:HD3	1.84	0.60
1:A:437:GLU:HB2	1:A:439:TYR:CE2	2.36	0.60
1:C:201:GLN:HA	1:C:204:GLU:OE2	2.02	0.60
1:D:218:SER:O	1:D:221:SER:HB3	2.02	0.60
1:D:345:ASN:HB3	1:D:346:TYR:HB2	1.83	0.60
1:A:384:GLY:HA3	1:A:401:LEU:HD11	1.84	0.60
1:A:1416:ASN:O	1:A:1420:ASN:CA	2.43	0.60
1:B:780:GLU:HA	1:B:828:LEU:HD21	1.83	0.60
1:D:2360:LEU:HD11	1:E:2472:ILE:HA	1.83	0.60
1:B:1246:TYR:HB3	1:B:1262:VAL:HG22	1.84	0.59
1:C:587:ILE:HG12	1:C:593:VAL:HG21	1.83	0.59
1:C:1902:TYR:HE2	1:C:2007:ILE:HB	1.67	0.59
1:D:728:ASP:HB2	1:D:737:ILE:HG12	1.83	0.59
1:D:839:ASP:HA	1:D:849:ILE:HD13	1.82	0.59
1:D:1367:GLY:HA2	1:D:1371:ARG:NE	2.11	0.59
1:A:1523:LYS:HZ1	1:A:1556:SER:H	1.49	0.59
1:A:2026:LEU:HD21	1:B:818:ASN:HB3	1.84	0.59
1:C:1749:LYS:HB2	1:C:1751:GLN:HG2	1.84	0.59
1:D:708:ILE:O	1:D:712:LEU:HB3	2.02	0.59
1:D:1304:LYS:HG2	1:D:1602:PHE:HB3	1.84	0.59
1:E:1570:VAL:HA	1:E:1584:ILE:O	2.02	0.59
1:A:331:LYS:O	1:A:436:PHE:HA	2.02	0.59
1:A:2151:ALA:O	1:A:2155:GLN:HG3	2.03	0.59
1:C:708:ILE:O	1:C:712:LEU:HB3	2.02	0.59
1:D:2465:MET:HG2	1:D:2466:PRO:HD2	1.83	0.59
1:E:777:SER:HB3	1:E:2274:ARG:HD2	1.83	0.59
1:A:308:THR:HG21	1:A:359:ILE:HD11	1.83	0.59
1:C:6:VAL:O	1:C:10:LYS:HG3	2.01	0.59
1:C:899:VAL:HG11	1:C:904:LYS:HD2	1.84	0.59
1:C:1230:LEU:HA	1:C:1244:PHE:O	2.03	0.59
1:C:2051:PRO:HA	1:C:2054:LEU:HD12	1.83	0.59
1:D:1539:ASN:HA	1:D:1544:MET:HE1	1.84	0.59
1:D:2454:ARG:NH2	1:D:2513:ASP:HB3	2.18	0.59
1:A:292:GLU:OE2	1:A:293:VAL:HG13	2.02	0.59
1:C:332:ILE:HD11	1:C:350:MET:HE1	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:680:LEU:HB3	1:D:684:ARG:HE	1.66	0.59
1:D:1162:PHE:CG	1:D:1241:LEU:HD21	2.38	0.59
1:D:1666:LYS:HE2	1:D:1703:SER:HA	1.85	0.59
1:D:2198:LEU:HA	1:D:2201:THR:HG22	1.84	0.59
1:E:367:ARG:HD3	1:E:390:LEU:HD21	1.84	0.59
1:A:547:ASP:HB3	1:A:550:GLU:HB2	1.85	0.59
1:B:1439:ILE:HA	1:B:1452:PHE:O	2.02	0.59
1:C:104:VAL:HG11	1:C:110:ALA:HB3	1.83	0.59
1:D:173:ILE:HD11	1:D:950:PHE:HD1	1.67	0.59
1:D:587:ILE:HD11	1:D:593:VAL:HG11	1.85	0.59
1:D:1879:PRO:O	1:D:1882:TYR:HB2	2.03	0.59
1:E:1675:GLU:HB3	1:E:1677:TRP:CD1	2.38	0.59
1:A:2454:ARG:NH2	1:A:2513:ASP:HB3	2.17	0.59
1:C:1633:ARG:HB2	1:C:1641:ILE:HD13	1.85	0.59
1:C:2094:LEU:HD21	1:D:2264:HIS:HE1	1.68	0.59
1:E:1162:PHE:CG	1:E:1241:LEU:HD21	2.37	0.59
1:E:1890:LEU:HA	1:E:1893:GLN:OE1	2.02	0.59
1:A:2118:GLU:OE2	1:B:2236:GLN:HG2	2.03	0.59
1:A:2350:LYS:HD3	1:B:2299:LEU:HD13	1.83	0.59
1:B:1437:ARG:HE	1:B:1455:PRO:HA	1.67	0.59
1:C:1197:LEU:HD11	1:C:1201:GLY:HA2	1.85	0.59
1:D:353:GLY:HA3	1:D:397:LYS:HD2	1.85	0.59
1:D:1704:GLU:HG2	1:D:1780:LEU:HD13	1.84	0.59
1:D:2149:LEU:HD23	1:D:2209:LYS:HB3	1.85	0.59
1:B:27:TYR:HB3	1:B:28:LEU:HD22	1.84	0.59
1:B:236:LEU:HB2	1:B:487:PHE:CG	2.38	0.59
1:C:1675:GLU:HB3	1:C:1677:TRP:CD1	2.38	0.59
1:E:11:ILE:HD11	1:E:41:LEU:HD23	1.85	0.59
1:A:1437:ARG:NH1	1:A:1453:GLU:HB2	2.17	0.59
1:C:1323:SER:HA	1:C:1334:GLU:HA	1.85	0.59
1:B:784:LEU:HB3	1:B:789:PHE:CE1	2.37	0.58
1:B:1839:TYR:CZ	1:B:1851:ASN:HB2	2.38	0.58
1:D:355:ASN:ND2	1:D:402:SER:HB3	2.18	0.58
1:D:792:LEU:HA	1:D:867:TRP:HB3	1.85	0.58
1:D:1487:ASN:H	1:D:1489:GLN:NE2	2.01	0.58
1:D:2115:VAL:HG22	1:E:2239:ALA:HB1	1.85	0.58
1:A:276:PHE:HA	1:A:281:TRP:CZ3	2.38	0.58
1:D:2435:GLN:HG3	1:D:2437:LYS:NZ	2.18	0.58
1:E:25:LEU:HA	1:E:27:TYR:HB2	1.84	0.58
1:A:2494:LEU:HD12	1:A:2495:PRO:HD2	1.84	0.58
1:B:76:SER:HB3	1:B:80:ARG:HE	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2500:SER:HB3	1:B:2503:ASP:HB2	1.85	0.58
1:C:278:SER:HB3	1:C:281:TRP:HB3	1.84	0.58
1:D:158:GLU:HG3	1:D:982:LYS:HE3	1.84	0.58
1:D:1570:VAL:HA	1:D:1584:ILE:O	2.04	0.58
1:D:2423:PHE:HD2	1:D:2502:ASN:HD22	1.48	0.58
1:A:360:ARG:HB3	1:A:396:PHE:H	1.68	0.58
1:B:2046:SER:HB3	1:B:2306:MET:HG2	1.86	0.58
1:C:464:GLU:HG2	1:C:500:PHE:CD2	2.39	0.58
1:C:475:GLN:HB2	1:C:477:ILE:HG12	1.85	0.58
1:C:1150:VAL:HG12	1:C:1152:PRO:HD3	1.84	0.58
1:D:665:THR:HG23	1:D:667:GLU:H	1.67	0.58
1:E:708:ILE:HG21	1:E:724:LEU:HD21	1.84	0.58
1:E:1130:MET:HE2	1:E:1135:LEU:HD23	1.85	0.58
1:A:999:ARG:HA	1:A:1004:ILE:HD11	1.85	0.58
1:A:1519:MET:HB2	1:A:1568:ASP:OD1	2.03	0.58
1:C:168:LEU:O	1:C:171:GLU:HG3	2.04	0.58
1:C:899:VAL:HG11	1:C:904:LYS:HB2	1.85	0.58
1:C:2277:THR:HA	1:C:2281:LEU:HD23	1.84	0.58
1:D:324:GLU:HB3	1:D:351:TYR:CD2	2.39	0.58
1:D:817:ILE:HA	1:D:820:LEU:HG	1.85	0.58
1:D:1426:GLN:HE21	1:D:1461:ILE:HG21	1.69	0.58
1:D:1439:ILE:HD13	1:D:1453:GLU:HA	1.86	0.58
1:E:1516:ILE:HD11	1:E:1569:ILE:HG23	1.86	0.58
1:A:1523:LYS:NZ	1:A:1556:SER:H	2.00	0.58
1:B:2297:PHE:CE2	1:B:2328:TRP:HB2	2.38	0.58
1:C:1442:PRO:HD3	1:C:1451:LEU:HG	1.84	0.58
1:C:1519:MET:HB2	1:C:1568:ASP:OD1	2.04	0.58
1:E:954:ILE:HG22	1:E:956:PRO:HD3	1.86	0.58
1:B:1162:PHE:CG	1:B:1241:LEU:HD21	2.38	0.58
1:E:450:LYS:HG2	1:E:453:ARG:NH2	2.17	0.58
1:E:1804:GLU:HA	1:E:1808:TYR:HB2	1.86	0.58
1:A:288:LEU:HB3	1:A:292:GLU:OE2	2.03	0.58
1:B:1376:SER:HA	1:B:1379:LYS:HE3	1.86	0.58
1:B:2129:LYS:HD3	1:C:2225:ILE:HG22	1.85	0.58
1:C:339:ASP:OD2	1:C:343:ASN:HB2	2.04	0.58
1:C:839:ASP:HA	1:C:849:ILE:HD13	1.85	0.58
1:D:1150:VAL:HG12	1:D:1152:PRO:HD3	1.85	0.58
1:E:2368:LEU:HD22	1:E:2528:ILE:HB	1.86	0.58
1:D:628:THR:HA	1:D:631:LEU:HG	1.86	0.58
1:D:1411:PRO:HA	1:D:1425:VAL:O	2.02	0.58
1:D:2494:LEU:HD12	1:D:2495:PRO:HD2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:356:GLN:HE22	1:E:409:TYR:HB2	1.68	0.58
1:E:1998:LEU:O	1:E:2002:ARG:HG2	2.03	0.58
1:B:217:LEU:HB3	1:B:220:LEU:HB3	1.86	0.58
1:B:784:LEU:HB3	1:B:789:PHE:HE1	1.69	0.58
1:B:1287:LEU:HD11	1:B:1309:PHE:HB2	1.85	0.58
1:C:1399:VAL:HA	1:C:1498:GLN:O	2.03	0.58
1:A:2356:ASP:HB3	1:B:2047:LEU:HD12	1.86	0.57
1:B:320:VAL:HG22	1:B:327:LEU:HA	1.86	0.57
1:B:2417:LEU:HD21	1:B:2507:LEU:HG	1.86	0.57
1:D:126:ALA:HA	1:D:129:LEU:HD23	1.85	0.57
1:D:2184:ARG:HE	1:D:2190:ARG:HH21	1.52	0.57
1:E:198:PRO:HG2	1:E:245:GLU:HB3	1.86	0.57
1:E:1409:GLY:HA3	1:E:1427:GLY:HA3	1.86	0.57
1:A:126:ALA:HA	1:A:129:LEU:HD23	1.86	0.57
1:A:321:VAL:HG21	1:A:352:GLU:HG2	1.85	0.57
1:B:235:LEU:HD23	1:B:487:PHE:HZ	1.68	0.57
1:B:1230:LEU:HA	1:B:1244:PHE:O	2.04	0.57
1:C:1135:LEU:HD11	1:C:1140:TRP:HE1	1.69	0.57
1:C:2436:LEU:HD11	1:C:2499:ILE:HD12	1.86	0.57
1:D:26:GLN:CG	1:D:27:TYR:HA	2.34	0.57
1:D:528:ASN:HD21	1:D:536:ILE:HG21	1.69	0.57
1:E:276:PHE:CD1	1:E:441:LEU:HD21	2.39	0.57
1:A:33:LEU:HA	1:A:36:ILE:HG22	1.86	0.57
1:A:334:ARG:HD3	1:A:334:ARG:H	1.69	0.57
1:A:1197:LEU:HD12	1:A:1203:TRP:CZ2	2.39	0.57
1:E:236:LEU:HD22	1:E:487:PHE:HB2	1.86	0.57
1:E:1371:ARG:HG3	1:E:1372:ASN:N	2.19	0.57
1:A:2500:SER:HB3	1:A:2503:ASP:HB2	1.86	0.57
1:B:587:ILE:HD11	1:B:593:VAL:HG11	1.87	0.57
1:B:1049:ARG:HB2	1:B:1872:ASP:OD1	2.03	0.57
1:D:1096:TYR:HD1	1:D:1306:SER:HB2	1.69	0.57
1:E:1665:PRO:HA	1:E:1704:GLU:OE1	2.03	0.57
1:A:217:LEU:HB3	1:A:220:LEU:HB3	1.86	0.57
1:A:977:VAL:HG12	1:E:2002:ARG:HA	1.86	0.57
1:A:1481:TYR:HE1	1:A:1498:GLN:HE22	1.53	0.57
1:A:2327:ALA:HB1	1:A:2337:ALA:HB1	1.85	0.57
1:B:1049:ARG:H	1:B:1052:GLN:HE21	1.51	0.57
1:C:25:LEU:HA	1:C:27:TYR:HB2	1.87	0.57
1:C:1431:ASN:HD21	1:C:1434:TYR:HB2	1.68	0.57
1:C:1451:LEU:HD12	1:C:1479:CYS:SG	2.44	0.57
1:D:824:GLY:O	1:D:827:THR:HB	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1305:ALA:HB3	1:E:1601:LEU:HD21	1.87	0.57
1:E:1415:TYR:CE1	1:E:1473:THR:HG22	2.40	0.57
1:A:1804:GLU:HA	1:A:1808:TYR:HB2	1.84	0.57
1:B:321:VAL:HG21	1:B:352:GLU:HG2	1.86	0.57
1:B:347:PHE:HB3	1:B:415:ILE:HG23	1.85	0.57
1:B:1130:MET:HG3	1:B:1132:ALA:H	1.69	0.57
1:B:1399:VAL:HG13	1:B:1497:TYR:HB3	1.87	0.57
1:B:1749:LYS:HB2	1:B:1751:GLN:HG2	1.87	0.57
1:C:2178:LEU:HD21	1:D:2178:LEU:HD13	1.86	0.57
1:D:129:LEU:HD11	1:D:1018:PHE:HE2	1.68	0.57
1:D:1626:LEU:H	1:D:1626:LEU:HD23	1.69	0.57
1:E:279:GLN:HE22	1:E:297:LEU:HD11	1.70	0.57
1:E:2434:ARG:HB2	1:E:2501:VAL:HG11	1.85	0.57
1:B:279:GLN:O	1:B:282:ILE:HG22	2.04	0.57
1:B:683:LEU:HD21	1:B:707:PHE:HB3	1.86	0.57
1:B:1810:PRO:HA	1:B:1829:TRP:HE1	1.70	0.57
1:C:416:TYR:HD1	1:C:431:GLY:HA3	1.68	0.57
1:D:328:GLU:CB	1:D:438:SER:HB2	2.33	0.57
1:D:547:ASP:HB3	1:D:550:GLU:HB2	1.86	0.57
1:D:1644:MET:HG3	1:D:1848:TRP:CE2	2.40	0.57
1:E:1626:LEU:HD23	1:E:1626:LEU:H	1.69	0.57
1:A:181:SER:O	1:A:185:MET:HG2	2.05	0.57
1:C:357:PHE:CE2	1:C:397:LYS:HA	2.40	0.57
1:D:1571:PHE:HB2	1:D:1584:ILE:HB	1.87	0.57
1:D:1633:ARG:HB2	1:D:1641:ILE:HD13	1.86	0.57
1:D:2064:LEU:HD13	1:D:2296:PHE:HD2	1.69	0.57
1:E:226:VAL:HG12	1:E:876:TRP:CD1	2.39	0.57
1:A:349:LEU:HD22	1:A:409:TYR:CG	2.39	0.57
1:A:768:SER:O	1:A:772:GLN:HG2	2.04	0.57
1:A:1053:THR:HB	1:A:1055:MET:CE	2.35	0.57
1:A:1123:ARG:HD2	1:A:1143:TRP:CH2	2.40	0.57
1:A:1150:VAL:HG12	1:A:1152:PRO:HD3	1.87	0.57
1:B:1304:LYS:HG2	1:B:1602:PHE:HB3	1.86	0.57
1:B:2056:ARG:HA	1:B:2059:ASN:HD21	1.69	0.57
1:C:856:MET:SD	1:C:861:VAL:HG23	2.44	0.57
1:D:545:SER:HB2	1:D:586:THR:HG22	1.85	0.57
1:D:2328:TRP:CD2	1:D:2334:GLY:HA3	2.39	0.57
1:A:25:LEU:HA	1:A:27:TYR:HB2	1.86	0.57
1:A:2129:LYS:NZ	1:A:2133:LEU:HB2	2.20	0.57
1:A:2484:PHE:HE2	1:E:2437:LYS:HZ1	1.52	0.57
1:B:1175:GLU:HG2	1:B:1175:GLU:O	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1419:LYS:HB3	1:B:1421:TYR:CE1	2.40	0.57
1:B:1641:ILE:HG22	1:B:1642:LEU:HD23	1.86	0.57
1:B:2115:VAL:HG22	1:C:2239:ALA:HB1	1.86	0.57
1:C:318:GLY:HA2	1:C:329:ALA:HA	1.87	0.57
1:C:1439:ILE:HG23	1:C:1450:ARG:HG3	1.87	0.57
1:D:289:GLU:O	1:D:292:GLU:HG3	2.05	0.57
1:E:172:HIS:HA	1:E:175:ARG:HH12	1.68	0.57
1:A:584:GLN:HG2	1:A:586:THR:HG23	1.87	0.56
1:C:545:SER:HA	1:C:586:THR:HA	1.87	0.56
1:D:388:GLY:HA2	1:D:390:LEU:HD12	1.87	0.56
1:D:443:ILE:HA	1:D:446:LEU:HD12	1.86	0.56
1:A:350:MET:HB2	1:A:359:ILE:HA	1.87	0.56
1:A:2515:THR:HB	1:A:2516:ASP:CG	2.25	0.56
1:B:226:VAL:HG12	1:B:876:TRP:CE3	2.41	0.56
1:C:2383:THR:HA	1:C:2386:LEU:HD12	1.84	0.56
1:D:67:ILE:HD11	1:D:89:SER:HA	1.87	0.56
1:D:984:THR:HG23	1:D:987:ALA:H	1.70	0.56
1:E:349:LEU:HD22	1:E:356:GLN:HG2	1.86	0.56
1:A:357:PHE:CE2	1:A:397:LYS:HA	2.40	0.56
1:A:848:ASP:HB3	1:A:851:MET:HG2	1.85	0.56
1:A:1744:TYR:HE2	1:A:1746:ASP:HB2	1.70	0.56
1:A:2267:ALA:O	1:A:2270:GLU:HG3	2.05	0.56
1:B:8:LEU:HD23	1:B:20:MET:O	2.05	0.56
1:B:26:GLN:CG	1:B:27:TYR:HA	2.33	0.56
1:B:412:GLY:HA3	1:B:434:PHE:HD2	1.70	0.56
1:B:959:VAL:HG13	1:B:961:LEU:HD22	1.86	0.56
1:B:1902:TYR:CD1	1:B:2007:ILE:HD13	2.40	0.56
1:B:2120:ARG:HA	1:B:2237:MET:HE3	1.87	0.56
1:C:1123:ARG:HD2	1:C:1143:TRP:CH2	2.40	0.56
1:C:1436:ARG:HB2	1:C:1485:GLY:HA2	1.86	0.56
1:C:2437:LYS:HD2	1:C:2438:GLN:HB2	1.87	0.56
1:D:349:LEU:HD22	1:D:409:TYR:HD1	1.71	0.56
1:A:410:LYS:HD3	1:A:436:PHE:HD1	1.71	0.56
1:A:679:LEU:HD13	1:A:711:THR:HG21	1.87	0.56
1:B:345:ASN:HD22	1:B:364:LYS:HE3	1.70	0.56
1:D:348:ASP:N	1:D:359:ILE:HG22	2.21	0.56
1:A:2126:ARG:HD3	1:B:2229:ASN:HD21	1.70	0.56
1:B:1629:GLN:HG2	1:B:1649:LEU:HD11	1.87	0.56
1:B:1644:MET:HG3	1:B:1848:TRP:CE2	2.40	0.56
1:D:331:LYS:HB2	1:D:444:PHE:HE2	1.70	0.56
1:D:498:LEU:HD12	1:D:502:ASP:OD2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:226:VAL:HG21	1:E:879:VAL:HG21	1.87	0.56
1:E:235:LEU:HD23	1:E:487:PHE:HZ	1.70	0.56
1:E:1508:GLY:C	1:E:1576:LYS:HE3	2.26	0.56
1:A:274:GLU:HB3	1:A:1405:TYR:HE1	1.70	0.56
1:A:330:TYR:HB2	1:A:436:PHE:CE2	2.41	0.56
1:A:349:LEU:HD22	1:A:409:TYR:CD1	2.40	0.56
1:A:1815:GLN:HG2	1:A:1889:ARG:HH12	1.70	0.56
1:B:465:LEU:HA	1:B:468:ILE:HG12	1.87	0.56
1:C:969:SER:O	1:C:972:LEU:HD22	2.05	0.56
1:C:1436:ARG:HE	1:C:1494:PHE:HD2	1.53	0.56
1:C:1555:ALA:HB1	1:C:1558:LEU:HD21	1.87	0.56
1:C:1846:ALA:HB1	1:C:1848:TRP:CE2	2.41	0.56
1:C:2438:GLN:HB3	1:C:2533:ARG:HB2	1.86	0.56
1:D:276:PHE:CD1	1:D:281:TRP:HZ3	2.24	0.56
1:D:489:THR:HA	1:D:503:ALA:HB1	1.87	0.56
1:E:2120:ARG:HA	1:E:2237:MET:CE	2.35	0.56
1:A:1162:PHE:CD1	1:A:1241:LEU:HD21	2.41	0.56
1:B:1632:SER:HA	1:C:1164:GLU:HG3	1.88	0.56
1:C:11:ILE:HD11	1:C:41:LEU:HD23	1.88	0.56
1:C:1167:HIS:HB3	1:C:1194:LEU:HD11	1.87	0.56
1:D:256:GLU:HA	1:D:259:ALA:HB2	1.88	0.56
1:D:664:CYS:SG	1:D:803:ASN:HA	2.46	0.56
1:E:181:SER:O	1:E:185:MET:HG2	2.05	0.56
1:E:1363:TYR:HB3	1:E:1375:ILE:HD11	1.86	0.56
1:E:1367:GLY:HA2	1:E:1371:ARG:NE	2.11	0.56
1:A:1456:PHE:CD1	1:A:1461:ILE:HD13	2.41	0.56
1:B:11:ILE:HA	1:B:40:GLN:NE2	2.21	0.56
1:B:1879:PRO:O	1:B:1882:TYR:HB2	2.06	0.56
1:B:2454:ARG:NH2	1:B:2513:ASP:HB3	2.21	0.56
1:C:712:LEU:HD21	1:C:768:SER:HB2	1.87	0.56
1:D:276:PHE:HA	1:D:281:TRP:CZ3	2.41	0.56
1:E:842:ALA:HB2	1:E:852:VAL:HG21	1.87	0.56
1:E:1246:TYR:HB3	1:E:1262:VAL:HG22	1.87	0.56
1:E:2453:ILE:HG13	1:E:2521:LEU:HD21	1.88	0.56
1:A:1046:PRO:HG2	1:A:1889:ARG:HH11	1.71	0.56
1:A:1846:ALA:HB1	1:A:1848:TRP:CE2	2.40	0.56
1:A:2484:PHE:CZ	1:E:2361:GLU:HB3	2.41	0.56
1:B:1439:ILE:HG13	1:B:1486:ASN:CB	2.36	0.56
1:C:1162:PHE:CD2	1:C:1241:LEU:HD21	2.41	0.56
1:D:732:PRO:HD2	1:D:760:PHE:CE2	2.41	0.56
1:D:784:LEU:HB3	1:D:789:PHE:CE2	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:129:LEU:HD21	1:B:1018:PHE:HZ	1.71	0.56
1:B:326:LYS:HB3	1:B:328:GLU:OE1	2.06	0.56
1:C:742:THR:O	1:C:746:LYS:HD3	2.05	0.56
1:C:1227:ARG:HH12	1:C:1229:ALA:HB2	1.69	0.56
1:D:349:LEU:HA	1:D:359:ILE:H	1.70	0.56
1:D:1821:LYS:NZ	1:D:1896:LEU:HD12	2.20	0.56
1:E:1415:TYR:CE2	1:E:1468:VAL:HG21	2.41	0.56
1:E:2120:ARG:HA	1:E:2237:MET:HE3	1.88	0.56
1:A:2002:ARG:HE	1:B:977:VAL:HG12	1.70	0.55
1:A:2229:ASN:HD21	1:E:2126:ARG:HD3	1.72	0.55
1:A:2299:LEU:HD22	1:E:2350:LYS:HD3	1.87	0.55
1:B:324:GLU:HB2	1:B:351:TYR:HB2	1.88	0.55
1:B:1150:VAL:HG12	1:B:1152:PRO:HD3	1.88	0.55
1:B:1416:ASN:O	1:B:1420:ASN:CA	2.53	0.55
1:D:1162:PHE:CD2	1:D:1163:ARG:HG2	2.41	0.55
1:D:1889:ARG:O	1:D:1892:ASP:HB2	2.06	0.55
1:E:420:TYR:CZ	1:E:426:ALA:HB2	2.41	0.55
1:E:1226:GLU:HB3	1:E:1247:LYS:HG3	1.87	0.55
1:E:1664:LEU:HB2	1:E:1705:THR:OG1	2.06	0.55
1:A:816:TRP:O	1:A:820:LEU:HG	2.07	0.55
1:A:1174:GLU:HB2	1:A:1189:ARG:HG2	1.88	0.55
1:B:1137:ALA:HB3	1:B:1861:TRP:HE3	1.71	0.55
1:B:2126:ARG:HD3	1:C:2229:ASN:HD21	1.71	0.55
1:C:1371:ARG:HG3	1:C:1372:ASN:N	2.21	0.55
1:D:465:LEU:HA	1:D:468:ILE:HG22	1.88	0.55
1:D:554:THR:HG22	1:D:556:ALA:H	1.71	0.55
1:A:26:GLN:CG	1:A:27:TYR:HA	2.36	0.55
1:A:328:GLU:HG2	1:A:438:SER:HB2	1.88	0.55
1:A:2459:TYR:CZ	1:A:2461:GLY:HA3	2.41	0.55
1:C:256:GLU:HA	1:C:259:ALA:HB2	1.88	0.55
1:D:202:PRO:O	1:D:206:ILE:HG12	2.06	0.55
1:D:358:PHE:HE1	1:D:414:LYS:O	1.90	0.55
1:D:406:ASP:HA	1:D:409:TYR:HB2	1.89	0.55
1:D:1169:ILE:HD11	1:D:1192:LEU:HG	1.88	0.55
1:E:1413:THR:HA	1:E:1424:SER:HA	1.89	0.55
1:A:2308:GLN:NE2	1:A:2321:THR:HA	2.21	0.55
1:B:129:LEU:HD13	1:B:1012:VAL:HG13	1.88	0.55
1:B:410:LYS:HA	1:B:436:PHE:O	2.07	0.55
1:B:1313:PHE:HE2	1:B:1345:TYR:CE1	2.25	0.55
1:B:1394:ILE:HG12	1:B:1417:LYS:HZ2	1.70	0.55
1:C:1810:PRO:HA	1:C:1829:TRP:HE1	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:684:ARG:HD3	1:D:744:VAL:O	2.07	0.55
1:E:1125:VAL:HB	1:E:1140:TRP:CE3	2.41	0.55
1:E:2242:GLU:HA	1:E:2245:LYS:NZ	2.21	0.55
1:A:1287:LEU:HD11	1:A:1309:PHE:HB2	1.87	0.55
1:A:1885:ALA:O	1:A:1889:ARG:HG2	2.06	0.55
1:A:2242:GLU:HA	1:A:2245:LYS:HZ2	1.72	0.55
1:B:545:SER:HB2	1:B:586:THR:HG22	1.88	0.55
1:B:1415:TYR:CE1	1:B:1473:THR:HG22	2.42	0.55
1:B:1626:LEU:HD23	1:B:1626:LEU:H	1.71	0.55
1:C:1314:GLU:HB3	1:C:1591:LYS:HB2	1.88	0.55
1:C:2273:GLN:NE2	1:C:2274:ARG:HG2	2.22	0.55
1:C:2439:VAL:HG22	1:C:2532:ILE:HD12	1.88	0.55
1:C:2472:ILE:HD11	1:C:2495:PRO:HB2	1.86	0.55
1:D:355:ASN:HD21	1:D:400:TYR:HB2	1.70	0.55
1:D:964:ARG:HB3	1:D:976:GLN:NE2	2.20	0.55
1:E:1162:PHE:CD1	1:E:1241:LEU:HD21	2.41	0.55
1:E:1230:LEU:HA	1:E:1244:PHE:O	2.06	0.55
1:A:532:LEU:N	1:A:562:ARG:HH22	2.04	0.55
1:A:582:ASP:HB3	1:A:586:THR:OG1	2.06	0.55
1:A:1319:LEU:HD11	1:A:1588:LEU:HD13	1.89	0.55
1:B:1610:ALA:HB2	1:B:1652:PRO:HG2	1.88	0.55
1:C:1839:TYR:CE1	1:C:1851:ASN:HB2	2.41	0.55
1:E:276:PHE:HD2	1:E:281:TRP:HZ3	1.55	0.55
1:E:897:ARG:H	1:E:908:ASN:HB3	1.71	0.55
1:A:1714:ALA:HB3	1:A:1717:TYR:HB2	1.89	0.55
1:A:1997:ARG:HH11	1:A:2007:ILE:HD11	1.70	0.55
1:A:2264:HIS:CE1	1:E:2090:GLN:HB3	2.42	0.55
1:B:77:GLY:N	1:B:1925:GLY:HA3	2.19	0.55
1:B:1362:ARG:HE	1:B:1363:TYR:N	2.04	0.55
1:C:184:LEU:O	1:C:188:LEU:HG	2.07	0.55
1:C:219:ALA:HA	1:C:222:ARG:HE	1.71	0.55
1:C:1246:TYR:HB3	1:C:1262:VAL:HG22	1.88	0.55
1:C:1662:PHE:HZ	1:C:1725:LEU:HD13	1.72	0.55
1:C:2129:LYS:HG2	1:D:2225:ILE:HG22	1.88	0.55
1:D:11:ILE:HD11	1:D:41:LEU:HD23	1.88	0.55
1:D:551:GLU:HG3	1:D:552:GLN:HG2	1.89	0.55
1:D:901:ALA:N	1:D:907:SER:HB2	2.17	0.55
1:D:2116:LEU:HD22	1:D:2244:LEU:HD12	1.87	0.55
1:E:1400:LYS:HD3	1:E:1401:HIS:O	2.07	0.55
1:E:2056:ARG:HA	1:E:2059:ASN:HD21	1.71	0.55
1:E:2088:LEU:HB3	1:E:2269:LEU:HD12	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:226:VAL:HG21	1:A:879:VAL:HG21	1.89	0.55
1:A:1342:THR:HG22	1:A:1355:HIS:HE1	1.71	0.55
1:B:296:TYR:CZ	1:B:462:PRO:HG3	2.42	0.55
1:B:434:PHE:CZ	1:B:436:PHE:HB2	2.42	0.55
1:B:2090:GLN:HE22	1:C:2268:GLN:HB2	1.72	0.55
1:C:2267:ALA:HA	1:C:2270:GLU:OE1	2.07	0.55
1:C:2359:ALA:HB1	1:C:2535:THR:HB	1.88	0.55
1:D:2324:ARG:NH1	1:D:2324:ARG:HB2	2.22	0.55
1:E:1123:ARG:HD2	1:E:1143:TRP:CH2	2.42	0.55
1:E:1447:TYR:CD2	1:E:1490:GLY:HA2	2.42	0.55
1:A:420:TYR:CZ	1:A:426:ALA:HB2	2.42	0.55
1:A:793:GLY:HA3	1:A:868:GLN:HG2	1.87	0.55
1:A:1082:THR:O	1:A:1085:GLU:HG3	2.07	0.55
1:B:1422:ILE:HB	1:B:1466:PHE:HB2	1.89	0.55
1:B:2198:LEU:HA	1:B:2201:THR:HG22	1.88	0.55
1:C:346:TYR:OH	1:C:364:LYS:HG3	2.06	0.55
1:D:129:LEU:HD13	1:D:1012:VAL:HG13	1.89	0.55
1:D:276:PHE:HD1	1:D:281:TRP:HZ3	1.55	0.55
1:D:1371:ARG:HG3	1:D:1372:ASN:N	2.22	0.55
1:E:27:TYR:HB3	1:E:28:LEU:HD22	1.87	0.55
1:E:236:LEU:HD13	1:E:487:PHE:HB2	1.89	0.55
1:E:297:LEU:HD23	1:E:297:LEU:H	1.72	0.55
1:E:1227:ARG:HH12	1:E:1229:ALA:HB2	1.71	0.55
1:A:1413:THR:HA	1:A:1423:ALA:O	2.07	0.55
1:B:2191:ALA:O	1:B:2195:VAL:HG13	2.07	0.55
1:C:1839:TYR:CZ	1:C:1851:ASN:HB2	2.42	0.55
1:D:27:TYR:HB3	1:D:28:LEU:HD22	1.87	0.55
1:D:1123:ARG:HD2	1:D:1143:TRP:CH2	2.42	0.55
1:E:358:PHE:HD1	1:E:414:LYS:HZ1	1.54	0.55
1:E:360:ARG:HB2	1:E:365:VAL:HG22	1.88	0.55
1:E:1150:VAL:HG23	1:E:1170:TRP:CE2	2.42	0.55
1:A:1288:LYS:HA	1:A:1291:PHE:CE1	2.41	0.54
1:B:1049:ARG:O	1:B:1052:GLN:HG3	2.08	0.54
1:D:219:ALA:HA	1:D:222:ARG:HE	1.72	0.54
1:D:1920:THR:HG23	1:D:1994:LEU:HD21	1.89	0.54
1:E:1489:GLN:HE22	1:E:1491:PHE:N	2.05	0.54
1:E:1519:MET:HB2	1:E:1568:ASP:OD1	2.07	0.54
1:E:2500:SER:HB3	1:E:2503:ASP:HB2	1.88	0.54
1:B:236:LEU:HD13	1:B:487:PHE:HB2	1.89	0.54
1:B:527:PHE:CD1	1:B:563:GLY:HA3	2.42	0.54
1:B:1092:VAL:HG21	1:B:1109:PHE:HB3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1123:ARG:HD2	1:B:1143:TRP:CH2	2.42	0.54
1:C:76:SER:HB3	1:C:80:ARG:HE	1.72	0.54
1:D:404:ILE:HG13	1:D:414:LYS:HD3	1.87	0.54
1:D:777:SER:HB3	1:D:2274:ARG:HH12	1.72	0.54
1:A:439:TYR:HB3	1:A:440:PRO:O	2.07	0.54
1:A:1170:TRP:CE2	1:A:1193:LYS:HB2	2.42	0.54
1:A:1350:LEU:HB3	1:A:1555:ALA:O	2.07	0.54
1:A:1570:VAL:HA	1:A:1584:ILE:O	2.07	0.54
1:B:1804:GLU:HA	1:B:1808:TYR:HB2	1.89	0.54
1:B:2104:ARG:HD2	1:C:2246:ILE:HD11	1.89	0.54
1:C:489:THR:HA	1:C:503:ALA:HB1	1.90	0.54
1:C:1821:LYS:NZ	1:C:1896:LEU:HD12	2.22	0.54
1:C:2367:SER:HB2	1:D:2450:TYR:CD1	2.43	0.54
1:D:29:SER:HB2	1:D:1015:ARG:HA	1.88	0.54
1:D:919:ALA:O	1:D:923:GLU:HG3	2.07	0.54
1:E:760:PHE:HA	1:E:763:VAL:HG12	1.89	0.54
1:E:1350:LEU:HB3	1:E:1555:ALA:O	2.07	0.54
1:E:1642:LEU:HD12	1:E:1832:TYR:CD1	2.42	0.54
1:A:29:SER:HB2	1:A:1015:ARG:HA	1.88	0.54
1:B:2515:THR:HB	1:B:2516:ASP:CG	2.27	0.54
1:C:1885:ALA:O	1:C:1889:ARG:HG2	2.07	0.54
1:C:2308:GLN:NE2	1:C:2321:THR:HA	2.23	0.54
1:E:76:SER:HB3	1:E:80:ARG:HE	1.72	0.54
1:A:1037:VAL:HG13	1:A:1038:TYR:CD1	2.43	0.54
1:A:1163:ARG:O	1:A:1164:GLU:HG3	2.07	0.54
1:A:1672:HIS:HD2	1:A:1729:TYR:CD2	2.26	0.54
1:A:2184:ARG:NH2	1:E:2184:ARG:HH22	2.05	0.54
1:B:1162:PHE:CD1	1:B:1241:LEU:HD21	2.43	0.54
1:C:2064:LEU:HD11	1:C:2300:THR:HG21	1.88	0.54
1:D:2350:LYS:HB2	1:E:2299:LEU:HD11	1.88	0.54
1:E:336:LYS:HG2	1:E:339:ASP:CB	2.31	0.54
1:E:1096:TYR:HD1	1:E:1306:SER:HB2	1.72	0.54
1:B:346:TYR:HE2	1:B:365:VAL:HA	1.73	0.54
1:B:351:TYR:HB3	1:B:356:GLN:HE22	1.71	0.54
1:B:727:THR:HG21	1:B:764:MET:SD	2.47	0.54
1:C:1243:VAL:HG23	1:C:1265:MET:HB3	1.89	0.54
1:C:1629:GLN:HG2	1:C:1649:LEU:HD11	1.88	0.54
1:C:2028:THR:HG21	1:D:2270:GLU:HB2	1.89	0.54
1:D:1287:LEU:HD21	1:D:1309:PHE:HB2	1.89	0.54
1:D:1967:LYS:HG3	1:D:1968:ASN:H	1.71	0.54
1:E:1722:GLY:H	1:E:1766:GLN:CG	2.19	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:160:SER:H	1:A:982:LYS:HZ3	1.54	0.54
1:A:286:TYR:HB3	1:A:288:LEU:HD13	1.88	0.54
1:A:897:ARG:H	1:A:908:ASN:HB3	1.72	0.54
1:A:2132:GLN:O	1:A:2136:GLU:HG3	2.07	0.54
1:A:2184:ARG:HD3	1:A:2190:ARG:HH22	1.72	0.54
1:B:743:LEU:HD11	1:B:757:LEU:HD13	1.89	0.54
1:B:2164:ILE:HG21	1:E:1119:GLU:OE2	2.07	0.54
1:B:2339:GLU:HG3	1:C:2067:PHE:HE1	1.71	0.54
1:C:887:PRO:HA	1:C:890:ILE:HG12	1.89	0.54
1:D:207:ARG:HG2	1:D:211:MET:HE1	1.90	0.54
1:D:1629:GLN:O	1:D:1633:ARG:HG2	2.08	0.54
1:D:2056:ARG:HA	1:D:2059:ASN:HD21	1.73	0.54
1:D:2261:GLN:HA	1:D:2264:HIS:CE1	2.43	0.54
1:E:126:ALA:HA	1:E:129:LEU:HD23	1.90	0.54
1:E:2261:GLN:HA	1:E:2264:HIS:CE1	2.43	0.54
1:A:76:SER:HB2	1:A:80:ARG:HH21	1.72	0.54
1:A:2472:ILE:HD11	1:A:2495:PRO:HB2	1.90	0.54
1:B:370:GLY:H	1:B:386:LEU:HB2	1.73	0.54
1:C:207:ARG:HB3	1:C:211:MET:HE1	1.88	0.54
1:C:1169:ILE:HD11	1:C:1192:LEU:HG	1.90	0.54
1:C:1350:LEU:HB3	1:C:1555:ALA:O	2.08	0.54
1:C:2104:ARG:HD2	1:D:2246:ILE:HD11	1.88	0.54
1:D:1675:GLU:HB3	1:D:1677:TRP:CD1	2.43	0.54
1:E:732:PRO:HD2	1:E:760:PHE:CE1	2.43	0.54
1:E:1324:ALA:HB3	1:E:1584:ILE:HD11	1.89	0.54
1:A:298:GLY:H	1:A:315:ILE:HA	1.72	0.54
1:A:576:LYS:HG2	1:A:581:LEU:HD11	1.89	0.54
1:A:1053:THR:HB	1:A:1055:MET:HE2	1.90	0.54
1:A:2102:GLN:HB3	1:A:2254:GLN:HE22	1.72	0.54
1:A:2242:GLU:HA	1:A:2245:LYS:NZ	2.23	0.54
1:B:600:LEU:HD23	1:B:603:LEU:HD12	1.89	0.54
1:C:126:ALA:HA	1:C:129:LEU:HD23	1.90	0.54
1:D:192:ARG:HE	1:D:249:ILE:HD11	1.73	0.54
1:D:1230:LEU:HA	1:D:1244:PHE:O	2.08	0.54
1:E:176:LYS:HD3	1:E:954:ILE:HG13	1.90	0.54
1:E:2045:LEU:HD23	1:E:2466:PRO:HD2	1.89	0.54
1:A:184:LEU:O	1:A:188:LEU:HG	2.07	0.54
1:A:346:TYR:HA	1:A:361:ALA:HB3	1.90	0.54
1:A:1477:LYS:NZ	1:A:1502:TRP:HB2	2.22	0.54
1:A:2297:PHE:CE2	1:A:2328:TRP:HB2	2.43	0.54
1:B:680:LEU:HD13	1:B:744:VAL:HG13	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:357:PHE:CZ	1:C:397:LYS:HG2	2.43	0.54
1:C:2363:THR:OG1	1:C:2533:ARG:HG2	2.08	0.54
1:D:577:LEU:HD11	1:D:615:CYS:SG	2.48	0.54
1:D:2109:VAL:O	1:D:2113:ILE:HG12	2.08	0.54
1:D:2336:MET:HB2	1:D:2339:GLU:OE2	2.08	0.54
1:E:172:HIS:HA	1:E:175:ARG:NH1	2.23	0.54
1:E:784:LEU:HB3	1:E:789:PHE:CE1	2.43	0.54
1:A:321:VAL:HG12	1:A:351:TYR:CD2	2.43	0.53
1:A:1158:ARG:HH11	1:A:1231:ALA:HA	1.72	0.53
1:A:1967:LYS:HG3	1:A:1968:ASN:H	1.73	0.53
1:B:1037:VAL:HG13	1:B:1038:TYR:CD1	2.43	0.53
1:B:2308:GLN:NE2	1:B:2321:THR:HA	2.23	0.53
1:C:14:THR:HB	1:C:20:MET:HB3	1.90	0.53
1:C:217:LEU:HB3	1:C:220:LEU:HB3	1.88	0.53
1:C:582:ASP:HB3	1:C:586:THR:OG1	2.08	0.53
1:C:739:GLY:HA2	1:C:742:THR:HG22	1.90	0.53
1:C:1084:PHE:HE2	1:C:1801:TYR:HB3	1.73	0.53
1:D:360:ARG:CG	1:D:398:SER:HB2	2.38	0.53
1:E:582:ASP:HB3	1:E:586:THR:OG1	2.07	0.53
1:A:192:ARG:HG2	1:A:266:ASN:HA	1.90	0.53
1:C:789:PHE:HB2	1:C:799:ALA:HA	1.90	0.53
1:C:1153:TYR:CD1	1:C:1173:LYS:HE3	2.43	0.53
1:D:33:LEU:HA	1:D:36:ILE:HG12	1.88	0.53
1:D:501:ASP:O	1:D:504:GLN:HG2	2.08	0.53
1:E:126:ALA:HB2	1:E:997:ILE:HD11	1.89	0.53
1:A:2053:MET:HA	1:A:2056:ARG:HG2	1.90	0.53
1:B:339:ASP:OD2	1:B:343:ASN:HB2	2.08	0.53
1:B:350:MET:HG2	1:B:395:ASN:ND2	2.24	0.53
1:B:576:LYS:HG2	1:B:581:LEU:HD11	1.90	0.53
1:B:2028:THR:HG21	1:C:2270:GLU:HB2	1.91	0.53
1:E:820:LEU:HB3	1:E:824:GLY:HA3	1.88	0.53
1:A:297:LEU:HD23	1:A:297:LEU:H	1.73	0.53
1:B:67:ILE:HD11	1:B:89:SER:HA	1.89	0.53
1:B:126:ALA:HA	1:B:129:LEU:HD23	1.90	0.53
1:B:1571:PHE:HB2	1:B:1584:ILE:HB	1.91	0.53
1:B:1574:LYS:HA	1:B:1581:LEU:H	1.74	0.53
1:C:72:ASN:HB3	1:C:75:LEU:HD13	1.91	0.53
1:C:684:ARG:HG2	1:C:745:LEU:HA	1.90	0.53
1:C:702:GLU:HG2	1:C:721:ARG:HD2	1.90	0.53
1:C:1021:TRP:CH2	1:C:1025:ASN:HA	2.44	0.53
1:C:2160:GLN:HG3	1:C:2198:LEU:HD11	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:310:ALA:HB3	1:E:330:TYR:CE2	2.44	0.53
1:E:349:LEU:HD11	1:E:404:ILE:HG22	1.90	0.53
1:E:2242:GLU:HA	1:E:2245:LYS:HZ2	1.73	0.53
1:E:2308:GLN:HE22	1:E:2321:THR:HG23	1.74	0.53
1:B:1413:THR:HA	1:B:1424:SER:HA	1.91	0.53
1:C:1108:TRP:CE2	1:C:1161:ILE:HD11	2.44	0.53
1:D:527:PHE:CD1	1:D:563:GLY:HA3	2.44	0.53
1:D:2184:ARG:HG2	1:D:2187:ALA:HB2	1.90	0.53
1:E:26:GLN:CG	1:E:27:TYR:HA	2.38	0.53
1:E:206:ILE:HD11	1:E:919:ALA:HA	1.90	0.53
1:E:336:LYS:HA	1:E:432:GLY:HA3	1.89	0.53
1:E:816:TRP:CE2	1:E:820:LEU:HD21	2.43	0.53
1:E:1544:MET:HB3	1:E:1546:TYR:HE2	1.73	0.53
1:E:2075:ALA:HA	1:E:2286:ARG:NH2	2.23	0.53
1:A:532:LEU:HD11	1:E:923:GLU:HG2	1.90	0.53
1:A:761:CYS:HA	1:A:764:MET:CE	2.38	0.53
1:A:1666:LYS:HE2	1:A:1703:SER:HA	1.91	0.53
1:A:2164:ILE:HG22	1:D:1117:LEU:HD12	1.90	0.53
1:A:2437:LYS:HZ1	1:B:2484:PHE:HE2	1.57	0.53
1:B:272:THR:HG22	1:B:275:ASN:OD1	2.08	0.53
1:B:1106:LEU:HB3	1:B:1108:TRP:HE1	1.73	0.53
1:C:350:MET:CG	1:C:359:ILE:HG13	2.38	0.53
1:C:1130:MET:SD	1:C:1135:LEU:HD23	2.48	0.53
1:E:1399:VAL:HA	1:E:1498:GLN:O	2.08	0.53
1:E:2095:ALA:O	1:E:2099:ILE:HG12	2.08	0.53
1:A:1304:LYS:HG2	1:A:1602:PHE:HB3	1.91	0.53
1:A:2511:PHE:HD2	1:A:2522:LEU:HD12	1.73	0.53
1:B:373:LEU:HD23	1:B:381:GLY:H	1.73	0.53
1:C:310:ALA:HB3	1:C:330:TYR:CE2	2.44	0.53
1:C:1437:ARG:O	1:C:1439:ILE:HG12	2.09	0.53
1:C:1959:MET:HA	1:C:1962:ARG:NH2	2.24	0.53
1:D:1413:THR:HA	1:D:1424:SER:HA	1.90	0.53
1:E:347:PHE:O	1:E:415:ILE:HD13	2.09	0.53
1:E:801:GLN:O	1:E:806:THR:HG21	2.09	0.53
1:E:1338:ILE:HG13	1:E:1338:ILE:O	2.09	0.53
1:E:2192:SER:O	1:E:2195:VAL:HG22	2.08	0.53
1:A:470:ARG:HD2	1:A:514:TYR:CE2	2.42	0.53
1:A:852:VAL:O	1:A:856:MET:HG2	2.09	0.53
1:B:642:TRP:O	1:B:645:GLN:HG2	2.09	0.53
1:B:1363:TYR:HE2	1:B:1389:TYR:HE1	1.57	0.53
1:D:333:THR:H	1:D:435:THR:HB	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1489:GLN:HG3	1:D:1492:GLN:HB2	1.89	0.53
1:D:1555:ALA:HB1	1:D:1558:LEU:HD21	1.91	0.53
1:E:1431:ASN:HD22	1:E:1494:PHE:HZ	1.57	0.53
1:E:1932:GLY:HA2	1:E:1935:GLN:HE21	1.73	0.53
1:A:527:PHE:CZ	1:A:594:ILE:HD11	2.43	0.53
1:B:613:GLU:HG3	1:B:657:THR:OG1	2.09	0.53
1:D:48:HIS:O	1:D:52:GLU:HG2	2.09	0.53
1:D:657:THR:O	1:D:660:ILE:HG22	2.08	0.53
1:D:784:LEU:HB3	1:D:789:PHE:HE2	1.72	0.53
1:D:977:VAL:HB	1:D:981:ILE:HD13	1.90	0.53
1:D:1333:MET:HE1	1:D:1582:GLY:HA3	1.90	0.53
1:E:199:TYR:CD1	1:E:945:VAL:HG21	2.44	0.53
1:A:32:GLU:HB3	1:A:1011:ASP:HB2	1.91	0.53
1:A:117:GLY:HA2	1:A:120:THR:HG22	1.91	0.53
1:A:623:PHE:HD2	1:A:639:LEU:HD13	1.74	0.53
1:A:2261:GLN:HA	1:A:2264:HIS:CD2	2.44	0.53
1:C:599:ARG:O	1:C:603:LEU:HG	2.08	0.53
1:D:223:ASN:O	1:D:226:VAL:HG22	2.09	0.53
1:D:545:SER:HA	1:D:586:THR:HA	1.90	0.53
1:D:2164:ILE:HG12	1:D:2195:VAL:HG11	1.90	0.53
1:E:349:LEU:HD21	1:E:404:ILE:HB	1.91	0.53
1:A:2292:ILE:HD13	1:E:2339:GLU:HG2	1.91	0.52
1:B:353:GLY:H	1:B:357:PHE:HZ	1.55	0.52
1:B:901:ALA:N	1:B:907:SER:HB2	2.20	0.52
1:B:1316:PRO:HD2	1:B:1588:LEU:HD11	1.91	0.52
1:D:347:PHE:HB3	1:D:415:ILE:HG23	1.90	0.52
1:D:789:PHE:HB2	1:D:799:ALA:HA	1.90	0.52
1:D:1436:ARG:HA	1:D:1487:ASN:HD21	1.75	0.52
1:D:2360:LEU:HD11	1:E:2472:ILE:HD12	1.92	0.52
1:E:513:GLN:HG3	1:E:514:TYR:HD1	1.73	0.52
1:E:722:TYR:HB3	1:E:785:VAL:HG11	1.91	0.52
1:A:1839:TYR:CE1	1:A:1851:ASN:HB2	2.45	0.52
1:A:2118:GLU:OE2	1:B:2236:GLN:HA	2.09	0.52
1:B:969:SER:O	1:B:972:LEU:HD22	2.09	0.52
1:B:1487:ASN:N	1:B:1489:GLN:HE22	2.01	0.52
1:B:1523:LYS:HZ2	1:B:1557:SER:HB2	1.74	0.52
1:C:236:LEU:HA	1:C:487:PHE:CD1	2.45	0.52
1:C:578:ALA:HA	1:C:628:THR:HG22	1.91	0.52
1:D:2206:SER:O	1:D:2209:LYS:HG3	2.10	0.52
1:D:2372:TYR:HD2	1:D:2382:LEU:HD13	1.74	0.52
1:E:1082:THR:O	1:E:1085:GLU:HG3	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:336:LYS:NZ	1:A:430:GLY:HA3	2.24	0.52
1:A:1169:ILE:HD11	1:A:1192:LEU:HG	1.92	0.52
1:B:167:GLU:O	1:B:171:GLU:HG2	2.10	0.52
1:B:602:LEU:HD23	1:B:605:ARG:HD3	1.92	0.52
1:B:2050:PHE:HE2	1:B:2311:LEU:HB2	1.74	0.52
1:B:2297:PHE:HA	1:B:2300:THR:HG22	1.90	0.52
1:C:297:LEU:HD12	1:C:316:SER:HB2	1.91	0.52
1:C:437:GLU:HB2	1:C:439:TYR:CE1	2.44	0.52
1:D:856:MET:SD	1:D:861:VAL:HG23	2.49	0.52
1:D:1472:LYS:HB3	1:D:1475:ASP:HB3	1.91	0.52
1:D:2358:ARG:HB2	1:E:2047:LEU:HD21	1.89	0.52
1:E:1338:ILE:HG13	1:E:1341:ILE:HD11	1.91	0.52
1:E:2393:GLY:O	1:E:2406:LEU:HD22	2.10	0.52
1:A:642:TRP:O	1:A:645:GLN:HG2	2.09	0.52
1:A:2063:GLN:O	1:A:2066:GLN:HG3	2.09	0.52
1:B:1998:LEU:O	1:B:2002:ARG:HG2	2.09	0.52
1:B:2459:TYR:CZ	1:B:2461:GLY:HA3	2.45	0.52
1:C:324:GLU:HB3	1:C:351:TYR:CD2	2.45	0.52
1:C:1431:ASN:ND2	1:C:1434:TYR:HB2	2.25	0.52
1:D:27:TYR:HD2	1:D:28:LEU:HD22	1.74	0.52
1:B:375:LYS:HG3	1:B:413:VAL:HG21	1.91	0.52
1:B:1021:TRP:CH2	1:B:1025:ASN:HA	2.45	0.52
1:B:2328:TRP:CD2	1:B:2334:GLY:HA3	2.44	0.52
1:C:239:LEU:HB3	1:C:487:PHE:HE1	1.75	0.52
1:D:334:ARG:HD3	1:D:334:ARG:H	1.75	0.52
1:D:1846:ALA:HB1	1:D:1848:TRP:CE2	2.45	0.52
1:E:25:LEU:CA	1:E:27:TYR:HB2	2.39	0.52
1:E:168:LEU:O	1:E:171:GLU:HG3	2.08	0.52
1:E:290:LEU:HA	1:E:293:VAL:HG22	1.91	0.52
1:E:1436:ARG:HG3	1:E:1456:PHE:CE2	2.45	0.52
1:B:551:GLU:HG3	1:B:552:GLN:HG2	1.91	0.52
1:B:2095:ALA:O	1:B:2099:ILE:HG12	2.10	0.52
1:D:334:ARG:HB2	1:D:434:PHE:HA	1.92	0.52
1:D:1084:PHE:HA	1:D:1087:VAL:HG12	1.92	0.52
1:D:1355:HIS:CD2	1:D:1550:PRO:HB3	2.45	0.52
1:D:1714:ALA:HB3	1:D:1717:TYR:HB2	1.91	0.52
1:E:191:TYR:CD2	1:E:197:THR:HG21	2.45	0.52
1:A:984:THR:HG23	1:A:987:ALA:H	1.74	0.52
1:A:1092:VAL:HG21	1:A:1109:PHE:HD2	1.75	0.52
1:A:1649:LEU:HD12	1:A:1650:PRO:HD2	1.92	0.52
1:B:297:LEU:HD23	1:B:297:LEU:H	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:774:LEU:HB3	1:B:776:LEU:HD23	1.91	0.52
1:B:1436:ARG:HB2	1:B:1485:GLY:HA2	1.90	0.52
1:B:1639:ASP:HA	1:B:1832:TYR:HE2	1.74	0.52
1:B:2048:TYR:HD2	1:B:2052:VAL:HG21	1.75	0.52
1:B:2063:GLN:O	1:B:2066:GLN:HG3	2.10	0.52
1:B:2284:TRP:HB3	1:B:2288:LYS:NZ	2.23	0.52
1:C:576:LYS:HG2	1:C:581:LEU:HD11	1.90	0.52
1:C:986:LEU:O	1:C:990:ILE:HG12	2.09	0.52
1:C:1234:GLY:O	1:C:1308:ARG:HG3	2.09	0.52
1:C:1422:ILE:HG23	1:C:1466:PHE:HB2	1.92	0.52
1:D:225:GLU:HB2	1:D:875:GLN:OE1	2.09	0.52
1:D:2350:LYS:HD3	1:E:2299:LEU:HD13	1.90	0.52
1:E:359:ILE:HD11	1:E:395:ASN:OD1	2.09	0.52
1:E:620:LEU:HD13	1:E:664:CYS:HB3	1.91	0.52
1:A:755:THR:HA	1:A:758:VAL:HG22	1.92	0.52
1:A:2142:GLU:HB3	1:A:2216:TYR:HE2	1.75	0.52
1:B:2363:THR:OG1	1:B:2533:ARG:HG2	2.10	0.52
1:C:642:TRP:O	1:C:645:GLN:HG2	2.10	0.52
1:C:1371:ARG:HA	1:C:1375:ILE:HD13	1.92	0.52
1:C:2108:GLU:OE1	1:D:2246:ILE:HG23	2.10	0.52
1:D:15:ARG:N	1:D:15:ARG:HD3	2.24	0.52
1:D:310:ALA:HB3	1:D:330:TYR:CE2	2.44	0.52
1:D:1639:ASP:HA	1:D:1832:TYR:CE2	2.45	0.52
1:E:2438:GLN:HG2	1:E:2494:LEU:HD21	1.90	0.52
1:A:347:PHE:HD1	1:A:358:PHE:CZ	2.23	0.52
1:B:404:ILE:HG21	1:B:414:LYS:HG2	1.92	0.52
1:B:1123:ARG:HD2	1:B:1143:TRP:CZ2	2.45	0.52
1:C:409:TYR:O	1:C:436:PHE:HB3	2.10	0.52
1:C:1074:GLU:O	1:C:1078:LYS:HG2	2.09	0.52
1:D:2120:ARG:HA	1:D:2237:MET:HE3	1.91	0.52
1:D:2533:ARG:HD3	1:E:2484:PHE:CE1	2.45	0.52
1:A:1021:TRP:CH2	1:A:1025:ASN:HA	2.44	0.52
1:A:1638:ILE:H	1:A:1638:ILE:HD12	1.75	0.52
1:B:491:PHE:CZ	1:B:495:ARG:HD3	2.45	0.52
1:B:900:THR:HG22	1:B:909:LEU:HD11	1.92	0.52
1:B:1135:LEU:HD11	1:B:1140:TRP:HE1	1.74	0.52
1:C:1644:MET:O	1:C:1648:ARG:HG2	2.09	0.52
1:D:162:LEU:HD21	1:D:977:VAL:O	2.10	0.52
1:D:414:LYS:O	1:D:415:ILE:HD13	2.10	0.52
1:E:249:ILE:HG22	1:E:453:ARG:NH2	2.24	0.52
1:E:854:GLN:OE1	1:E:886:MET:HG2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1639:ASP:HA	1:E:1832:TYR:CE1	2.45	0.52
1:A:578:ALA:HA	1:A:628:THR:HG22	1.91	0.51
1:C:346:TYR:HD1	1:C:361:ALA:HB3	1.74	0.51
1:C:602:LEU:HD23	1:C:605:ARG:HD3	1.91	0.51
1:D:220:LEU:O	1:D:227:MET:HE3	2.10	0.51
1:E:33:LEU:HD13	1:E:50:TYR:HD1	1.75	0.51
1:E:330:TYR:O	1:E:331:LYS:HE2	2.09	0.51
1:E:2381:ASN:HB3	1:E:2384:GLU:HB3	1.93	0.51
1:A:346:TYR:CE1	1:A:360:ARG:HA	2.38	0.51
1:A:1436:ARG:HG3	1:A:1456:PHE:CE2	2.44	0.51
1:A:1629:GLN:O	1:A:1633:ARG:HG2	2.10	0.51
1:A:2050:PHE:CE2	1:A:2054:LEU:HD11	2.45	0.51
1:B:2053:MET:HA	1:B:2056:ARG:HG2	1.91	0.51
1:C:26:GLN:HB3	1:C:27:TYR:HA	1.90	0.51
1:C:1644:MET:HG3	1:C:1848:TRP:CE2	2.45	0.51
1:C:1662:PHE:HB2	1:C:1707:MET:SD	2.49	0.51
1:D:236:LEU:HA	1:D:487:PHE:CD1	2.45	0.51
1:D:768:SER:O	1:D:772:GLN:HG2	2.10	0.51
1:D:2363:THR:OG1	1:D:2533:ARG:HG2	2.10	0.51
1:E:28:LEU:HD12	1:E:32:GLU:HG3	1.91	0.51
1:B:216:THR:HG22	1:B:494:HIS:HB3	1.93	0.51
1:B:1831:ASN:HA	1:B:1834:TYR:O	2.10	0.51
1:C:200:HIS:HB3	1:C:203:TYR:HB3	1.91	0.51
1:D:217:LEU:HB3	1:D:220:LEU:HB3	1.91	0.51
1:D:348:ASP:C	1:D:359:ILE:HG22	2.30	0.51
1:D:620:LEU:HD13	1:D:664:CYS:HB3	1.91	0.51
1:D:1227:ARG:HH12	1:D:1229:ALA:HB2	1.75	0.51
1:E:357:PHE:CG	1:E:397:LYS:HE2	2.45	0.51
1:A:2115:VAL:HG22	1:B:2239:ALA:HB1	1.92	0.51
1:A:2439:VAL:HG22	1:A:2532:ILE:HG13	1.92	0.51
1:B:191:TYR:CD2	1:B:197:THR:HG21	2.46	0.51
1:B:2192:SER:O	1:B:2195:VAL:HG22	2.10	0.51
1:C:1627:ALA:O	1:C:1631:VAL:HG23	2.11	0.51
1:C:2045:LEU:HD13	1:C:2309:GLU:HG2	1.92	0.51
1:D:1804:GLU:O	1:D:1809:THR:HG23	2.10	0.51
1:D:2050:PHE:CE2	1:D:2054:LEU:HD11	2.46	0.51
1:E:1811:MET:SD	1:E:1886:THR:HG22	2.51	0.51
1:E:1846:ALA:HB1	1:E:1848:TRP:CE2	2.45	0.51
1:A:1513:ASP:HA	1:A:1574:LYS:HZ3	1.76	0.51
1:B:207:ARG:HH21	1:B:240:ALA:HA	1.75	0.51
1:B:349:LEU:HD11	1:B:404:ILE:HB	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1125:VAL:HB	1:B:1140:TRP:CE3	2.45	0.51
1:B:2049:ARG:HG2	1:B:2493:TYR:CD1	2.46	0.51
1:C:70:ARG:HE	1:C:1880:MET:HG2	1.76	0.51
1:C:1374:GLN:O	1:C:1378:MET:HG2	2.11	0.51
1:C:2328:TRP:CD2	1:C:2334:GLY:HA3	2.46	0.51
1:D:348:ASP:H	1:D:359:ILE:HG22	1.76	0.51
1:D:663:LEU:HD22	1:D:770:SER:OG	2.11	0.51
1:D:969:SER:O	1:D:972:LEU:HD22	2.09	0.51
1:D:1375:ILE:O	1:D:1379:LYS:HG3	2.11	0.51
1:D:2109:VAL:HG23	1:D:2247:ARG:HH21	1.74	0.51
1:E:1629:GLN:HG2	1:E:1649:LEU:HD11	1.92	0.51
1:E:1713:TYR:HD1	1:E:1718:TYR:CZ	2.28	0.51
1:E:1714:ALA:HB3	1:E:1717:TYR:HB2	1.93	0.51
1:E:1913:ALA:O	1:E:1917:TYR:HD2	1.93	0.51
1:A:69:THR:HG22	1:A:1880:MET:HE1	1.92	0.51
1:A:162:LEU:HD21	1:A:977:VAL:O	2.11	0.51
1:A:1523:LYS:HE3	1:A:1555:ALA:HA	1.93	0.51
1:B:1047:THR:HA	1:B:1812:MET:HE3	1.93	0.51
1:C:198:PRO:HD2	1:C:246:LEU:HG	1.92	0.51
1:C:768:SER:O	1:C:772:GLN:HG2	2.10	0.51
1:D:332:ILE:HD11	1:D:436:PHE:CD1	2.46	0.51
1:D:582:ASP:HB3	1:D:586:THR:OG1	2.11	0.51
1:D:1627:ALA:O	1:D:1631:VAL:HG23	2.10	0.51
1:D:2129:LYS:HG2	1:E:2225:ILE:HG22	1.93	0.51
1:E:856:MET:SD	1:E:861:VAL:HG23	2.51	0.51
1:E:1997:ARG:O	1:E:2001:LEU:HD23	2.09	0.51
1:E:2051:PRO:O	1:E:2054:LEU:HB3	2.10	0.51
1:A:1439:ILE:HG23	1:A:1450:ARG:CG	2.40	0.51
1:B:48:HIS:O	1:B:52:GLU:HG2	2.11	0.51
1:B:545:SER:HA	1:B:586:THR:HA	1.93	0.51
1:B:1108:TRP:CE2	1:B:1161:ILE:HD11	2.46	0.51
1:B:2472:ILE:HG13	1:B:2473:ALA:N	2.25	0.51
1:D:276:PHE:HA	1:D:281:TRP:CE3	2.46	0.51
1:D:367:ARG:HD3	1:D:390:LEU:HD21	1.91	0.51
1:E:276:PHE:HD1	1:E:441:LEU:HD21	1.73	0.51
1:E:2339:GLU:OE1	1:E:2339:GLU:N	2.43	0.51
1:E:2372:TYR:HA	1:E:2375:LEU:HG	1.92	0.51
1:A:11:ILE:HA	1:A:40:GLN:NE2	2.26	0.51
1:A:355:ASN:ND2	1:A:402:SER:HB3	2.25	0.51
1:A:1831:ASN:HA	1:A:1834:TYR:O	2.11	0.51
1:B:328:GLU:HB2	1:B:438:SER:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1400:LYS:HG3	1:B:1498:GLN:HE21	1.76	0.51
1:B:2056:ARG:HA	1:B:2059:ASN:ND2	2.25	0.51
1:B:2242:GLU:HA	1:B:2245:LYS:HG2	1.93	0.51
1:C:111:SER:HB2	1:C:1982:GLU:HB2	1.93	0.51
1:D:30:PHE:O	1:D:33:LEU:HG	2.11	0.51
1:D:326:LYS:HG2	1:D:328:GLU:HB3	1.93	0.51
1:D:1050:ILE:HG21	1:D:1870:ASP:OD1	2.11	0.51
1:D:1441:THR:HG23	1:D:1444:GLU:H	1.74	0.51
1:D:2052:VAL:O	1:D:2055:GLU:HG2	2.11	0.51
1:D:2327:ALA:HB1	1:D:2337:ALA:HB1	1.93	0.51
1:E:700:GLN:HA	1:E:703:ILE:HG12	1.92	0.51
1:A:30:PHE:O	1:A:33:LEU:HG	2.11	0.51
1:A:316:SER:HA	1:A:331:LYS:NZ	2.26	0.51
1:A:373:LEU:HD23	1:A:380:SER:H	1.76	0.51
1:A:498:LEU:HD13	1:A:502:ASP:HB3	1.93	0.51
1:A:1351:ALA:HB1	1:A:1552:GLU:OE2	2.10	0.51
1:A:2178:LEU:HD12	1:E:2178:LEU:HD21	1.92	0.51
1:B:527:PHE:HD1	1:B:563:GLY:HA3	1.76	0.51
1:B:1116:ASN:HB2	1:C:1207:TRP:CD1	2.45	0.51
1:B:1434:TYR:HD2	1:B:1492:GLN:HE22	1.57	0.51
1:B:1523:LYS:HE3	1:B:1555:ALA:HA	1.93	0.51
1:B:1762:SER:HB2	1:B:1769:ILE:HD11	1.93	0.51
1:B:2184:ARG:HG3	1:B:2187:ALA:HB2	1.93	0.51
1:C:191:TYR:HB3	1:C:197:THR:OG1	2.10	0.51
1:C:1059:LEU:HD12	1:C:1080:TYR:CB	2.41	0.51
1:C:1680:ILE:HB	1:C:1695:TYR:HB3	1.93	0.51
1:C:1960:LEU:HD12	1:C:1964:GLY:HA2	1.92	0.51
1:D:308:THR:HG23	1:D:395:ASN:ND2	2.26	0.51
1:D:580:VAL:O	1:D:587:ILE:HD13	2.10	0.51
1:D:816:TRP:NE1	1:D:820:LEU:HD21	2.26	0.51
1:D:1415:TYR:CE1	1:D:1473:THR:HG22	2.45	0.51
1:E:200:HIS:HB3	1:E:203:TYR:HB3	1.92	0.51
1:E:1456:PHE:CZ	1:E:1461:ILE:HD12	2.46	0.51
1:A:2178:LEU:H	1:A:2178:LEU:HD23	1.76	0.51
1:B:236:LEU:HD22	1:B:487:PHE:HB2	1.93	0.51
1:B:276:PHE:HD2	1:B:441:LEU:HD21	1.76	0.51
1:B:582:ASP:HB3	1:B:586:THR:OG1	2.11	0.51
1:B:848:ASP:HB3	1:B:851:MET:HG2	1.92	0.51
1:B:1839:TYR:CE1	1:B:1851:ASN:HB2	2.46	0.51
1:C:1439:ILE:HG13	1:C:1486:ASN:CB	2.41	0.51
1:D:620:LEU:HB2	1:D:804:ILE:HD11	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2474:LEU:HD11	1:D:2477:GLY:HA2	1.92	0.51
1:E:1415:TYR:CE1	1:E:1417:LYS:HG2	2.46	0.51
1:A:1045:ASP:OD1	1:A:1047:THR:HG22	2.10	0.50
1:A:1823:PHE:HB3	1:A:1897:ARG:NH2	2.26	0.50
1:A:2302:SER:O	1:A:2305:LEU:HG	2.11	0.50
1:B:1678:PHE:HD1	1:B:1699:LEU:HG	1.76	0.50
1:B:2157:LEU:O	1:B:2157:LEU:HD23	2.12	0.50
1:C:346:TYR:HE1	1:C:362:ASN:HB2	1.76	0.50
1:C:444:PHE:HA	1:C:447:LYS:HD3	1.93	0.50
1:C:1191:THR:HG22	1:C:1193:LYS:HG3	1.92	0.50
1:C:2339:GLU:HG3	1:D:2067:PHE:CE1	2.46	0.50
1:D:226:VAL:HG12	1:D:876:TRP:CE3	2.46	0.50
1:D:1410:GLY:HA3	1:D:1497:TYR:CE2	2.46	0.50
1:D:1523:LYS:HE2	1:D:1556:SER:H	1.76	0.50
1:D:2063:GLN:O	1:D:2066:GLN:HG3	2.11	0.50
1:D:2192:SER:O	1:D:2195:VAL:HG22	2.09	0.50
1:E:158:GLU:HA	1:E:158:GLU:OE2	2.11	0.50
1:E:349:LEU:HG	1:E:414:LYS:CD	2.40	0.50
1:E:2364:ARG:NH1	1:E:2422:ILE:HG13	2.26	0.50
1:A:332:ILE:HD11	1:A:350:MET:CE	2.41	0.50
1:A:1197:LEU:HD23	1:A:1198:ARG:O	2.12	0.50
1:B:1321:MET:HE2	1:B:1584:ILE:HG23	1.93	0.50
1:C:136:TYR:HD1	1:C:141:ARG:HH12	1.59	0.50
1:D:475:GLN:HB3	1:D:477:ILE:HG23	1.94	0.50
1:D:504:GLN:HA	1:D:507:ASN:ND2	2.26	0.50
1:D:649:TRP:O	1:D:653:ALA:CB	2.59	0.50
1:E:968:TYR:CD1	1:E:974:ASP:HA	2.46	0.50
1:E:1127:ILE:O	1:E:1130:MET:HB3	2.10	0.50
1:E:1389:TYR:HA	1:E:1541:PHE:CZ	2.47	0.50
1:E:1507:THR:HG21	1:E:1541:PHE:HE1	1.75	0.50
1:E:2515:THR:HB	1:E:2516:ASP:HB2	1.93	0.50
1:A:458:SER:OG	1:A:460:LEU:HD23	2.10	0.50
1:A:491:PHE:CZ	1:A:495:ARG:HD2	2.47	0.50
1:A:1100:VAL:HB	1:A:1593:VAL:HG22	1.92	0.50
1:A:1319:LEU:HD12	1:A:1338:ILE:HD11	1.92	0.50
1:A:1629:GLN:HG2	1:A:1649:LEU:HD11	1.94	0.50
1:A:2328:TRP:CD2	1:A:2334:GLY:HA3	2.46	0.50
1:A:2335:LEU:C	1:A:2336:MET:HG3	2.32	0.50
1:B:326:LYS:HG2	1:B:328:GLU:HB3	1.93	0.50
1:B:708:ILE:O	1:B:712:LEU:CB	2.55	0.50
1:B:899:VAL:HG22	1:B:902:LEU:O	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:482:VAL:O	1:C:486:VAL:HG23	2.10	0.50
1:D:2242:GLU:HA	1:D:2245:LYS:HG2	1.93	0.50
1:E:348:ASP:N	1:E:359:ILE:HG22	2.22	0.50
1:E:972:LEU:HD12	1:E:992:GLY:O	2.11	0.50
1:E:1158:ARG:HG3	1:E:1159:PRO:HD2	1.93	0.50
1:E:2277:THR:HA	1:E:2281:LEU:HD23	1.92	0.50
1:A:1408:LEU:HD22	1:A:1428:HIS:HB2	1.93	0.50
1:A:1839:TYR:CZ	1:A:1851:ASN:HB2	2.47	0.50
1:B:223:ASN:O	1:B:226:VAL:HG22	2.11	0.50
1:B:409:TYR:O	1:B:436:PHE:HB3	2.11	0.50
1:C:1342:THR:OG1	1:C:1353:THR:HB	2.11	0.50
1:C:1666:LYS:HE2	1:C:1703:SER:HA	1.93	0.50
1:C:2364:ARG:NH1	1:C:2422:ILE:HG13	2.26	0.50
1:D:1024:ASN:OD1	1:D:1030:TRP:HD1	1.94	0.50
1:D:1516:ILE:HD11	1:D:1569:ILE:HG23	1.92	0.50
1:E:2469:CYS:HB3	1:E:2495:PRO:HA	1.94	0.50
1:A:177:THR:HG23	1:A:179:GLY:H	1.76	0.50
1:A:1255:PHE:CD2	1:A:1285:SER:HA	2.47	0.50
1:A:2099:ILE:O	1:A:2103:GLN:HG2	2.12	0.50
1:B:848:ASP:OD2	1:B:850:SER:HB2	2.11	0.50
1:B:1084:PHE:HA	1:B:1087:VAL:HG12	1.94	0.50
1:B:1878:ASP:OD1	1:B:1880:MET:HG3	2.11	0.50
1:B:2372:TYR:HD2	1:B:2382:LEU:HD13	1.75	0.50
1:C:1363:TYR:OH	1:C:1507:THR:HG22	2.11	0.50
1:C:1438:LEU:HB2	1:C:1454:PHE:O	2.12	0.50
1:C:2453:ILE:HG13	1:C:2521:LEU:HD21	1.93	0.50
1:D:1063:ILE:HD12	1:D:1816:ARG:HG3	1.94	0.50
1:D:1123:ARG:HD2	1:D:1143:TRP:CZ2	2.47	0.50
1:D:2051:PRO:HA	1:D:2054:LEU:HD12	1.93	0.50
1:E:141:ARG:HH21	1:E:970:TYR:HA	1.76	0.50
1:E:1635:ASN:OD1	1:E:1636:THR:HG23	2.11	0.50
1:A:106:PRO:HA	1:A:1982:GLU:OE1	2.12	0.50
1:A:2454:ARG:HH21	1:A:2513:ASP:HB3	1.75	0.50
1:B:854:GLN:OE1	1:B:886:MET:HG3	2.12	0.50
1:C:776:LEU:HD11	1:C:814:HIS:HB2	1.93	0.50
1:D:1276:MET:HB2	1:D:1280:ALA:HB3	1.92	0.50
1:D:1333:MET:CE	1:D:1582:GLY:HA3	2.42	0.50
1:E:620:LEU:HB3	1:E:664:CYS:SG	2.52	0.50
1:E:1588:LEU:HD12	1:E:1589:SER:H	1.77	0.50
1:E:2052:VAL:HG21	1:E:2491:SER:HB2	1.92	0.50
1:A:76:SER:HB2	1:A:80:ARG:HE	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:76:SER:HB2	1:A:80:ARG:NH2	2.27	0.50
1:A:553:SER:HB2	1:A:557:ARG:HD3	1.92	0.50
1:A:806:THR:O	1:A:810:LEU:HD23	2.12	0.50
1:A:1304:LYS:HD3	1:A:1600:ILE:HD12	1.92	0.50
1:B:410:LYS:HE3	1:B:438:SER:H	1.76	0.50
1:B:1434:TYR:HB3	1:B:1487:ASN:ND2	2.27	0.50
1:B:1713:TYR:HD1	1:B:1718:TYR:CZ	2.30	0.50
1:C:297:LEU:HD23	1:C:297:LEU:H	1.76	0.50
1:C:330:TYR:HA	1:C:437:GLU:O	2.11	0.50
1:C:505:VAL:HG11	1:C:598:TYR:CD2	2.41	0.50
1:C:573:GLN:HA	1:C:576:LYS:HE2	1.93	0.50
1:C:901:ALA:O	1:C:902:LEU:HB2	2.12	0.50
1:C:2051:PRO:O	1:C:2054:LEU:HB2	2.12	0.50
1:D:349:LEU:HG	1:D:357:PHE:O	2.12	0.50
1:D:370:GLY:H	1:D:386:LEU:HB2	1.75	0.50
1:D:1132:ALA:HB1	1:D:1618:TYR:CZ	2.47	0.50
1:D:1167:HIS:HB3	1:D:1194:LEU:HD11	1.92	0.50
1:D:1666:LYS:N	1:D:1704:GLU:HG3	2.26	0.50
1:E:636:LEU:O	1:E:640:VAL:HG23	2.12	0.50
1:E:1416:ASN:O	1:E:1420:ASN:CA	2.55	0.50
1:A:1643:THR:O	1:A:1647:GLN:HG3	2.11	0.50
1:A:2192:SER:OG	1:D:1149:ALA:HB2	2.12	0.50
1:B:25:LEU:CA	1:B:27:TYR:HB2	2.42	0.50
1:B:276:PHE:CD2	1:B:441:LEU:HD21	2.47	0.50
1:C:2145:ALA:HA	1:D:2210:ILE:HD11	1.94	0.50
1:E:273:PRO:HG2	1:E:442:THR:HG22	1.92	0.50
1:A:1097:HIS:CE1	1:A:1127:ILE:HD11	2.47	0.50
1:A:1169:ILE:HD13	1:A:1194:LEU:HB2	1.94	0.50
1:A:1364:ASP:HB3	1:A:1371:ARG:NH1	2.26	0.50
1:A:1370:ILE:HD11	1:A:1397:ASN:O	2.12	0.50
1:A:2363:THR:OG1	1:A:2533:ARG:HG2	2.12	0.50
1:B:498:LEU:HB3	1:B:502:ASP:HB2	1.93	0.50
1:B:1604:ARG:HB2	1:B:1612:TYR:CZ	2.47	0.50
1:B:2130:TYR:HE1	1:C:2225:ILE:HD12	1.77	0.50
1:C:858:SER:OG	1:C:891:ARG:HD2	2.12	0.50
1:C:2297:PHE:CE2	1:C:2328:TRP:HB2	2.47	0.50
1:C:2407:SER:O	1:C:2410:GLN:HG2	2.12	0.50
1:C:2434:ARG:HB2	1:C:2501:VAL:HG11	1.93	0.50
1:D:235:LEU:HA	1:D:238:ILE:HG12	1.93	0.50
1:D:290:LEU:O	1:D:294:GLN:HG3	2.12	0.50
1:D:2155:GLN:NE2	1:E:2200:ALA:HB2	2.22	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1287:LEU:HD11	1:E:1309:PHE:HB2	1.92	0.50
1:A:1050:ILE:HD11	1:A:1870:ASP:OD1	2.12	0.49
1:A:2450:TYR:CE1	1:E:2367:SER:HB2	2.47	0.49
1:B:870:ILE:O	1:B:874:LEU:HG	2.12	0.49
1:B:1422:ILE:HG22	1:B:1466:PHE:HD2	1.77	0.49
1:C:511:ILE:HD12	1:C:523:PHE:HD1	1.77	0.49
1:C:584:GLN:HG2	1:C:586:THR:HG23	1.92	0.49
1:C:1927:GLU:HB3	1:C:1991:TRP:CE2	2.46	0.49
1:D:2272:LEU:HG	1:D:2275:LYS:NZ	2.27	0.49
1:E:1839:TYR:CE1	1:E:1851:ASN:HB2	2.47	0.49
1:A:339:ASP:OD2	1:A:343:ASN:HB2	2.11	0.49
1:A:345:ASN:HD22	1:A:346:TYR:HB2	1.77	0.49
1:A:1508:GLY:C	1:A:1576:LYS:HE3	2.32	0.49
1:B:1350:LEU:HB3	1:B:1555:ALA:O	2.11	0.49
1:B:1443:VAL:HG11	1:B:1446:ASN:HB3	1.93	0.49
1:C:286:TYR:HB3	1:C:288:LEU:HD23	1.94	0.49
1:C:334:ARG:HD3	1:C:334:ARG:H	1.77	0.49
1:C:1073:VAL:HG11	1:C:1813:CYS:SG	2.52	0.49
1:C:1113:THR:HG23	1:C:1115:GLU:O	2.12	0.49
1:D:1387:SER:O	1:D:1388:GLN:HG2	2.12	0.49
1:E:52:GLU:HA	1:E:55:GLU:OE2	2.12	0.49
1:E:1831:ASN:HA	1:E:1834:TYR:O	2.13	0.49
1:E:2375:LEU:O	1:E:2379:ASN:HB3	2.12	0.49
1:A:676:ILE:HG23	1:A:679:LEU:HD23	1.94	0.49
1:A:750:ASN:HD22	1:A:753:GLU:HB3	1.77	0.49
1:A:1003:ARG:NH2	1:E:1838:GLY:HA3	2.27	0.49
1:A:2059:ASN:OD1	1:A:2060:LEU:HD12	2.12	0.49
1:A:2108:GLU:OE2	1:B:2246:ILE:HG23	2.11	0.49
1:B:70:ARG:HB3	1:B:85:ARG:HH22	1.77	0.49
1:B:239:LEU:HD12	1:B:487:PHE:HE1	1.76	0.49
1:B:484:THR:O	1:B:488:TYR:HD2	1.94	0.49
1:B:580:VAL:O	1:B:587:ILE:HD13	2.11	0.49
1:B:1456:PHE:HB3	1:B:1458:PRO:O	2.12	0.49
1:B:2322:PHE:HZ	1:B:2351:VAL:HG21	1.77	0.49
1:C:32:GLU:HB3	1:C:1011:ASP:HB2	1.94	0.49
1:C:827:THR:HA	1:C:830:MET:HG2	1.94	0.49
1:C:972:LEU:HD12	1:C:992:GLY:O	2.12	0.49
1:C:1410:GLY:HA3	1:C:1497:TYR:HE2	1.78	0.49
1:D:290:LEU:O	1:D:293:VAL:HG22	2.11	0.49
1:D:1534:ALA:HB2	1:D:1548:PHE:C	2.33	0.49
1:E:235:LEU:HD23	1:E:487:PHE:CZ	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:331:LYS:HB2	1:E:437:GLU:HG2	1.94	0.49
1:E:356:GLN:O	1:E:402:SER:HA	2.12	0.49
1:E:1902:TYR:CD2	1:E:2007:ILE:HD13	2.46	0.49
1:E:2459:TYR:CZ	1:E:2461:GLY:HA3	2.48	0.49
1:A:986:LEU:O	1:A:990:ILE:HG12	2.11	0.49
1:A:2095:ALA:O	1:A:2099:ILE:HG12	2.12	0.49
1:B:628:THR:HA	1:B:631:LEU:HG	1.94	0.49
1:B:1788:TYR:OH	1:B:1791:PRO:HD3	2.13	0.49
1:B:1821:LYS:HE2	1:B:1821:LYS:HA	1.94	0.49
1:B:2163:SER:OG	1:B:2195:VAL:HG12	2.12	0.49
1:B:2423:PHE:CE1	1:B:2502:ASN:HB2	2.44	0.49
1:C:437:GLU:HG3	1:C:444:PHE:HZ	1.76	0.49
1:C:1140:TRP:CD1	1:C:1797:ALA:HA	2.48	0.49
1:C:2223:TRP:HA	1:C:2226:GLN:HE21	1.78	0.49
1:D:1234:GLY:O	1:D:1308:ARG:HG3	2.12	0.49
1:D:2453:ILE:HD12	1:D:2453:ILE:H	1.77	0.49
1:E:48:HIS:O	1:E:52:GLU:HG2	2.13	0.49
1:E:755:THR:HA	1:E:758:VAL:HG22	1.95	0.49
1:E:1024:ASN:OD1	1:E:1030:TRP:HD1	1.94	0.49
1:E:1821:LYS:NZ	1:E:1896:LEU:HD12	2.27	0.49
1:E:1885:ALA:O	1:E:1889:ARG:HG2	2.12	0.49
1:A:334:ARG:HB2	1:A:434:PHE:HA	1.93	0.49
1:A:998:ASN:HD21	1:E:1919:ARG:HG2	1.78	0.49
1:A:1662:PHE:HB2	1:A:1707:MET:SD	2.52	0.49
1:B:1078:LYS:HA	1:B:1078:LYS:HE3	1.94	0.49
1:B:1106:LEU:HD23	1:B:1108:TRP:CZ2	2.48	0.49
1:B:1158:ARG:HH11	1:B:1231:ALA:HA	1.77	0.49
1:B:1342:THR:OG1	1:B:1353:THR:HB	2.12	0.49
1:B:2045:LEU:HD22	1:B:2313:ARG:HG3	1.93	0.49
1:C:206:ILE:O	1:C:210:ILE:HG12	2.11	0.49
1:C:367:ARG:HA	1:C:390:LEU:HD21	1.93	0.49
1:C:2350:LYS:HB2	1:D:2299:LEU:HD11	1.94	0.49
1:C:2423:PHE:HE2	1:C:2502:ASN:HB2	1.77	0.49
1:D:1148:THR:OG1	1:D:1150:VAL:HG23	2.12	0.49
1:D:1440:LEU:HD13	1:D:1482:ALA:HA	1.94	0.49
1:D:2332:THR:O	1:D:2335:LEU:HG	2.12	0.49
1:A:136:TYR:HD1	1:A:141:ARG:HH12	1.61	0.49
1:A:2488:PHE:HB2	1:B:2485:MET:CE	2.42	0.49
1:B:367:ARG:HD3	1:B:390:LEU:HD11	1.94	0.49
1:B:817:ILE:HD11	1:B:828:LEU:HD22	1.94	0.49
1:B:1287:LEU:O	1:B:1290:THR:HG22	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:91:SER:HB3	1:C:1960:LEU:HD11	1.95	0.49
1:C:217:LEU:O	1:C:220:LEU:HB3	2.13	0.49
1:C:274:GLU:HG2	1:C:1492:GLN:HA	1.94	0.49
1:C:1169:ILE:HD12	1:C:1193:LYS:O	2.13	0.49
1:C:1415:TYR:HB2	1:C:1476:PHE:CE2	2.47	0.49
1:C:2438:GLN:HG2	1:C:2494:LEU:HD21	1.95	0.49
1:D:297:LEU:HD23	1:D:297:LEU:H	1.77	0.49
1:D:986:LEU:O	1:D:990:ILE:HG12	2.12	0.49
1:D:1162:PHE:CD1	1:D:1241:LEU:HD21	2.48	0.49
1:D:1678:PHE:CD1	1:D:1699:LEU:HG	2.47	0.49
1:D:2163:SER:OG	1:D:2195:VAL:HG12	2.11	0.49
1:E:129:LEU:HD21	1:E:1018:PHE:CZ	2.48	0.49
1:E:336:LYS:HB3	1:E:415:ILE:HG21	1.94	0.49
1:E:616:MET:O	1:E:620:LEU:HG	2.13	0.49
1:E:2163:SER:OG	1:E:2195:VAL:HG12	2.13	0.49
1:E:2262:GLN:O	1:E:2265:THR:HG22	2.13	0.49
1:E:2328:TRP:CE2	1:E:2334:GLY:HA3	2.47	0.49
1:E:2423:PHE:CZ	1:E:2502:ASN:HB2	2.48	0.49
1:A:783:VAL:HG22	1:A:832:ARG:HE	1.78	0.49
1:A:1644:MET:O	1:A:1648:ARG:HG2	2.13	0.49
1:C:310:ALA:HB1	1:C:330:TYR:O	2.13	0.49
1:C:360:ARG:HE	1:C:365:VAL:HG13	1.77	0.49
1:C:1276:MET:HB2	1:C:1280:ALA:HB3	1.95	0.49
1:D:30:PHE:HD1	1:D:50:TYR:HD1	1.60	0.49
1:D:76:SER:HB3	1:D:80:ARG:HE	1.77	0.49
1:D:2120:ARG:HA	1:D:2237:MET:CE	2.43	0.49
1:D:2217:ARG:O	1:D:2221:GLN:HG2	2.12	0.49
1:E:318:GLY:HA2	1:E:329:ALA:HA	1.95	0.49
1:E:331:LYS:O	1:E:436:PHE:HA	2.13	0.49
1:E:443:ILE:HA	1:E:446:LEU:HD12	1.95	0.49
1:E:1440:LEU:HD13	1:E:1482:ALA:HA	1.94	0.49
1:A:160:SER:HB3	1:A:982:LYS:NZ	2.28	0.49
1:A:437:GLU:HB2	1:A:439:TYR:HE2	1.77	0.49
1:B:1100:VAL:HB	1:B:1593:VAL:HG22	1.95	0.49
1:B:1436:ARG:HA	1:B:1487:ASN:HD21	1.78	0.49
1:B:1763:GLY:O	1:B:1769:ILE:HA	2.13	0.49
1:B:2230:ALA:O	1:B:2234:VAL:HG23	2.12	0.49
1:B:2322:PHE:HE2	1:B:2348:MET:HA	1.78	0.49
1:C:225:GLU:HB2	1:C:875:GLN:OE1	2.13	0.49
1:C:331:LYS:O	1:C:436:PHE:HA	2.12	0.49
1:C:334:ARG:HH21	1:C:342:LYS:HD3	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:412:GLY:HA3	1:C:434:PHE:HD2	1.78	0.49
1:C:1130:MET:HE3	1:C:1133:GLY:H	1.78	0.49
1:C:1678:PHE:CD1	1:C:1699:LEU:HG	2.48	0.49
1:D:1021:TRP:CH2	1:D:1025:ASN:HA	2.48	0.49
1:D:1431:ASN:HD22	1:D:1494:PHE:HZ	1.61	0.49
1:D:2335:LEU:C	1:D:2336:MET:HG3	2.33	0.49
1:E:628:THR:HA	1:E:631:LEU:HG	1.94	0.49
1:E:1316:PRO:HD2	1:E:1588:LEU:HD11	1.94	0.49
1:E:1691:ARG:HD3	1:E:1735:ASP:OD2	2.13	0.49
1:E:2056:ARG:HA	1:E:2059:ASN:ND2	2.27	0.49
1:E:2297:PHE:HA	1:E:2300:THR:HG22	1.95	0.49
1:A:247:TYR:CZ	1:A:251:THR:HG21	2.47	0.49
1:A:1197:LEU:HB2	1:A:1203:TRP:CH2	2.48	0.49
1:A:1229:ALA:HB3	1:A:1246:TYR:CZ	2.47	0.49
1:A:1457:SER:HB2	1:A:1458:PRO:HD3	1.95	0.49
1:A:2052:VAL:O	1:A:2055:GLU:HG2	2.12	0.49
1:B:657:THR:O	1:B:660:ILE:HG22	2.13	0.49
1:B:1095:ALA:HA	1:B:1108:TRP:O	2.12	0.49
1:D:356:GLN:O	1:D:402:SER:HA	2.12	0.49
1:D:357:PHE:HA	1:D:401:LEU:O	2.13	0.49
1:D:1191:THR:HG22	1:D:1193:LYS:HG3	1.94	0.49
1:D:1413:THR:OG1	1:D:1422:ILE:HG23	2.12	0.49
1:D:2230:ALA:O	1:D:2234:VAL:HG23	2.12	0.49
1:A:269:GLU:HG2	1:A:270:ASN:N	2.28	0.49
1:A:1639:ASP:HA	1:A:1832:TYR:HE2	1.77	0.49
1:A:1815:GLN:CG	1:A:1889:ARG:HH12	2.25	0.49
1:B:1169:ILE:HD12	1:B:1193:LYS:O	2.13	0.49
1:B:1509:ILE:HD13	1:B:1575:ALA:HA	1.95	0.49
1:B:1515:LYS:HG2	1:B:1572:GLU:HB3	1.94	0.49
1:C:336:LYS:HB2	1:C:431:GLY:C	2.33	0.49
1:C:864:LEU:HD12	1:C:870:ILE:HG13	1.95	0.49
1:C:1651:GLU:OE1	1:C:1652:PRO:HD2	2.13	0.49
1:D:2423:PHE:CE2	1:D:2502:ASN:HB2	2.47	0.49
1:E:68:PHE:CD1	1:E:1981:PRO:HB3	2.48	0.49
1:E:780:GLU:HA	1:E:828:LEU:HD21	1.94	0.49
1:E:1415:TYR:HE1	1:E:1417:LYS:HG2	1.78	0.49
1:E:1629:GLN:O	1:E:1633:ARG:HG2	2.13	0.49
1:E:1956:ASP:O	1:E:1960:LEU:HD23	2.13	0.49
1:E:2297:PHE:CE2	1:E:2328:TRP:HB2	2.47	0.49
1:A:1927:GLU:HB3	1:A:1991:TRP:CE2	2.47	0.48
1:B:345:ASN:OD1	1:B:362:ASN:HB2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1642:LEU:HD12	1:B:1832:TYR:CD2	2.48	0.48
1:B:2221:GLN:O	1:B:2225:ILE:HG12	2.12	0.48
1:B:2289:LEU:HD13	1:B:2292:ILE:HD11	1.95	0.48
1:C:452:ILE:HD12	1:C:455:CYS:SG	2.53	0.48
1:D:1169:ILE:HD12	1:D:1193:LYS:O	2.13	0.48
1:D:1229:ALA:HB3	1:D:1246:TYR:CZ	2.48	0.48
1:D:1898:GLY:HA3	1:D:1917:TYR:CE1	2.48	0.48
1:E:576:LYS:HG2	1:E:581:LEU:HD11	1.95	0.48
1:E:720:ALA:O	1:E:724:LEU:HG	2.12	0.48
1:E:1021:TRP:CH2	1:E:1025:ASN:HA	2.48	0.48
1:E:1265:MET:SD	1:E:1273:PHE:HB2	2.52	0.48
1:E:1457:SER:OG	1:E:1458:PRO:HD3	2.13	0.48
1:A:391:ILE:HG12	1:A:396:PHE:CZ	2.48	0.48
1:A:1172:GLU:HB2	1:A:1191:THR:HB	1.95	0.48
1:A:2056:ARG:HA	1:A:2059:ASN:HD21	1.77	0.48
1:B:1138:ASN:HB3	1:B:1862:ASN:ND2	2.28	0.48
1:C:347:PHE:HA	1:C:358:PHE:CE2	2.48	0.48
1:C:1927:GLU:HB3	1:C:1991:TRP:CD2	2.48	0.48
1:D:1409:GLY:HA3	1:D:1427:GLY:H	1.77	0.48
1:D:1932:GLY:HA2	1:D:1935:GLN:HE21	1.77	0.48
1:E:30:PHE:HE2	1:E:47:ARG:HA	1.78	0.48
1:E:216:THR:HG22	1:E:494:HIS:HB3	1.94	0.48
1:E:2049:ARG:HH21	1:E:2494:LEU:H	1.61	0.48
1:A:13:PRO:HD2	1:A:15:ARG:NH1	2.29	0.48
1:A:2484:PHE:CZ	1:E:2533:ARG:HD3	2.48	0.48
1:B:347:PHE:CD1	1:B:358:PHE:HZ	2.30	0.48
1:B:462:PRO:O	1:B:465:LEU:HG	2.13	0.48
1:B:1236:GLN:NE2	1:B:1308:ARG:HD3	2.28	0.48
1:C:181:SER:O	1:C:185:MET:HG2	2.13	0.48
1:C:1041:GLU:OE2	1:C:1881:HIS:HD2	1.96	0.48
1:C:1527:PHE:CD2	1:C:1551:LEU:HD13	2.48	0.48
1:C:2048:TYR:HA	1:C:2492:ARG:HA	1.95	0.48
1:D:129:LEU:HD11	1:D:1018:PHE:CE2	2.48	0.48
1:D:923:GLU:OE2	1:E:532:LEU:HD11	2.13	0.48
1:D:1197:LEU:HD12	1:D:1203:TRP:CZ2	2.48	0.48
1:D:1332:VAL:HG11	1:D:1362:ARG:HH21	1.78	0.48
1:D:1399:VAL:HA	1:D:1498:GLN:O	2.13	0.48
1:E:349:LEU:HB2	1:E:434:PHE:CZ	2.47	0.48
1:E:1351:ALA:HB1	1:E:1552:GLU:OE2	2.13	0.48
1:A:1532:HIS:HA	1:A:1549:LYS:HD2	1.95	0.48
1:A:1536:LEU:HD23	1:A:1536:LEU:H	1.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2049:ARG:HH21	1:A:2494:LEU:H	1.60	0.48
1:A:2100:ARG:NH2	1:A:2104:ARG:HH21	2.12	0.48
1:B:1838:GLY:HA3	1:C:1003:ARG:NH2	2.27	0.48
1:C:897:ARG:H	1:C:908:ASN:HB3	1.77	0.48
1:C:1158:ARG:HH11	1:C:1231:ALA:HA	1.77	0.48
1:C:1626:LEU:HD23	1:C:1626:LEU:H	1.79	0.48
1:C:2230:ALA:O	1:C:2234:VAL:HG23	2.13	0.48
1:D:357:PHE:CD2	1:D:397:LYS:HE3	2.48	0.48
1:D:1527:PHE:CD2	1:D:1551:LEU:HD13	2.48	0.48
1:D:2142:GLU:O	1:D:2146:MET:HG2	2.13	0.48
1:D:2328:TRP:CE2	1:D:2334:GLY:HA3	2.49	0.48
1:E:2359:ALA:HB1	1:E:2535:THR:HB	1.96	0.48
1:A:263:PHE:CE1	1:A:273:PRO:HD3	2.49	0.48
1:A:345:ASN:ND2	1:A:362:ASN:HB2	2.28	0.48
1:A:1626:LEU:HD23	1:A:1626:LEU:H	1.79	0.48
1:A:2186:GLY:HA2	1:A:2189:LEU:HD13	1.95	0.48
1:A:2198:LEU:HA	1:A:2201:THR:HG22	1.95	0.48
1:C:269:GLU:HG2	1:C:270:ASN:N	2.28	0.48
1:C:332:ILE:HG22	1:C:334:ARG:HD2	1.96	0.48
1:D:359:ILE:HD11	1:D:395:ASN:HD21	1.78	0.48
1:D:1369:VAL:O	1:D:1373:LYS:HB2	2.13	0.48
1:D:2451:GLU:OE1	1:D:2453:ILE:HG13	2.13	0.48
1:E:130:HIS:HA	1:E:1009:ARG:HG3	1.95	0.48
1:E:848:ASP:OD2	1:E:850:SER:HB2	2.14	0.48
1:E:887:PRO:HA	1:E:890:ILE:HG12	1.96	0.48
1:E:1200:ASP:O	1:E:1200:ASP:OD2	2.30	0.48
1:E:1675:GLU:OE1	1:E:1963:GLY:HA2	2.14	0.48
1:E:1677:TRP:HZ3	1:E:1679:LYS:HG3	1.78	0.48
1:A:271:ILE:HG23	1:A:281:TRP:HZ2	1.78	0.48
1:A:1078:LYS:HA	1:A:1078:LYS:HE3	1.96	0.48
1:A:1510:ASN:H	1:A:1513:ASP:HB2	1.79	0.48
1:A:2129:LYS:HA	1:A:2129:LYS:HD2	1.69	0.48
1:B:336:LYS:HE3	1:B:431:GLY:N	2.28	0.48
1:B:1438:LEU:HB2	1:B:1454:PHE:HB2	1.95	0.48
1:B:2443:LEU:HD12	1:B:2443:LEU:O	2.13	0.48
1:C:415:ILE:HD11	1:C:434:PHE:HD1	1.78	0.48
1:C:1059:LEU:HD12	1:C:1080:TYR:HB2	1.95	0.48
1:C:1082:THR:O	1:C:1085:GLU:HG3	2.13	0.48
1:C:1975:LEU:HG	1:C:1975:LEU:O	2.13	0.48
1:C:2250:ALA:O	1:C:2253:MET:HG2	2.13	0.48
1:D:416:TYR:HD1	1:D:431:GLY:HA3	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1125:VAL:HB	1:D:1140:TRP:CE3	2.47	0.48
1:D:2099:ILE:HD13	1:D:2258:GLN:HB3	1.96	0.48
1:E:117:GLY:O	1:E:120:THR:HG22	2.13	0.48
1:E:184:LEU:O	1:E:188:LEU:HG	2.13	0.48
1:E:676:ILE:HG12	1:E:758:VAL:HG12	1.96	0.48
1:E:1839:TYR:CZ	1:E:1851:ASN:HB2	2.49	0.48
1:A:236:LEU:HD12	1:A:487:PHE:HB2	1.96	0.48
1:A:501:ASP:O	1:A:504:GLN:HG3	2.13	0.48
1:A:545:SER:HB2	1:A:586:THR:HG22	1.95	0.48
1:A:845:MET:HB3	1:A:847:LEU:HD23	1.96	0.48
1:A:1076:ALA:O	1:A:1079:THR:HG22	2.13	0.48
1:B:1919:ARG:HG2	1:C:998:ASN:HD21	1.77	0.48
1:B:2436:LEU:HD12	1:B:2501:VAL:HA	1.95	0.48
1:D:1839:TYR:CE1	1:D:1851:ASN:HB2	2.48	0.48
1:D:2099:ILE:O	1:D:2103:GLN:HG2	2.13	0.48
1:E:272:THR:HG22	1:E:275:ASN:OD1	2.14	0.48
1:E:332:ILE:HG12	1:E:436:PHE:HD1	1.79	0.48
1:E:1361:VAL:O	1:E:1543:ALA:HA	2.14	0.48
1:E:1897:ARG:HD3	1:E:1916:TRP:CZ2	2.49	0.48
1:E:1934:GLN:H	1:E:1934:GLN:CD	2.17	0.48
1:E:2109:VAL:HG23	1:E:2247:ARG:HH21	1.78	0.48
1:E:2304:CYS:SG	1:E:2341:LEU:HD13	2.54	0.48
1:E:2308:GLN:NE2	1:E:2321:THR:HA	2.28	0.48
1:A:194:ALA:HB3	1:A:197:THR:HG23	1.95	0.48
1:A:336:LYS:HZ2	1:A:430:GLY:HA3	1.77	0.48
1:A:1415:TYR:HB2	1:A:1476:PHE:CE2	2.49	0.48
1:A:1439:ILE:HB	1:A:1483:VAL:HB	1.95	0.48
1:B:1331:THR:HG22	1:B:1332:VAL:H	1.79	0.48
1:B:1516:ILE:HD11	1:B:1569:ILE:HG23	1.96	0.48
1:B:2102:GLN:HB3	1:B:2254:GLN:HE22	1.79	0.48
1:C:200:HIS:O	1:C:203:TYR:HB3	2.13	0.48
1:C:2486:LEU:HD11	1:C:2488:PHE:CZ	2.49	0.48
1:D:269:GLU:HG2	1:D:270:ASN:N	2.28	0.48
1:D:1055:MET:HG3	1:D:1083:ARG:HD2	1.95	0.48
1:D:1304:LYS:HD3	1:D:1600:ILE:HD12	1.94	0.48
1:D:1681:HIS:NE2	1:D:1726:GLY:HA3	2.29	0.48
1:E:70:ARG:HD3	1:E:83:ILE:HD11	1.96	0.48
1:E:332:ILE:HG12	1:E:436:PHE:CD1	2.48	0.48
1:E:739:GLY:HA2	1:E:742:THR:HG22	1.96	0.48
1:E:1422:ILE:HG12	1:E:1468:VAL:CG2	2.41	0.48
1:E:1641:ILE:HG22	1:E:1642:LEU:HD23	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:278:SER:HB3	1:A:281:TRP:HB3	1.95	0.48
1:A:1123:ARG:HD2	1:A:1143:TRP:CZ2	2.49	0.48
1:A:1865:PRO:HA	1:A:1873:ALA:HB1	1.96	0.48
1:A:1897:ARG:HD3	1:A:1916:TRP:CZ2	2.48	0.48
1:A:2104:ARG:HD2	1:B:2246:ILE:HD11	1.96	0.48
1:B:2137:ASP:OD2	1:B:2138:ILE:HG13	2.14	0.48
1:B:2371:PHE:CE1	1:B:2420:LEU:HD23	2.48	0.48
1:C:13:PRO:HD2	1:C:15:ARG:NH1	2.28	0.48
1:C:66:ARG:O	1:C:70:ARG:HG2	2.14	0.48
1:C:197:THR:OG1	1:C:198:PRO:HA	2.14	0.48
1:C:404:ILE:HG21	1:C:414:LYS:HG2	1.96	0.48
1:C:1125:VAL:HB	1:C:1140:TRP:CE3	2.49	0.48
1:C:1422:ILE:CG2	1:C:1466:PHE:HB2	2.44	0.48
1:D:206:ILE:HD11	1:D:919:ALA:HA	1.95	0.48
1:D:848:ASP:OD2	1:D:850:SER:HB2	2.14	0.48
1:D:1363:TYR:OH	1:D:1507:THR:HG22	2.14	0.48
1:D:2071:LEU:HA	1:D:2074:MET:HE2	1.95	0.48
1:E:1167:HIS:HB3	1:E:1194:LEU:HD11	1.96	0.48
1:E:2048:TYR:HA	1:E:2492:ARG:HA	1.96	0.48
1:A:130:HIS:HA	1:A:1009:ARG:HG3	1.95	0.48
1:A:216:THR:HG22	1:A:494:HIS:HB3	1.94	0.48
1:A:349:LEU:HD11	1:A:404:ILE:HG22	1.96	0.48
1:A:1409:GLY:HA3	1:A:1427:GLY:H	1.78	0.48
1:A:2178:LEU:HD21	1:B:2179:ALA:HB2	1.96	0.48
1:B:501:ASP:O	1:B:504:GLN:HG2	2.13	0.48
1:B:1085:GLU:HG2	1:B:1627:ALA:HB1	1.96	0.48
1:B:1227:ARG:HH12	1:B:1229:ALA:HB2	1.79	0.48
1:B:2439:VAL:HG23	1:B:2532:ILE:HG13	1.96	0.48
1:B:2442:THR:HA	1:B:2477:GLY:O	2.13	0.48
1:C:468:ILE:HG22	1:C:482:VAL:HG13	1.95	0.48
1:C:1814:PHE:HE1	1:C:1893:GLN:NE2	2.11	0.48
1:C:1882:TYR:O	1:C:1886:THR:HG23	2.13	0.48
1:C:2049:ARG:HG2	1:C:2493:TYR:CE1	2.48	0.48
1:C:2297:PHE:HA	1:C:2300:THR:HG22	1.95	0.48
1:D:522:HIS:HA	1:D:525:ARG:NH1	2.29	0.48
1:D:1831:ASN:HA	1:D:1834:TYR:O	2.14	0.48
1:D:2056:ARG:HA	1:D:2059:ASN:ND2	2.29	0.48
1:E:269:GLU:HG2	1:E:270:ASN:N	2.29	0.48
1:E:2241:LEU:O	1:E:2245:LYS:HG3	2.13	0.48
1:A:68:PHE:CD2	1:A:1981:PRO:HB3	2.49	0.47
1:A:1117:LEU:HD12	1:C:2164:ILE:HG23	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2129:LYS:HG2	1:B:2225:ILE:HD11	1.96	0.47
1:A:2297:PHE:HA	1:A:2300:THR:HG22	1.95	0.47
1:B:1970:ARG:NH1	1:B:1971:THR:H	2.12	0.47
1:B:2322:PHE:CE2	1:B:2348:MET:HA	2.49	0.47
1:C:784:LEU:HB3	1:C:789:PHE:CE2	2.48	0.47
1:C:1487:ASN:H	1:C:1489:GLN:HE22	1.62	0.47
1:C:1487:ASN:H	1:C:1489:GLN:NE2	2.11	0.47
1:D:404:ILE:HG13	1:D:414:LYS:CD	2.44	0.47
1:D:1651:GLU:OE1	1:D:1652:PRO:HD2	2.13	0.47
1:D:1967:LYS:HG3	1:D:1968:ASN:N	2.29	0.47
1:D:1998:LEU:HD11	1:D:2002:ARG:NH1	2.29	0.47
1:E:547:ASP:HB3	1:E:550:GLU:HB2	1.95	0.47
1:E:689:GLU:HA	1:E:692:ALA:HB3	1.96	0.47
1:A:2100:ARG:HH21	1:A:2104:ARG:HH21	1.62	0.47
1:A:2174:ASN:ND2	1:B:2182:GLY:HA2	2.29	0.47
1:B:126:ALA:HB2	1:B:997:ILE:HD11	1.94	0.47
1:B:350:MET:CE	1:B:359:ILE:HA	2.44	0.47
1:B:2409:ARG:HH21	1:B:2515:THR:HG21	1.78	0.47
1:C:601:THR:O	1:C:605:ARG:HG2	2.14	0.47
1:C:848:ASP:OD2	1:C:850:SER:HB2	2.14	0.47
1:C:2132:GLN:O	1:C:2136:GLU:HG2	2.14	0.47
1:D:439:TYR:HB2	1:D:444:PHE:CE1	2.49	0.47
1:D:1447:TYR:HB2	1:D:1491:PHE:CE1	2.48	0.47
1:E:930:GLN:O	1:E:934:LEU:HD23	2.15	0.47
1:E:1226:GLU:HG3	1:E:1247:LYS:HD2	1.95	0.47
1:E:1516:ILE:HD11	1:E:1569:ILE:CG2	2.44	0.47
1:E:1915:MET:O	1:E:1919:ARG:HG3	2.13	0.47
1:A:137:HIS:CD2	1:A:139:ASP:HB2	2.50	0.47
1:A:1288:LYS:HA	1:A:1291:PHE:HE1	1.77	0.47
1:B:845:MET:HB3	1:B:847:LEU:HD13	1.97	0.47
1:B:2174:ASN:HA	1:C:2185:TRP:HE1	1.79	0.47
1:B:2251:ALA:O	1:B:2254:GLN:HG3	2.15	0.47
1:C:910:PRO:HD2	1:C:915:TRP:NE1	2.29	0.47
1:C:1635:ASN:OD1	1:C:1636:THR:HG23	2.14	0.47
1:C:1960:LEU:HD12	1:C:1960:LEU:HA	1.74	0.47
1:D:38:ASP:OD1	1:D:1585:LYS:HE3	2.14	0.47
1:D:2530:LEU:HB3	1:D:2532:ILE:HD11	1.96	0.47
1:E:1450:ARG:HD3	1:E:1452:PHE:O	2.13	0.47
1:E:1714:ALA:HB3	1:E:1717:TYR:CD2	2.50	0.47
1:E:2124:GLN:O	1:E:2127:LEU:HB3	2.14	0.47
1:A:126:ALA:HB2	1:A:997:ILE:HD11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:657:THR:O	1:A:660:ILE:HG22	2.14	0.47
1:A:2360:LEU:HD11	1:B:2472:ILE:HA	1.96	0.47
1:B:1422:ILE:HG12	1:B:1468:VAL:CG2	2.42	0.47
1:B:1846:ALA:HB1	1:B:1848:TRP:CE2	2.49	0.47
1:B:2350:LYS:HD3	1:C:2299:LEU:CD1	2.44	0.47
1:C:27:TYR:HB3	1:C:28:LEU:HD22	1.95	0.47
1:C:2459:TYR:CZ	1:C:2461:GLY:HA3	2.49	0.47
1:D:247:TYR:CZ	1:D:251:THR:HG21	2.49	0.47
1:D:274:GLU:HB3	1:D:1405:TYR:CE1	2.44	0.47
1:D:335:VAL:H	1:D:433:ILE:HG22	1.78	0.47
1:D:2095:ALA:O	1:D:2099:ILE:HG12	2.14	0.47
1:E:373:LEU:HG	1:E:381:GLY:O	2.15	0.47
1:E:498:LEU:HD13	1:E:502:ASP:HB3	1.96	0.47
1:E:968:TYR:HD1	1:E:974:ASP:HA	1.78	0.47
1:E:1766:GLN:NE2	1:E:1767:GLN:HB2	2.29	0.47
1:A:233:ALA:HB1	1:A:898:TYR:HB3	1.97	0.47
1:A:336:LYS:HD2	1:A:431:GLY:N	2.29	0.47
1:A:468:ILE:HD11	1:A:500:PHE:CZ	2.44	0.47
1:B:350:MET:CE	1:B:359:ILE:HG13	2.39	0.47
1:B:841:LEU:O	1:B:845:MET:HG2	2.14	0.47
1:B:1122:TRP:HB3	1:B:1146:ILE:HD11	1.97	0.47
1:B:1241:LEU:HB2	1:B:1267:ILE:CG2	2.44	0.47
1:B:2088:LEU:HB3	1:B:2269:LEU:HD12	1.96	0.47
1:C:2056:ARG:HA	1:C:2059:ASN:HD21	1.78	0.47
1:D:25:LEU:HA	1:D:27:TYR:HB2	1.96	0.47
1:D:27:TYR:CD2	1:D:28:LEU:HD22	2.49	0.47
1:D:250:LEU:HD11	1:D:454:LEU:HB3	1.95	0.47
1:D:2393:GLY:O	1:D:2406:LEU:HD22	2.15	0.47
1:E:791:VAL:HB	1:E:831:LEU:HD21	1.96	0.47
1:E:2230:ALA:O	1:E:2234:VAL:HG23	2.13	0.47
1:A:371:ALA:HA	1:A:382:ILE:HG23	1.97	0.47
1:A:948:ASN:O	1:A:951:LEU:HG	2.15	0.47
1:A:1325:ILE:HA	1:A:1332:VAL:HG12	1.97	0.47
1:B:312:VAL:HG22	1:B:313:ASP:H	1.80	0.47
1:B:363:PHE:CZ	1:B:393:ASN:HA	2.49	0.47
1:C:1895:ILE:HD11	1:C:1994:LEU:HD11	1.95	0.47
1:D:86:ASP:OD1	1:D:88:VAL:HG12	2.15	0.47
1:D:972:LEU:HD12	1:D:992:GLY:O	2.14	0.47
1:D:2339:GLU:HA	1:D:2342:LEU:HD12	1.96	0.47
1:E:192:ARG:NH1	1:E:265:GLN:HB3	2.29	0.47
1:E:328:GLU:HB2	1:E:330:TYR:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1523:LYS:NZ	1:E:1557:SER:H	2.12	0.47
1:A:360:ARG:NH1	1:A:365:VAL:HA	2.29	0.47
1:A:639:LEU:HG	1:A:643:LEU:HD23	1.97	0.47
1:A:1125:VAL:HB	1:A:1140:TRP:CE3	2.50	0.47
1:A:1534:ALA:HB2	1:A:1548:PHE:C	2.35	0.47
1:A:1997:ARG:NH1	1:A:2007:ILE:HD11	2.30	0.47
1:A:2353:LEU:HD23	1:A:2353:LEU:HA	1.71	0.47
1:B:91:SER:HB3	1:B:1960:LEU:HD11	1.95	0.47
1:B:246:LEU:HD23	1:B:249:ILE:HD11	1.97	0.47
1:B:664:CYS:SG	1:B:803:ASN:HA	2.55	0.47
1:B:743:LEU:O	1:B:746:LYS:HB2	2.14	0.47
1:B:836:LEU:HD11	1:B:841:LEU:HD13	1.97	0.47
1:B:1096:TYR:HD1	1:B:1306:SER:HB2	1.80	0.47
1:B:1516:ILE:HD12	1:B:1570:VAL:O	2.15	0.47
1:B:1639:ASP:HA	1:B:1832:TYR:CE2	2.50	0.47
1:C:224:PRO:O	1:C:227:MET:HB2	2.14	0.47
1:C:334:ARG:NH2	1:C:342:LYS:HD3	2.30	0.47
1:C:344:ILE:HD11	1:C:429:GLN:HB3	1.96	0.47
1:C:374:ARG:HG3	1:C:380:SER:HB3	1.96	0.47
1:C:830:MET:HB2	1:C:835:THR:HG23	1.97	0.47
1:C:1096:TYR:HD1	1:C:1306:SER:HB2	1.79	0.47
1:C:1123:ARG:HD2	1:C:1143:TRP:CZ2	2.49	0.47
1:C:1588:LEU:HD12	1:C:1589:SER:H	1.79	0.47
1:C:1720:HIS:ND1	1:C:1721:GLU:HG2	2.29	0.47
1:D:126:ALA:HB2	1:D:997:ILE:HD11	1.97	0.47
1:D:570:GLU:O	1:D:574:LEU:HD23	2.14	0.47
1:D:742:THR:O	1:D:746:LYS:HG2	2.14	0.47
1:D:901:ALA:O	1:D:902:LEU:HB2	2.14	0.47
1:D:1975:LEU:O	1:D:1975:LEU:HG	2.15	0.47
1:D:2051:PRO:O	1:D:2054:LEU:HB2	2.14	0.47
1:D:2500:SER:HB3	1:D:2503:ASP:HB2	1.95	0.47
1:E:1235:PHE:HB3	1:E:1240:THR:HG22	1.96	0.47
1:E:2233:GLU:HA	1:E:2233:GLU:OE1	2.15	0.47
1:E:2410:GLN:HE22	1:E:2512:PRO:HG3	1.79	0.47
1:A:684:ARG:HG2	1:A:745:LEU:HA	1.96	0.47
1:A:2066:GLN:HA	1:A:2069:THR:HG22	1.97	0.47
1:A:2191:ALA:O	1:A:2195:VAL:HG13	2.15	0.47
1:A:2272:LEU:HD21	1:E:2083:LEU:CD1	2.43	0.47
1:A:2516:ASP:N	1:A:2519:LYS:HB2	2.27	0.47
1:B:158:GLU:HG3	1:B:982:LYS:CG	2.41	0.47
1:B:347:PHE:HA	1:B:358:PHE:CZ	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1132:ALA:HB1	1:B:1618:TYR:CZ	2.50	0.47
1:C:580:VAL:O	1:C:587:ILE:HD13	2.14	0.47
1:D:267:PHE:HB3	1:D:271:ILE:HB	1.96	0.47
1:D:1288:LYS:HA	1:D:1291:PHE:CD2	2.49	0.47
1:E:356:GLN:HE22	1:E:406:ASP:HA	1.79	0.47
1:E:501:ASP:O	1:E:504:GLN:HG2	2.15	0.47
1:E:969:SER:O	1:E:972:LEU:HD22	2.14	0.47
1:E:2253:MET:HA	1:E:2256:GLU:HG3	1.95	0.47
1:A:27:TYR:CD2	1:A:28:LEU:HD22	2.50	0.47
1:A:127:LYS:HB3	1:A:127:LYS:HE2	1.77	0.47
1:A:331:LYS:HB2	1:A:437:GLU:CD	2.36	0.47
1:A:1678:PHE:CD1	1:A:1699:LEU:HG	2.50	0.47
1:A:1967:LYS:HG3	1:A:1968:ASN:N	2.30	0.47
1:B:2284:TRP:HZ3	1:C:711:THR:HG22	1.80	0.47
1:B:2472:ILE:HG13	1:B:2473:ALA:H	1.79	0.47
1:C:545:SER:HB2	1:C:586:THR:HG22	1.96	0.47
1:C:712:LEU:CD2	1:C:714:LEU:HB2	2.45	0.47
1:C:2328:TRP:CE3	1:C:2334:GLY:HA3	2.50	0.47
1:C:2442:THR:HB	1:C:2529:ILE:HB	1.96	0.47
1:C:2458:ASN:O	1:C:2507:LEU:HD12	2.15	0.47
1:C:2515:THR:H	1:C:2516:ASP:CB	2.16	0.47
1:D:199:TYR:CD1	1:D:945:VAL:HG21	2.50	0.47
1:D:1516:ILE:HD12	1:D:1570:VAL:O	2.14	0.47
1:E:219:ALA:HB1	1:E:222:ARG:HH21	1.80	0.47
1:E:346:TYR:HD2	1:E:348:ASP:OD2	1.98	0.47
1:E:495:ARG:HE	1:E:496:TYR:HE1	1.63	0.47
1:E:1169:ILE:HD12	1:E:1193:LYS:O	2.15	0.47
1:E:1523:LYS:HE2	1:E:1556:SER:H	1.80	0.47
1:A:296:TYR:CZ	1:A:462:PRO:HG3	2.50	0.47
1:A:332:ILE:HA	1:A:435:THR:O	2.15	0.47
1:A:464:GLU:O	1:A:467:THR:HG22	2.14	0.47
1:A:1516:ILE:HD12	1:A:1570:VAL:O	2.15	0.47
1:A:1572:GLU:OE2	1:A:1574:LYS:HB3	2.15	0.47
1:A:1902:TYR:CD1	1:A:2007:ILE:HD13	2.50	0.47
1:A:2335:LEU:O	1:A:2336:MET:HG3	2.15	0.47
1:B:324:GLU:HB3	1:B:351:TYR:CD2	2.50	0.47
1:C:350:MET:HE2	1:C:436:PHE:CE2	2.50	0.47
1:C:1648:ARG:HA	1:C:1853:ARG:NH1	2.30	0.47
1:C:1743:PHE:HE2	1:C:1784:ILE:HG12	1.79	0.47
1:C:2090:GLN:OE1	1:D:2264:HIS:HD2	1.98	0.47
1:D:451:ALA:O	1:D:454:LEU:HG	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:473:ASN:HD21	1:D:477:ILE:HG12	1.80	0.47
1:D:2102:GLN:HB3	1:D:2254:GLN:HE22	1.79	0.47
1:E:286:TYR:HB3	1:E:288:LEU:HD23	1.97	0.47
1:E:1078:LYS:HA	1:E:1078:LYS:HE3	1.96	0.47
1:A:95:MET:HG3	1:A:96:PHE:CD2	2.50	0.46
1:B:68:PHE:CD2	1:B:1981:PRO:HB3	2.49	0.46
1:B:111:SER:HB3	1:B:114:SER:HB3	1.97	0.46
1:B:172:HIS:HA	1:B:175:ARG:NH1	2.30	0.46
1:B:328:GLU:HA	1:B:439:TYR:O	2.15	0.46
1:B:1411:PRO:HA	1:B:1425:VAL:O	2.16	0.46
1:B:2059:ASN:OD1	1:B:2060:LEU:HD12	2.15	0.46
1:B:2353:LEU:HA	1:B:2353:LEU:HD23	1.72	0.46
1:B:2436:LEU:HB2	1:B:2499:ILE:HG13	1.97	0.46
1:C:247:TYR:CZ	1:C:251:THR:HG21	2.50	0.46
1:C:1041:GLU:O	1:C:1044:ILE:HG22	2.15	0.46
1:D:1443:VAL:HG13	1:D:1446:ASN:H	1.81	0.46
1:D:1742:PHE:HB2	1:D:1756:ASN:ND2	2.30	0.46
1:D:2111:ALA:O	1:D:2115:VAL:HG23	2.14	0.46
1:E:356:GLN:NE2	1:E:409:TYR:HD1	2.13	0.46
1:E:660:ILE:HA	1:E:663:LEU:HD12	1.97	0.46
1:E:1041:GLU:OE2	1:E:1881:HIS:HD2	1.98	0.46
1:E:1083:ARG:HA	1:E:1086:THR:HG22	1.96	0.46
1:E:1743:PHE:HE2	1:E:1784:ILE:HG12	1.80	0.46
1:A:169:LEU:HD23	1:A:169:LEU:HA	1.73	0.46
1:A:268:SER:HB2	1:A:271:ILE:HG13	1.97	0.46
1:A:833:GLN:CD	1:A:834:GLN:H	2.17	0.46
1:A:1169:ILE:HD12	1:A:1193:LYS:O	2.16	0.46
1:A:1170:TRP:HE1	1:A:1193:LYS:HD3	1.79	0.46
1:A:2434:ARG:HB3	1:A:2536:ILE:HG22	1.95	0.46
1:B:195:ILE:HA	1:B:453:ARG:NH2	2.30	0.46
1:B:334:ARG:HH12	1:B:336:LYS:HB3	1.80	0.46
1:B:1645:GLU:HG2	1:B:1646:THR:N	2.31	0.46
1:B:1677:TRP:HZ3	1:B:1679:LYS:HB2	1.81	0.46
1:B:1907:ARG:O	1:B:1910:LEU:HB3	2.15	0.46
1:B:2533:ARG:HD3	1:C:2484:PHE:CE1	2.50	0.46
1:C:15:ARG:HD3	1:C:15:ARG:N	2.29	0.46
1:C:194:ALA:O	1:C:197:THR:HG22	2.15	0.46
1:C:580:VAL:HG21	1:C:593:VAL:HG23	1.97	0.46
1:C:697:ARG:HA	1:C:700:GLN:OE1	2.14	0.46
1:C:1570:VAL:HG22	1:C:1585:LYS:HG2	1.96	0.46
1:C:2161:VAL:HG23	1:C:2162:LEU:HD22	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:310:ALA:CB	1:D:317:THR:HB	2.45	0.46
1:D:1163:ARG:O	1:D:1164:GLU:HG3	2.15	0.46
1:E:742:THR:O	1:E:746:LYS:HG2	2.15	0.46
1:E:1410:GLY:HA3	1:E:1497:TYR:CE2	2.46	0.46
1:E:1644:MET:HG3	1:E:1848:TRP:CE2	2.50	0.46
1:E:1725:LEU:HD23	1:E:1725:LEU:HA	1.77	0.46
1:E:2198:LEU:O	1:E:2201:THR:HG22	2.15	0.46
1:A:1156:ALA:HB3	1:A:1171:VAL:HG22	1.96	0.46
1:A:1647:GLN:HG2	1:A:1806:PHE:CE2	2.51	0.46
1:B:66:ARG:HG3	1:B:70:ARG:NH1	2.30	0.46
1:B:720:ALA:O	1:B:724:LEU:HG	2.15	0.46
1:B:2209:LYS:HB3	1:B:2209:LYS:HE3	1.52	0.46
1:C:319:LEU:HB2	1:C:330:TYR:CE1	2.51	0.46
1:C:523:PHE:HZ	1:C:538:GLU:HB2	1.80	0.46
1:C:2284:TRP:HB3	1:C:2288:LYS:NZ	2.30	0.46
1:D:360:ARG:HH21	1:D:366:SER:HB2	1.80	0.46
1:D:1644:MET:O	1:D:1648:ARG:HG2	2.16	0.46
1:D:2149:LEU:HD12	1:D:2149:LEU:HA	1.76	0.46
1:D:2178:LEU:HD21	1:E:2178:LEU:HD13	1.97	0.46
1:E:348:ASP:HB2	1:E:359:ILE:HG21	1.96	0.46
1:E:1268:TYR:HE1	1:E:1274:LYS:HD3	1.80	0.46
1:E:1678:PHE:CD1	1:E:1699:LEU:HG	2.50	0.46
1:E:2198:LEU:HA	1:E:2201:THR:HG22	1.97	0.46
1:A:235:LEU:HD23	1:A:487:PHE:HZ	1.80	0.46
1:A:779:ALA:HB3	1:E:2031:VAL:HG12	1.98	0.46
1:A:1333:MET:HE1	1:A:1582:GLY:HA3	1.97	0.46
1:A:1975:LEU:O	1:A:1975:LEU:HG	2.15	0.46
1:B:1092:VAL:HG12	1:B:1611:GLN:OE1	2.16	0.46
1:B:1131:GLN:HB2	1:B:1134:GLU:HG2	1.98	0.46
1:C:130:HIS:HA	1:C:1009:ARG:HG3	1.97	0.46
1:C:1276:MET:SD	1:C:1276:MET:N	2.88	0.46
1:C:1953:TYR:CE2	1:C:1957:LEU:HD11	2.50	0.46
1:D:8:LEU:HD11	1:D:20:MET:O	2.16	0.46
1:D:721:ARG:O	1:D:725:LEU:HG	2.16	0.46
1:D:2314:GLU:OE1	1:D:2315:LEU:HG	2.15	0.46
1:E:243:SER:H	1:E:246:LEU:HD12	1.79	0.46
1:A:67:ILE:HD12	1:A:67:ILE:HA	1.83	0.46
1:A:566:VAL:HG22	1:A:567:ASN:O	2.15	0.46
1:A:692:ALA:HB2	1:A:741:MET:HE2	1.98	0.46
1:A:899:VAL:HG22	1:A:902:LEU:O	2.16	0.46
1:A:1648:ARG:HA	1:A:1853:ARG:NH1	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1821:LYS:HE3	1:A:1823:PHE:CZ	2.51	0.46
1:A:2366:VAL:HA	1:B:2450:TYR:HE2	1.80	0.46
1:B:984:THR:HG23	1:B:987:ALA:H	1.80	0.46
1:B:1439:ILE:HB	1:B:1483:VAL:HB	1.97	0.46
1:B:2410:GLN:HG3	1:B:2512:PRO:HA	1.96	0.46
1:C:11:ILE:HA	1:C:40:GLN:OE1	2.15	0.46
1:C:460:LEU:HD21	1:C:468:ILE:HD12	1.98	0.46
1:C:1192:LEU:HB2	1:C:1211:ILE:HD13	1.98	0.46
1:C:1381:THR:HG21	1:C:1386:LYS:HA	1.98	0.46
1:C:1472:LYS:HB3	1:C:1475:ASP:HB3	1.96	0.46
1:C:2063:GLN:O	1:C:2066:GLN:HG3	2.16	0.46
1:D:596:SER:HA	1:D:599:ARG:HG2	1.97	0.46
1:D:1457:SER:HB3	1:D:1458:PRO:HD3	1.96	0.46
1:A:226:VAL:HG12	1:A:876:TRP:CD1	2.51	0.46
1:A:468:ILE:HG22	1:A:482:VAL:HG13	1.97	0.46
1:A:1059:LEU:HD12	1:A:1080:TYR:CB	2.46	0.46
1:A:1064:SER:OG	1:C:2210:ILE:HD13	2.16	0.46
1:A:1453:GLU:O	1:A:1453:GLU:HG2	2.16	0.46
1:A:1729:TYR:HB2	1:A:1732:ILE:HG23	1.97	0.46
1:A:1838:GLY:HA3	1:B:1003:ARG:NH2	2.31	0.46
1:B:722:TYR:HD1	1:B:725:LEU:HD12	1.79	0.46
1:C:336:LYS:HD3	1:C:415:ILE:HG22	1.97	0.46
1:C:1601:LEU:HD23	1:C:1601:LEU:H	1.80	0.46
1:C:1666:LYS:N	1:C:1704:GLU:HG3	2.31	0.46
1:C:2075:ALA:HA	1:C:2286:ARG:HH21	1.81	0.46
1:C:2400:SER:C	1:C:2416:ARG:HH21	2.19	0.46
1:D:207:ARG:HH21	1:D:240:ALA:HA	1.80	0.46
1:D:415:ILE:HD11	1:D:434:PHE:HD1	1.80	0.46
1:D:1082:THR:O	1:D:1085:GLU:HG3	2.16	0.46
1:D:1130:MET:HE3	1:D:1133:GLY:H	1.81	0.46
1:D:1162:PHE:CD2	1:D:1241:LEU:HD21	2.50	0.46
1:D:1389:TYR:HA	1:D:1541:PHE:CZ	2.50	0.46
1:D:1431:ASN:ND2	1:D:1434:TYR:HB2	2.30	0.46
1:D:1891:LEU:HD11	1:D:1990:TYR:CD2	2.51	0.46
1:D:2242:GLU:O	1:D:2246:ILE:HG22	2.16	0.46
1:E:169:LEU:O	1:E:173:ILE:HG12	2.16	0.46
1:E:450:LYS:HA	1:E:453:ARG:CZ	2.46	0.46
1:E:1409:GLY:HA3	1:E:1427:GLY:CA	2.45	0.46
1:E:2483:GLN:NE2	1:E:2495:PRO:HG2	2.31	0.46
1:A:330:TYR:CD2	1:A:436:PHE:HE2	2.33	0.46
1:A:1574:LYS:HA	1:A:1581:LEU:H	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2249:GLU:O	1:A:2253:MET:HG2	2.16	0.46
1:B:1234:GLY:O	1:B:1308:ARG:HG3	2.15	0.46
1:C:192:ARG:NH1	1:C:265:GLN:HG2	2.30	0.46
1:C:309:SER:HA	1:C:311:TYR:CE2	2.51	0.46
1:C:349:LEU:HD22	1:C:409:TYR:HD1	1.81	0.46
1:D:32:GLU:HB3	1:D:1011:ASP:HB2	1.96	0.46
1:D:775:ARG:HD3	1:D:775:ARG:HA	1.64	0.46
1:D:820:LEU:HB3	1:D:824:GLY:HA3	1.98	0.46
1:D:1288:LYS:HA	1:D:1291:PHE:CE2	2.51	0.46
1:D:1675:GLU:OE1	1:D:1963:GLY:HA2	2.16	0.46
1:E:247:TYR:HB2	1:E:898:TYR:OH	2.16	0.46
1:E:414:LYS:H	1:E:434:PHE:HB3	1.80	0.46
1:E:871:ASN:HA	1:E:874:LEU:HD12	1.98	0.46
1:E:1235:PHE:HB2	1:E:1242:LEU:HD11	1.98	0.46
1:E:1975:LEU:HG	1:E:1975:LEU:O	2.16	0.46
1:E:2064:LEU:HD12	1:E:2296:PHE:HD2	1.80	0.46
1:A:350:MET:HG3	1:A:359:ILE:HG13	1.98	0.46
1:A:742:THR:O	1:A:746:LYS:HG2	2.16	0.46
1:A:1026:ARG:CZ	1:A:1029:THR:HG21	2.45	0.46
1:A:1420:ASN:HB3	1:A:1468:VAL:HB	1.97	0.46
1:B:173:ILE:HD12	1:B:949:TRP:CZ3	2.51	0.46
1:B:350:MET:HB3	1:B:351:TYR:H	1.45	0.46
1:B:740:PHE:CD1	1:B:757:LEU:HD11	2.51	0.46
1:B:760:PHE:O	1:B:763:VAL:HG22	2.16	0.46
1:B:1725:LEU:HA	1:B:1725:LEU:HD23	1.77	0.46
1:B:2469:CYS:CB	1:B:2495:PRO:HA	2.45	0.46
1:B:2529:ILE:HD12	1:C:2450:TYR:HE1	1.81	0.46
1:C:290:LEU:HA	1:C:293:VAL:HG22	1.98	0.46
1:C:628:THR:HA	1:C:631:LEU:HG	1.96	0.46
1:C:1068:LEU:HD12	1:C:1073:VAL:HG22	1.97	0.46
1:D:436:PHE:HE2	1:D:438:SER:HB3	1.81	0.46
1:D:1068:LEU:HD23	1:D:1820:GLU:OE2	2.16	0.46
1:D:1456:PHE:CZ	1:D:1461:ILE:HD12	2.51	0.46
1:D:1481:TYR:HD1	1:D:1498:GLN:HE22	1.64	0.46
1:E:642:TRP:O	1:E:645:GLN:HG2	2.16	0.46
1:E:2048:TYR:CD2	1:E:2052:VAL:HG11	2.50	0.46
1:E:2222:GLU:O	1:E:2225:ILE:HG12	2.16	0.46
1:E:2513:ASP:HB3	1:E:2517:ARG:HG2	1.97	0.46
1:A:297:LEU:HD12	1:A:316:SER:HB2	1.97	0.46
1:A:613:GLU:HG3	1:A:657:THR:HG23	1.98	0.46
1:A:2116:LEU:HD12	1:A:2116:LEU:HA	1.77	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1150:VAL:HG13	1:B:1170:TRP:CE2	2.51	0.46
1:B:1678:PHE:CD1	1:B:1699:LEU:HG	2.50	0.46
1:C:2284:TRP:HB3	1:C:2288:LYS:HZ1	1.81	0.46
1:D:1532:HIS:O	1:D:1548:PHE:HB3	2.16	0.46
1:E:513:GLN:HA	1:E:523:PHE:HB2	1.96	0.46
1:E:623:PHE:CD2	1:E:639:LEU:HD13	2.51	0.46
1:E:1810:PRO:HA	1:E:1829:TRP:HE1	1.81	0.46
1:A:119:LEU:HB2	1:A:990:ILE:HD11	1.98	0.46
1:A:130:HIS:CD2	1:A:1008:ALA:HA	2.51	0.46
1:A:330:TYR:HA	1:A:437:GLU:O	2.16	0.46
1:A:830:MET:HB2	1:A:835:THR:HG23	1.98	0.46
1:A:1162:PHE:CD2	1:A:1241:LEU:HD21	2.50	0.46
1:A:1162:PHE:CD2	1:A:1163:ARG:HG2	2.51	0.46
1:A:1651:GLU:OE1	1:A:1652:PRO:HD2	2.16	0.46
1:B:468:ILE:HD12	1:B:486:VAL:HG22	1.98	0.46
1:B:1476:PHE:HA	1:B:1479:CYS:SG	2.56	0.46
1:C:336:LYS:O	1:C:339:ASP:HB2	2.15	0.46
1:C:1439:ILE:HG23	1:C:1450:ARG:CG	2.46	0.46
1:C:2058:ARG:O	1:C:2061:VAL:HG12	2.16	0.46
1:D:916:GLN:HG2	1:D:920:GLU:OE2	2.15	0.46
1:D:953:ASN:HB3	1:D:954:ILE:HD12	1.97	0.46
1:D:1400:LYS:O	1:D:1497:TYR:HA	2.16	0.46
1:E:1852:CYS:HB3	1:E:1855:LEU:HD12	1.98	0.46
1:A:27:TYR:HD2	1:A:28:LEU:HD22	1.81	0.45
1:A:137:HIS:HB3	1:A:140:ASN:HB2	1.98	0.45
1:A:224:PRO:HA	1:A:227:MET:HB2	1.98	0.45
1:A:353:GLY:HA3	1:A:397:LYS:HD2	1.98	0.45
1:B:547:ASP:HB3	1:B:550:GLU:HB2	1.98	0.45
1:B:1080:TYR:CZ	1:B:1809:THR:HG21	2.51	0.45
1:C:360:ARG:NE	1:C:365:VAL:HG13	2.30	0.45
1:C:373:LEU:HD12	1:C:416:TYR:CE2	2.51	0.45
1:C:1316:PRO:HD2	1:C:1588:LEU:HD11	1.98	0.45
1:C:2322:PHE:HA	1:C:2324:ARG:HH11	1.81	0.45
1:D:358:PHE:CE1	1:D:414:LYS:O	2.68	0.45
1:D:1662:PHE:HB2	1:D:1707:MET:SD	2.56	0.45
1:E:600:LEU:HD11	1:E:628:THR:HG21	1.98	0.45
1:A:1060:LEU:HA	1:A:1063:ILE:HG12	1.98	0.45
1:A:2213:SER:OG	1:D:1066:SER:HB3	2.16	0.45
1:A:2225:ILE:HG22	1:E:2129:LYS:HG2	1.97	0.45
1:B:194:ALA:HB1	1:B:948:ASN:OD1	2.17	0.45
1:B:200:HIS:HB3	1:B:203:TYR:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:776:LEU:HD12	1:B:780:GLU:HG3	1.98	0.45
1:B:1722:GLY:H	1:B:1766:GLN:CG	2.24	0.45
1:C:14:THR:HA	1:C:20:MET:HE2	1.98	0.45
1:C:30:PHE:O	1:C:33:LEU:HB3	2.16	0.45
1:C:195:ILE:HG21	1:C:285:TYR:O	2.16	0.45
1:C:209:VAL:HA	1:C:212:THR:HG22	1.98	0.45
1:C:712:LEU:HD23	1:C:714:LEU:HB2	1.98	0.45
1:C:1173:LYS:O	1:C:1173:LYS:HG3	2.16	0.45
1:C:2241:LEU:HD23	1:C:2245:LYS:HD2	1.98	0.45
1:D:327:LEU:HD12	1:D:327:LEU:O	2.15	0.45
1:D:387:SER:H	1:D:399:ASN:HB2	1.80	0.45
1:D:576:LYS:HG2	1:D:581:LEU:HD11	1.97	0.45
1:D:902:LEU:HB3	1:D:903:ASN:H	1.61	0.45
1:D:2101:ILE:O	1:D:2105:THR:HG23	2.16	0.45
1:D:2469:CYS:CB	1:D:2495:PRO:HA	2.43	0.45
1:E:225:GLU:HB2	1:E:875:GLN:OE1	2.17	0.45
1:E:708:ILE:O	1:E:712:LEU:HB3	2.16	0.45
1:E:736:ASP:HB3	1:E:739:GLY:H	1.81	0.45
1:A:225:GLU:HB2	1:A:875:GLN:OE1	2.16	0.45
1:A:346:TYR:CE1	1:A:360:ARG:HD3	2.51	0.45
1:B:130:HIS:HA	1:B:1009:ARG:HG3	1.99	0.45
1:B:201:GLN:O	1:B:204:GLU:HG3	2.17	0.45
1:B:249:ILE:HA	1:B:252:GLU:CD	2.36	0.45
1:B:276:PHE:HA	1:B:281:TRP:CE3	2.51	0.45
1:B:776:LEU:HD11	1:B:814:HIS:HB2	1.99	0.45
1:B:1170:TRP:CE2	1:B:1193:LYS:HB2	2.51	0.45
1:B:1243:VAL:HG23	1:B:1265:MET:HB3	1.98	0.45
1:B:1399:VAL:CG1	1:B:1497:TYR:HB3	2.47	0.45
1:B:1534:ALA:HB2	1:B:1548:PHE:C	2.36	0.45
1:B:1827:THR:HA	1:B:1830:ILE:HG22	1.97	0.45
1:B:2124:GLN:O	1:B:2127:LEU:HB3	2.16	0.45
1:B:2350:LYS:HD3	1:C:2299:LEU:HD11	1.98	0.45
1:C:784:LEU:HB3	1:C:789:PHE:HE2	1.82	0.45
1:D:346:TYR:HA	1:D:361:ALA:H	1.80	0.45
1:E:462:PRO:O	1:E:465:LEU:HG	2.15	0.45
1:E:1123:ARG:HD2	1:E:1143:TRP:CZ2	2.51	0.45
1:E:1375:ILE:HG23	1:E:1379:LYS:NZ	2.32	0.45
1:E:1821:LYS:HA	1:E:1821:LYS:HD2	1.58	0.45
1:E:2438:GLN:HB3	1:E:2533:ARG:HB2	1.98	0.45
1:A:454:LEU:HD23	1:A:465:LEU:HD22	1.98	0.45
1:A:848:ASP:OD2	1:A:850:SER:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2056:ARG:HA	1:A:2059:ASN:ND2	2.30	0.45
1:A:2372:TYR:HD2	1:A:2382:LEU:HD11	1.82	0.45
1:B:119:LEU:HD12	1:B:990:ILE:HG12	1.97	0.45
1:B:130:HIS:NE2	1:B:1008:ALA:HA	2.31	0.45
1:B:498:LEU:HD22	1:B:502:ASP:OD2	2.16	0.45
1:B:524:ASN:HA	1:B:528:ASN:HB2	1.98	0.45
1:B:1265:MET:HE2	1:B:1265:MET:HA	1.99	0.45
1:B:2142:GLU:O	1:B:2146:MET:HG2	2.16	0.45
1:B:2375:LEU:O	1:B:2379:ASN:HB3	2.15	0.45
1:C:680:LEU:HB3	1:C:684:ARG:HE	1.80	0.45
1:C:1676:ARG:O	1:C:1699:LEU:HB2	2.15	0.45
1:D:26:GLN:N	1:D:27:TYR:HB2	2.31	0.45
1:E:334:ARG:HB2	1:E:433:ILE:O	2.16	0.45
1:E:2324:ARG:NH1	1:E:2324:ARG:HB2	2.32	0.45
1:E:2515:THR:CA	1:E:2516:ASP:HB2	2.46	0.45
1:A:334:ARG:CB	1:A:434:PHE:HA	2.47	0.45
1:A:842:ALA:HB2	1:A:852:VAL:HG21	1.99	0.45
1:A:1287:LEU:HA	1:A:1287:LEU:HD23	1.81	0.45
1:A:2235:LYS:HD2	1:E:2118:GLU:OE2	2.17	0.45
1:A:2371:PHE:CE1	1:A:2420:LEU:HD13	2.52	0.45
1:B:349:LEU:HG	1:B:357:PHE:O	2.17	0.45
1:B:1162:PHE:CD2	1:B:1241:LEU:HD21	2.52	0.45
1:B:1195:ALA:HB2	1:B:1206:PRO:HB3	1.99	0.45
1:B:1508:GLY:C	1:B:1576:LYS:HE3	2.37	0.45
1:B:1632:SER:HB3	1:C:1164:GLU:OE2	2.16	0.45
1:B:1664:LEU:HB2	1:B:1705:THR:OG1	2.16	0.45
1:B:1960:LEU:HD12	1:B:1960:LEU:HA	1.76	0.45
1:C:1507:THR:HG21	1:C:1541:PHE:HE1	1.81	0.45
1:C:1645:GLU:HG2	1:C:1646:THR:N	2.31	0.45
1:C:2052:VAL:HG12	1:C:2056:ARG:HE	1.81	0.45
1:C:2086:LEU:O	1:C:2090:GLN:HG3	2.16	0.45
1:D:130:HIS:HA	1:D:1009:ARG:HG3	1.98	0.45
1:D:191:TYR:HB3	1:D:197:THR:OG1	2.17	0.45
1:D:2323:ILE:HG13	1:D:2344:ASN:ND2	2.31	0.45
1:E:345:ASN:CG	1:E:362:ASN:HB2	2.37	0.45
1:E:732:PRO:HG2	1:E:763:VAL:HG11	1.98	0.45
1:E:1324:ALA:O	1:E:1332:VAL:HG23	2.15	0.45
1:E:2154:GLY:O	1:E:2157:LEU:HG	2.16	0.45
1:A:160:SER:N	1:A:982:LYS:HZ3	2.15	0.45
1:A:359:ILE:HG21	1:A:361:ALA:HB2	1.99	0.45
1:A:360:ARG:CZ	1:A:365:VAL:HG22	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:387:SER:H	1:A:399:ASN:HB2	1.82	0.45
1:A:1063:ILE:O	1:A:1068:LEU:HD21	2.15	0.45
1:A:1236:GLN:NE2	1:A:1308:ARG:HD3	2.32	0.45
1:A:1884:ILE:O	1:A:1888:MET:HG2	2.16	0.45
1:A:2242:GLU:O	1:A:2246:ILE:HG13	2.17	0.45
1:B:226:VAL:HG21	1:B:879:VAL:HG21	1.98	0.45
1:B:404:ILE:HA	1:B:408:GLU:OE1	2.16	0.45
1:B:464:GLU:HG2	1:B:500:PHE:CD2	2.52	0.45
1:B:1351:ALA:HB1	1:B:1552:GLU:OE2	2.16	0.45
1:B:1454:PHE:HA	1:B:1455:PRO:HD3	1.79	0.45
1:B:1659:PHE:CE1	1:B:1710:PHE:HB2	2.51	0.45
1:B:1927:GLU:HB3	1:B:1991:TRP:CD2	2.51	0.45
1:B:2133:LEU:HA	1:B:2136:GLU:OE2	2.16	0.45
1:C:1150:VAL:HG13	1:C:1170:TRP:CE2	2.52	0.45
1:C:1478:LYS:HD2	1:C:1478:LYS:HA	1.71	0.45
1:C:2104:ARG:HG2	1:D:2253:MET:HE3	1.98	0.45
1:D:30:PHE:HD1	1:D:50:TYR:CD1	2.34	0.45
1:D:346:TYR:CE1	1:D:360:ARG:HB3	2.51	0.45
1:D:532:LEU:HA	1:D:562:ARG:HH12	1.82	0.45
1:D:813:PHE:HD1	1:D:867:TRP:CD2	2.34	0.45
1:D:1287:LEU:O	1:D:1290:THR:HG22	2.16	0.45
1:E:374:ARG:HH22	1:E:403:ASN:HB2	1.80	0.45
1:E:556:ALA:O	1:E:560:LEU:HD23	2.17	0.45
1:E:1287:LEU:HD23	1:E:1287:LEU:HA	1.76	0.45
1:E:1363:TYR:HB3	1:E:1375:ILE:CD1	2.47	0.45
1:A:48:HIS:O	1:A:52:GLU:OE1	2.35	0.45
1:A:202:PRO:O	1:A:206:ILE:HG12	2.17	0.45
1:A:247:TYR:HB2	1:A:898:TYR:OH	2.17	0.45
1:A:1827:THR:HA	1:A:1830:ILE:HG22	1.99	0.45
1:A:2230:ALA:O	1:A:2234:VAL:HG23	2.16	0.45
1:B:368:GLU:OE2	1:B:420:TYR:HB2	2.17	0.45
1:B:814:HIS:O	1:B:817:ILE:HG22	2.17	0.45
1:B:899:VAL:HG11	1:B:904:LYS:HB2	1.97	0.45
1:B:1304:LYS:HD3	1:B:1600:ILE:HD12	1.98	0.45
1:B:1624:THR:O	1:B:1625:LEU:HD23	2.16	0.45
1:B:1889:ARG:HA	1:B:1892:ASP:OD2	2.16	0.45
1:B:2111:ALA:O	1:B:2115:VAL:HG23	2.17	0.45
1:B:2113:ILE:HD11	1:B:2248:ARG:HB2	1.98	0.45
1:C:705:ALA:N	1:C:706:PRO:HD2	2.32	0.45
1:D:321:VAL:HG21	1:D:352:GLU:HG2	1.99	0.45
1:D:434:PHE:CG	1:D:435:THR:N	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1350:LEU:HB3	1:D:1555:ALA:O	2.17	0.45
1:D:1838:GLY:HA3	1:E:1003:ARG:NH2	2.31	0.45
1:D:2130:TYR:CE2	1:D:2226:GLN:OE1	2.70	0.45
1:D:2407:SER:HB3	1:D:2412:GLU:OE2	2.17	0.45
1:D:2457:LEU:HB2	1:D:2472:ILE:HG22	1.99	0.45
1:E:28:LEU:HA	1:E:1015:ARG:HH21	1.81	0.45
1:E:192:ARG:HD2	1:E:265:GLN:O	2.17	0.45
1:E:1083:ARG:O	1:E:1086:THR:HG22	2.17	0.45
1:E:1084:PHE:HE1	1:E:1801:TYR:HB3	1.82	0.45
1:E:1399:VAL:HG13	1:E:1497:TYR:HB3	1.97	0.45
1:E:1439:ILE:HG23	1:E:1450:ARG:CG	2.43	0.45
1:E:2363:THR:OG1	1:E:2533:ARG:HG2	2.16	0.45
1:A:372:THR:HG23	1:A:386:LEU:HD11	1.98	0.45
1:A:680:LEU:HD13	1:A:684:ARG:NH2	2.32	0.45
1:A:1932:GLY:CA	1:A:1935:GLN:HE21	2.30	0.45
1:A:2192:SER:O	1:A:2195:VAL:HG22	2.17	0.45
1:A:2275:LYS:HD3	1:E:2079:ASP:OD2	2.16	0.45
1:A:2442:THR:HA	1:A:2477:GLY:O	2.17	0.45
1:A:2469:CYS:HB3	1:A:2495:PRO:HA	1.99	0.45
1:B:1092:VAL:HA	1:B:1111:GLY:HA3	1.99	0.45
1:B:1389:TYR:HA	1:B:1541:PHE:CZ	2.52	0.45
1:B:2323:ILE:HG13	1:B:2344:ASN:ND2	2.31	0.45
1:C:38:ASP:OD1	1:C:1585:LYS:HE3	2.16	0.45
1:C:336:LYS:HD2	1:C:431:GLY:N	2.32	0.45
1:C:408:GLU:O	1:C:412:GLY:HA3	2.17	0.45
1:C:709:ALA:HB2	1:C:720:ALA:HB2	1.99	0.45
1:C:1009:ARG:O	1:C:1012:VAL:HG12	2.17	0.45
1:D:278:SER:HB3	1:D:281:TRP:HB2	1.98	0.45
1:D:317:THR:O	1:D:329:ALA:HA	2.17	0.45
1:D:744:VAL:HG22	1:D:757:LEU:HD21	1.98	0.45
1:D:1040:PRO:O	1:D:1044:ILE:HG12	2.17	0.45
1:D:1659:PHE:CE1	1:D:1710:PHE:HB2	2.52	0.45
1:D:1746:ASP:OD2	1:D:1749:LYS:HD3	2.17	0.45
1:D:2072:LEU:HD21	1:D:2335:LEU:HD13	1.99	0.45
1:E:489:THR:HA	1:E:503:ALA:HB1	1.99	0.45
1:E:1633:ARG:HB3	1:E:1640:THR:HG22	1.99	0.45
1:A:48:HIS:O	1:A:51:HIS:HB2	2.16	0.45
1:A:191:TYR:CD2	1:A:197:THR:HG21	2.52	0.45
1:B:1437:ARG:NE	1:B:1437:ARG:HA	2.32	0.45
1:B:1991:TRP:HB3	1:B:1995:ARG:HH12	1.81	0.45
1:B:2185:TRP:CH2	1:E:1174:GLU:HG2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1162:PHE:CD1	1:C:1241:LEU:HD21	2.52	0.45
1:C:1318:SER:HB2	1:C:1339:PRO:HA	1.98	0.45
1:C:1794:PHE:CZ	1:C:1854:PRO:HD3	2.51	0.45
1:C:2530:LEU:HD12	1:C:2532:ILE:HD11	1.99	0.45
1:D:39:ASP:OD1	1:D:40:GLN:HG3	2.16	0.45
1:D:111:SER:HB2	1:D:1982:GLU:HB2	1.98	0.45
1:D:141:ARG:HH21	1:D:970:TYR:HA	1.80	0.45
1:D:961:LEU:HD12	1:D:967:LEU:HD21	1.98	0.45
1:D:1436:ARG:HB2	1:D:1485:GLY:HA2	1.99	0.45
1:E:349:LEU:HB2	1:E:434:PHE:CE2	2.52	0.45
1:E:366:SER:HB3	1:E:368:GLU:HB3	1.98	0.45
1:E:784:LEU:HB3	1:E:789:PHE:HE1	1.81	0.45
1:E:910:PRO:HB2	1:E:915:TRP:CD1	2.52	0.45
1:E:1162:PHE:CD2	1:E:1241:LEU:HD21	2.52	0.45
1:A:223:ASN:O	1:A:226:VAL:HG22	2.16	0.45
1:A:373:LEU:HD23	1:A:381:GLY:H	1.82	0.45
1:A:1108:TRP:CE2	1:A:1161:ILE:HD11	2.52	0.45
1:B:359:ILE:CD1	1:B:361:ALA:HB2	2.47	0.45
1:B:679:LEU:O	1:B:683:LEU:HD23	2.16	0.45
1:B:2261:GLN:HA	1:B:2264:HIS:CE1	2.52	0.45
1:B:2358:ARG:HD2	1:C:2468:GLY:O	2.17	0.45
1:D:206:ILE:O	1:D:210:ILE:HG12	2.17	0.45
1:D:272:THR:HG22	1:D:275:ASN:ND2	2.30	0.45
1:D:468:ILE:HD11	1:D:485:LYS:HD3	1.98	0.45
1:D:2267:ALA:O	1:D:2270:GLU:HG2	2.16	0.45
1:E:650:LEU:CD1	1:E:655:ILE:HB	2.46	0.45
1:E:1168:LEU:O	1:E:1194:LEU:HD12	2.17	0.45
1:E:1395:ILE:HG22	1:E:1414:VAL:HG13	1.98	0.45
1:A:336:LYS:HD2	1:A:430:GLY:C	2.37	0.44
1:A:580:VAL:HG21	1:A:593:VAL:HG23	1.98	0.44
1:A:1266:THR:HG23	1:A:1274:LYS:HB2	1.99	0.44
1:A:2088:LEU:HB3	1:A:2269:LEU:HD12	1.99	0.44
1:A:2140:HIS:CB	1:A:2144:ARG:HH21	2.29	0.44
1:A:2270:GLU:HB2	1:E:2028:THR:HG21	1.99	0.44
1:A:2346:ALA:HB1	1:B:2299:LEU:HD23	1.98	0.44
1:A:2400:SER:C	1:A:2416:ARG:HH21	2.20	0.44
1:B:194:ALA:HB3	1:B:197:THR:HG23	1.97	0.44
1:B:313:ASP:HB2	1:B:333:THR:HG23	1.98	0.44
1:B:1083:ARG:HG3	1:B:1083:ARG:HH11	1.82	0.44
1:B:1287:LEU:HA	1:B:1287:LEU:HD23	1.73	0.44
1:C:336:LYS:NZ	1:C:430:GLY:HA3	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:434:PHE:CZ	1:C:436:PHE:HB2	2.52	0.44
1:C:700:GLN:HA	1:C:703:ILE:HG12	2.00	0.44
1:C:1174:GLU:HB2	1:C:1189:ARG:HG2	1.98	0.44
1:C:1236:GLN:O	1:C:1236:GLN:HG3	2.17	0.44
1:C:1642:LEU:HD12	1:C:1832:TYR:CD2	2.52	0.44
1:C:1756:ASN:HB2	1:C:1774:LYS:O	2.18	0.44
1:C:2056:ARG:HA	1:C:2059:ASN:ND2	2.32	0.44
1:D:42:SER:HB2	1:D:1568:ASP:OD1	2.17	0.44
1:D:58:LYS:HG2	1:D:1866:LEU:HD23	1.99	0.44
1:D:308:THR:HG22	1:D:309:SER:N	2.33	0.44
1:D:712:LEU:HD23	1:D:714:LEU:HB2	1.99	0.44
1:D:1839:TYR:CZ	1:D:1851:ASN:HB2	2.52	0.44
1:E:25:LEU:C	1:E:27:TYR:HB2	2.37	0.44
1:E:1415:TYR:HB2	1:E:1476:PHE:CZ	2.52	0.44
1:E:1439:ILE:HD13	1:E:1453:GLU:HA	2.00	0.44
1:E:1544:MET:HB3	1:E:1546:TYR:CE2	2.51	0.44
1:E:1809:THR:N	1:E:1810:PRO:HD2	2.32	0.44
1:E:2390:LEU:HD13	1:E:2523:GLU:HG2	1.98	0.44
1:E:2447:VAL:HG21	1:E:2453:ILE:HD11	1.99	0.44
1:A:676:ILE:HG13	1:A:758:VAL:HG12	1.98	0.44
1:A:917:THR:HA	1:A:920:GLU:OE1	2.17	0.44
1:A:1316:PRO:HD2	1:A:1588:LEU:HD11	1.98	0.44
1:A:2372:TYR:OH	1:A:2415:VAL:HG22	2.18	0.44
1:B:51:HIS:O	1:B:54:ILE:HG22	2.17	0.44
1:B:716:SER:OG	1:B:719:MET:HG3	2.18	0.44
1:B:812:ARG:HG2	1:B:812:ARG:HH11	1.82	0.44
1:B:1421:TYR:HD2	1:B:1467:THR:HA	1.82	0.44
1:B:2178:LEU:HD21	1:C:2178:LEU:HD13	1.99	0.44
1:C:748:SER:HB3	1:C:754:THR:HG21	1.99	0.44
1:C:835:THR:O	1:C:837:THR:HG23	2.17	0.44
1:C:953:ASN:HB3	1:C:954:ILE:HD12	1.99	0.44
1:C:1325:ILE:HD11	1:C:1366:SER:OG	2.17	0.44
1:C:1334:GLU:N	1:C:1334:GLU:OE2	2.50	0.44
1:C:1817:LEU:HD13	1:C:1825:GLU:HG2	1.99	0.44
1:C:1897:ARG:HD3	1:C:1916:TRP:CZ2	2.52	0.44
1:C:2142:GLU:HG2	1:C:2216:TYR:CE2	2.53	0.44
1:C:2154:GLY:O	1:C:2157:LEU:HB3	2.18	0.44
1:C:2219:ARG:HD3	1:C:2223:TRP:CZ2	2.52	0.44
1:C:2240:GLN:O	1:C:2244:LEU:HD23	2.17	0.44
1:D:217:LEU:HB3	1:D:220:LEU:CB	2.47	0.44
1:D:985:ARG:O	1:D:988:GLU:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2442:THR:HB	1:D:2529:ILE:HB	1.99	0.44
1:E:358:PHE:HB2	1:E:401:LEU:HD23	1.99	0.44
1:E:724:LEU:O	1:E:737:ILE:HD11	2.17	0.44
1:E:1169:ILE:HD13	1:E:1194:LEU:HB2	1.98	0.44
1:E:2240:GLN:O	1:E:2244:LEU:HG	2.17	0.44
1:A:1387:SER:O	1:A:1388:GLN:HG2	2.17	0.44
1:A:1456:PHE:CE1	1:A:1461:ILE:HD13	2.52	0.44
1:A:1875:ALA:HB1	1:A:1882:TYR:CE1	2.52	0.44
1:A:2120:ARG:HB2	1:A:2237:MET:HE1	1.98	0.44
1:B:2164:ILE:HG12	1:B:2195:VAL:HG11	2.00	0.44
1:B:2465:MET:CE	1:B:2469:CYS:HB2	2.47	0.44
1:C:347:PHE:HA	1:C:358:PHE:CZ	2.52	0.44
1:C:464:GLU:O	1:C:468:ILE:HG13	2.16	0.44
1:C:807:LEU:HD12	1:C:808:PHE:N	2.32	0.44
1:C:1570:VAL:HA	1:C:1584:ILE:O	2.18	0.44
1:C:2095:ALA:O	1:C:2099:ILE:HG12	2.17	0.44
1:D:1415:TYR:HE1	1:D:1417:LYS:HA	1.82	0.44
1:D:1633:ARG:HB3	1:D:1640:THR:HG22	1.98	0.44
1:D:2389:PHE:CD1	1:D:2395:GLY:HA3	2.52	0.44
1:E:793:GLY:HA3	1:E:868:GLN:HG2	1.99	0.44
1:E:927:SER:OG	1:E:930:GLN:HG2	2.17	0.44
1:E:1967:LYS:HG3	1:E:1968:ASN:N	2.31	0.44
1:E:2407:SER:HB3	1:E:2412:GLU:OE2	2.17	0.44
1:A:334:ARG:HH21	1:A:342:LYS:CB	2.28	0.44
1:A:336:LYS:O	1:A:339:ASP:HB2	2.18	0.44
1:A:1084:PHE:HE2	1:A:1801:TYR:HB3	1.81	0.44
1:A:1662:PHE:CZ	1:A:1725:LEU:HD13	2.50	0.44
1:A:1692:GLN:OE1	1:A:1693:PRO:HD2	2.17	0.44
1:B:141:ARG:HH21	1:B:970:TYR:HA	1.82	0.44
1:B:482:VAL:O	1:B:486:VAL:HG23	2.17	0.44
1:B:660:ILE:HA	1:B:663:LEU:HB2	1.99	0.44
1:B:930:GLN:O	1:B:934:LEU:HD23	2.18	0.44
1:B:1628:SER:HB3	1:C:1163:ARG:HH21	1.83	0.44
1:B:2529:ILE:HD12	1:C:2450:TYR:CE1	2.53	0.44
1:C:365:VAL:HG11	1:C:390:LEU:HA	1.99	0.44
1:C:600:LEU:HD23	1:C:603:LEU:HD12	1.99	0.44
1:C:909:LEU:HA	1:C:910:PRO:HD3	1.89	0.44
1:C:1080:TYR:CE2	1:C:1809:THR:HG21	2.51	0.44
1:C:1823:PHE:O	1:C:1827:THR:HG23	2.18	0.44
1:C:1967:LYS:NZ	1:C:1968:ASN:H	2.16	0.44
1:C:2084:THR:O	1:C:2088:LEU:HD23	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2125:ASN:ND2	1:D:2228:ASP:OD2	2.45	0.44
1:D:1321:MET:HG2	1:D:1584:ILE:HG21	1.99	0.44
1:D:1376:SER:HA	1:D:1379:LYS:HG3	1.99	0.44
1:D:1729:TYR:O	1:D:1730:GLN:HB2	2.18	0.44
1:D:2065:THR:O	1:D:2069:THR:HG23	2.17	0.44
1:E:86:ASP:HB3	1:E:88:VAL:HG12	1.99	0.44
1:E:162:LEU:HD21	1:E:977:VAL:O	2.16	0.44
1:E:328:GLU:HB3	1:E:438:SER:HB2	1.98	0.44
1:E:1651:GLU:OE1	1:E:1652:PRO:HD2	2.18	0.44
1:A:332:ILE:CG2	1:A:334:ARG:HD2	2.45	0.44
1:A:595:SER:O	1:A:599:ARG:HG3	2.16	0.44
1:A:999:ARG:HH21	1:A:1005:GLU:HG2	1.81	0.44
1:A:1645:GLU:HG2	1:A:1646:THR:N	2.33	0.44
1:A:1913:ALA:O	1:A:1917:TYR:HD2	2.01	0.44
1:A:2109:VAL:HG11	1:A:2248:ARG:HA	2.00	0.44
1:B:1021:TRP:CZ3	1:B:1025:ASN:HA	2.53	0.44
1:C:301:GLN:OE1	1:C:317:THR:HG23	2.18	0.44
1:C:680:LEU:HB3	1:C:684:ARG:HH21	1.83	0.44
1:C:959:VAL:HG13	1:C:961:LEU:HD22	1.99	0.44
1:C:1287:LEU:O	1:C:1290:THR:HG22	2.18	0.44
1:C:1621:ARG:NH2	1:C:1651:GLU:HB3	2.33	0.44
1:C:2140:HIS:CB	1:C:2144:ARG:HH21	2.30	0.44
1:D:676:ILE:O	1:D:680:LEU:HG	2.18	0.44
1:D:814:HIS:HA	1:D:817:ILE:HG12	1.98	0.44
1:D:1804:GLU:HA	1:D:1808:TYR:HD2	1.82	0.44
1:D:1927:GLU:HB3	1:D:1991:TRP:CD2	2.53	0.44
1:D:2442:THR:HA	1:D:2477:GLY:O	2.17	0.44
1:E:263:PHE:CE1	1:E:273:PRO:HD3	2.52	0.44
1:A:141:ARG:NH2	1:A:970:TYR:HA	2.32	0.44
1:A:839:ASP:HA	1:A:849:ILE:HD13	1.99	0.44
1:A:2161:VAL:HG23	1:A:2162:LEU:HD22	1.99	0.44
1:A:2198:LEU:O	1:A:2201:THR:HG22	2.17	0.44
1:B:129:LEU:HA	1:B:1012:VAL:HG11	2.00	0.44
1:B:1371:ARG:O	1:B:1375:ILE:HG22	2.17	0.44
1:B:1439:ILE:HD13	1:B:1453:GLU:HA	1.99	0.44
1:B:1457:SER:HB2	1:B:1458:PRO:HD3	1.98	0.44
1:C:610:THR:HG23	1:C:613:GLU:H	1.82	0.44
1:C:712:LEU:HD11	1:C:768:SER:HB3	2.00	0.44
1:C:743:LEU:HD13	1:C:753:GLU:OE1	2.17	0.44
1:C:813:PHE:HD1	1:C:867:TRP:CE3	2.34	0.44
1:C:1399:VAL:HG13	1:C:1497:TYR:HB3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2442:THR:HA	1:C:2477:GLY:O	2.18	0.44
1:C:2515:THR:HB	1:C:2516:ASP:OD2	2.18	0.44
1:D:462:PRO:O	1:D:465:LEU:HG	2.17	0.44
1:D:532:LEU:N	1:D:562:ARG:HH22	2.15	0.44
1:E:449:ASN:HA	1:E:452:ILE:HG22	2.00	0.44
1:E:663:LEU:HD21	1:E:769:LEU:CD2	2.45	0.44
1:A:247:TYR:CE2	1:A:251:THR:HG21	2.52	0.44
1:A:408:GLU:O	1:A:412:GLY:HA3	2.18	0.44
1:A:1148:THR:OG1	1:A:1150:VAL:HG23	2.18	0.44
1:A:1518:VAL:HG22	1:A:1569:ILE:HG12	1.98	0.44
1:B:498:LEU:HD13	1:B:502:ASP:HB3	1.98	0.44
1:B:1804:GLU:HA	1:B:1808:TYR:HD2	1.83	0.44
1:B:1975:LEU:O	1:B:1975:LEU:HD12	2.17	0.44
1:C:1122:TRP:HZ3	1:C:1124:ASN:ND2	2.16	0.44
1:C:1437:ARG:HA	1:C:1455:PRO:HA	2.00	0.44
1:C:1861:TRP:CE2	1:C:1876:GLN:HG2	2.53	0.44
1:D:271:ILE:HA	1:D:275:ASN:HD21	1.82	0.44
1:D:310:ALA:HB3	1:D:330:TYR:CZ	2.53	0.44
1:D:1713:TYR:HD1	1:D:1718:TYR:CZ	2.36	0.44
1:D:2529:ILE:HG12	1:E:2450:TYR:HE1	1.82	0.44
1:E:278:SER:OG	1:E:281:TRP:HB2	2.18	0.44
1:E:750:ASN:HB3	1:E:753:GLU:HB3	2.00	0.44
1:E:2453:ILE:H	1:E:2453:ILE:HD12	1.82	0.44
1:A:1515:LYS:HG2	1:A:1572:GLU:HB3	2.00	0.44
1:A:1777:LYS:HD3	1:A:1777:LYS:HA	1.76	0.44
1:A:1969:LEU:HG	1:A:1970:ARG:HG2	1.99	0.44
1:A:2144:ARG:HD3	1:E:1060:LEU:HD22	2.00	0.44
1:A:2417:LEU:HD21	1:A:2507:LEU:HB2	2.00	0.44
1:A:2436:LEU:HD23	1:A:2534:TYR:HB3	2.00	0.44
1:B:192:ARG:HD2	1:B:265:GLN:HG2	1.99	0.44
1:B:415:ILE:HG12	1:B:434:PHE:HB2	1.99	0.44
1:B:732:PRO:HD2	1:B:760:PHE:CE1	2.53	0.44
1:B:1220:ASP:O	1:B:1222:LYS:HG2	2.18	0.44
1:C:373:LEU:HD12	1:C:416:TYR:HE2	1.82	0.44
1:C:1346:SER:OG	1:C:1349:ASN:HB2	2.17	0.44
1:C:2389:PHE:CD1	1:C:2395:GLY:HA3	2.52	0.44
1:D:250:LEU:HA	1:D:450:LYS:NZ	2.32	0.44
1:D:532:LEU:HG	1:D:533:LYS:HG3	1.99	0.44
1:D:696:ASN:ND2	1:D:699:LEU:HD22	2.33	0.44
1:D:1932:GLY:CA	1:D:1935:GLN:HE21	2.30	0.44
1:E:505:VAL:HG11	1:E:598:TYR:CD2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:712:LEU:HD12	1:E:764:MET:HG2	1.99	0.44
1:E:830:MET:HA	1:E:835:THR:HG23	2.00	0.44
1:E:923:GLU:O	1:E:926:LEU:HG	2.17	0.44
1:A:129:LEU:HD21	1:A:1018:PHE:HZ	1.83	0.44
1:A:319:LEU:HD11	1:A:395:ASN:HB2	2.00	0.44
1:A:1226:GLU:HG3	1:A:1247:LYS:HD2	1.99	0.44
1:A:1338:ILE:O	1:A:1338:ILE:HG13	2.18	0.44
1:A:1960:LEU:HA	1:A:1964:GLY:HA2	1.99	0.44
1:A:1984:ASN:HB3	1:A:1987:LEU:HD23	1.99	0.44
1:B:1229:ALA:HB3	1:B:1246:TYR:CE2	2.53	0.44
1:B:1276:MET:HB2	1:B:1280:ALA:HB3	2.00	0.44
1:B:1431:ASN:HD22	1:B:1494:PHE:HZ	1.64	0.44
1:B:1518:VAL:HG11	1:B:1553:ILE:HG21	2.00	0.44
1:B:2083:LEU:HD11	1:C:2272:LEU:HD12	1.99	0.44
1:B:2389:PHE:CD1	1:B:2395:GLY:HA3	2.53	0.44
1:C:346:TYR:O	1:C:358:PHE:HE2	2.01	0.44
1:C:606:VAL:HG23	1:C:607:HIS:ND1	2.32	0.44
1:C:719:MET:HE3	1:C:778:GLU:OE1	2.18	0.44
1:C:902:LEU:HB3	1:C:903:ASN:H	1.61	0.44
1:C:1516:ILE:HD12	1:C:1570:VAL:O	2.18	0.44
1:D:28:LEU:HD12	1:D:32:GLU:CG	2.41	0.44
1:D:589:LEU:HD23	1:D:589:LEU:HA	1.88	0.44
1:D:679:LEU:HD23	1:D:711:THR:HG21	1.98	0.44
1:D:1156:ALA:HB3	1:D:1171:VAL:HG22	2.00	0.44
1:E:223:ASN:O	1:E:226:VAL:HG22	2.18	0.44
1:E:2472:ILE:HG13	1:E:2473:ALA:H	1.82	0.44
1:E:2494:LEU:HB3	1:E:2497:GLU:HG3	1.99	0.44
1:A:436:PHE:CZ	1:A:438:SER:HB3	2.52	0.43
1:A:2513:ASP:HA	1:A:2516:ASP:OD2	2.18	0.43
1:B:883:LEU:HB3	1:B:885:THR:HG22	1.99	0.43
1:B:1248:THR:HG22	1:B:1294:ILE:HG12	2.00	0.43
1:B:1648:ARG:HA	1:B:1853:ARG:NH1	2.33	0.43
1:B:2368:LEU:HD21	1:B:2530:LEU:HD11	2.00	0.43
1:C:1333:MET:HE3	1:C:1582:GLY:HA3	2.00	0.43
1:D:59:ASN:O	1:D:63:LEU:HG	2.17	0.43
1:D:256:GLU:HG2	1:D:257:LYS:HD3	2.00	0.43
1:D:372:THR:OG1	1:D:401:LEU:HD11	2.18	0.43
1:D:2515:THR:C	1:D:2519:LYS:HB2	2.38	0.43
1:E:141:ARG:NH2	1:E:970:TYR:HA	2.32	0.43
1:E:268:SER:H	1:E:271:ILE:HD12	1.83	0.43
1:E:439:TYR:HB3	1:E:440:PRO:O	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:813:PHE:HD1	1:E:867:TRP:CE3	2.36	0.43
1:E:1234:GLY:O	1:E:1308:ARG:HG3	2.18	0.43
1:E:1291:PHE:O	1:E:1293:ILE:HG23	2.18	0.43
1:A:420:TYR:HA	1:A:425:SER:O	2.18	0.43
1:A:676:ILE:HA	1:A:679:LEU:HB3	2.01	0.43
1:A:1277:GLU:H	1:A:1277:GLU:HG3	1.65	0.43
1:A:2193:ALA:O	1:A:2196:MET:HG3	2.18	0.43
1:B:87:SER:HA	1:B:90:ARG:HH11	1.83	0.43
1:B:217:LEU:HD12	1:B:220:LEU:HB2	2.00	0.43
1:B:225:GLU:HB2	1:B:875:GLN:OE1	2.18	0.43
1:B:387:SER:H	1:B:399:ASN:HB2	1.82	0.43
1:B:480:ASP:O	1:B:483:LEU:HG	2.18	0.43
1:B:1729:TYR:O	1:B:1730:GLN:HB2	2.18	0.43
1:B:1766:GLN:NE2	1:B:1767:GLN:HB2	2.33	0.43
1:C:268:SER:HB2	1:C:271:ILE:HG13	1.99	0.43
1:C:1049:ARG:HB3	1:C:1872:ASP:OD2	2.18	0.43
1:C:1520:ALA:HB1	1:C:1558:LEU:HD11	2.00	0.43
1:C:1730:GLN:C	1:C:1732:ILE:H	2.22	0.43
1:C:2101:ILE:O	1:C:2105:THR:HG23	2.18	0.43
1:C:2239:ALA:O	1:C:2242:GLU:HG3	2.17	0.43
1:D:68:PHE:CD2	1:D:1981:PRO:HB3	2.53	0.43
1:D:160:SER:HA	1:D:982:LYS:HA	1.99	0.43
1:D:524:ASN:HA	1:D:528:ASN:HD22	1.81	0.43
1:D:1078:LYS:HE3	1:D:1078:LYS:HA	2.00	0.43
1:D:1085:GLU:O	1:D:1089:ASP:HB2	2.18	0.43
1:E:169:LEU:HD23	1:E:169:LEU:HA	1.74	0.43
1:E:910:PRO:HB3	1:E:914:GLU:CD	2.38	0.43
1:E:1413:THR:OG1	1:E:1422:ILE:HG23	2.18	0.43
1:E:1516:ILE:HD12	1:E:1570:VAL:O	2.18	0.43
1:E:1976:VAL:O	1:E:1976:VAL:HG13	2.18	0.43
1:A:25:LEU:CA	1:A:27:TYR:HB2	2.48	0.43
1:A:610:THR:HG23	1:A:613:GLU:H	1.84	0.43
1:A:687:ILE:HG13	1:A:745:LEU:HD21	2.00	0.43
1:A:1817:LEU:HD23	1:A:1817:LEU:HA	1.75	0.43
1:A:2097:GLN:O	1:A:2101:ILE:HG12	2.18	0.43
1:A:2225:ILE:HD12	1:E:2130:TYR:CZ	2.53	0.43
1:B:27:TYR:CD2	1:B:28:LEU:HB3	2.52	0.43
1:B:618:TYR:HA	1:B:621:SER:HB3	1.99	0.43
1:B:899:VAL:HG21	1:B:904:LYS:HB2	1.99	0.43
1:B:1041:GLU:O	1:B:1044:ILE:HG22	2.18	0.43
1:B:1436:ARG:HA	1:B:1487:ASN:ND2	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:235:LEU:HA	1:C:238:ILE:HG12	2.00	0.43
1:C:560:LEU:HD23	1:C:571:LEU:HD21	2.00	0.43
1:C:574:LEU:HD11	1:C:600:LEU:HB3	1.99	0.43
1:C:1333:MET:CE	1:C:1582:GLY:HA3	2.48	0.43
1:C:2329:ASN:HD22	1:D:2288:LYS:NZ	2.16	0.43
1:D:360:ARG:HG2	1:D:398:SER:HB2	1.99	0.43
1:D:371:ALA:HB3	1:D:420:TYR:CE1	2.54	0.43
1:D:954:ILE:HG22	1:D:956:PRO:HD3	1.99	0.43
1:D:1255:PHE:CD2	1:D:1285:SER:HA	2.53	0.43
1:D:1852:CYS:HB3	1:D:1855:LEU:HD12	2.00	0.43
1:D:2045:LEU:HD23	1:D:2466:PRO:HD2	2.00	0.43
1:D:2353:LEU:HD23	1:D:2353:LEU:HA	1.73	0.43
1:E:1146:ILE:HG22	1:E:1148:THR:HG23	1.99	0.43
1:E:1891:LEU:CD1	1:E:1924:LEU:HD13	2.48	0.43
1:A:129:LEU:HA	1:A:1012:VAL:HG11	2.01	0.43
1:A:352:GLU:N	1:A:357:PHE:CZ	2.83	0.43
1:A:498:LEU:HB3	1:A:502:ASP:HB2	2.01	0.43
1:A:2079:ASP:OD1	1:B:2275:LYS:HD2	2.19	0.43
1:A:2422:ILE:HD12	1:A:2501:VAL:O	2.19	0.43
1:A:2522:LEU:O	1:A:2525:LEU:HB3	2.18	0.43
1:B:817:ILE:HA	1:B:820:LEU:HG	2.00	0.43
1:B:822:ASN:HB2	1:B:823:PRO:HD3	2.00	0.43
1:B:1068:LEU:HD23	1:B:1820:GLU:OE1	2.17	0.43
1:B:2127:LEU:HD13	1:B:2231:ASP:HB3	1.99	0.43
1:B:2383:THR:HA	1:B:2386:LEU:HD12	2.00	0.43
1:C:199:TYR:CD1	1:C:945:VAL:HG21	2.53	0.43
1:C:226:VAL:HG12	1:C:876:TRP:NE1	2.32	0.43
1:C:331:LYS:HB2	1:C:437:GLU:CD	2.38	0.43
1:C:1825:GLU:O	1:C:1828:GLN:HG3	2.18	0.43
1:D:76:SER:HB3	1:D:80:ARG:NE	2.32	0.43
1:D:907:SER:OG	1:D:909:LEU:HD13	2.18	0.43
1:D:1108:TRP:CE2	1:D:1161:ILE:HD11	2.53	0.43
1:E:1220:ASP:O	1:E:1222:LYS:HG2	2.18	0.43
1:E:1902:TYR:HE2	1:E:2007:ILE:HB	1.83	0.43
1:E:2140:HIS:CB	1:E:2144:ARG:HH21	2.32	0.43
1:E:2447:VAL:HG13	1:E:2451:GLU:HB2	2.00	0.43
1:A:345:ASN:ND2	1:A:364:LYS:HG3	2.34	0.43
1:A:415:ILE:HD11	1:A:434:PHE:CD1	2.53	0.43
1:A:415:ILE:HD11	1:A:434:PHE:HD1	1.82	0.43
1:A:1174:GLU:HG2	1:C:2185:TRP:CZ3	2.52	0.43
1:A:1342:THR:CG2	1:A:1353:THR:HB	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1511:ASN:ND2	1:A:1530:SER:HA	2.33	0.43
1:B:1060:LEU:HD22	1:C:2144:ARG:HD3	2.00	0.43
1:B:1078:LYS:HZ1	1:B:1081:LEU:HD13	1.84	0.43
1:B:1158:ARG:HG3	1:B:1159:PRO:HD2	2.00	0.43
1:B:1176:VAL:HB	1:B:1187:TYR:CZ	2.52	0.43
1:C:217:LEU:HD12	1:C:220:LEU:HB2	1.99	0.43
1:C:1809:THR:N	1:C:1810:PRO:HD2	2.33	0.43
1:C:2438:GLN:CG	1:C:2494:LEU:HD21	2.49	0.43
1:D:1476:PHE:HA	1:D:1479:CYS:HB2	1.99	0.43
1:D:1970:ARG:HH21	1:D:1973:ASN:HB3	1.83	0.43
1:D:2410:GLN:HG2	1:D:2412:GLU:OE2	2.18	0.43
1:D:2434:ARG:HB3	1:D:2536:ILE:HG22	2.01	0.43
1:D:2454:ARG:HH21	1:D:2513:ASP:HB3	1.83	0.43
1:E:194:ALA:HB3	1:E:197:THR:HG23	2.01	0.43
1:E:712:LEU:HD23	1:E:714:LEU:HB2	2.01	0.43
1:E:1957:LEU:HD23	1:E:1957:LEU:HA	1.82	0.43
1:E:1993:THR:O	1:E:1997:ARG:HG2	2.18	0.43
1:E:2328:TRP:CD2	1:E:2334:GLY:HA3	2.53	0.43
1:A:347:PHE:HA	1:A:358:PHE:CZ	2.54	0.43
1:A:1055:MET:HG3	1:A:1083:ARG:CD	2.48	0.43
1:A:1813:CYS:HB2	1:A:1829:TRP:NE1	2.33	0.43
1:A:1932:GLY:HA2	1:A:1935:GLN:HE21	1.83	0.43
1:B:62:LEU:HD23	1:B:62:LEU:HA	1.85	0.43
1:B:768:SER:HA	1:B:771:VAL:HG12	2.01	0.43
1:B:1177:ALA:HB3	1:C:2176:PHE:HD1	1.84	0.43
1:B:1766:GLN:HE21	1:B:1767:GLN:HB2	1.83	0.43
1:B:2251:ALA:O	1:B:2255:VAL:HG23	2.19	0.43
1:C:286:TYR:CZ	1:C:452:ILE:HG21	2.53	0.43
1:C:1050:ILE:HG13	1:C:1051:GLY:H	1.83	0.43
1:C:1084:PHE:HA	1:C:1087:VAL:HG12	2.01	0.43
1:C:1534:ALA:HB2	1:C:1548:PHE:C	2.39	0.43
1:D:194:ALA:O	1:D:197:THR:HG22	2.19	0.43
1:D:359:ILE:HG12	1:D:360:ARG:N	2.33	0.43
1:D:620:LEU:HD11	1:D:661:TRP:HA	2.01	0.43
1:D:712:LEU:CD2	1:D:714:LEU:HB2	2.49	0.43
1:D:1176:VAL:HB	1:D:1187:TYR:CZ	2.53	0.43
1:D:1336:GLY:HA2	1:D:1359:PHE:HB3	2.01	0.43
1:D:1425:VAL:HA	1:D:1463:ASN:HB3	2.00	0.43
1:D:1730:GLN:C	1:D:1732:ILE:H	2.22	0.43
1:D:1891:LEU:O	1:D:1894:LEU:HB2	2.18	0.43
1:D:1976:VAL:HG13	1:D:1976:VAL:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2108:GLU:OE2	1:E:2246:ILE:HG12	2.19	0.43
1:D:2297:PHE:CE2	1:D:2328:TRP:HB2	2.45	0.43
1:D:2436:LEU:HD12	1:D:2501:VAL:HA	2.00	0.43
1:E:437:GLU:HB2	1:E:439:TYR:CE2	2.53	0.43
1:E:663:LEU:HD22	1:E:770:SER:OG	2.19	0.43
1:E:840:ARG:HA	1:E:843:SER:OG	2.18	0.43
1:A:365:VAL:HG21	1:A:390:LEU:O	2.19	0.43
1:A:702:GLU:HA	1:A:721:ARG:HG3	2.01	0.43
1:A:784:LEU:HB3	1:A:789:PHE:CE2	2.53	0.43
1:A:968:TYR:CD1	1:A:974:ASP:HA	2.54	0.43
1:A:1415:TYR:HB2	1:A:1476:PHE:CZ	2.53	0.43
1:A:1718:TYR:CD2	1:A:1723:VAL:HB	2.53	0.43
1:A:1721:GLU:H	1:A:1766:GLN:HE21	1.64	0.43
1:A:2389:PHE:HA	1:A:2392:GLU:HG2	2.01	0.43
1:B:2299:LEU:HD12	1:B:2299:LEU:O	2.18	0.43
1:C:76:SER:HB3	1:C:80:ARG:NE	2.34	0.43
1:C:141:ARG:HH21	1:C:970:TYR:HA	1.84	0.43
1:C:2059:ASN:OD1	1:C:2060:LEU:HD12	2.19	0.43
1:C:2085:THR:O	1:C:2089:GLN:HG2	2.18	0.43
1:D:1678:PHE:HD1	1:D:1699:LEU:HG	1.82	0.43
1:D:1967:LYS:NZ	1:D:1968:ASN:H	2.17	0.43
1:E:104:VAL:HG11	1:E:110:ALA:HB3	2.01	0.43
1:E:580:VAL:O	1:E:587:ILE:HD13	2.18	0.43
1:E:663:LEU:O	1:E:802:HIS:CE1	2.72	0.43
1:E:1611:GLN:HG3	1:E:1623:ASN:ND2	2.33	0.43
1:E:1729:TYR:O	1:E:1730:GLN:HB2	2.19	0.43
1:A:10:LYS:HE2	1:A:40:GLN:O	2.19	0.43
1:A:505:VAL:HG21	1:A:598:TYR:HD2	1.82	0.43
1:A:535:LYS:NZ	1:A:536:ILE:HG22	2.33	0.43
1:B:113:PHE:HZ	1:B:1038:TYR:CD2	2.37	0.43
1:B:373:LEU:HG	1:B:381:GLY:O	2.19	0.43
1:B:414:LYS:HA	1:B:414:LYS:HD2	1.76	0.43
1:B:532:LEU:HD21	1:B:562:ARG:HD3	2.00	0.43
1:B:665:THR:HG23	1:B:667:GLU:H	1.84	0.43
1:B:1236:GLN:HE22	1:B:1308:ARG:HD3	1.82	0.43
1:B:1476:PHE:HA	1:B:1479:CYS:HG	1.84	0.43
1:B:1821:LYS:HD3	1:B:1823:PHE:CZ	2.54	0.43
1:B:1885:ALA:O	1:B:1888:MET:HB2	2.19	0.43
1:B:2101:ILE:O	1:B:2105:THR:HG23	2.18	0.43
1:B:2436:LEU:CD1	1:B:2501:VAL:HA	2.49	0.43
1:B:2457:LEU:CD1	1:B:2509:LEU:HG	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:410:LYS:HA	1:C:436:PHE:O	2.18	0.43
1:C:1197:LEU:HD13	1:C:1203:TRP:CZ2	2.53	0.43
1:C:1634:ALA:HB2	1:C:1641:ILE:HD11	1.99	0.43
1:C:1754:LEU:HD11	1:C:1757:ASP:HB3	2.00	0.43
1:C:2445:ALA:HB2	1:C:2525:LEU:HA	2.01	0.43
1:D:173:ILE:HD12	1:D:949:TRP:HZ3	1.84	0.43
1:D:369:PHE:HA	1:D:386:LEU:O	2.18	0.43
1:D:414:LYS:H	1:D:434:PHE:CB	2.32	0.43
1:D:1425:VAL:HG22	1:D:1463:ASN:HB3	2.00	0.43
1:E:166:ASN:O	1:E:170:LEU:HG	2.19	0.43
1:E:372:THR:OG1	1:E:401:LEU:HD11	2.18	0.43
1:E:1817:LEU:HA	1:E:1817:LEU:HD23	1.86	0.43
1:A:158:GLU:HA	1:A:983:THR:O	2.19	0.43
1:A:475:GLN:HB2	1:A:477:ILE:HG12	2.01	0.43
1:A:1220:ASP:O	1:A:1222:LYS:HG2	2.19	0.43
1:A:1912:GLU:OE1	1:B:1026:ARG:HG2	2.19	0.43
1:B:1191:THR:HG22	1:B:1193:LYS:HG2	2.01	0.43
1:B:1563:ASN:HB3	1:B:1592:ARG:HB3	2.00	0.43
1:B:1823:PHE:O	1:B:1826:ALA:HB3	2.19	0.43
1:C:600:LEU:HD23	1:C:600:LEU:HA	1.84	0.43
1:C:1416:ASN:O	1:C:1420:ASN:HA	2.19	0.43
1:C:1518:VAL:HG21	1:C:1553:ILE:HD13	1.99	0.43
1:C:2434:ARG:HB3	1:C:2536:ILE:HG22	2.01	0.43
1:D:331:LYS:HE3	1:D:437:GLU:OE2	2.18	0.43
1:D:351:TYR:HB3	1:D:356:GLN:OE1	2.19	0.43
1:D:414:LYS:H	1:D:434:PHE:HB3	1.83	0.43
1:D:923:GLU:OE2	1:E:532:LEU:HD21	2.19	0.43
1:D:1342:THR:OG1	1:D:1353:THR:HB	2.19	0.43
1:D:2192:SER:HA	1:D:2195:VAL:HG22	2.00	0.43
1:D:2514:ALA:HB1	1:D:2522:LEU:HD12	2.00	0.43
1:E:1169:ILE:HD11	1:E:1192:LEU:HG	2.01	0.43
1:E:1197:LEU:HB2	1:E:1203:TRP:CH2	2.54	0.43
1:E:1331:THR:HG22	1:E:1363:TYR:CD1	2.54	0.43
1:E:1498:GLN:HE21	1:E:1499:SER:H	1.66	0.43
1:E:2186:GLY:HA2	1:E:2189:LEU:HD13	2.01	0.43
1:A:129:LEU:HD11	1:A:1018:PHE:CE2	2.54	0.43
1:A:132:SER:HA	1:A:137:HIS:CG	2.54	0.43
1:A:141:ARG:HH21	1:A:970:TYR:HA	1.84	0.43
1:A:352:GLU:H	1:A:357:PHE:HZ	1.67	0.43
1:A:1174:GLU:HB2	1:A:1189:ARG:CG	2.49	0.43
1:A:1442:PRO:HD3	1:A:1451:LEU:CG	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1976:VAL:HG13	1:A:1976:VAL:O	2.19	0.43
1:A:2415:VAL:HG12	1:A:2420:LEU:HD21	2.01	0.43
1:B:334:ARG:HD2	1:B:415:ILE:HG13	2.01	0.43
1:B:1119:GLU:N	1:B:1119:GLU:OE2	2.52	0.43
1:B:1976:VAL:O	1:B:1976:VAL:HG13	2.19	0.43
1:B:2104:ARG:NE	1:B:2104:ARG:HA	2.33	0.43
1:C:698:GLU:OE2	1:C:699:LEU:HG	2.18	0.43
1:C:1095:ALA:HA	1:C:1108:TRP:O	2.19	0.43
1:C:1641:ILE:HG22	1:C:1642:LEU:HD23	2.01	0.43
1:C:2064:LEU:HD23	1:C:2296:PHE:HD2	1.83	0.43
1:C:2201:THR:HG22	1:C:2205:TYR:CE2	2.54	0.43
1:D:136:TYR:HD1	1:D:141:ARG:HH12	1.66	0.43
1:D:841:LEU:O	1:D:845:MET:HG2	2.19	0.43
1:D:1487:ASN:HB2	1:D:1489:GLN:HE22	1.84	0.43
1:D:1863:ALA:O	1:D:1865:PRO:HD3	2.19	0.43
1:D:2360:LEU:HD12	1:D:2360:LEU:HA	1.67	0.43
1:E:250:LEU:HD22	1:E:453:ARG:HE	1.84	0.43
1:E:1373:LYS:HE2	1:E:1412:ILE:HD13	2.00	0.43
1:E:1613:MET:HG2	1:E:1622:LEU:HD21	2.01	0.43
1:A:23:ALA:HB3	1:A:1955:GLN:OE1	2.18	0.42
1:A:26:GLN:N	1:A:27:TYR:HB2	2.34	0.42
1:A:601:THR:O	1:A:605:ARG:HG2	2.19	0.42
1:A:1106:LEU:HA	1:A:1106:LEU:HD12	1.83	0.42
1:A:2368:LEU:HD22	1:A:2528:ILE:HB	2.00	0.42
1:A:2393:GLY:O	1:A:2406:LEU:HD22	2.19	0.42
1:B:249:ILE:HA	1:B:252:GLU:OE2	2.19	0.42
1:B:484:THR:HG23	1:B:488:TYR:HE2	1.84	0.42
1:B:620:LEU:HB2	1:B:804:ILE:HD11	2.01	0.42
1:B:1049:ARG:H	1:B:1052:GLN:NE2	2.17	0.42
1:B:1059:LEU:HD12	1:B:1080:TYR:CB	2.49	0.42
1:B:2109:VAL:HG11	1:B:2248:ARG:HA	2.00	0.42
1:B:2138:ILE:HG23	1:B:2142:GLU:HB2	2.01	0.42
1:B:2242:GLU:HA	1:B:2245:LYS:NZ	2.34	0.42
1:B:2448:GLY:H	1:B:2451:GLU:HG3	1.84	0.42
1:C:26:GLN:CB	1:C:27:TYR:HA	2.49	0.42
1:C:249:ILE:O	1:C:450:LYS:HE2	2.19	0.42
1:C:308:THR:HG21	1:C:359:ILE:HD11	2.00	0.42
1:C:414:LYS:HD2	1:C:414:LYS:HA	1.81	0.42
1:C:632:SER:OG	1:C:635:GLU:HB2	2.19	0.42
1:C:968:TYR:CD1	1:C:974:ASP:HA	2.54	0.42
1:C:2350:LYS:HD3	1:D:2299:LEU:HD13	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2405:LYS:HZ2	1:C:2407:SER:HB2	1.83	0.42
1:C:2519:LYS:HE3	1:C:2519:LYS:HB3	1.93	0.42
1:D:308:THR:HG23	1:D:395:ASN:HD21	1.84	0.42
1:D:649:TRP:O	1:D:653:ALA:HB3	2.19	0.42
1:D:813:PHE:O	1:D:817:ILE:HG23	2.19	0.42
1:D:1684:ASN:O	1:D:1723:VAL:HG23	2.19	0.42
1:D:1959:MET:HE3	1:D:1965:VAL:HB	2.00	0.42
1:D:2410:GLN:HB2	1:D:2512:PRO:HA	2.00	0.42
1:E:158:GLU:OE1	1:E:982:LYS:HE2	2.19	0.42
1:E:308:THR:HG23	1:E:395:ASN:ND2	2.34	0.42
1:E:1122:TRP:HB3	1:E:1146:ILE:HD11	2.01	0.42
1:E:1627:ALA:O	1:E:1631:VAL:HG23	2.17	0.42
1:A:76:SER:HB2	1:A:80:ARG:NE	2.34	0.42
1:A:142:ARG:HE	1:A:142:ARG:HB3	1.73	0.42
1:A:373:LEU:HG	1:A:381:GLY:O	2.19	0.42
1:A:1092:VAL:HG21	1:A:1109:PHE:CD2	2.54	0.42
1:A:1211:ILE:O	1:A:1215:VAL:HG12	2.19	0.42
1:A:1334:GLU:OE2	1:A:1335:ASN:HB2	2.19	0.42
1:B:234:SER:O	1:B:238:ILE:HG12	2.19	0.42
1:B:558:SER:O	1:B:561:MET:HB2	2.20	0.42
1:B:1226:GLU:OE1	1:B:1247:LYS:HD3	2.19	0.42
1:B:1927:GLU:HB3	1:B:1991:TRP:CE2	2.54	0.42
1:C:346:TYR:CE1	1:C:362:ASN:HB2	2.54	0.42
1:C:577:LEU:HD13	1:C:615:CYS:SG	2.59	0.42
1:C:2192:SER:O	1:C:2195:VAL:HG22	2.17	0.42
1:D:818:ASN:ND2	1:D:2274:ARG:HH21	2.17	0.42
1:D:1431:ASN:HB2	1:D:1494:PHE:CZ	2.54	0.42
1:D:1507:THR:HG21	1:D:1541:PHE:HE1	1.84	0.42
1:E:412:GLY:HA3	1:E:434:PHE:CD2	2.49	0.42
1:E:2146:MET:HG2	1:E:2146:MET:H	1.67	0.42
1:E:2469:CYS:CB	1:E:2495:PRO:HA	2.48	0.42
1:A:275:ASN:HB3	1:A:281:TRP:NE1	2.34	0.42
1:A:485:LYS:O	1:A:489:THR:HG23	2.19	0.42
1:A:1276:MET:SD	1:A:1276:MET:N	2.91	0.42
1:A:2184:ARG:HH21	1:B:2184:ARG:HH12	1.66	0.42
1:B:162:LEU:HD21	1:B:977:VAL:O	2.18	0.42
1:B:835:THR:HB	1:B:840:ARG:HH12	1.84	0.42
1:B:2116:LEU:HD21	1:B:2240:GLN:HB3	2.01	0.42
1:B:2223:TRP:O	1:B:2226:GLN:HG3	2.20	0.42
1:C:816:TRP:CE3	1:C:867:TRP:CZ3	3.07	0.42
1:C:1676:ARG:HB2	1:C:1698:MET:SD	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1804:GLU:HA	1:C:1808:TYR:HB2	2.01	0.42
1:C:1923:LEU:HD23	1:C:1923:LEU:O	2.19	0.42
1:C:1967:LYS:HA	1:C:1967:LYS:HD2	1.73	0.42
1:C:2267:ALA:O	1:C:2270:GLU:HG2	2.19	0.42
1:C:2353:LEU:HD23	1:C:2353:LEU:HA	1.73	0.42
1:D:310:ALA:HB2	1:D:317:THR:HB	2.01	0.42
1:D:2281:LEU:O	1:D:2285:MET:HG2	2.20	0.42
1:A:416:TYR:CD1	1:A:431:GLY:HA3	2.49	0.42
1:A:1319:LEU:HB2	1:A:1338:ILE:HD11	2.02	0.42
1:A:1437:ARG:O	1:A:1439:ILE:HG12	2.18	0.42
1:A:1666:LYS:N	1:A:1704:GLU:HG3	2.34	0.42
1:A:1815:GLN:HE21	1:A:1889:ARG:HH22	1.67	0.42
1:A:1902:TYR:CE1	1:A:2007:ILE:HD13	2.54	0.42
1:A:2074:MET:C	1:A:2286:ARG:HH22	2.22	0.42
1:A:2437:LYS:NZ	1:B:2484:PHE:HE2	2.17	0.42
1:A:2455:ALA:HB2	1:A:2511:PHE:HE1	1.84	0.42
1:B:311:TYR:CE2	1:B:342:LYS:HD3	2.54	0.42
1:B:404:ILE:HG22	1:B:408:GLU:OE1	2.20	0.42
1:B:1132:ALA:HB1	1:B:1618:TYR:OH	2.20	0.42
1:B:1891:LEU:O	1:B:1894:LEU:HB2	2.19	0.42
1:B:2198:LEU:O	1:B:2201:THR:HG22	2.18	0.42
1:B:2222:GLU:OE1	1:B:2222:GLU:HA	2.19	0.42
1:B:2364:ARG:NH1	1:B:2422:ILE:HG12	2.34	0.42
1:C:1604:ARG:HE	1:C:1604:ARG:HB3	1.64	0.42
1:C:1713:TYR:HD1	1:C:1718:TYR:CZ	2.36	0.42
1:C:2099:ILE:O	1:C:2103:GLN:HG2	2.19	0.42
1:C:2196:MET:HA	1:C:2196:MET:HE2	2.01	0.42
1:C:2261:GLN:HA	1:C:2264:HIS:CE1	2.55	0.42
1:C:2483:GLN:NE2	1:C:2495:PRO:HG2	2.34	0.42
1:D:386:LEU:H	1:D:386:LEU:HD12	1.83	0.42
1:E:1612:TYR:HB2	1:E:1620:ILE:O	2.19	0.42
1:E:2116:LEU:HD12	1:E:2116:LEU:HA	1.78	0.42
1:A:217:LEU:O	1:A:220:LEU:HB3	2.19	0.42
1:A:370:GLY:N	1:A:386:LEU:HB2	2.31	0.42
1:A:580:VAL:O	1:A:587:ILE:HD13	2.18	0.42
1:A:623:PHE:CD2	1:A:639:LEU:HD13	2.54	0.42
1:A:1436:ARG:HB2	1:A:1485:GLY:HA2	2.02	0.42
1:A:1439:ILE:HD12	1:A:1450:ARG:HG3	2.01	0.42
1:A:1722:GLY:H	1:A:1766:GLN:CG	2.33	0.42
1:A:2120:ARG:HG3	1:A:2237:MET:SD	2.59	0.42
1:A:2129:LYS:HZ1	1:A:2133:LEU:HB2	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2438:GLN:CG	1:A:2494:LEU:HD21	2.49	0.42
1:B:350:MET:HE1	1:B:359:ILE:HA	2.02	0.42
1:B:387:SER:N	1:B:399:ASN:HD22	2.17	0.42
1:B:1415:TYR:CE2	1:B:1468:VAL:HG21	2.54	0.42
1:B:2304:CYS:SG	1:B:2341:LEU:HD12	2.60	0.42
1:C:27:TYR:HD2	1:C:28:LEU:HD22	1.84	0.42
1:C:111:SER:HA	1:C:1980:LEU:O	2.20	0.42
1:C:332:ILE:CG2	1:C:334:ARG:HD2	2.49	0.42
1:C:1058:GLU:HA	1:C:1061:GLU:HG3	2.01	0.42
1:C:1629:GLN:O	1:C:1633:ARG:HG2	2.18	0.42
1:D:192:ARG:NH1	1:D:265:GLN:HG2	2.33	0.42
1:D:1122:TRP:HD1	1:D:1146:ILE:HD11	1.85	0.42
1:D:1897:ARG:HD3	1:D:1916:TRP:CZ2	2.54	0.42
1:E:33:LEU:HD21	1:E:49:LEU:HD11	2.01	0.42
1:E:324:GLU:O	1:E:351:TYR:CZ	2.72	0.42
1:E:1083:ARG:HH11	1:E:1083:ARG:HG3	1.84	0.42
1:E:1089:ASP:OD2	1:E:1114:ARG:HB3	2.19	0.42
1:E:1633:ARG:HB2	1:E:1641:ILE:HD13	2.01	0.42
1:A:346:TYR:HE1	1:A:360:ARG:HD3	1.83	0.42
1:A:828:LEU:HD12	1:A:831:LEU:HD23	2.02	0.42
1:A:1373:LYS:HA	1:A:1373:LYS:HD2	1.64	0.42
1:A:2129:LYS:HZ2	1:A:2133:LEU:HB2	1.83	0.42
1:A:2389:PHE:CD1	1:A:2395:GLY:HA3	2.54	0.42
1:B:750:ASN:OD1	1:B:753:GLU:HB2	2.20	0.42
1:B:1331:THR:HG22	1:B:1332:VAL:N	2.34	0.42
1:B:1514:ILE:HG13	1:B:1573:THR:HG22	2.01	0.42
1:B:1894:LEU:HD13	1:B:1894:LEU:HA	1.94	0.42
1:C:801:GLN:N	1:C:806:THR:HG21	2.34	0.42
1:C:1241:LEU:HB2	1:C:1267:ILE:CG2	2.46	0.42
1:C:1631:VAL:HG12	1:D:1164:GLU:OE2	2.19	0.42
1:C:2191:ALA:O	1:C:2195:VAL:HG13	2.19	0.42
1:D:169:LEU:HD23	1:D:169:LEU:HA	1.76	0.42
1:D:1856:GLU:HA	1:D:1856:GLU:OE2	2.20	0.42
1:D:2097:GLN:HB3	1:E:2257:TYR:HD1	1.84	0.42
1:E:175:ARG:HB3	1:E:175:ARG:CZ	2.50	0.42
1:E:276:PHE:CD2	1:E:281:TRP:HZ3	2.35	0.42
1:E:373:LEU:HD23	1:E:379:PRO:HA	2.01	0.42
1:E:1415:TYR:CE1	1:E:1417:LYS:HA	2.55	0.42
1:E:1509:ILE:N	1:E:1576:LYS:HE3	2.35	0.42
1:E:1758:ALA:HB3	1:E:1760:HIS:NE2	2.35	0.42
1:E:2436:LEU:CD1	1:E:2501:VAL:HA	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:404:ILE:HA	1:A:408:GLU:OE1	2.20	0.42
1:A:409:TYR:O	1:A:436:PHE:HB3	2.20	0.42
1:A:1095:ALA:HA	1:A:1108:TRP:O	2.20	0.42
1:A:1998:LEU:HD11	1:A:2002:ARG:HH12	1.85	0.42
1:A:2111:ALA:O	1:A:2115:VAL:HG23	2.19	0.42
1:B:532:LEU:HD23	1:B:532:LEU:HA	1.78	0.42
1:B:684:ARG:HG2	1:B:745:LEU:HD13	2.02	0.42
1:B:816:TRP:O	1:B:820:LEU:HG	2.19	0.42
1:B:953:ASN:HB3	1:B:954:ILE:HD12	2.02	0.42
1:B:1281:LEU:HD12	1:B:1281:LEU:HA	1.79	0.42
1:C:126:ALA:HB2	1:C:997:ILE:HD11	2.01	0.42
1:C:1365:GLY:HA3	1:C:1371:ARG:HB3	2.02	0.42
1:C:1642:LEU:HB2	1:C:1832:TYR:HD2	1.85	0.42
1:C:2372:TYR:HD2	1:C:2382:LEU:HD13	1.85	0.42
1:D:190:THR:O	1:D:190:THR:HG22	2.20	0.42
1:D:783:VAL:HG22	1:D:832:ARG:HH21	1.85	0.42
1:D:870:ILE:O	1:D:874:LEU:HG	2.19	0.42
1:D:1451:LEU:HD12	1:D:1479:CYS:SG	2.60	0.42
1:D:1610:ALA:HB2	1:D:1652:PRO:HG2	2.01	0.42
1:D:1902:TYR:CE2	1:D:2007:ILE:HB	2.54	0.42
1:D:1957:LEU:HD23	1:D:1957:LEU:HA	1.77	0.42
1:D:2026:LEU:HD21	1:E:818:ASN:CB	2.49	0.42
1:D:2297:PHE:HA	1:D:2300:THR:HG22	2.01	0.42
1:D:2423:PHE:HE2	1:D:2502:ASN:HB2	1.85	0.42
1:E:28:LEU:HD11	1:E:33:LEU:HA	2.01	0.42
1:E:386:LEU:HA	1:E:399:ASN:CB	2.50	0.42
1:E:1515:LYS:HZ2	1:E:1572:GLU:HG3	1.85	0.42
1:E:1659:PHE:CE1	1:E:1710:PHE:HB2	2.55	0.42
1:E:1967:LYS:HG3	1:E:1968:ASN:H	1.83	0.42
1:E:2057:THR:O	1:E:2061:VAL:HG22	2.19	0.42
1:E:2130:TYR:CD1	1:E:2226:GLN:NE2	2.87	0.42
1:E:2387:THR:HA	1:E:2390:LEU:HD12	2.01	0.42
1:A:1358:ALA:HB2	1:A:1547:THR:HG23	2.01	0.42
1:A:1389:TYR:HA	1:A:1541:PHE:CZ	2.55	0.42
1:A:1991:TRP:HB3	1:A:1995:ARG:NH1	2.34	0.42
1:A:2138:ILE:HD13	1:A:2216:TYR:HD2	1.85	0.42
1:A:2395:GLY:O	1:A:2405:LYS:HA	2.19	0.42
1:B:346:TYR:CD2	1:B:360:ARG:CZ	3.03	0.42
1:B:737:ILE:O	1:B:740:PHE:HB3	2.20	0.42
1:B:972:LEU:HD12	1:B:992:GLY:O	2.20	0.42
1:B:1150:VAL:HG13	1:B:1170:TRP:NE1	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1627:ALA:O	1:B:1631:VAL:HG23	2.20	0.42
1:B:1853:ARG:N	1:B:1854:PRO:HD2	2.35	0.42
1:B:2328:TRP:CE3	1:B:2334:GLY:HA3	2.55	0.42
1:C:223:ASN:O	1:C:226:VAL:HG22	2.20	0.42
1:C:293:VAL:HA	1:C:296:TYR:CD2	2.54	0.42
1:C:824:GLY:O	1:C:827:THR:HB	2.20	0.42
1:C:1392:ALA:H	1:C:1418:THR:HG23	1.82	0.42
1:C:1902:TYR:CE2	1:C:2007:ILE:HB	2.50	0.42
1:C:1902:TYR:CD2	1:C:2007:ILE:HD13	2.55	0.42
1:C:2002:ARG:HD3	1:D:977:VAL:HG12	2.01	0.42
1:D:352:GLU:HB3	1:D:357:PHE:HZ	1.84	0.42
1:D:416:TYR:HA	1:D:431:GLY:HA2	2.01	0.42
1:D:923:GLU:CD	1:E:532:LEU:HD11	2.40	0.42
1:D:1197:LEU:HB2	1:D:1203:TRP:CH2	2.55	0.42
1:D:2046:SER:HB3	1:D:2306:MET:HG2	2.01	0.42
1:D:2090:GLN:O	1:D:2093:GLU:HG2	2.19	0.42
1:D:2350:LYS:HE3	1:D:2350:LYS:HB3	1.94	0.42
1:E:4:THR:O	1:E:8:LEU:HD13	2.19	0.42
1:E:245:GLU:O	1:E:249:ILE:HG12	2.20	0.42
1:E:1534:ALA:HB2	1:E:1548:PHE:C	2.39	0.42
1:E:2477:GLY:H	1:E:2480:ASP:HB2	1.83	0.42
1:A:673:SER:OG	1:A:676:ILE:HG12	2.20	0.42
1:A:743:LEU:HD13	1:A:753:GLU:OE1	2.20	0.42
1:A:1053:THR:HB	1:A:1055:MET:HE1	2.02	0.42
1:B:27:TYR:HB3	1:B:28:LEU:CD2	2.50	0.42
1:B:1200:ASP:O	1:B:1200:ASP:OD2	2.37	0.42
1:B:1255:PHE:CD2	1:B:1285:SER:HA	2.54	0.42
1:B:2239:ALA:O	1:B:2242:GLU:HG3	2.19	0.42
1:C:532:LEU:HD12	1:C:532:LEU:H	1.85	0.42
1:C:1092:VAL:HG21	1:C:1109:PHE:CD1	2.47	0.42
1:D:286:TYR:CZ	1:D:452:ILE:HG21	2.55	0.42
1:D:455:CYS:HB2	1:D:460:LEU:O	2.20	0.42
1:D:606:VAL:HG23	1:D:607:HIS:ND1	2.35	0.42
1:D:840:ARG:HD2	1:D:840:ARG:HA	1.79	0.42
1:D:1318:SER:HB2	1:D:1339:PRO:HA	2.02	0.42
1:E:51:HIS:O	1:E:55:GLU:OE1	2.38	0.42
1:E:1281:LEU:HD12	1:E:1281:LEU:HA	1.87	0.42
1:E:2019:GLU:HG2	1:E:2020:PRO:HD2	2.02	0.42
1:E:2416:ARG:HB3	1:E:2419:ASP:HB2	2.02	0.42
1:A:649:TRP:HD1	1:A:812:ARG:HH12	1.68	0.42
1:A:761:CYS:HA	1:A:764:MET:HE2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:792:LEU:HD12	1:A:867:TRP:CD1	2.55	0.42
1:A:1176:VAL:HG21	1:A:1189:ARG:HD2	2.01	0.42
1:A:2390:LEU:HD13	1:A:2523:GLU:HG2	2.02	0.42
1:B:301:GLN:OE1	1:B:317:THR:HG23	2.19	0.42
1:B:387:SER:HB2	1:B:399:ASN:ND2	2.35	0.42
1:B:601:THR:O	1:B:605:ARG:HG2	2.19	0.42
1:B:887:PRO:O	1:B:890:ILE:HG12	2.20	0.42
1:B:968:TYR:CD1	1:B:974:ASP:HA	2.55	0.42
1:B:1812:MET:HA	1:B:1812:MET:CE	2.50	0.42
1:B:2346:ALA:HB1	1:C:2299:LEU:HD23	2.02	0.42
1:B:2515:THR:C	1:B:2519:LYS:HB2	2.40	0.42
1:C:1122:TRP:HZ3	1:C:1124:ASN:HD22	1.68	0.42
1:C:1932:GLY:CA	1:C:1935:GLN:HE21	2.28	0.42
1:D:792:LEU:HD12	1:D:867:TRP:CD1	2.55	0.42
1:D:950:PHE:CD2	1:D:967:LEU:HD11	2.54	0.42
1:D:1122:TRP:HZ3	1:D:1124:ASN:ND2	2.18	0.42
1:D:1422:ILE:HB	1:D:1466:PHE:HB2	2.01	0.42
1:D:2157:LEU:HD23	1:D:2157:LEU:O	2.20	0.42
1:E:1182:ASP:HB3	1:E:1183:PRO:HD3	2.01	0.42
1:E:1882:TYR:O	1:E:1886:THR:HG23	2.19	0.42
1:A:51:HIS:O	1:A:54:ILE:HG12	2.20	0.41
1:A:276:PHE:HA	1:A:281:TRP:CE3	2.54	0.41
1:A:1439:ILE:HG13	1:A:1486:ASN:CB	2.50	0.41
1:C:374:ARG:HB3	1:C:375:LYS:H	1.71	0.41
1:C:386:LEU:HA	1:C:399:ASN:CB	2.50	0.41
1:C:689:GLU:HA	1:C:692:ALA:HB3	2.02	0.41
1:C:708:ILE:O	1:C:712:LEU:CB	2.67	0.41
1:C:775:ARG:HA	1:C:775:ARG:HD3	1.80	0.41
1:C:1235:PHE:CD1	1:C:1309:PHE:HD2	2.37	0.41
1:C:1662:PHE:CZ	1:C:1725:LEU:HD13	2.52	0.41
1:C:2339:GLU:HB3	1:D:2292:ILE:HD13	2.02	0.41
1:D:567:ASN:OD1	1:D:568:SER:N	2.52	0.41
1:D:1235:PHE:CE1	1:D:1237:GLY:HA3	2.56	0.41
1:D:1416:ASN:O	1:D:1420:ASN:CA	2.64	0.41
1:D:1540:SER:H	1:D:1544:MET:HE1	1.85	0.41
1:E:236:LEU:HB2	1:E:487:PHE:CD1	2.55	0.41
1:E:310:ALA:HB2	1:E:317:THR:HB	2.02	0.41
1:E:719:MET:HG3	1:E:778:GLU:HG2	2.02	0.41
1:E:1173:LYS:NZ	1:E:1175:GLU:HB3	2.34	0.41
1:E:1409:GLY:HA3	1:E:1427:GLY:H	1.85	0.41
1:E:1437:ARG:O	1:E:1439:ILE:HG12	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2164:ILE:HD13	1:E:2164:ILE:HA	1.94	0.41
1:E:2522:LEU:O	1:E:2525:LEU:HB3	2.20	0.41
1:A:226:VAL:HG12	1:A:876:TRP:NE1	2.35	0.41
1:A:1659:PHE:CE1	1:A:1710:PHE:HB2	2.54	0.41
1:A:1915:MET:O	1:A:1918:VAL:HG12	2.20	0.41
1:A:2185:TRP:CZ3	1:D:1174:GLU:HG2	2.55	0.41
1:A:2253:MET:HE2	1:E:2101:ILE:HA	2.01	0.41
1:A:2262:GLN:O	1:A:2265:THR:HG22	2.20	0.41
1:A:2364:ARG:HH11	1:A:2422:ILE:HG12	1.85	0.41
1:B:76:SER:HB3	1:B:80:ARG:NE	2.32	0.41
1:B:732:PRO:HD2	1:B:760:PHE:HE1	1.85	0.41
1:B:1771:LYS:HD3	1:B:1771:LYS:HA	1.83	0.41
1:C:274:GLU:HG3	1:C:1405:TYR:OH	2.20	0.41
1:C:489:THR:CG2	1:C:507:ASN:HD22	2.33	0.41
1:C:1021:TRP:CZ3	1:C:1025:ASN:HA	2.55	0.41
1:C:1116:ASN:HD22	1:D:1207:TRP:HA	1.85	0.41
1:C:1313:PHE:HE2	1:C:1345:TYR:CE1	2.38	0.41
1:C:1821:LYS:HA	1:C:1821:LYS:HD2	1.75	0.41
1:C:2385:LYS:HD2	1:C:2389:PHE:CZ	2.55	0.41
1:D:192:ARG:HD2	1:D:265:GLN:O	2.19	0.41
1:D:1576:LYS:HB3	1:D:1576:LYS:HE2	1.81	0.41
1:D:2239:ALA:O	1:D:2242:GLU:HG3	2.20	0.41
1:D:2436:LEU:HA	1:D:2534:TYR:CB	2.50	0.41
1:E:475:GLN:HB3	1:E:477:ILE:HG23	2.02	0.41
1:E:623:PHE:HA	1:E:626:LYS:NZ	2.35	0.41
1:E:1050:ILE:HD13	1:E:1870:ASP:OD1	2.19	0.41
1:E:1584:ILE:HD13	1:E:1584:ILE:HA	1.82	0.41
1:E:2474:LEU:HD21	1:E:2477:GLY:CA	2.50	0.41
1:A:216:THR:CG2	1:A:494:HIS:HB3	2.50	0.41
1:A:356:GLN:O	1:A:402:SER:HA	2.20	0.41
1:A:1291:PHE:O	1:A:1293:ILE:HG23	2.20	0.41
1:A:2049:ARG:NH2	1:A:2494:LEU:H	2.19	0.41
1:A:2104:ARG:HD3	1:A:2104:ARG:HA	1.90	0.41
1:B:1649:LEU:CD1	1:B:1650:PRO:HD2	2.48	0.41
1:B:1658:PHE:HZ	1:B:1743:PHE:HD2	1.67	0.41
1:B:1823:PHE:CD2	1:B:1897:ARG:HD3	2.55	0.41
1:B:2000:ASN:OD1	1:B:2005:LEU:HB2	2.20	0.41
1:B:2099:ILE:CD1	1:B:2258:GLN:HB3	2.49	0.41
1:B:2387:THR:O	1:B:2391:ARG:HG3	2.21	0.41
1:B:2438:GLN:HB2	1:B:2494:LEU:HD21	2.02	0.41
1:B:2457:LEU:HD11	1:B:2509:LEU:HG	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:79:ILE:HB	1:C:1887:PHE:CE2	2.55	0.41
1:C:201:GLN:HA	1:C:204:GLU:CD	2.40	0.41
1:C:249:ILE:HA	1:C:252:GLU:OE2	2.19	0.41
1:C:1422:ILE:HB	1:C:1468:VAL:HG22	2.03	0.41
1:C:1508:GLY:HA3	1:C:1576:LYS:HE3	2.02	0.41
1:D:249:ILE:O	1:D:252:GLU:HG2	2.20	0.41
1:D:1166:LEU:HD23	1:D:1167:HIS:N	2.35	0.41
1:D:1390:GLY:HA2	1:D:1507:THR:C	2.41	0.41
1:D:1487:ASN:N	1:D:1489:GLN:HE22	2.14	0.41
1:D:1523:LYS:NZ	1:D:1557:SER:H	2.18	0.41
1:D:2019:GLU:HG2	1:D:2020:PRO:HD2	2.02	0.41
1:E:806:THR:O	1:E:810:LEU:HG	2.19	0.41
1:E:1046:PRO:HG2	1:E:1889:ARG:NH1	2.32	0.41
1:E:1079:THR:O	1:E:1083:ARG:HG2	2.20	0.41
1:E:1318:SER:C	1:E:1319:LEU:HD22	2.41	0.41
1:E:2138:ILE:HG23	1:E:2142:GLU:HB2	2.02	0.41
1:E:2395:GLY:O	1:E:2405:LYS:HA	2.20	0.41
1:A:712:LEU:HD21	1:A:768:SER:HB3	2.01	0.41
1:A:854:GLN:HA	1:A:857:VAL:HG22	2.02	0.41
1:A:1823:PHE:HB3	1:A:1897:ARG:CZ	2.50	0.41
1:A:1941:LEU:HD12	1:A:1941:LEU:HA	1.87	0.41
1:A:2184:ARG:CZ	1:E:2184:ARG:HH22	2.34	0.41
1:B:129:LEU:HD21	1:B:1018:PHE:CZ	2.52	0.41
1:B:199:TYR:CD1	1:B:945:VAL:HG21	2.55	0.41
1:B:311:TYR:HB3	1:B:312:VAL:H	1.73	0.41
1:B:323:ASN:HB2	1:B:353:GLY:O	2.20	0.41
1:B:780:GLU:HG2	1:B:781:LEU:N	2.35	0.41
1:B:813:PHE:HD1	1:B:867:TRP:CE3	2.38	0.41
1:B:899:VAL:HG21	1:B:904:LYS:N	2.34	0.41
1:B:1813:CYS:HB2	1:B:1829:TRP:NE1	2.35	0.41
1:C:73:PRO:HA	1:C:80:ARG:NH2	2.35	0.41
1:C:374:ARG:HE	1:C:383:VAL:HG21	1.85	0.41
1:C:833:GLN:HG2	1:C:835:THR:HG22	2.01	0.41
1:C:1158:ARG:HG3	1:C:1159:PRO:HD2	2.01	0.41
1:C:1370:ILE:O	1:C:1374:GLN:HB2	2.20	0.41
1:D:704:LEU:O	1:D:708:ILE:HG12	2.20	0.41
1:D:817:ILE:HG13	1:D:818:ASN:N	2.35	0.41
1:D:968:TYR:CD1	1:D:974:ASP:HA	2.56	0.41
1:D:1158:ARG:HG3	1:D:1159:PRO:HD2	2.02	0.41
1:D:1197:LEU:HD23	1:D:1198:ARG:O	2.21	0.41
1:D:2088:LEU:HB3	1:D:2269:LEU:HD12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2251:ALA:O	1:D:2255:VAL:HG23	2.20	0.41
1:D:2530:LEU:HB3	1:D:2532:ILE:CD1	2.50	0.41
1:E:315:ILE:HG22	1:E:316:SER:N	2.36	0.41
1:E:659:ALA:O	1:E:663:LEU:HG	2.21	0.41
1:E:1106:LEU:HD12	1:E:1125:VAL:O	2.20	0.41
1:E:1476:PHE:HA	1:E:1479:CYS:SG	2.60	0.41
1:A:62:LEU:HD11	1:A:1865:PRO:HG2	2.03	0.41
1:A:1302:VAL:HG11	1:A:1604:ARG:NH1	2.36	0.41
1:A:2369:ALA:HA	1:A:2382:LEU:HG	2.02	0.41
1:B:165:SER:O	1:B:169:LEU:HD23	2.21	0.41
1:B:577:LEU:HD13	1:B:615:CYS:SG	2.61	0.41
1:B:897:ARG:H	1:B:908:ASN:HB2	1.85	0.41
1:B:1153:TYR:CE1	1:B:1154:LYS:HG3	2.55	0.41
1:B:1317:ALA:O	1:B:1341:ILE:HG12	2.20	0.41
1:B:1374:GLN:O	1:B:1378:MET:HG2	2.20	0.41
1:B:1387:SER:O	1:B:1388:GLN:HG2	2.20	0.41
1:B:2027:LEU:HD23	1:B:2027:LEU:H	1.84	0.41
1:B:2184:ARG:CG	1:B:2187:ALA:HB2	2.50	0.41
1:C:1026:ARG:CZ	1:C:1029:THR:HG21	2.50	0.41
1:C:1074:GLU:CG	1:C:1638:ILE:HD11	2.51	0.41
1:D:77:GLY:N	1:D:1925:GLY:HA3	2.26	0.41
1:D:191:TYR:O	1:D:198:PRO:HG3	2.20	0.41
1:D:527:PHE:HD1	1:D:563:GLY:HA3	1.83	0.41
1:D:700:GLN:HA	1:D:703:ILE:HG12	2.03	0.41
1:D:828:LEU:HD12	1:D:831:LEU:HD23	2.03	0.41
1:D:1399:VAL:HG13	1:D:1497:TYR:HB3	2.03	0.41
1:D:1927:GLU:HB3	1:D:1991:TRP:CE2	2.56	0.41
1:D:2436:LEU:HA	1:D:2534:TYR:HB3	2.02	0.41
1:E:23:ALA:HB3	1:E:1955:GLN:OE1	2.21	0.41
1:E:357:PHE:HB2	1:E:400:TYR:HA	2.02	0.41
1:E:359:ILE:HG21	1:E:359:ILE:HD13	1.79	0.41
1:E:498:LEU:HD22	1:E:502:ASP:OD2	2.21	0.41
1:E:971:PHE:O	1:E:973:ILE:HG22	2.21	0.41
1:E:1122:TRP:HZ3	1:E:1124:ASN:ND2	2.18	0.41
1:E:2047:LEU:HD12	1:E:2047:LEU:HA	1.80	0.41
1:A:309:SER:HA	1:A:311:TYR:CE2	2.56	0.41
1:A:336:LYS:HD3	1:A:415:ILE:HG22	2.01	0.41
1:A:1727:VAL:O	1:A:1733:THR:HG23	2.20	0.41
1:B:346:TYR:CD1	1:B:360:ARG:HA	2.56	0.41
1:B:475:GLN:HB2	1:B:477:ILE:HG12	2.03	0.41
1:B:600:LEU:HD23	1:B:600:LEU:HA	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:759:GLN:O	1:B:763:VAL:HG13	2.19	0.41
1:B:1415:TYR:HE1	1:B:1417:LYS:HA	1.85	0.41
1:B:1439:ILE:HD12	1:B:1450:ARG:HG3	2.01	0.41
1:B:1572:GLU:OE2	1:B:1574:LYS:HB3	2.21	0.41
1:B:2054:LEU:HD21	1:B:2058:ARG:HH22	1.85	0.41
1:B:2444:PRO:HD2	1:B:2527:ASP:O	2.19	0.41
1:C:985:ARG:O	1:C:988:GLU:HG3	2.19	0.41
1:C:1074:GLU:HG2	1:C:1638:ILE:HD11	2.02	0.41
1:C:1523:LYS:HZ3	1:C:1555:ALA:CA	2.34	0.41
1:C:1732:ILE:HD12	1:C:1732:ILE:HA	1.94	0.41
1:D:279:GLN:O	1:D:282:ILE:HG22	2.20	0.41
1:D:352:GLU:N	1:D:357:PHE:CZ	2.89	0.41
1:D:1435:THR:O	1:D:1437:ARG:HG3	2.21	0.41
1:E:349:LEU:HD23	1:E:349:LEU:HA	1.85	0.41
1:E:496:TYR:HD2	1:E:606:VAL:HG22	1.86	0.41
1:E:664:CYS:SG	1:E:803:ASN:HA	2.60	0.41
1:E:2116:LEU:O	1:E:2119:SER:HB2	2.21	0.41
1:E:2353:LEU:HA	1:E:2353:LEU:HD23	1.77	0.41
1:A:289:GLU:O	1:A:292:GLU:HG3	2.20	0.41
1:A:587:ILE:CG1	1:A:593:VAL:HG21	2.48	0.41
1:A:1041:GLU:OE2	1:A:1881:HIS:HD2	2.04	0.41
1:A:1399:VAL:HG13	1:A:1497:TYR:HB3	2.03	0.41
1:A:1409:GLY:HA3	1:A:1427:GLY:HA3	2.02	0.41
1:B:181:SER:O	1:B:185:MET:HG2	2.21	0.41
1:B:1140:TRP:CE2	1:B:1797:ALA:HB2	2.55	0.41
1:B:1177:ALA:HB3	1:C:2176:PHE:CD1	2.56	0.41
1:B:1215:VAL:O	1:B:1219:THR:HG23	2.21	0.41
1:B:1413:THR:OG1	1:B:1422:ILE:HG23	2.20	0.41
1:C:142:ARG:HE	1:C:142:ARG:HB3	1.71	0.41
1:C:173:ILE:HD12	1:C:949:TRP:CZ3	2.56	0.41
1:C:387:SER:H	1:C:399:ASN:CB	2.31	0.41
1:C:416:TYR:HA	1:C:431:GLY:HA2	2.02	0.41
1:C:1405:TYR:HB2	1:C:1430:MET:CE	2.50	0.41
1:C:1624:THR:O	1:C:1625:LEU:HD23	2.20	0.41
1:C:1633:ARG:HB3	1:C:1640:THR:HG22	2.02	0.41
1:C:2315:LEU:HD21	1:C:2355:ARG:CZ	2.50	0.41
1:D:780:GLU:HG3	1:D:817:ILE:HD13	2.02	0.41
1:D:1235:PHE:HB3	1:D:1240:THR:HG22	2.02	0.41
1:D:1748:THR:HG23	1:D:1749:LYS:HD2	2.02	0.41
1:D:1845:ILE:HD11	1:E:1003:ARG:HH21	1.84	0.41
1:D:2053:MET:HE1	1:D:2307:ALA:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:464:GLU:OE2	1:E:500:PHE:HB2	2.21	0.41
1:E:1537:PRO:HG3	1:E:1546:TYR:CE2	2.55	0.41
1:E:2120:ARG:HD2	1:E:2238:ASP:OD1	2.20	0.41
1:A:14:THR:HG23	1:A:16:ASP:H	1.85	0.41
1:A:330:TYR:HD2	1:A:436:PHE:HE2	1.69	0.41
1:A:603:LEU:HG	1:A:614:LEU:HD11	2.02	0.41
1:A:705:ALA:N	1:A:706:PRO:HD2	2.36	0.41
1:A:883:LEU:O	1:A:885:THR:HG23	2.20	0.41
1:A:1415:TYR:CD1	1:A:1417:LYS:HG2	2.56	0.41
1:A:1746:ASP:OD1	1:A:1748:THR:HG22	2.21	0.41
1:A:2415:VAL:CG1	1:A:2420:LEU:HD21	2.50	0.41
1:B:172:HIS:HA	1:B:175:ARG:HH11	1.86	0.41
1:B:774:LEU:HB3	1:B:776:LEU:CD2	2.51	0.41
1:B:1046:PRO:O	1:B:1812:MET:HE3	2.21	0.41
1:B:1438:LEU:HG	1:B:1466:PHE:CE2	2.56	0.41
1:B:1516:ILE:HD11	1:B:1569:ILE:CG2	2.51	0.41
1:B:1970:ARG:HD2	1:B:1970:ARG:HA	1.97	0.41
1:B:2337:ALA:O	1:B:2341:LEU:HD23	2.21	0.41
1:C:416:TYR:CD1	1:C:431:GLY:HA3	2.51	0.41
1:C:946:LEU:HD23	1:C:946:LEU:HA	1.87	0.41
1:D:1265:MET:HE3	1:D:1273:PHE:HB2	2.03	0.41
1:D:1436:ARG:HG3	1:D:1456:PHE:CE2	2.55	0.41
1:D:2513:ASP:OD1	1:D:2516:ASP:HB3	2.21	0.41
1:E:347:PHE:CE2	1:E:417:ALA:HB3	2.56	0.41
1:E:2437:LYS:O	1:E:2494:LEU:HD23	2.19	0.41
1:A:192:ARG:NH1	1:A:265:GLN:HG2	2.36	0.41
1:A:391:ILE:HG12	1:A:396:PHE:CE2	2.55	0.41
1:A:537:PHE:CE1	1:A:555:PHE:CD2	3.09	0.41
1:A:1477:LYS:HZ2	1:A:1502:TRP:HB2	1.86	0.41
1:A:1527:PHE:CD2	1:A:1551:LEU:HD13	2.56	0.41
1:A:1691:ARG:HE	1:A:1691:ARG:HB3	1.68	0.41
1:A:2165:ALA:HA	1:D:1117:LEU:HD11	2.02	0.41
1:B:192:ARG:NH1	1:B:265:GLN:HG2	2.36	0.41
1:B:346:TYR:CE2	1:B:365:VAL:HA	2.54	0.41
1:B:1156:ALA:HB3	1:B:1171:VAL:HG22	2.02	0.41
1:B:1523:LYS:NZ	1:B:1557:SER:H	2.18	0.41
1:B:1527:PHE:CD1	1:B:1532:HIS:CE1	3.09	0.41
1:B:1588:LEU:HD12	1:B:1589:SER:H	1.86	0.41
1:B:2343:LEU:HD12	1:C:2292:ILE:HG23	2.03	0.41
1:C:70:ARG:HH11	1:C:70:ARG:HG3	1.86	0.41
1:C:256:GLU:HG3	1:C:443:ILE:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:420:TYR:HA	1:C:425:SER:O	2.21	0.41
1:C:470:ARG:NH1	1:C:514:TYR:HE2	2.18	0.41
1:C:1108:TRP:CD1	1:C:1108:TRP:N	2.88	0.41
1:C:1229:ALA:HB3	1:C:1246:TYR:CE2	2.55	0.41
1:C:1410:GLY:N	1:C:1426:GLN:HG3	2.35	0.41
1:C:1414:VAL:O	1:C:1422:ILE:HD12	2.21	0.41
1:C:1414:VAL:HG22	1:C:1415:TYR:H	1.85	0.41
1:C:1825:GLU:HA	1:C:1828:GLN:HG3	2.03	0.41
1:C:1866:LEU:HD23	1:C:1866:LEU:HA	1.81	0.41
1:C:2019:GLU:HG2	1:C:2020:PRO:HD2	2.03	0.41
1:C:2116:LEU:HD23	1:C:2116:LEU:HA	1.84	0.41
1:C:2174:ASN:HA	1:D:2185:TRP:HE1	1.86	0.41
1:C:2368:LEU:HD13	1:C:2368:LEU:HA	1.95	0.41
1:C:2419:ASP:O	1:C:2421:LYS:HG3	2.21	0.41
1:D:192:ARG:HD2	1:D:265:GLN:HG2	2.03	0.41
1:D:200:HIS:CE1	1:D:202:PRO:HG2	2.56	0.41
1:D:273:PRO:HG2	1:D:442:THR:HG22	2.02	0.41
1:D:292:GLU:OE1	1:D:296:TYR:HE2	2.04	0.41
1:D:495:ARG:HD2	1:D:644:TYR:CE2	2.56	0.41
1:D:642:TRP:O	1:D:645:GLN:HG2	2.20	0.41
1:D:705:ALA:N	1:D:706:PRO:HD2	2.36	0.41
1:D:873:VAL:O	1:D:877:ILE:HG22	2.21	0.41
1:D:919:ALA:O	1:D:922:MET:HG3	2.20	0.41
1:D:1046:PRO:O	1:D:1812:MET:HE3	2.20	0.41
1:D:1083:ARG:HG3	1:D:1083:ARG:HH11	1.86	0.41
1:D:1116:ASN:HB2	1:E:1207:TRP:CD1	2.55	0.41
1:D:1246:TYR:CD1	1:D:1291:PHE:HE1	2.38	0.41
1:D:1276:MET:HB3	1:D:1276:MET:HE3	1.94	0.41
1:D:1276:MET:SD	1:D:1276:MET:N	2.89	0.41
1:D:1443:VAL:HG13	1:D:1445:ASN:H	1.85	0.41
1:D:1756:ASN:HB2	1:D:1774:LYS:O	2.21	0.41
1:D:2115:VAL:HG22	1:E:2239:ALA:CB	2.49	0.41
1:D:2254:GLN:O	1:D:2257:TYR:HB3	2.21	0.41
1:D:2336:MET:HB2	1:D:2336:MET:HE2	1.88	0.41
1:D:2402:ASN:HA	1:D:2414:SER:O	2.21	0.41
1:E:73:PRO:HA	1:E:80:ARG:NH2	2.35	0.41
1:E:249:ILE:O	1:E:252:GLU:HG2	2.20	0.41
1:E:273:PRO:CG	1:E:442:THR:HG22	2.50	0.41
1:E:347:PHE:HD2	1:E:415:ILE:O	2.04	0.41
1:E:414:LYS:H	1:E:434:PHE:CB	2.33	0.41
1:E:415:ILE:HG23	1:E:415:ILE:HD12	1.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:535:LYS:NZ	1:E:536:ILE:HG22	2.36	0.41
1:E:719:MET:CG	1:E:778:GLU:HG2	2.51	0.41
1:E:760:PHE:O	1:E:763:VAL:HG12	2.20	0.41
1:E:777:SER:CB	1:E:2274:ARG:HD2	2.48	0.41
1:E:984:THR:HG23	1:E:987:ALA:H	1.86	0.41
1:E:1173:LYS:C	1:E:1173:LYS:HD3	2.41	0.41
1:E:1248:THR:HG22	1:E:1294:ILE:HG12	2.03	0.41
1:E:1746:ASP:OD2	1:E:1749:LYS:HD3	2.20	0.41
1:E:1991:TRP:HB3	1:E:1995:ARG:NH1	2.33	0.41
1:E:2074:MET:HE1	1:E:2286:ARG:N	2.36	0.41
1:E:2121:ARG:O	1:E:2124:GLN:HG3	2.21	0.41
1:E:2417:LEU:HD21	1:E:2507:LEU:HB2	2.02	0.41
1:A:136:TYR:HD1	1:A:141:ARG:NH1	2.19	0.41
1:A:158:GLU:HB3	1:A:982:LYS:HB3	2.03	0.41
1:A:272:THR:HG23	1:A:275:ASN:H	1.86	0.41
1:A:684:ARG:HG2	1:A:745:LEU:HD13	2.01	0.41
1:A:728:ASP:HB2	1:A:737:ILE:HG12	2.02	0.41
1:A:801:GLN:O	1:A:806:THR:HG21	2.21	0.41
1:A:1172:GLU:O	1:A:1190:PHE:HA	2.21	0.41
1:A:1518:VAL:HG21	1:A:1553:ILE:CD1	2.51	0.41
1:A:2088:LEU:HD11	1:A:2272:LEU:HD12	2.02	0.41
1:B:321:VAL:HG12	1:B:351:TYR:CE2	2.56	0.41
1:B:350:MET:HE2	1:B:350:MET:HB2	1.86	0.41
1:B:478:ILE:HA	1:B:482:VAL:HG21	2.02	0.41
1:B:901:ALA:O	1:B:902:LEU:HB2	2.21	0.41
1:B:1511:ASN:ND2	1:B:1530:SER:HA	2.36	0.41
1:B:1732:ILE:HD12	1:B:1732:ILE:HA	1.93	0.41
1:B:2142:GLU:HG2	1:B:2216:TYR:CE2	2.39	0.41
1:C:129:LEU:HD11	1:C:1018:PHE:CE2	2.48	0.41
1:C:192:ARG:HD2	1:C:265:GLN:O	2.21	0.41
1:C:462:PRO:O	1:C:465:LEU:HG	2.21	0.41
1:C:740:PHE:O	1:C:744:VAL:HG23	2.20	0.41
1:C:984:THR:HG23	1:C:987:ALA:H	1.86	0.41
1:C:999:ARG:HH21	1:C:1005:GLU:HG2	1.86	0.41
1:C:1195:ALA:HB2	1:C:1206:PRO:HB3	2.02	0.41
1:C:1318:SER:O	1:C:1319:LEU:HD22	2.21	0.41
1:C:1976:VAL:O	1:C:1976:VAL:HG13	2.20	0.41
1:D:890:ILE:O	1:D:894:VAL:HG12	2.21	0.41
1:D:1371:ARG:HG3	1:D:1372:ASN:H	1.86	0.41
1:E:113:PHE:HZ	1:E:1038:TYR:CD2	2.39	0.41
1:E:207:ARG:HH21	1:E:240:ALA:HA	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:217:LEU:HB3	1:E:220:LEU:CB	2.51	0.41
1:E:566:VAL:HB	1:E:570:GLU:HG2	2.03	0.41
1:E:1055:MET:O	1:E:1055:MET:HE3	2.20	0.41
1:E:1150:VAL:HG22	1:E:1152:PRO:HD3	2.02	0.41
1:E:1387:SER:O	1:E:1388:GLN:HG2	2.20	0.41
1:E:1518:VAL:HG21	1:E:1553:ILE:CD1	2.51	0.41
1:E:2184:ARG:HG2	1:E:2187:ALA:HB2	2.01	0.41
1:A:816:TRP:CE2	1:A:820:LEU:HD21	2.56	0.40
1:A:1132:ALA:HB1	1:A:1618:TYR:OH	2.21	0.40
1:A:2115:VAL:HG22	1:B:2239:ALA:CB	2.50	0.40
1:A:2328:TRP:CE3	1:A:2334:GLY:HA3	2.56	0.40
1:A:2516:ASP:H	1:A:2519:LYS:CB	2.30	0.40
1:B:51:HIS:O	1:B:55:GLU:OE1	2.38	0.40
1:B:327:LEU:HD12	1:B:327:LEU:O	2.21	0.40
1:B:336:LYS:HA	1:B:432:GLY:HA3	2.03	0.40
1:B:348:ASP:HB2	1:B:359:ILE:HG21	2.03	0.40
1:B:452:ILE:HD12	1:B:455:CYS:SG	2.61	0.40
1:B:2185:TRP:CZ3	1:E:1174:GLU:HG2	2.56	0.40
1:B:2285:MET:O	1:B:2289:LEU:HD23	2.21	0.40
1:C:62:LEU:HD23	1:C:62:LEU:HA	1.87	0.40
1:C:349:LEU:HD11	1:C:404:ILE:HB	2.03	0.40
1:C:2390:LEU:HD21	1:C:2522:LEU:HD23	2.01	0.40
1:D:602:LEU:O	1:D:606:VAL:HG13	2.21	0.40
1:D:1106:LEU:HD12	1:D:1125:VAL:O	2.21	0.40
1:D:1817:LEU:HD23	1:D:1817:LEU:HA	1.85	0.40
1:D:2050:PHE:CZ	1:D:2054:LEU:HD21	2.56	0.40
1:D:2272:LEU:HG	1:D:2275:LYS:HZ1	1.85	0.40
1:D:2409:ARG:NH1	1:D:2513:ASP:HA	2.37	0.40
1:E:206:ILE:O	1:E:210:ILE:HG12	2.21	0.40
1:E:492:TYR:CE2	1:E:506:LEU:HD22	2.56	0.40
1:E:1059:LEU:HD12	1:E:1080:TYR:CB	2.50	0.40
1:E:1648:ARG:HA	1:E:1853:ARG:NH1	2.36	0.40
1:E:2192:SER:HA	1:E:2195:VAL:HG22	2.03	0.40
1:A:321:VAL:CG1	1:A:352:GLU:HA	2.51	0.40
1:A:2163:SER:HB3	1:A:2195:VAL:HG12	2.03	0.40
1:B:290:LEU:O	1:B:293:VAL:HG22	2.20	0.40
1:B:310:ALA:HB3	1:B:330:TYR:CE2	2.55	0.40
1:B:345:ASN:ND2	1:B:364:LYS:HE3	2.35	0.40
1:B:501:ASP:HB3	1:B:522:HIS:NE2	2.36	0.40
1:B:554:THR:HG22	1:B:556:ALA:H	1.86	0.40
1:B:1162:PHE:CD2	1:B:1163:ARG:HG2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2045:LEU:HD23	1:B:2466:PRO:HD2	2.03	0.40
1:B:2166:GLU:HG3	1:C:2190:ARG:HB2	2.03	0.40
1:B:2410:GLN:HG3	1:B:2511:PHE:C	2.42	0.40
1:C:1255:PHE:CD2	1:C:1285:SER:HA	2.57	0.40
1:C:1395:ILE:HG22	1:C:1414:VAL:CG2	2.51	0.40
1:C:1413:THR:HA	1:C:1424:SER:HA	2.03	0.40
1:C:1713:TYR:HD1	1:C:1718:TYR:OH	2.04	0.40
1:D:323:ASN:HB3	1:D:353:GLY:O	2.21	0.40
1:D:334:ARG:HB2	1:D:433:ILE:O	2.21	0.40
1:D:345:ASN:ND2	1:D:362:ASN:HB2	2.36	0.40
1:D:345:ASN:HD22	1:D:346:TYR:HB2	1.86	0.40
1:D:1125:VAL:HG23	1:D:1139:ALA:O	2.21	0.40
1:D:2059:ASN:OD1	1:D:2060:LEU:HD12	2.21	0.40
1:D:2438:GLN:CG	1:D:2494:LEU:HD21	2.52	0.40
1:E:345:ASN:HA	1:E:362:ASN:OD1	2.21	0.40
1:E:364:LYS:HD2	1:E:364:LYS:O	2.21	0.40
1:E:730:LEU:HD23	1:E:730:LEU:HA	1.91	0.40
1:E:1150:VAL:HG23	1:E:1170:TRP:NE1	2.36	0.40
1:E:1175:GLU:O	1:E:1175:GLU:HG2	2.21	0.40
1:E:1333:MET:CE	1:E:1582:GLY:HA3	2.52	0.40
1:E:1666:LYS:HE2	1:E:1703:SER:HA	2.04	0.40
1:E:1713:TYR:CG	1:E:1714:ALA:N	2.88	0.40
1:A:347:PHE:CE1	1:A:417:ALA:HB3	2.56	0.40
1:A:609:LEU:HG	1:A:613:GLU:CD	2.41	0.40
1:A:835:THR:O	1:A:837:THR:HG23	2.21	0.40
1:A:1122:TRP:HZ3	1:A:1124:ASN:ND2	2.20	0.40
1:A:1158:ARG:HG3	1:A:1159:PRO:HD2	2.02	0.40
1:A:2027:LEU:HD23	1:A:2027:LEU:H	1.85	0.40
1:A:2302:SER:O	1:A:2306:MET:HG2	2.21	0.40
1:A:2436:LEU:HB2	1:A:2499:ILE:HB	2.03	0.40
1:B:272:THR:HG23	1:B:274:GLU:HB2	2.03	0.40
1:B:463:ASN:O	1:B:467:THR:HG23	2.22	0.40
1:B:702:GLU:HG2	1:B:721:ARG:HD2	2.04	0.40
1:B:1792:MET:N	1:B:1853:ARG:HH12	2.19	0.40
1:B:1818:LEU:HD12	1:B:1818:LEU:HA	1.79	0.40
1:B:1898:GLY:HA3	1:B:1917:TYR:CE1	2.56	0.40
1:C:602:LEU:O	1:C:606:VAL:HG13	2.21	0.40
1:C:753:GLU:HA	1:C:756:GLN:HG2	2.03	0.40
1:C:1041:GLU:OE2	1:C:1881:HIS:CD2	2.74	0.40
1:D:1821:LYS:HZ1	1:D:1896:LEU:HD12	1.86	0.40
1:D:2219:ARG:HD3	1:D:2223:TRP:CZ2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:332:ILE:HG22	1:E:334:ARG:CD	2.50	0.40
1:E:1078:LYS:HD2	1:E:1078:LYS:N	2.36	0.40
1:E:1106:LEU:HD12	1:E:1106:LEU:HA	1.80	0.40
1:E:1292:ASP:OD2	1:E:1301:LEU:HD11	2.21	0.40
1:E:1576:LYS:H	1:E:1576:LYS:HG2	1.70	0.40
1:E:1685:VAL:HB	1:E:1717:TYR:HE1	1.86	0.40
1:E:1902:TYR:CE2	1:E:2007:ILE:HB	2.56	0.40
1:E:2242:GLU:O	1:E:2246:ILE:HG22	2.22	0.40
1:A:227:MET:HE2	1:A:230:ALA:HB3	2.04	0.40
1:A:350:MET:HE1	1:A:436:PHE:CE2	2.56	0.40
1:A:480:ASP:HA	1:A:483:LEU:HG	2.03	0.40
1:A:640:VAL:HA	1:A:643:LEU:HG	2.01	0.40
1:A:1084:PHE:HA	1:A:1087:VAL:HG12	2.03	0.40
1:A:1281:LEU:HD12	1:A:1281:LEU:HA	1.82	0.40
1:A:1313:PHE:HA	1:A:1591:LYS:O	2.21	0.40
1:A:2184:ARG:HH22	1:E:2184:ARG:HH22	1.67	0.40
1:A:2438:GLN:HB3	1:A:2533:ARG:HB2	2.03	0.40
1:B:371:ALA:HA	1:B:382:ILE:HG23	2.03	0.40
1:B:1009:ARG:O	1:B:1012:VAL:HG12	2.21	0.40
1:B:1125:VAL:HG23	1:B:1139:ALA:O	2.21	0.40
1:B:1415:TYR:HB2	1:B:1476:PHE:CE2	2.57	0.40
1:B:1727:VAL:O	1:B:1733:THR:HG23	2.22	0.40
1:B:2202:ALA:HA	1:B:2205:TYR:HD2	1.86	0.40
1:B:2339:GLU:HG3	1:C:2067:PHE:CE1	2.52	0.40
1:C:67:ILE:HD12	1:C:67:ILE:HA	1.95	0.40
1:C:278:SER:HB3	1:C:281:TRP:CB	2.51	0.40
1:C:1515:LYS:HZ2	1:C:1572:GLU:HG3	1.86	0.40
1:C:1523:LYS:HZ3	1:C:1555:ALA:HA	1.87	0.40
1:C:1527:PHE:CD1	1:C:1532:HIS:CE1	3.10	0.40
1:C:1804:GLU:O	1:C:1809:THR:HG23	2.20	0.40
1:C:2465:MET:HG2	1:C:2466:PRO:CD	2.41	0.40
1:D:224:PRO:HA	1:D:227:MET:SD	2.61	0.40
1:D:330:TYR:HB3	1:D:438:SER:HA	2.04	0.40
1:D:334:ARG:CB	1:D:434:PHE:HA	2.51	0.40
1:D:452:ILE:HA	1:D:455:CYS:SG	2.62	0.40
1:D:885:THR:HG22	1:D:886:MET:N	2.36	0.40
1:D:1236:GLN:O	1:D:1236:GLN:HG3	2.22	0.40
1:D:1664:LEU:HA	1:D:1665:PRO:HD3	1.97	0.40
1:D:2360:LEU:CD1	1:E:2472:ILE:HD12	2.50	0.40
1:E:217:LEU:HB3	1:E:220:LEU:HB3	2.02	0.40
1:E:789:PHE:HB2	1:E:799:ALA:HA	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1125:VAL:HG23	1:E:1139:ALA:O	2.21	0.40
1:A:959:VAL:HG12	1:A:961:LEU:H	1.86	0.40
1:B:67:ILE:HD12	1:B:67:ILE:HA	1.96	0.40
1:B:73:PRO:HA	1:B:80:ARG:NH2	2.36	0.40
1:B:410:LYS:HD2	1:B:437:GLU:HA	2.04	0.40
1:B:697:ARG:HA	1:B:700:GLN:OE1	2.22	0.40
1:B:1458:PRO:HG2	1:B:1460:THR:O	2.22	0.40
1:B:1601:LEU:HA	1:B:1614:GLN:O	2.22	0.40
1:B:1704:GLU:OE2	1:B:1780:LEU:HD13	2.22	0.40
1:B:2422:ILE:HD12	1:B:2501:VAL:O	2.22	0.40
1:C:840:ARG:HA	1:C:840:ARG:HD2	1.78	0.40
1:C:1190:PHE:CG	1:C:1215:VAL:HG11	2.57	0.40
1:C:1276:MET:HG2	1:C:1281:LEU:HG	2.04	0.40
1:C:1287:LEU:HD23	1:C:1287:LEU:HA	1.73	0.40
1:C:1516:ILE:HD11	1:C:1569:ILE:CG2	2.51	0.40
1:C:1831:ASN:HA	1:C:1834:TYR:O	2.21	0.40
1:C:1870:ASP:OD2	1:C:1872:ASP:HB2	2.21	0.40
1:C:2174:ASN:ND2	1:D:2182:GLY:HA2	2.37	0.40
1:D:273:PRO:CG	1:D:442:THR:HG22	2.52	0.40
1:D:460:LEU:HD12	1:D:464:GLU:OE1	2.21	0.40
1:D:875:GLN:O	1:D:879:VAL:HG22	2.21	0.40
1:D:1009:ARG:O	1:D:1012:VAL:HG12	2.22	0.40
1:D:1250:LYS:HE3	1:D:1295:HIS:O	2.21	0.40
1:D:1477:LYS:NZ	1:D:1502:TRP:HB2	2.37	0.40
1:D:2262:GLN:O	1:D:2265:THR:HG22	2.20	0.40
1:E:76:SER:HB3	1:E:80:ARG:NE	2.36	0.40
1:E:336:LYS:O	1:E:339:ASP:HB3	2.22	0.40
1:E:349:LEU:HA	1:E:357:PHE:O	2.22	0.40
1:E:604:ALA:HA	1:E:614:LEU:HD21	2.03	0.40
1:E:739:GLY:O	1:E:742:THR:HG22	2.21	0.40
1:E:1267:ILE:HD12	1:E:1267:ILE:HA	1.95	0.40
1:E:1456:PHE:HZ	1:E:1461:ILE:HD12	1.86	0.40
1:E:1605:GLU:HA	1:E:1611:GLN:HA	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	2535/2538 (100%)	2328 (92%)	205 (8%)	2 (0%)	48	80
1	B	2535/2538 (100%)	2329 (92%)	202 (8%)	4 (0%)	44	75
1	C	2535/2538 (100%)	2332 (92%)	199 (8%)	4 (0%)	44	75
1	D	2535/2538 (100%)	2319 (92%)	212 (8%)	4 (0%)	44	75
1	E	2535/2538 (100%)	2329 (92%)	202 (8%)	4 (0%)	44	75
All	All	12675/12690 (100%)	11637 (92%)	1020 (8%)	18 (0%)	50	80

All (18) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	343	ASN
1	B	2516	ASP
1	C	343	ASN
1	C	2516	ASP
1	D	343	ASN
1	D	2516	ASP
1	E	343	ASN
1	E	2516	ASP
1	A	343	ASN
1	C	902	LEU
1	D	902	LEU
1	C	345	ASN
1	A	1730	GLN
1	B	1730	GLN
1	E	1730	GLN
1	B	2137	ASP
1	D	1730	GLN
1	E	344	ILE

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	2171/2175 (100%)	2165 (100%)	6 (0%)	91	92
1	B	2172/2175 (100%)	2165 (100%)	7 (0%)	91	92
1	C	2172/2175 (100%)	2164 (100%)	8 (0%)	89	91
1	D	2172/2175 (100%)	2165 (100%)	7 (0%)	91	92
1	E	2172/2175 (100%)	2166 (100%)	6 (0%)	91	92
All	All	10859/10875 (100%)	10825 (100%)	34 (0%)	90	92

All (34) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	334	ARG
1	A	364	LYS
1	A	948	ASN
1	A	1275	LYS
1	A	1719	MET
1	A	2467	ARG
1	B	15	ARG
1	B	284	LYS
1	B	364	LYS
1	B	1198	ARG
1	B	1275	LYS
1	B	2437	LYS
1	B	2467	ARG
1	C	334	ARG
1	C	364	LYS
1	C	948	ASN
1	C	1275	LYS
1	C	2120	ARG
1	C	2324	ARG
1	C	2437	LYS
1	C	2467	ARG
1	D	334	ARG
1	D	364	LYS

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Mol	Chain	Res	Type
1	D	522	HIS
1	D	1719	MET
1	D	2209	LYS
1	D	2236	GLN
1	D	2467	ARG
1	E	284	LYS
1	E	334	ARG
1	E	364	LYS
1	E	1719	MET
1	E	2329	ASN
1	E	2467	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (53) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	248	ASN
1	A	345	ASN
1	A	362	ASN
1	A	976	GLN
1	A	1042	ASN
1	A	1167	HIS
1	A	1289	ASN
1	A	1355	HIS
1	A	1489	GLN
1	A	1766	GLN
1	A	2254	GLN
1	A	2308	GLN
1	A	2329	ASN
1	B	528	ASN
1	B	1052	GLN
1	B	1487	ASN
1	B	1766	GLN
1	B	2090	GLN
1	B	2102	GLN
1	B	2264	HIS
1	B	2329	ASN
1	C	1052	GLN
1	C	1355	HIS
1	C	1881	HIS
1	C	1893	GLN
1	C	1935	GLN
1	C	2329	ASN

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Mol	Chain	Res	Type
1	D	40	GLN
1	D	275	ASN
1	D	528	ASN
1	D	818	ASN
1	D	976	GLN
1	D	998	ASN
1	D	1002	ASN
1	D	1167	HIS
1	D	1355	HIS
1	D	1426	GLN
1	D	1431	ASN
1	D	1935	GLN
1	D	2155	GLN
1	D	2264	HIS
1	D	2329	ASN
1	E	356	GLN
1	E	522	HIS
1	E	955	GLN
1	E	1052	GLN
1	E	1167	HIS
1	E	1489	GLN
1	E	1611	GLN
1	E	1766	GLN
1	E	1935	GLN
1	E	2264	HIS
1	E	2308	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

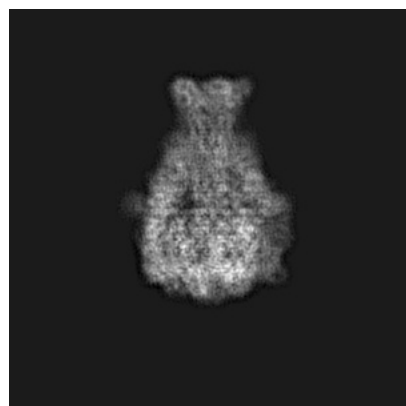
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-48372. These allow visual inspection of the internal detail of the map and identification of artifacts.

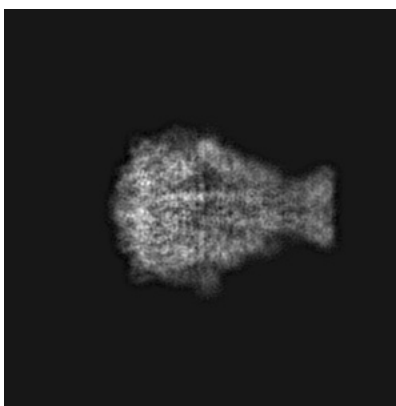
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

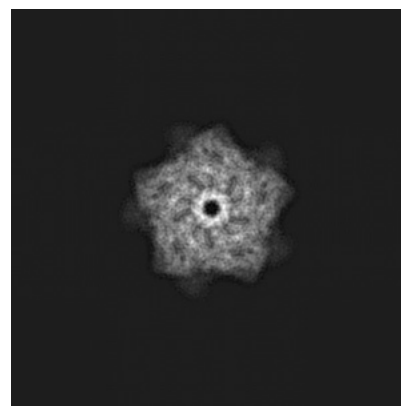
6.1.1 Primary map



X

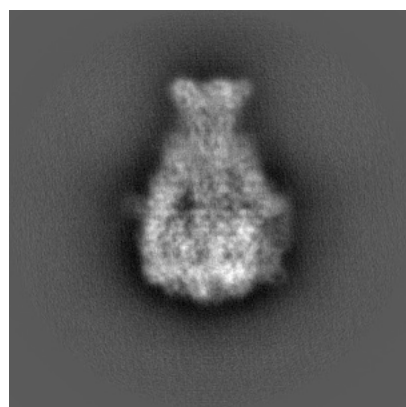


Y

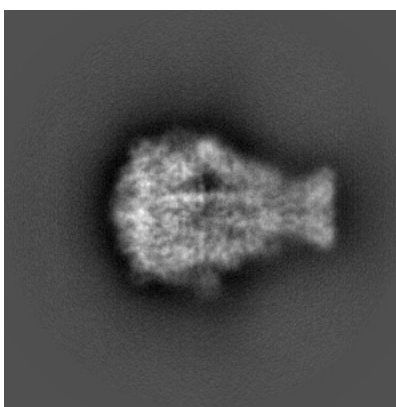


Z

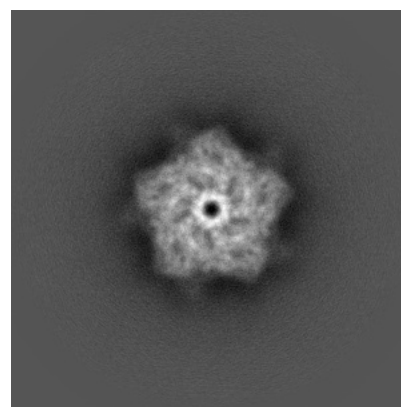
6.1.2 Raw map



X



Y

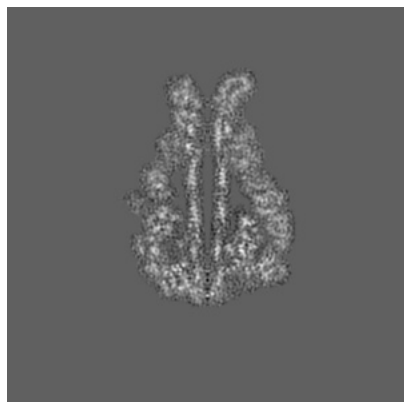


Z

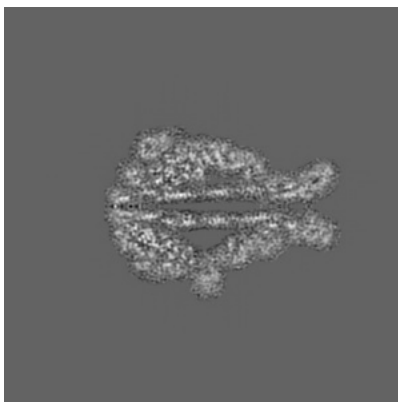
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

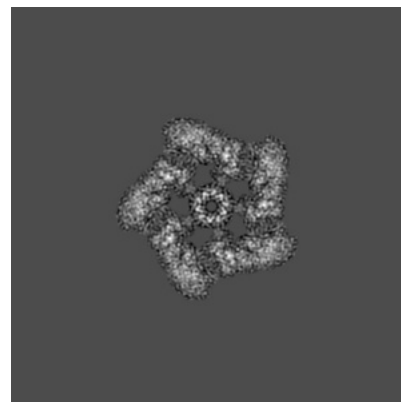
6.2.1 Primary map



X Index: 173

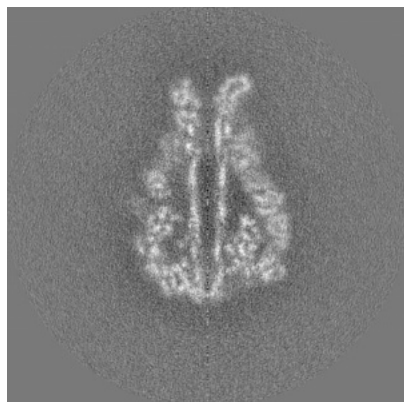


Y Index: 173

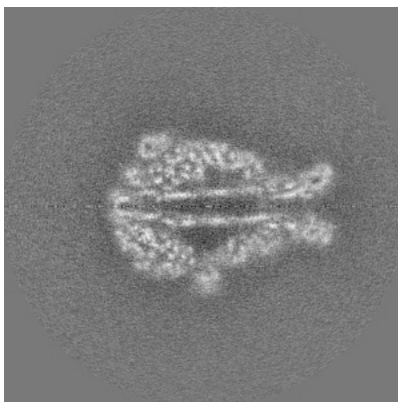


Z Index: 173

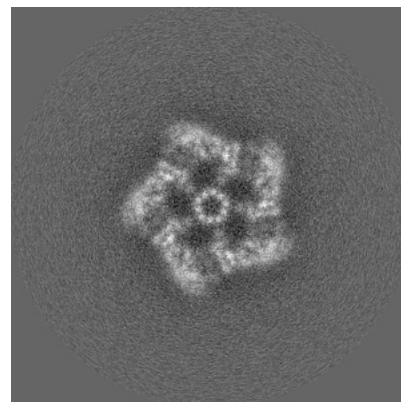
6.2.2 Raw map



X Index: 173



Y Index: 173

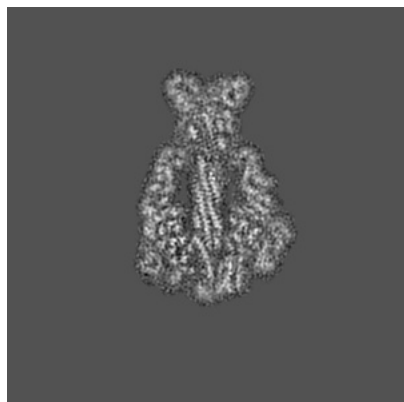


Z Index: 173

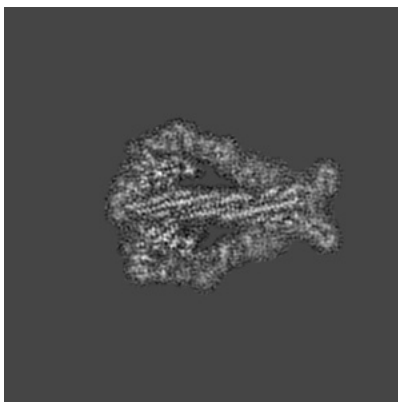
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

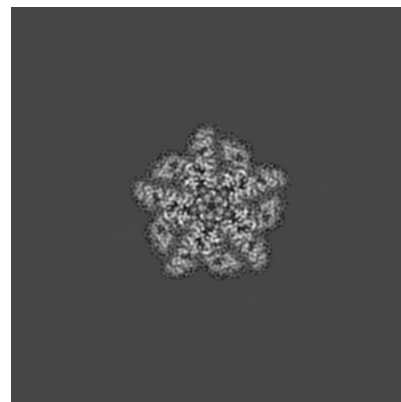
6.3.1 Primary map



X Index: 184

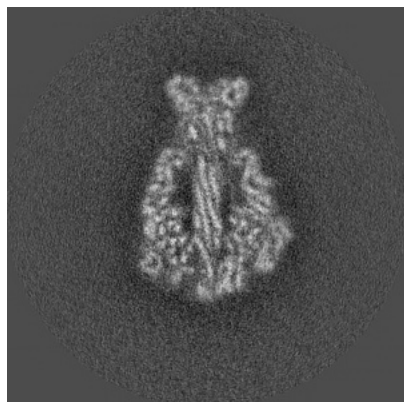


Y Index: 183

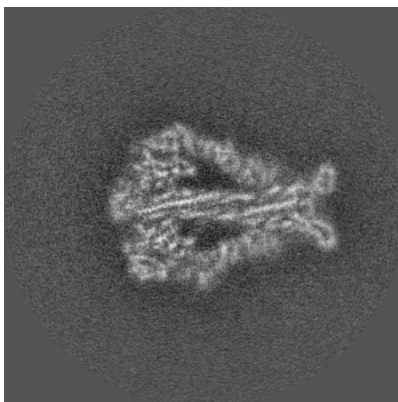


Z Index: 119

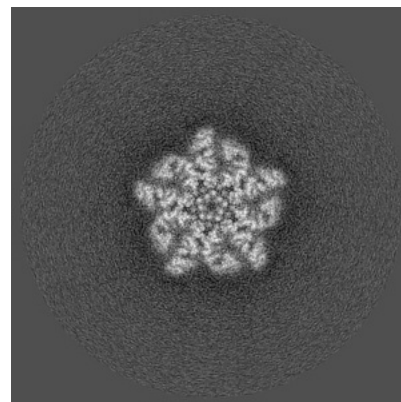
6.3.2 Raw map



X Index: 184



Y Index: 182

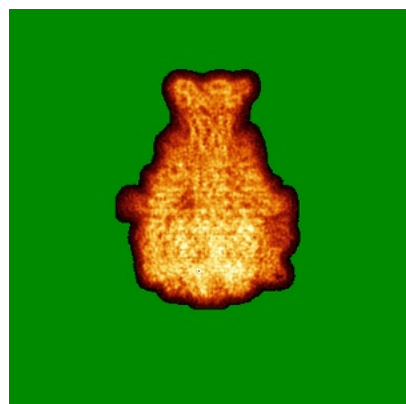


Z Index: 119

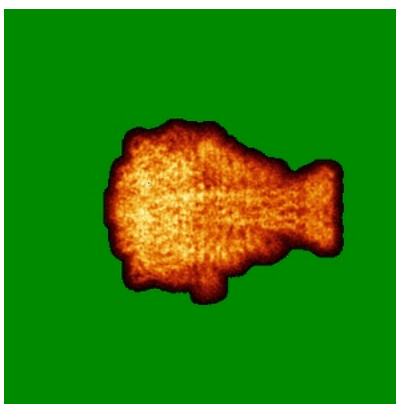
The images above show the largest variance slices of the map in three orthogonal directions.

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

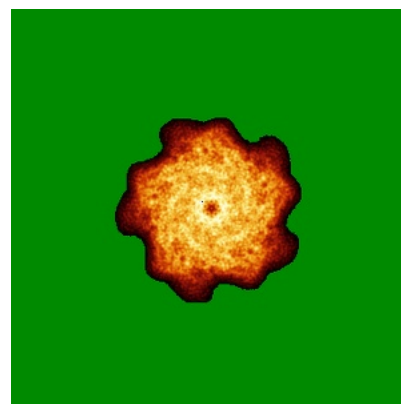
6.4.1 Primary map



X

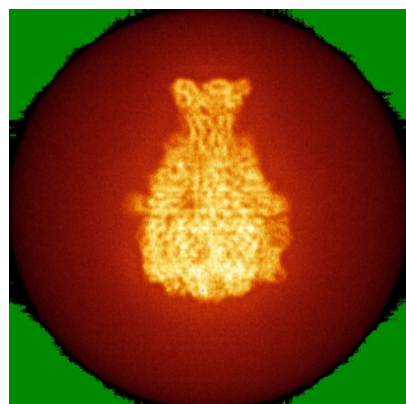


Y

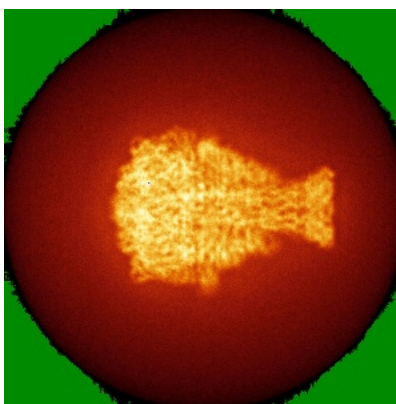


Z

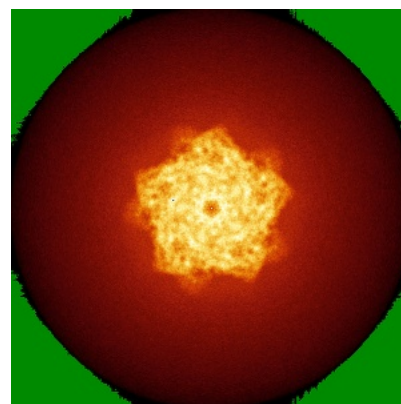
6.4.2 Raw map



X



Y



Z

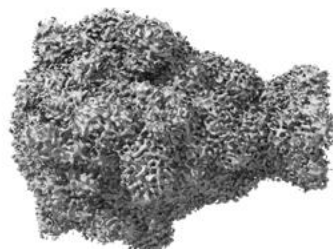
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

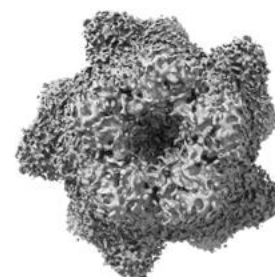
6.5.1 Primary map



X



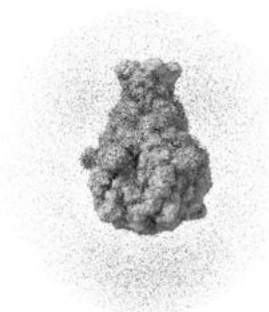
Y



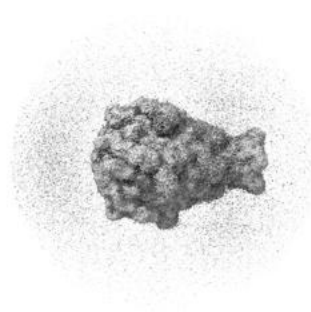
Z

The images above show the 3D surface view of the map at the recommended contour level 0.00379. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

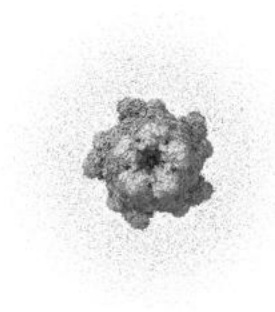
6.5.2 Raw map



X



Y



Z

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

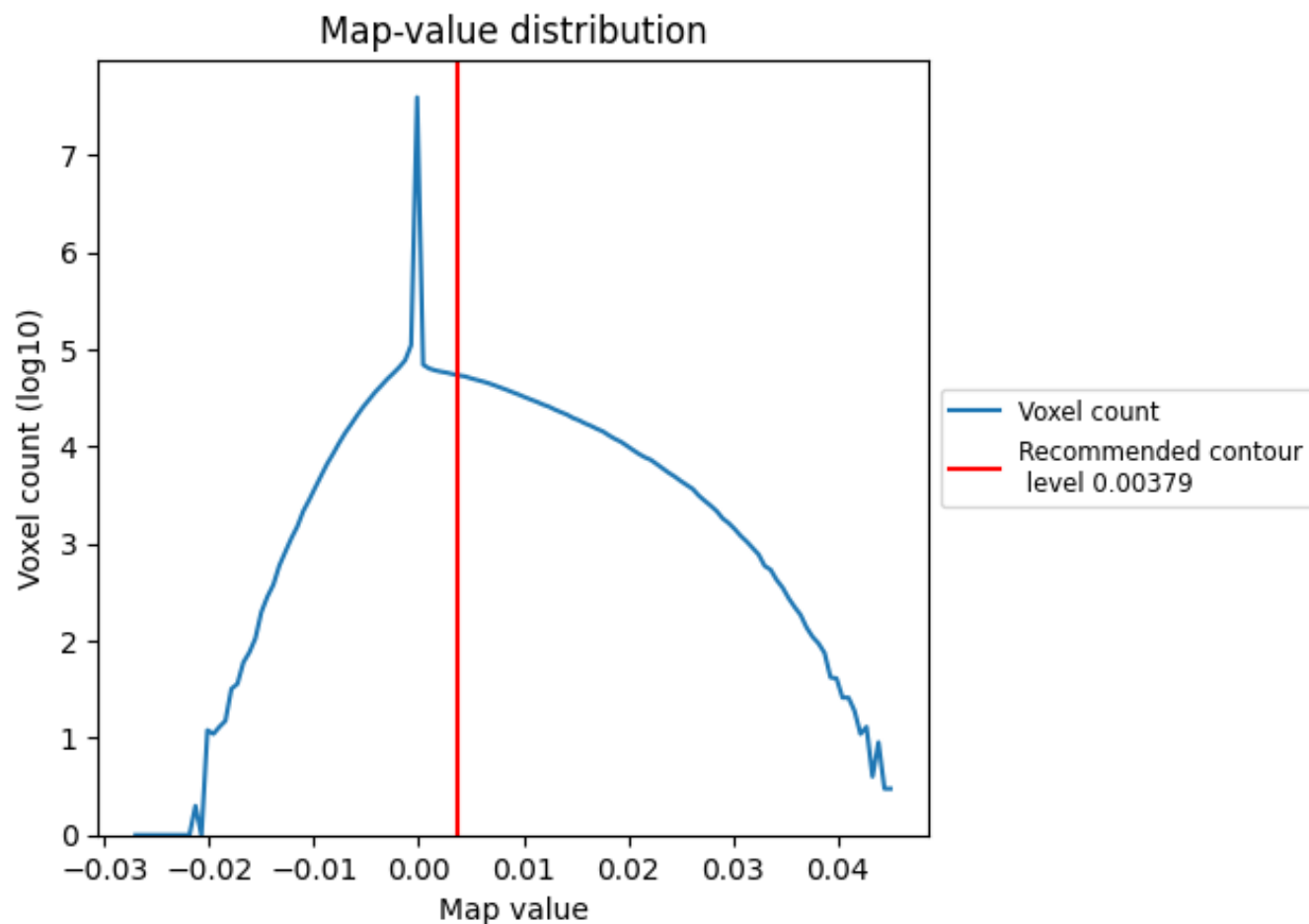
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

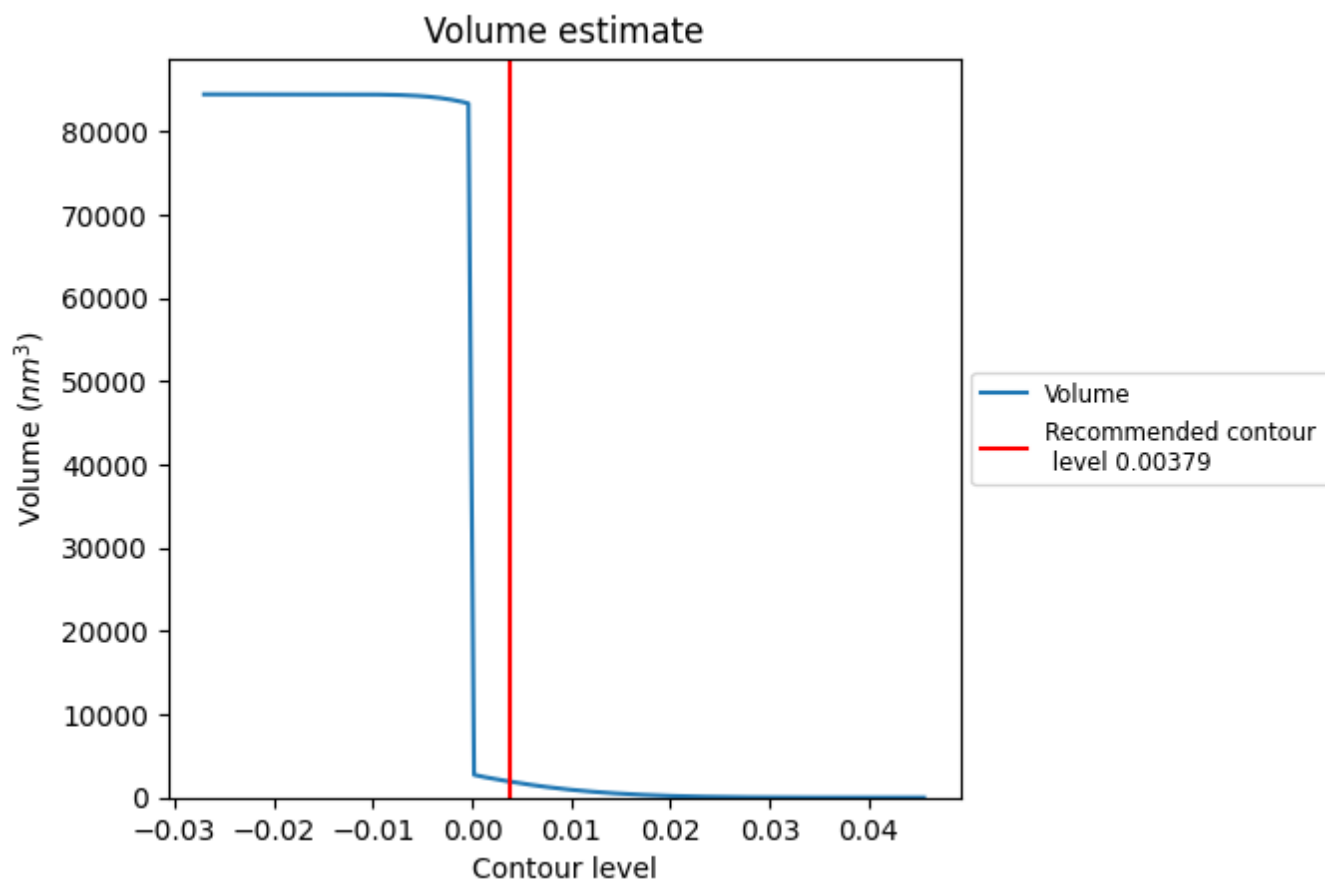
This section contains the results of statistical analysis of the map.

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.

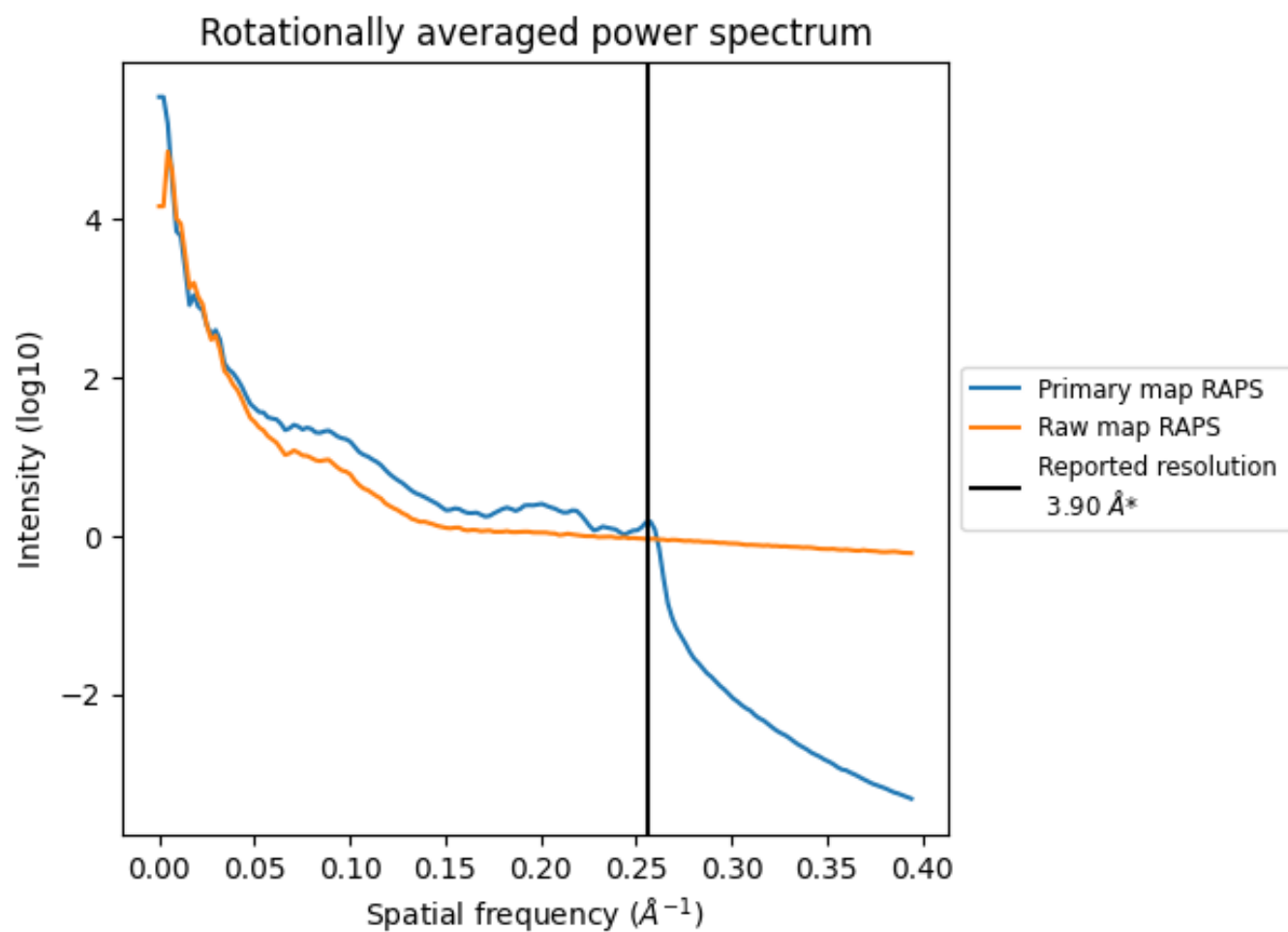
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1929 nm³; this corresponds to an approximate mass of 1743 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 ⓘ

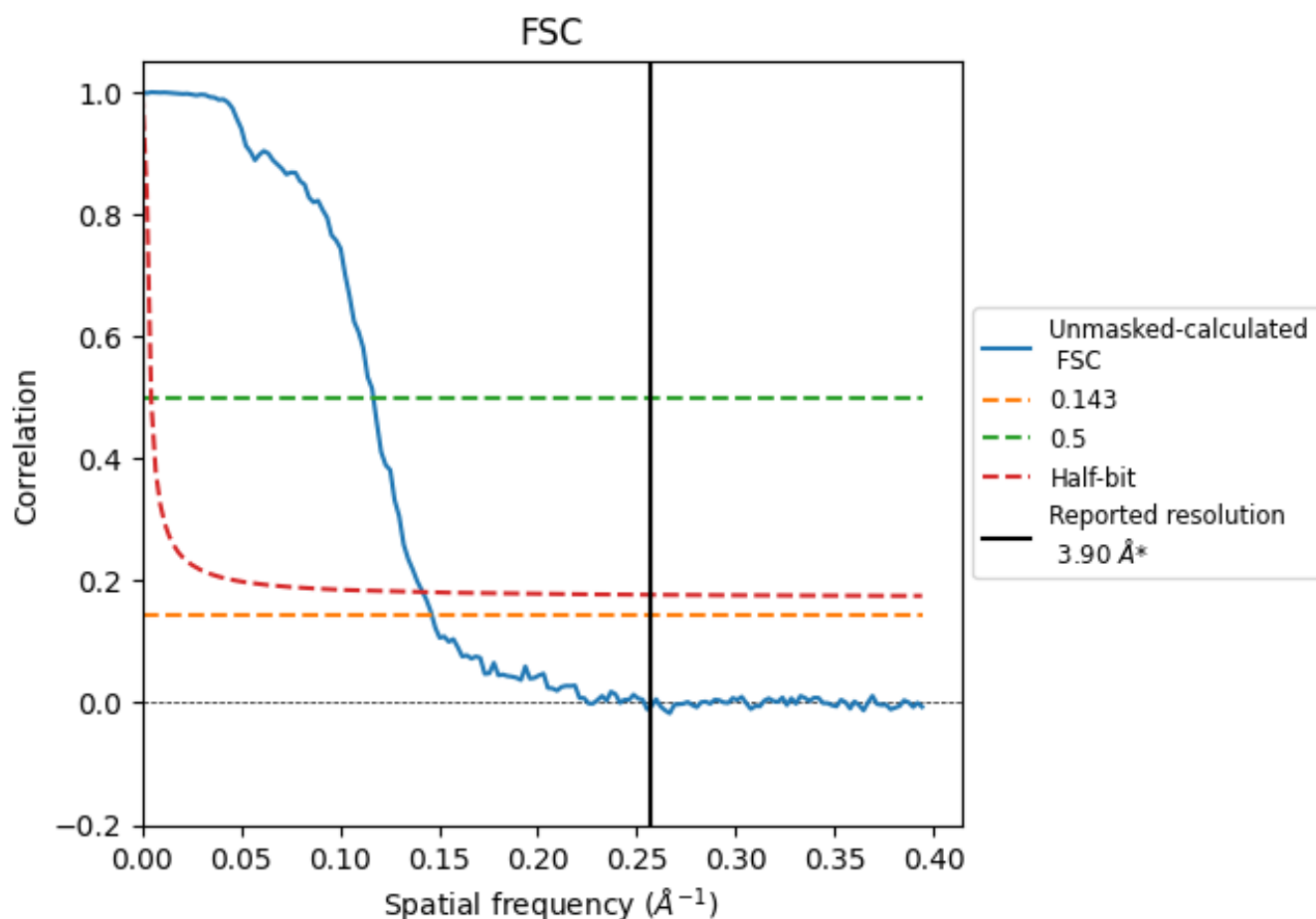


*Reported resolution corresponds to spatial frequency of 0.256 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.256 Å⁻¹

8.2 Resolution estimates [i](#)

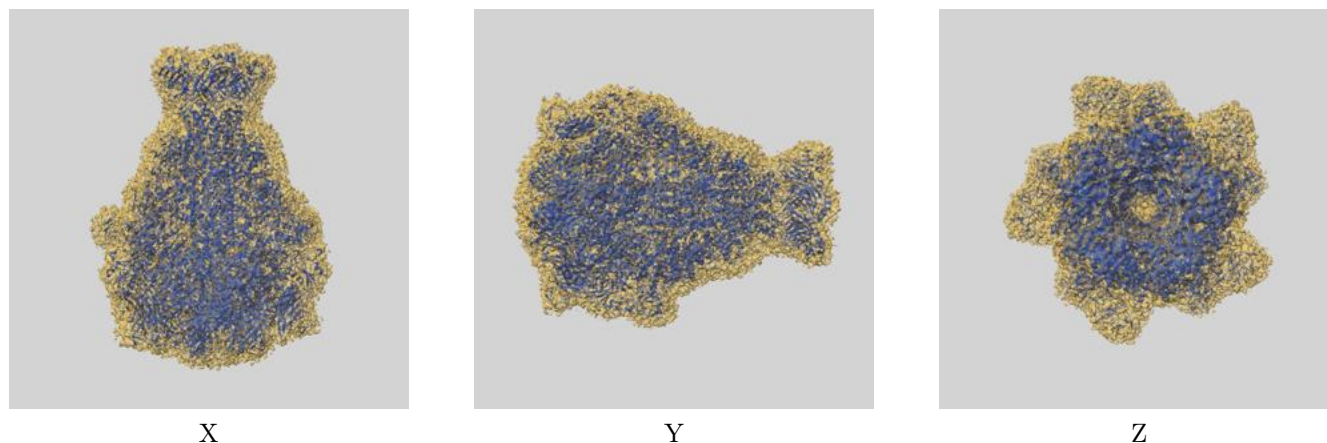
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.90	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	6.83	8.55	7.05

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 6.83 differs from the reported value 3.9 by more than 10 %

9 Map-model fit [i](#)

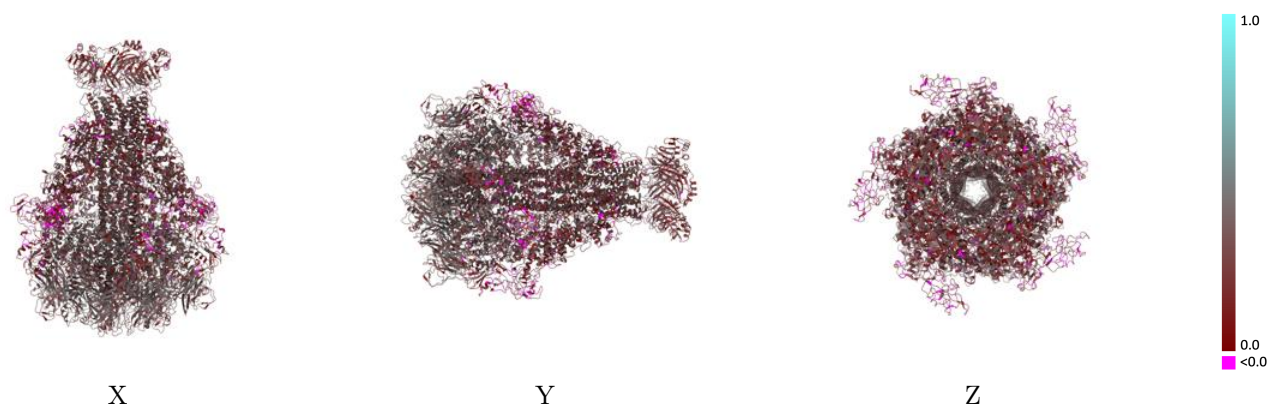
This section contains information regarding the fit between EMDB map EMD-48372 and PDB model 9MLH. Per-residue inclusion information can be found in [section 3](#) on [page 18](#).

9.1 Map-model overlay [i](#)



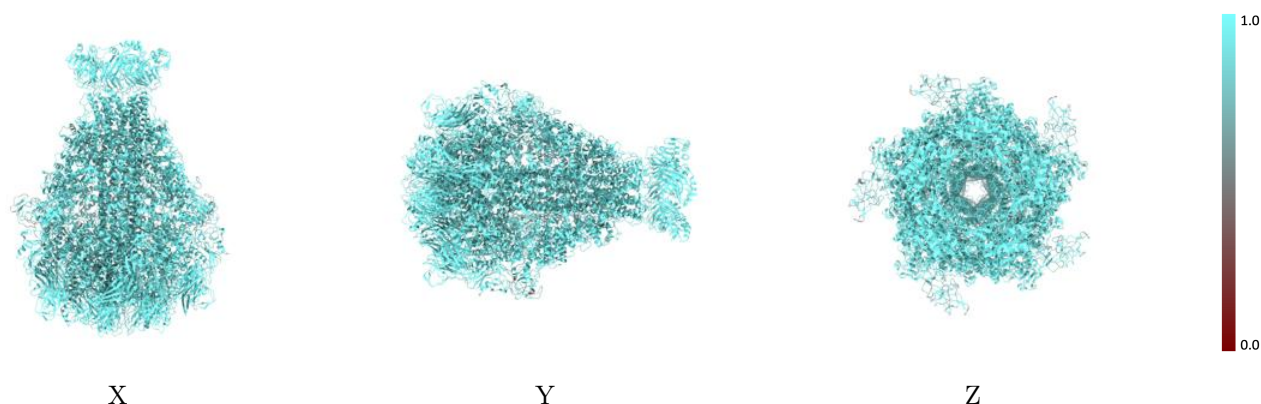
The images above show the 3D surface view of the map at the recommended contour level 0.00379 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



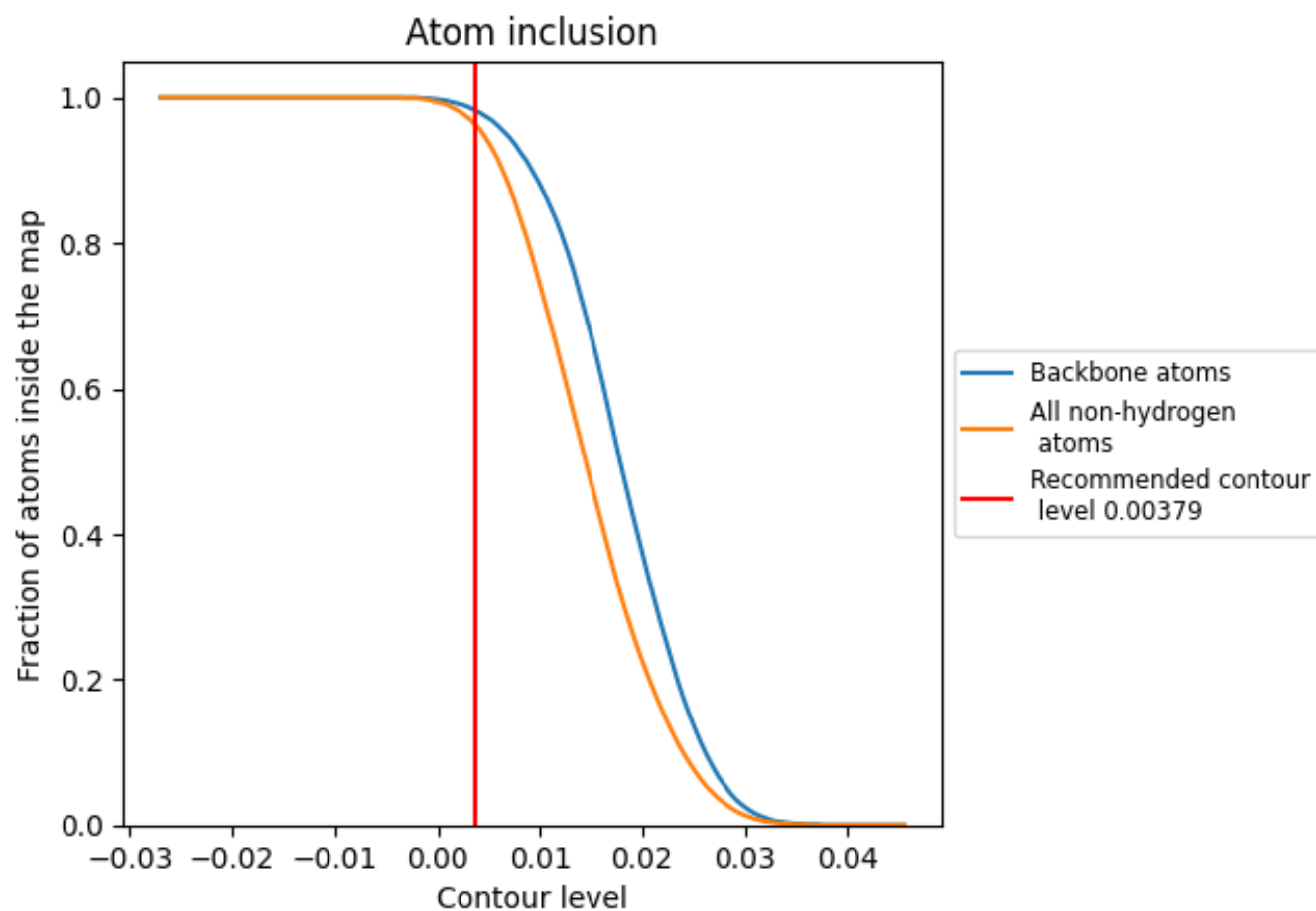
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.00379).

9.4 Atom inclusion [i](#)



At the recommended contour level, 98% of all backbone atoms, 96% 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 (0.00379) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	<div></div> 0.9620	<div></div> 0.3000
A	<div></div> 0.9610	<div></div> 0.2990
B	<div></div> 0.9630	<div></div> 0.2990
C	<div></div> 0.9620	<div></div> 0.3000
D	<div></div> 0.9630	<div></div> 0.3000
E	<div></div> 0.9630	<div></div> 0.3010

