



wwPDB EM Map/Model Validation Report ⓘ

Sep 14, 2016 – 12:09 PM EDT

PDB ID : 5GKY
EMDB ID: : EMD-9518
Title : Structure of RyR1 in a closed state (C1 conformer)
Authors : Bai, X.C.; Yan, Z.; Wu, J.P.; Yan, N.
Deposited on : 2016-07-07
Resolution : 3.80 Å(reported)

This is a wwPDB EM Map/Model Validation Report for a publicly released PDB/EMDB entry.
For rigid body fitted models, validation errors reported here could stem from errors in the original structure(s) used in the fitting.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<http://wwpdb.org/validation/2016/EMValidationReportHelp>

MolProbity : 4.02b-467
Mogul : unknown
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : rb-20027939

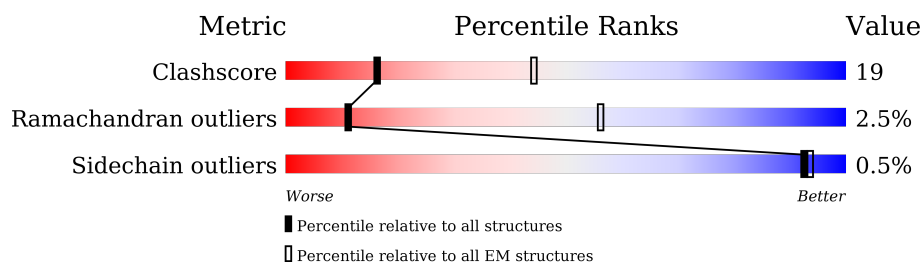
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.80 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. 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 $\leq 5\%$.

Mol	Chain	Length	Quality of chain
1	A	5037	46% 26% 27%
1	C	5037	46% 26% 27%
1	E	5037	46% 26% 27%
1	G	5037	46% 25% 27%
2	B	108	56% 43%
2	D	108	56% 43%
2	F	108	56% 43%
2	H	108	56% 43%

2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 111036 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	3660	Total	C	N	O	S	1	0
			26926	17112	4683	4974	157		
1	C	3660	Total	C	N	O	S	1	0
			26926	17112	4683	4974	157		
1	E	3660	Total	C	N	O	S	1	0
			26926	17112	4683	4974	157		
1	G	3660	Total	C	N	O	S	1	0
			26926	17112	4683	4974	157		

- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1A.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	107	Total	C	N	O	S	0	0
			832	527	146	155	4		
2	D	107	Total	C	N	O	S	0	0
			832	527	146	155	4		
2	F	107	Total	C	N	O	S	0	0
			832	527	146	155	4		
2	H	107	Total	C	N	O	S	0	0
			832	527	146	155	4		

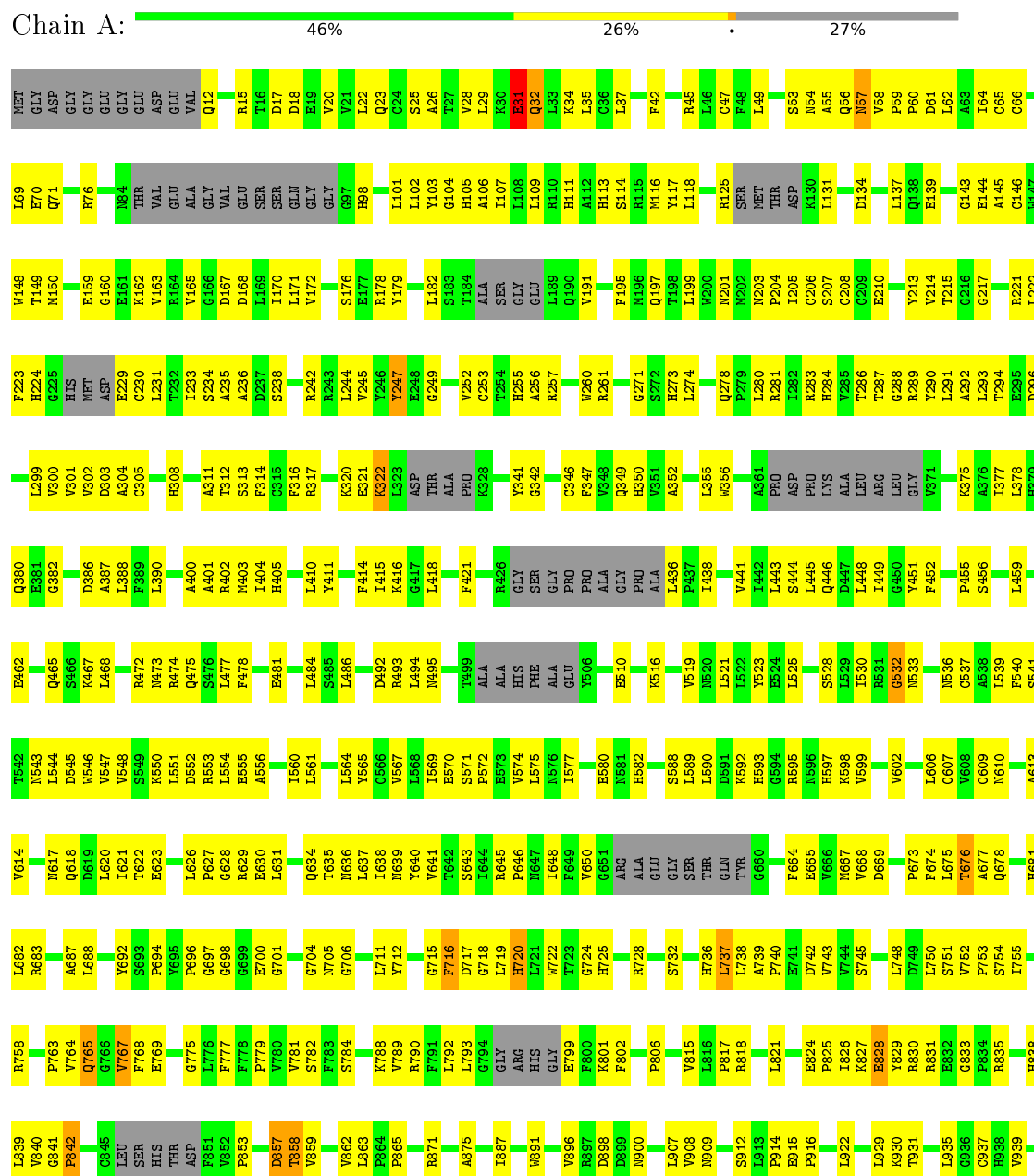
- Molecule 3 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
3	G	1	Total	Zn	0
			1	1	
3	A	1	Total	Zn	0
			1	1	
3	C	1	Total	Zn	0
			1	1	
3	E	1	Total	Zn	0
			1	1	

3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. 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. Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: Ryanodine receptor 1

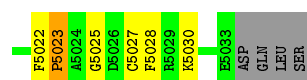






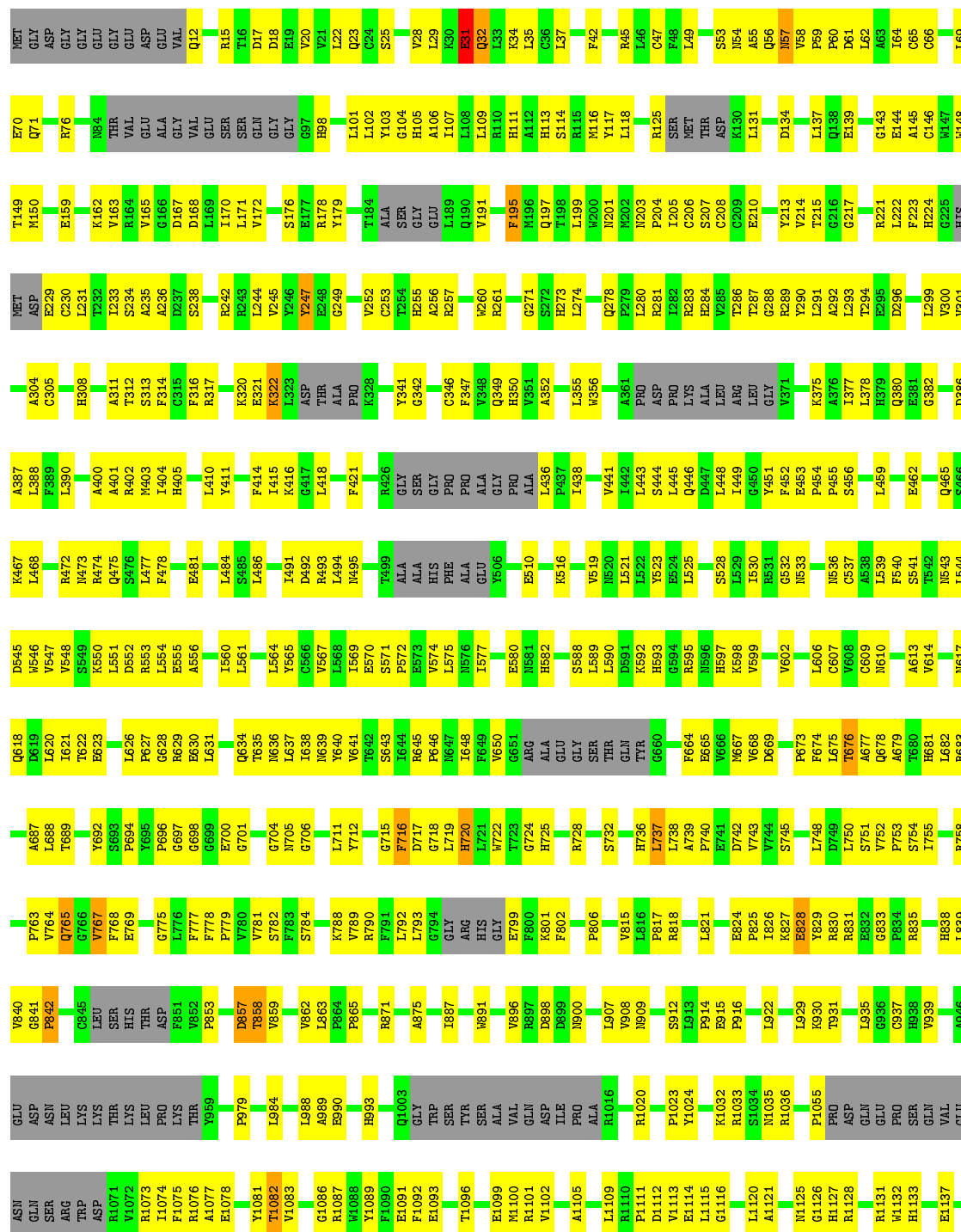




• Molecule 1: Ryanodine receptor 1

Chain C: 46% 26% 27%






ILE	L3783	S3784	GLU	L3694	SER	LYS	GLN	ASP	P3410	PRO	P3188	P3021	GLY	R3852	F2758	P2640	A2532	I2453	SER
ASN	S3785	S3786	ASN	P3695	GLN	ARG	ARG	GLU	L3424	VAL	A3200	I3039	PHE	E2853	H2763	P2658	A2536	I2456	E2375
ARG	S3787	S3788	GLN	P3696	ARG	ARG	ARG	GLU	L3424	ILE	MET	THR	LEU	G2854	H2764	T2659	ASP	I2460	E2381
GLY	S3789	S3790	ARG	P3697	ARG	ARG	ARG	GLU	P3427	ILE	VAL	LEU	LEU	P2857	K2765	TRP	THR	L2463	I2384
GLU	L3788	L3789	ALA	L3698	ALA	ALA	ALA	GLU	P3427	T3273	A2204	F3043	LEU	L2862	D2769	ALA	THR	VAL	E2385
LYS	K3799	K3799	VAL	H3699	VAL	VAL	VAL	MET	F3435	L3274	P3208	P3062	ARG	E2870	K2770	ASN	PHE	PRO	I2386
VAL	I3802	I3802	ALA	Q3700	ALA	ALA	ALA	GLU	F3435	P3275	S3217	P3062	MET	E2870	N2772	GLY	SER	GLU	SER
ALA	L3805	L3805	CYS	L3701	CYS	CYS	CYS	TYR	V3438	P3282	VAL	VAL	ASP	A2875	N2774	VAL	T2544	L2466	PRO
D3877	L3806	L3806	PHE	A3709	PHE	PHE	PHE	TYR	V3438	P3282	VAL	VAL	ILE	A2876	N2775	T2667	A2547	V2467	ALA
D3878	L3807	L3807	ARG	A3710	ARG	ARG	ARG	TYR	V3438	P3282	VAL	VAL	GLN	E2876	N2775	T2667	A2547	V2467	ANG
E3879	G3807	G3807	ARG	A3711	ARG	ARG	ARG	TYR	V3438	P3282	VAL	VAL	GLN	E2876	N2775	T2667	A2547	V2467	ASP
F3880	G3808	G3808	MET	T3711	MET	MET	MET	GLY	Q3456	E3290	THR	THR	GLU	E2876	N2775	T2667	A2547	V2467	GLY
T3881	G3809	G3809	THR	K3712	THR	THR	THR	PRO	N3457	E3290	THR	THR	PHE	E2876	N2775	T2667	A2547	V2467	PRO
Q3882	N3809	N3809	PRO	K3713	PRO	PRO	PRO	GLY	Q3456	E3290	THR	THR	THR	E2876	N2775	T2667	A2547	V2467	GLY
S3883	D3883	D3883	LEU	S3714	LEU	LEU	LEU	GLY	L3470	P3294	SER	SER	VAL	E2876	N2775	T2667	A2547	V2467	VAL
V3812	D3883	D3883	TYR	S3715	TYR	TYR	TYR	ARG	L3470	P3294	SER	SER	ALA	E2876	N2775	T2667	A2547	V2467	ANG
Q3813	D3883	D3883	ASN	K3715	ASN	ASN	ASN	GLU	L3470	P3294	SER	SER	HIS	E2876	N2775	T2667	A2547	V2467	ASP
Q3814	D3883	D3883	LEU	Y3722	LEU	LEU	LEU	GLU	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	GLY
K3815	F3885	F3885	ASP	Y3722	ASP	ASP	ASP	GLU	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	LYS
K3816	F3886	F3886	ALA	N3723	ALA	ALA	ALA	GLU	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ASP
L3817	F3887	F3887	ASP	A3724	ASP	ASP	ASP	GLU	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	GLY
D3818	L3818	L3818	ASP	Y3725	ASP	ASP	ASP	GLU	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	VAL
Y3819	D3818	D3818	PRO	L3728	PRO	PRO	PRO	GLU	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ANG
L3820	L3820	L3820	GLU	L3728	GLU	GLU	GLU	GLU	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ASP
K3821	F3882	F3882	LYS	C3733	LYS	LYS	LYS	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	GLU
K3822	F3882	F3882	ILE	H3733	ILE	ILE	ILE	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	HIS
K3823	F3882	F3882	GLU	L3733	GLU	GLU	GLU	ASN	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	PRO
K3824	F3882	F3882	GLY	L3733	GLY	GLY	GLY	ASN	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	THR
E3825	F3882	F3882	GLY	L3733	GLY	GLY	GLY	ASN	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	GLY
F3828	F3882	F3882	GLY	L3733	GLY	GLY	GLY	ASN	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	LYS
F3829	F3882	F3882	GLU	L3733	GLU	GLU	GLU	ASN	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ASP
L3835	F3882	F3882	ASN	L3733	ASN	ASN	ASN	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	GLY
N3836	F3882	F3882	GLY	L3733	GLY	GLY	GLY	ASN	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ALA
C3839	F3882	F3882	ALA	L3733	ALA	ALA	ALA	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
S3840	F3882	F3882	VAL	L3733	VAL	VAL	VAL	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
V3841	F3882	F3882	GLU	L3733	GLU	GLU	GLU	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
L3842	F3882	F3882	TYR	L3733	TYR	TYR	TYR	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
D3843	F3882	F3882	HIS	L3733	HIS	HIS	HIS	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
R3849	F3882	F3882	GLY	L3733	GLY	GLY	GLY	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
T3919	F3882	F3882	GLY	L3733	GLY	GLY	GLY	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
V3920	F3882	F3882	GLY	L3733	GLY	GLY	GLY	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
Y3922	F3882	F3882	GLY	L3733	GLY	GLY	GLY	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
L3923	F3882	F3882	GLY	L3733	GLY	GLY	GLY	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
L3924	F3882	F3882	GLY	L3733	GLY	GLY	GLY	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
L3925	F3882	F3882	GLY	L3733	GLY	GLY	GLY	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
Q3927	F3882	F3882	GLY	L3733	GLY	GLY	GLY	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
E3928	F3882	F3882	GLY	L3733	GLY	GLY	GLY	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
S3929	F3882	F3882	GLY	L3733	GLY	GLY	GLY	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
Y3936	F3882	F3882	GLY	L3733	GLY	GLY	GLY	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
Y3937	F3882	F3882	GLY	L3733	GLY	GLY	GLY	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
S3938	F3882	F3882	GLY	L3733	GLY	GLY	GLY	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG
VAL	F3882	F3882	GLY	L3733	GLY	GLY	GLY	PRO	L3470	P3294	SER	SER	LEU	E2876	N2775	T2667	A2547	V2467	ARG












- Molecule 1: Ryanodine receptor 1

T149	T150	E159	K162	V163	R164	V165	G166	D167	D168	L169	I170	L171	V172	S176	E177	R178	Y179	L182	S183	T184	ALA	SER	GLY	GLU	L189	Q190	V191	F195	M196	Q197	T198	L199	Q200	N201	N202	N203	P204	I205	C206	S207	C208	C209	E210	Y213	V214	T215	G216	G217	R221	L222	F223	F224	E70	Q71	R76	T84	THR	VAL	GLU	ASP	GLY	VAL	Q12	R15	T16	D17	D18	E19	V20	L22	Q23	C24	S25	A26	T27	V28	L29	L30	E31	Q32	L33	K34	L35	C36	L37	F42	R45	L46	C47	F48	L49	S53	N54	A55	Q56	N57	P59	P60	D61	L62	A63	I64	C65	L66
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PRO	GLY	P1510	C1518	C1519	V1520	ASP	R1438	V1439	F1440	A1441	GLY	GLN	GLU	ASP	ARG	A1227	Q1144	GLN	ASP	V840	F763	L682	M617	N543	Q465	G382	V300	HIS	R235	
GLN	THR	M1230	Q1231	R1232	T1235	PRO	T1236	W1237	F1238	ALA	ALA	ASP	THR	ASP	GLN	THR	D1147	D1148	THR	ASP	P842	Q765	L683	Q618	L544	S466	D386	V301	MET	R242
GLN	ALA	Q1231	R1232	T1235	PRO	THR	T1236	W1237	F1238	ALA	ALA	ASP	THR	ASP	GLN	THR	V1149	V1150	THR	ASP	P843	Q766	L684	Q619	L545	L468	D387	V302	ASP	R243
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C845	C846	THR	ASP	P844	Q767	L685	Q620	V546	L388	A304	C230		
PRO	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C847	C848	THR	ASP	P845	Q768	L686	Q621	V547	L389	H308	L231		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C849	C850	THR	ASP	P846	Q769	L687	Q622	V548	L390	H309	L232		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C851	C852	THR	ASP	P847	Q770	L688	Q623	V549	L391	H310	L233		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C853	C854	THR	ASP	P848	Q771	L689	Q624	V550	L392	H311	L234		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C855	C856	THR	ASP	P849	Q772	L690	Q625	V551	L393	H312	L235		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C857	C858	THR	ASP	P850	Q773	L691	Q626	V552	L394	H313	L236		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C859	C860	THR	ASP	P851	Q774	L692	Q627	V553	L395	H314	L237		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C861	C862	THR	ASP	P852	Q775	L693	Q628	V554	L396	H315	L238		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C863	C864	THR	ASP	P853	Q776	L694	Q629	V555	L397	H316	L239		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C865	C866	THR	ASP	P854	Q777	L695	Q630	V556	L398	H317	L240		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C867	C868	THR	ASP	P855	Q778	L696	Q631	V557	L399	H318	L241		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C869	C870	THR	ASP	P856	Q779	L697	Q632	V558	L400	H319	L242		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C871	C872	THR	ASP	P857	Q780	L698	Q633	V559	L401	H320	L243		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C873	C874	THR	ASP	P858	Q781	L699	Q634	V560	L402	H321	L244		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C875	C876	THR	ASP	P859	Q782	L700	Q635	V561	L403	H322	L245		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C877	C878	THR	ASP	P860	Q783	L701	Q636	V562	L404	H323	L246		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C879	C880	THR	ASP	P861	Q784	L702	Q637	V563	L405	H324	L247		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C881	C882	THR	ASP	P862	Q785	L703	Q638	V564	L406	H325	L248		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C883	C884	THR	ASP	P863	Q786	L704	Q639	V565	L407	H326	L249		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C885	C886	THR	ASP	P864	Q787	L705	Q640	V566	L408	H327	L250		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C887	C888	THR	ASP	P865	Q788	L706	Q641	V567	L409	H328	L251		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C889	C890	THR	ASP	P866	Q789	L707	Q642	V568	L410	H329	L252		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C891	C892	THR	ASP	P867	Q790	L708	Q643	V569	L411	H330	L253		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C893	C894	THR	ASP	P868	Q791	L709	Q644	V570	L412	H331	L254		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C895	C896	THR	ASP	P869	Q792	L710	Q645	V571	L413	H332	L255		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C897	C898	THR	ASP	P870	Q793	L711	Q646	V572	L414	H333	L256		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C899	C900	THR	ASP	P871	Q794	L712	Q647	V573	L415	H334	L257		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C901	C902	THR	ASP	P872	Q795	L713	Q648	V574	L416	H335	L258		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C903	C904	THR	ASP	P873	Q796	L714	Q649	V575	L417	H336	L259		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C905	C906	THR	ASP	P874	Q797	L715	Q650	V576	L418	H337	L260		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C907	C908	THR	ASP	P875	Q798	L716	Q651	V577	L419	H338	L261		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C909	C910	THR	ASP	P876	Q799	L717	Q652	V578	L420	H339	L262		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C911	C912	THR	ASP	P877	Q800	L718	Q653	V579	L421	H340	L263		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C913	C914	THR	ASP	P878	Q801	L719	Q654	V580	L422	H341	L264		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C915	C916	THR	ASP	P879	Q802	L720	Q655	V581	L423	H342	L265		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C917	C918	THR	ASP	P880	Q803	L721	Q656	V582	L424	H343	L266		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C919	C920	THR	ASP	P881	Q804	L722	Q657	V583	L425	H344	L267		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C921	C922	THR	ASP	P882	Q805	L723	Q658	V584	L426	H345	L268		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C923	C924	THR	ASP	P883	Q806	L724	Q659	V585	L427	H346	L269		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C925	C926	THR	ASP	P884	Q807	L725	Q660	V586	L428	H347	L270		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C927	C928	THR	ASP	P885	Q808	L726	Q661	V587	L429	H348	L271		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C929	C930	THR	ASP	P886	Q809	L727	Q662	V588	L430	H349	L272		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C931	C932	THR	ASP	P887	Q810	L728	Q663	V589	L431	H350	L273		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C933	C934	THR	ASP	P888	Q811	L729	Q664	V590	L432	H351	L274		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C935	C936	THR	ASP	P889	Q812	L730	Q665	V591	L433	H352	L275		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C937	C938	THR	ASP	P890	Q813	L731	Q666	V592	L434	H353	L276		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C939	C940	THR	ASP	P891	Q814	L732	Q667	V593	L435	H354	L277		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C941	C942	THR	ASP	P892	Q815	L733	Q668	V594	L436	H355	L278		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C943	C944	THR	ASP	P893	Q816	L734	Q669	V595	L437	H356	L279		
ALA	THR	M1152	T1153	T1154	PRO	THR	T1155	T1156	PRO	ALA	ALA	ASP	THR	ASP	GLN	THR	C945	C946	THR	ASP	P894	Q817	L735	Q670	V596	L438	H357	L280		





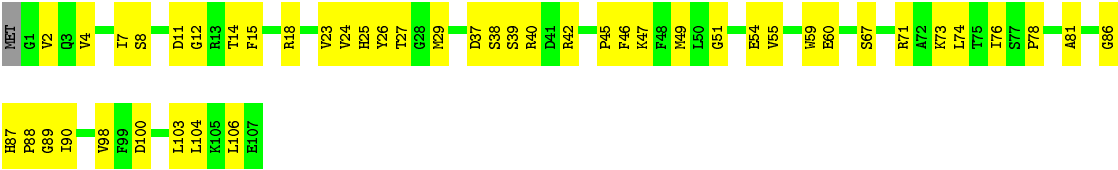


● Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

Chain H:

56%

43%



4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of particles used	119000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	Not provided	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	Not provided	Depositor
Minimum defocus (nm)	Not provided	Depositor
Maximum defocus (nm)	Not provided	Depositor
Magnification	Not provided	Depositor
Image detector	Not provided	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 2$	RMSZ	$\# Z > 2$
1	A	0.85	25/27395 (0.1%)	0.86	68/37119 (0.2%)
1	C	0.85	27/27395 (0.1%)	0.86	64/37119 (0.2%)
1	E	0.85	24/27395 (0.1%)	0.86	63/37119 (0.2%)
1	G	0.84	26/27395 (0.1%)	0.85	59/37119 (0.2%)
2	B	0.64	0/851	0.68	0/1146
2	D	0.64	0/851	0.68	0/1146
2	F	0.64	0/851	0.68	0/1146
2	H	0.66	0/851	0.69	0/1146
All	All	0.84	102/112984 (0.1%)	0.85	254/153060 (0.2%)

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	17
1	C	0	17
1	E	0	17
1	G	0	16
All	All	0	67

All (102) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2853	GLU	CD-OE1	17.93	1.45	1.25
1	E	2853	GLU	CD-OE1	17.88	1.45	1.25
1	G	2853	GLU	CD-OE1	17.49	1.44	1.25
1	C	2853	GLU	CD-OE1	17.32	1.44	1.25
1	G	4988	TYR	CG-CD1	-9.48	1.26	1.39
1	C	4968	PHE	CG-CD1	-8.69	1.25	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	4968	PHE	CG-CD1	-8.66	1.25	1.38
1	E	4968	PHE	CG-CD1	-8.65	1.25	1.38
1	G	4968	PHE	CG-CD1	-8.63	1.25	1.38
1	C	4988	TYR	CG-CD1	-8.52	1.28	1.39
1	G	2853	GLU	CG-CD	8.48	1.64	1.51
1	E	2853	GLU	CG-CD	8.45	1.64	1.51
1	A	2853	GLU	CG-CD	8.35	1.64	1.51
1	A	4988	TYR	CG-CD1	-8.32	1.28	1.39
1	E	4988	TYR	CG-CD1	-8.28	1.28	1.39
1	C	2853	GLU	CG-CD	8.10	1.64	1.51
1	G	4234	PHE	CG-CD1	-7.47	1.27	1.38
1	G	3922	TYR	CG-CD2	-7.26	1.29	1.39
1	A	3922	TYR	CG-CD2	-7.22	1.29	1.39
1	E	3922	TYR	CG-CD2	-7.20	1.29	1.39
1	G	4988	TYR	CE2-CZ	-7.19	1.29	1.38
1	C	3922	TYR	CG-CD2	-7.19	1.29	1.39
1	A	4988	TYR	CE2-CZ	-6.87	1.29	1.38
1	C	4988	TYR	CE2-CZ	-6.86	1.29	1.38
1	E	4988	TYR	CE2-CZ	-6.85	1.29	1.38
1	G	4967	TYR	CG-CD2	-6.77	1.30	1.39
1	C	4967	TYR	CG-CD2	-6.62	1.30	1.39
1	E	4967	TYR	CG-CD2	-6.61	1.30	1.39
1	A	4967	TYR	CG-CD2	-6.59	1.30	1.39
1	G	478	PHE	CG-CD1	-6.57	1.28	1.38
1	E	478	PHE	CG-CD1	-6.57	1.28	1.38
1	G	4194	TYR	CG-CD1	-6.55	1.30	1.39
1	A	478	PHE	CG-CD1	-6.53	1.28	1.38
1	C	478	PHE	CG-CD1	-6.50	1.28	1.38
1	A	5019	TRP	CE3-CZ3	-6.47	1.27	1.38
1	C	5019	TRP	CE3-CZ3	-6.42	1.27	1.38
1	C	3887	PHE	CG-CD1	6.42	1.48	1.38
1	E	3887	PHE	CG-CD1	6.42	1.48	1.38
1	A	3986	TRP	CB-CG	-6.40	1.38	1.50
1	E	5019	TRP	CE3-CZ3	-6.38	1.27	1.38
1	A	5014	TYR	CG-CD1	-6.37	1.30	1.39
1	A	4234	PHE	CG-CD1	-6.36	1.29	1.38
1	C	4234	PHE	CG-CD1	-6.36	1.29	1.38
1	G	4778	TRP	CE3-CZ3	-6.36	1.27	1.38
1	E	3986	TRP	CB-CG	-6.35	1.38	1.50
1	C	5014	TYR	CG-CD1	-6.33	1.30	1.39
1	E	5014	TYR	CG-CD1	-6.33	1.30	1.39
1	C	3986	TRP	CB-CG	-6.32	1.38	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	4234	PHE	CG-CD1	-6.32	1.29	1.38
1	A	3887	PHE	CG-CD1	6.30	1.48	1.38
1	G	5019	TRP	CE3-CZ3	-6.23	1.27	1.38
1	C	4194	TYR	CG-CD1	-6.18	1.31	1.39
1	A	4194	TYR	CG-CD1	-6.15	1.31	1.39
1	A	4778	TRP	CE3-CZ3	-6.11	1.28	1.38
1	E	4778	TRP	CE3-CZ3	-6.11	1.28	1.38
1	E	4194	TYR	CG-CD1	-6.07	1.31	1.39
1	C	4778	TRP	CE3-CZ3	-6.04	1.28	1.38
1	A	314	PHE	CG-CD1	-6.03	1.29	1.38
1	C	4849	TYR	CG-CD1	-6.03	1.31	1.39
1	E	314	PHE	CG-CD1	-6.01	1.29	1.38
1	C	314	PHE	CG-CD1	-5.99	1.29	1.38
1	G	314	PHE	CG-CD1	-5.97	1.29	1.38
1	E	5014	TYR	CE2-CZ	-5.75	1.31	1.38
1	G	3986	TRP	CB-CG	-5.73	1.40	1.50
1	A	5014	TYR	CE2-CZ	-5.72	1.31	1.38
1	G	5014	TYR	CG-CD1	-5.70	1.31	1.39
1	C	5014	TYR	CE2-CZ	-5.70	1.31	1.38
1	C	478	PHE	CG-CD2	-5.65	1.30	1.38
1	G	5014	TYR	CE2-CZ	-5.64	1.31	1.38
1	A	478	PHE	CG-CD2	-5.63	1.30	1.38
1	G	478	PHE	CG-CD2	-5.57	1.30	1.38
1	E	478	PHE	CG-CD2	-5.56	1.30	1.38
1	G	3968	TYR	CD2-CE2	-5.56	1.31	1.39
1	G	5019	TRP	CB-CG	-5.51	1.40	1.50
1	G	247	TYR	CG-CD2	-5.44	1.32	1.39
1	A	4849	TYR	CG-CD1	-5.37	1.32	1.39
1	A	3968	TYR	CD2-CE2	-5.37	1.31	1.39
1	G	4849	TYR	CG-CD1	-5.35	1.32	1.39
1	C	3968	TYR	CD2-CE2	-5.35	1.31	1.39
1	E	247	TYR	CG-CD2	-5.35	1.32	1.39
1	E	3968	TYR	CD2-CE2	-5.34	1.31	1.39
1	A	247	TYR	CG-CD2	-5.31	1.32	1.39
1	C	2853	GLU	CD-OE2	-5.29	1.19	1.25
1	C	247	TYR	CG-CD2	-5.26	1.32	1.39
1	A	3725	TYR	CG-CD2	-5.25	1.32	1.39
1	C	3725	TYR	CG-CD2	-5.22	1.32	1.39
1	C	4940	PHE	CG-CD1	-5.22	1.30	1.38
1	E	117	TYR	CE1-CZ	-5.21	1.31	1.38
1	E	3725	TYR	CG-CD2	-5.20	1.32	1.39
1	G	3935	TRP	CG-CD1	-5.20	1.29	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	3968	TYR	CG-CD1	-5.19	1.32	1.39
1	C	5023	PRO	CA-C	-5.17	1.42	1.52
1	G	117	TYR	CE1-CZ	-5.17	1.31	1.38
1	C	117	TYR	CE1-CZ	-5.14	1.31	1.38
1	A	117	TYR	CE1-CZ	-5.12	1.31	1.38
1	E	5023	PRO	CA-C	-5.10	1.42	1.52
1	C	5019	TRP	CB-CG	-5.08	1.41	1.50
1	G	5023	PRO	CA-C	-5.04	1.42	1.52
1	A	5023	PRO	CA-C	-5.04	1.42	1.52
1	E	4849	TYR	CG-CD1	-5.01	1.32	1.39
1	G	246	TYR	CG-CD2	5.01	1.45	1.39
1	A	5019	TRP	CB-CG	-5.01	1.41	1.50

All (254) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	4032	GLU	OE1-CD-OE2	-7.83	113.91	123.30
1	G	4985	LEU	CB-CG-CD1	-7.61	98.06	111.00
1	G	2118	ARG	NE-CZ-NH2	-7.55	116.53	120.30
1	A	3773	ARG	NE-CZ-NH2	-7.54	116.53	120.30
1	G	4563	ARG	NE-CZ-NH2	7.46	124.03	120.30
1	A	1290	ARG	NE-CZ-NH2	-7.38	116.61	120.30
1	E	3773	ARG	NE-CZ-NH2	-7.37	116.61	120.30
1	C	3773	ARG	NE-CZ-NH2	-7.33	116.63	120.30
1	E	4032	GLU	OE1-CD-OE2	-7.30	114.53	123.30
1	A	4943	LEU	CB-CG-CD1	7.26	123.35	111.00
1	C	3360	PRO	N-CA-CB	7.25	111.99	103.30
1	A	4032	GLU	OE1-CD-OE2	-7.24	114.61	123.30
1	E	3360	PRO	N-CA-CB	7.23	111.97	103.30
1	E	1290	ARG	NE-CZ-NH2	-7.22	116.69	120.30
1	A	3360	PRO	N-CA-CB	7.21	111.95	103.30
1	E	4943	LEU	CB-CG-CD1	7.21	123.26	111.00
1	C	4032	GLU	OE1-CD-OE2	-7.16	114.70	123.30
1	C	1290	ARG	NE-CZ-NH2	-7.14	116.73	120.30
1	C	2118	ARG	NE-CZ-NH2	-7.14	116.73	120.30
1	A	2118	ARG	NE-CZ-NH2	-7.10	116.75	120.30
1	G	1290	ARG	NE-CZ-NH2	-7.06	116.77	120.30
1	A	3887	PHE	CB-CG-CD2	-7.05	115.86	120.80
1	C	3887	PHE	CB-CG-CD2	-7.04	115.87	120.80
1	E	3887	PHE	CB-CG-CD2	-7.01	115.90	120.80
1	E	2118	ARG	NE-CZ-NH2	-7.00	116.80	120.30
1	C	4943	LEU	CB-CG-CD1	6.90	122.72	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	4563	ARG	NE-CZ-NH2	6.83	123.72	120.30
1	G	3275	PRO	N-CA-CB	6.81	111.47	103.30
1	C	3275	PRO	N-CA-CB	6.80	111.46	103.30
1	G	3360	PRO	N-CA-CB	6.77	111.43	103.30
1	E	3275	PRO	N-CA-CB	6.73	111.38	103.30
1	A	3275	PRO	N-CA-CB	6.73	111.37	103.30
1	E	4563	ARG	NE-CZ-NH2	6.69	123.65	120.30
1	G	3887	PHE	CB-CG-CD2	-6.69	116.11	120.80
1	C	3289	PRO	N-CA-CB	6.67	111.30	103.30
1	G	4563	ARG	NE-CZ-NH1	-6.65	116.97	120.30
1	E	3289	PRO	N-CA-CB	6.62	111.25	103.30
1	A	3289	PRO	N-CA-CB	6.61	111.23	103.30
1	C	3303	PRO	N-CA-CB	6.60	111.22	103.30
1	A	3062	PRO	N-CA-CB	6.59	111.21	103.30
1	E	3303	PRO	N-CA-CB	6.58	111.20	103.30
1	E	3062	PRO	N-CA-CB	6.58	111.19	103.30
1	G	3289	PRO	N-CA-CB	6.57	111.18	103.30
1	C	3062	PRO	N-CA-CB	6.55	111.16	103.30
1	G	4790	LEU	CA-CB-CG	6.54	130.35	115.30
1	A	3303	PRO	N-CA-CB	6.53	111.14	103.30
1	G	552	ASP	CB-CG-OD1	-6.53	112.43	118.30
1	A	2640	PRO	N-CA-CB	6.52	111.13	103.30
1	C	552	ASP	CB-CG-OD1	-6.52	112.44	118.30
1	E	2640	PRO	N-CA-CB	6.51	111.11	103.30
1	A	552	ASP	CB-CG-OD1	-6.49	112.46	118.30
1	C	2640	PRO	N-CA-CB	6.48	111.08	103.30
1	G	2640	PRO	N-CA-CB	6.47	111.07	103.30
1	E	3351	PRO	N-CA-CB	6.43	111.02	103.30
1	G	3062	PRO	N-CA-CB	6.43	111.01	103.30
1	G	3965	LEU	CB-CG-CD2	-6.43	100.08	111.00
1	G	2701	PRO	N-CA-CB	6.42	111.00	103.30
1	C	3351	PRO	N-CA-CB	6.42	111.00	103.30
1	C	3410	PRO	N-CA-CB	6.41	111.00	103.30
1	A	2701	PRO	N-CA-CB	6.41	110.99	103.30
1	A	3351	PRO	N-CA-CB	6.40	110.98	103.30
1	E	3410	PRO	N-CA-CB	6.40	110.98	103.30
1	E	3567	PRO	N-CA-CB	6.40	110.98	103.30
1	A	3410	PRO	N-CA-CB	6.39	110.97	103.30
1	C	2701	PRO	N-CA-CB	6.39	110.97	103.30
1	C	3138	PRO	N-CA-CB	6.39	110.97	103.30
1	E	3138	PRO	N-CA-CB	6.39	110.96	103.30
1	G	3021	PRO	N-CA-CB	6.37	110.94	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	2701	PRO	N-CA-CB	6.36	110.93	103.30
1	A	3138	PRO	N-CA-CB	6.36	110.93	103.30
1	A	3297	PRO	N-CA-CB	6.34	110.91	103.30
1	A	3567	PRO	N-CA-CB	6.34	110.91	103.30
1	C	3297	PRO	N-CA-CB	6.33	110.90	103.30
1	E	3188	PRO	N-CA-CB	6.32	110.89	103.30
1	C	3188	PRO	N-CA-CB	6.31	110.87	103.30
1	E	3297	PRO	N-CA-CB	6.31	110.87	103.30
1	C	3567	PRO	N-CA-CB	6.30	110.86	103.30
1	G	3297	PRO	N-CA-CB	6.29	110.85	103.30
1	E	1290	ARG	NE-CZ-NH1	6.27	123.43	120.30
1	G	3282	PRO	N-CA-CB	6.27	110.82	103.30
1	G	3303	PRO	N-CA-CB	6.25	110.80	103.30
1	A	3188	PRO	N-CA-CB	6.25	110.80	103.30
1	C	1290	ARG	NE-CZ-NH1	6.25	123.42	120.30
1	A	4563	ARG	NE-CZ-NH2	6.25	123.42	120.30
1	A	1290	ARG	NE-CZ-NH1	6.24	123.42	120.30
1	E	4985	LEU	CB-CG-CD1	-6.24	100.40	111.00
1	C	2711	PRO	N-CA-CB	6.23	110.77	103.30
1	A	2711	PRO	N-CA-CB	6.21	110.75	103.30
1	G	3302	PRO	N-CA-CB	6.20	110.74	103.30
1	E	4790	LEU	CA-CB-CG	6.19	129.54	115.30
1	A	858	THR	N-CA-CB	6.19	122.06	110.30
1	E	858	THR	N-CA-CB	6.18	122.04	110.30
1	C	858	THR	N-CA-CB	6.17	122.02	110.30
1	G	3527	PRO	N-CA-CB	6.17	110.70	103.30
1	A	4790	LEU	CA-CB-CG	6.17	129.49	115.30
1	C	4985	LEU	CB-CG-CD1	-6.17	100.52	111.00
1	E	2711	PRO	N-CA-CB	6.16	110.69	103.30
1	G	1290	ARG	NE-CZ-NH1	6.16	123.38	120.30
1	C	4790	LEU	CA-CB-CG	6.15	129.45	115.30
1	E	3302	PRO	N-CA-CB	6.15	110.68	103.30
1	G	858	THR	N-CA-CB	6.15	121.99	110.30
1	G	3519	PRO	N-CA-CB	6.15	110.68	103.30
1	C	3282	PRO	N-CA-CB	6.15	110.68	103.30
1	A	3696	ASP	CB-CG-OD2	-6.15	112.77	118.30
1	A	4985	LEU	CB-CG-CD1	-6.14	100.56	111.00
1	A	3302	PRO	N-CA-CB	6.12	110.65	103.30
1	C	3294	PRO	N-CA-CB	6.12	110.64	103.30
1	E	552	ASP	CB-CG-OD1	-6.11	112.80	118.30
1	E	3282	PRO	N-CA-CB	6.11	110.63	103.30
1	A	3282	PRO	N-CA-CB	6.11	110.63	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	3519	PRO	N-CA-CB	6.11	110.63	103.30
1	C	3519	PRO	N-CA-CB	6.11	110.63	103.30
1	E	3294	PRO	N-CA-CB	6.11	110.63	103.30
1	C	3302	PRO	N-CA-CB	6.11	110.63	103.30
1	G	3138	PRO	N-CA-CB	6.10	110.62	103.30
1	G	3351	PRO	N-CA-CB	6.09	110.61	103.30
1	A	3294	PRO	N-CA-CB	6.09	110.61	103.30
1	E	3519	PRO	N-CA-CB	6.08	110.59	103.30
1	E	4995	LEU	CB-CG-CD1	-6.08	100.67	111.00
1	G	3188	PRO	N-CA-CB	6.07	110.58	103.30
1	C	3021	PRO	N-CA-CB	6.06	110.57	103.30
1	E	4555	LEU	CB-CG-CD2	-6.06	100.70	111.00
1	G	3410	PRO	N-CA-CB	6.06	110.57	103.30
1	E	3208	PRO	N-CA-CB	6.05	110.57	103.30
1	C	3208	PRO	N-CA-CB	6.05	110.56	103.30
1	A	3208	PRO	N-CA-CB	6.05	110.56	103.30
1	E	3527	PRO	N-CA-CB	6.04	110.55	103.30
1	G	3294	PRO	N-CA-CB	6.04	110.55	103.30
1	E	3021	PRO	N-CA-CB	6.04	110.55	103.30
1	G	3696	ASP	CB-CG-OD2	-6.04	112.87	118.30
1	G	4995	LEU	CB-CG-CD1	-6.03	100.75	111.00
1	C	280	LEU	CB-CG-CD1	-6.03	100.76	111.00
1	A	3527	PRO	N-CA-CB	6.02	110.52	103.30
1	G	2711	PRO	N-CA-CB	6.02	110.52	103.30
1	A	4555	LEU	CB-CG-CD2	-6.01	100.78	111.00
1	A	3021	PRO	N-CA-CB	6.00	110.50	103.30
1	A	280	LEU	CB-CG-CD1	-6.00	100.81	111.00
1	E	280	LEU	CB-CG-CD1	-5.99	100.81	111.00
1	C	3527	PRO	N-CA-CB	5.97	110.47	103.30
1	C	4995	LEU	CB-CG-CD1	-5.94	100.90	111.00
1	E	3696	ASP	CB-CG-OD2	-5.94	112.96	118.30
1	G	3567	PRO	N-CA-CB	5.93	110.42	103.30
1	G	280	LEU	CB-CG-CD1	-5.93	100.92	111.00
1	C	4555	LEU	CB-CG-CD2	-5.92	100.93	111.00
1	G	4985	LEU	CA-CB-CG	5.91	128.90	115.30
1	G	3085	PRO	N-CA-CB	5.88	110.35	103.30
1	A	4995	LEU	CB-CG-CD1	-5.87	101.03	111.00
1	G	3301	PRO	N-CA-CB	5.87	110.34	103.30
1	C	3301	PRO	N-CA-CB	5.84	110.31	103.30
1	A	3085	PRO	N-CA-CB	5.83	110.30	103.30
1	E	3301	PRO	N-CA-CB	5.83	110.29	103.30
1	C	3696	ASP	CB-CG-OD2	-5.82	113.06	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	3085	PRO	N-CA-CB	5.82	110.28	103.30
1	A	3301	PRO	N-CA-CB	5.80	110.27	103.30
1	C	3085	PRO	N-CA-CB	5.79	110.24	103.30
1	A	3769	ARG	NE-CZ-NH2	-5.74	117.43	120.30
1	C	2567	PRO	N-CA-CB	5.72	110.16	103.30
1	A	3925	ARG	NE-CZ-NH2	-5.71	117.45	120.30
1	E	3769	ARG	NE-CZ-NH2	-5.70	117.45	120.30
1	A	2567	PRO	N-CA-CB	5.68	110.12	103.30
1	E	2616	PRO	N-CA-CB	5.68	110.12	103.30
1	E	2567	PRO	N-CA-CB	5.67	110.11	103.30
1	G	2616	PRO	N-CA-CB	5.64	110.07	103.30
1	G	3208	PRO	N-CA-CB	5.64	110.07	103.30
1	G	2567	PRO	N-CA-CB	5.63	110.05	103.30
1	C	2616	PRO	N-CA-CB	5.62	110.04	103.30
1	C	2631	PRO	N-CA-CB	5.61	110.03	103.30
1	A	2616	PRO	N-CA-CB	5.61	110.03	103.30
1	C	3925	ARG	NE-CZ-NH2	-5.60	117.50	120.30
1	E	4860	ARG	NE-CZ-NH2	-5.60	117.50	120.30
1	G	4860	ARG	NE-CZ-NH2	-5.58	117.51	120.30
1	A	2631	PRO	N-CA-CB	5.56	109.97	103.30
1	E	2631	PRO	N-CA-CB	5.55	109.96	103.30
1	G	2631	PRO	N-CA-CB	5.54	109.95	103.30
1	E	32	GLN	N-CA-CB	5.53	120.55	110.60
1	C	3769	ARG	NE-CZ-NH2	-5.52	117.54	120.30
1	A	32	GLN	N-CA-CB	5.51	120.52	110.60
1	C	3849	ARG	NE-CZ-NH1	5.49	123.04	120.30
1	C	32	GLN	N-CA-CB	5.48	120.47	110.60
1	E	2174	GLU	OE1-CD-OE2	-5.47	116.73	123.30
1	E	3925	ARG	NE-CZ-NH2	-5.47	117.57	120.30
1	G	32	GLN	N-CA-CB	5.47	120.44	110.60
1	G	3427	PRO	N-CA-CB	5.47	109.86	103.30
1	C	2658	PRO	N-CA-CB	5.43	109.82	103.30
1	G	4183	ILE	CG1-CB-CG2	-5.43	99.46	111.40
1	C	2712	PRO	N-CA-CB	5.42	109.81	103.30
1	G	2250	MET	CG-SD-CE	-5.42	91.53	100.20
1	E	2712	PRO	N-CA-CB	5.42	109.80	103.30
1	C	2174	GLU	OE1-CD-OE2	-5.41	116.81	123.30
1	A	4943	LEU	CB-CG-CD2	-5.41	101.80	111.00
1	G	2658	PRO	N-CA-CB	5.41	109.79	103.30
1	G	2712	PRO	N-CA-CB	5.41	109.79	103.30
1	G	2174	GLU	OE1-CD-OE2	-5.40	116.82	123.30
1	C	4860	ARG	NE-CZ-NH2	-5.40	117.60	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2712	PRO	N-CA-CB	5.39	109.77	103.30
1	A	2174	GLU	OE1-CD-OE2	-5.37	116.85	123.30
1	A	2658	PRO	N-CA-CB	5.37	109.74	103.30
1	A	3849	ARG	NE-CZ-NH1	5.36	122.98	120.30
1	E	2658	PRO	N-CA-CB	5.36	109.73	103.30
1	E	3849	ARG	NE-CZ-NH1	5.35	122.98	120.30
1	A	2250	MET	CG-SD-CE	-5.35	91.65	100.20
1	A	4860	ARG	NE-CZ-NH2	-5.34	117.63	120.30
1	C	2250	MET	CG-SD-CE	-5.34	91.65	100.20
1	C	2359	ARG	NE-CZ-NH2	-5.34	117.63	120.30
1	G	4166	LEU	CA-CB-CG	5.33	127.56	115.30
1	E	131	LEU	CA-CB-CG	5.31	127.52	115.30
1	E	2250	MET	CG-SD-CE	-5.31	91.71	100.20
1	G	3835	LEU	CB-CG-CD1	-5.31	101.98	111.00
1	A	131	LEU	CA-CB-CG	5.30	127.50	115.30
1	A	280	LEU	CB-CG-CD2	5.29	120.00	111.00
1	E	280	LEU	CB-CG-CD2	5.29	120.00	111.00
1	C	280	LEU	CB-CG-CD2	5.27	119.96	111.00
1	C	131	LEU	CA-CB-CG	5.25	127.39	115.30
1	G	131	LEU	CA-CB-CG	5.25	127.39	115.30
1	E	4943	LEU	CB-CG-CD2	-5.21	102.14	111.00
1	A	3887	PHE	CG-CD2-CE2	-5.20	115.08	120.80
1	C	4563	ARG	NE-CZ-NH1	-5.20	117.70	120.30
1	E	1226	PHE	N-CA-CB	-5.19	101.26	110.60
1	G	1226	PHE	N-CA-CB	-5.19	101.26	110.60
1	E	2258	LEU	CB-CG-CD1	5.18	119.81	111.00
1	C	4180	ARG	NE-CZ-NH2	-5.18	117.71	120.30
1	C	1226	PHE	N-CA-CB	-5.17	101.30	110.60
1	G	3984	ARG	NE-CZ-NH1	-5.17	117.72	120.30
1	E	4180	ARG	NE-CZ-NH2	-5.17	117.72	120.30
1	C	3887	PHE	CG-CD2-CE2	-5.15	115.13	120.80
1	E	3887	PHE	CG-CD2-CE2	-5.15	115.13	120.80
1	A	1226	PHE	N-CA-CB	-5.14	101.35	110.60
1	A	3427	PRO	N-CA-CB	5.14	109.47	103.30
1	A	3811	GLU	CA-CB-CG	5.14	124.71	113.40
1	A	3965	LEU	CB-CG-CD2	-5.14	102.27	111.00
1	E	4563	ARG	NE-CZ-NH1	-5.13	117.73	120.30
1	G	280	LEU	CB-CG-CD2	5.13	119.72	111.00
1	A	4180	ARG	NE-CZ-NH2	-5.13	117.73	120.30
1	C	3427	PRO	N-CA-CB	5.12	109.44	103.30
1	E	3427	PRO	N-CA-CB	5.11	109.43	103.30
1	C	4928	LEU	CB-CG-CD1	-5.11	102.31	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	2258	LEU	CB-CG-CD1	5.11	119.68	111.00
1	E	3965	LEU	CB-CG-CD2	-5.09	102.34	111.00
1	A	2258	LEU	CB-CG-CD1	5.09	119.66	111.00
1	A	4928	LEU	CB-CG-CD1	-5.09	102.34	111.00
1	G	1251	GLU	N-CA-C	5.08	124.73	111.00
1	A	4858	PHE	CB-CG-CD1	5.07	124.35	120.80
1	C	2258	LEU	CB-CG-CD1	5.06	119.61	111.00
1	E	4048	LEU	CB-CG-CD2	5.06	119.60	111.00
1	A	3884	LEU	CB-CG-CD1	5.06	119.60	111.00
1	A	1251	GLU	N-CA-C	5.06	124.65	111.00
1	A	4048	LEU	CB-CG-CD2	5.04	119.58	111.00
1	C	4943	LEU	CB-CG-CD2	-5.04	102.43	111.00
1	E	1251	GLU	N-CA-C	5.03	124.59	111.00
1	C	1251	GLU	N-CA-C	5.02	124.55	111.00
1	A	4563	ARG	NE-CZ-NH1	-5.01	117.79	120.30
1	C	195	PHE	CB-CG-CD2	-5.01	117.29	120.80
1	G	3923	LEU	CB-CG-CD1	-5.01	102.48	111.00
1	A	3780	LEU	CB-CG-CD2	-5.00	102.49	111.00

There are no chirality outliers.

All (67) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1187	GLY	Mainchain,Peptide
1	A	1250	PRO	Mainchain,Peptide
1	A	1253	PRO	Peptide
1	A	1588	ALA	Peptide
1	A	1828	ASP	Mainchain,Peptide
1	A	1867	GLU	Peptide
1	A	31	GLU	Mainchain,Peptide
1	A	322	LYS	Peptide
1	A	3694	LYS	Peptide
1	A	841	GLY	Mainchain,Peptide
1	A	857	ASP	Mainchain,Peptide
1	C	1187	GLY	Mainchain,Peptide
1	C	1250	PRO	Mainchain,Peptide
1	C	1253	PRO	Peptide
1	C	1588	ALA	Peptide
1	C	1828	ASP	Mainchain,Peptide
1	C	1867	GLU	Peptide
1	C	31	GLU	Mainchain,Peptide
1	C	322	LYS	Peptide

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Mol	Chain	Res	Type	Group
1	C	3694	LYS	Peptide
1	C	841	GLY	Mainchain,Peptide
1	C	857	ASP	Mainchain,Peptide
1	E	1187	GLY	Mainchain,Peptide
1	E	1250	PRO	Mainchain,Peptide
1	E	1253	PRO	Peptide
1	E	1588	ALA	Peptide
1	E	1828	ASP	Mainchain,Peptide
1	E	1867	GLU	Peptide
1	E	31	GLU	Mainchain,Peptide
1	E	322	LYS	Peptide
1	E	3694	LYS	Peptide
1	E	841	GLY	Mainchain,Peptide
1	E	857	ASP	Mainchain,Peptide
1	G	1187	GLY	Mainchain,Peptide
1	G	1250	PRO	Mainchain,Peptide
1	G	1253	PRO	Peptide
1	G	1588	ALA	Peptide
1	G	1828	ASP	Mainchain,Peptide
1	G	1867	GLU	Peptide
1	G	31	GLU	Mainchain,Peptide
1	G	322	LYS	Peptide
1	G	841	GLY	Mainchain,Peptide
1	G	857	ASP	Mainchain,Peptide

5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	26926	0	24467	1003	0
1	C	26926	0	24467	1022	0
1	E	26926	0	24467	1004	0
1	G	26926	0	24467	952	0
2	B	832	0	831	41	0
2	D	832	0	831	41	0
2	F	832	0	831	41	0
2	H	832	0	831	40	0
3	A	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	C	1	0	0	0	0
3	E	1	0	0	0	0
3	G	1	0	0	0	0
All	All	111036	0	101192	3945	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 19.

All (3945) 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:G:1808:ARG:NH1	1:G:1858:ASP:OD2	1.79	1.16
1:E:1808:ARG:NH1	1:E:1858:ASP:OD2	1.79	1.16
1:C:1808:ARG:NH1	1:C:1858:ASP:OD2	1.79	1.15
1:A:1808:ARG:NH1	1:A:1858:ASP:OD2	1.79	1.14
1:A:1243:PRO:HD2	1:A:1458:HIS:HB3	1.20	1.10
1:G:1243:PRO:HD2	1:G:1458:HIS:CB	1.83	1.06
1:G:1243:PRO:CD	1:G:1458:HIS:HB3	1.85	1.05
1:C:1243:PRO:HD2	1:C:1458:HIS:HB3	1.10	1.04
1:A:683:ARG:NH1	1:A:705:ASN:O	1.97	0.97
1:C:1243:PRO:HD2	1:C:1458:HIS:CB	1.94	0.97
1:E:683:ARG:NH1	1:E:705:ASN:O	1.98	0.97
1:C:683:ARG:NH1	1:C:705:ASN:O	1.98	0.96
1:G:683:ARG:NH1	1:G:705:ASN:O	1.98	0.96
1:G:1243:PRO:HD2	1:G:1458:HIS:HB3	0.98	0.95
1:C:1243:PRO:CD	1:C:1458:HIS:HB3	1.96	0.95
1:E:1699:GLU:OE2	1:E:1810:LYS:NZ	2.01	0.94
1:C:1699:GLU:OE2	1:C:1810:LYS:NZ	2.01	0.93
1:G:4957:LYS:HA	1:G:4964:GLY:HA2	1.50	0.93
1:A:3969:ILE:HD11	1:A:3980:LEU:HD13	1.51	0.92
1:G:1699:GLU:OE2	1:G:1810:LYS:NZ	2.01	0.92
1:A:1699:GLU:OE2	1:A:1810:LYS:NZ	2.01	0.92
1:C:3969:ILE:HD11	1:C:3980:LEU:HD13	1.52	0.90
1:E:3969:ILE:HD11	1:E:3980:LEU:HD13	1.51	0.89
1:E:4957:LYS:HA	1:E:4964:GLY:HA2	1.56	0.88
1:C:4957:LYS:HA	1:C:4964:GLY:HA2	1.56	0.88
1:E:4836:GLN:HB3	1:G:4826:ILE:HD11	1.56	0.87
1:A:1243:PRO:HD2	1:A:1458:HIS:CB	2.04	0.87
1:A:4957:LYS:HA	1:A:4964:GLY:HA2	1.56	0.86
1:E:737:LEU:HD11	2:F:7:ILE:HG22	1.58	0.85
1:C:737:LEU:HD11	2:D:7:ILE:HG22	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:674:PHE:HB3	2:H:40:ARG:NH1	1.92	0.85
1:A:737:LEU:HD11	2:B:7:ILE:HG22	1.58	0.85
1:E:1243:PRO:HD2	1:E:1458:HIS:HB3	1.59	0.85
1:A:830:ARG:NH1	1:A:1616:GLU:OE2	2.10	0.85
1:C:4708:THR:HG21	1:C:4775:TYR:HB2	1.58	0.85
1:A:4937:ILE:HD11	1:G:4934:GLY:CA	2.07	0.84
1:G:737:LEU:HD11	2:H:7:ILE:HG22	1.60	0.84
1:E:4708:THR:HG21	1:E:4775:TYR:HB2	1.58	0.84
1:E:4839:MET:HG3	1:G:4822:THR:HG21	1.60	0.84
1:E:25:SER:OG	1:E:34:LYS:NZ	2.11	0.83
1:C:25:SER:OG	1:C:34:LYS:NZ	2.11	0.83
1:A:1243:PRO:CD	1:A:1458:HIS:HB3	2.05	0.83
1:E:830:ARG:NH1	1:E:1616:GLU:OE2	2.09	0.83
1:C:830:ARG:NH1	1:C:1616:GLU:OE2	2.10	0.83
1:G:830:ARG:NH1	1:G:1616:GLU:OE2	2.10	0.83
1:A:1024:TYR:O	1:A:1032:LYS:NZ	2.12	0.83
1:A:4708:THR:HG21	1:A:4775:TYR:HB2	1.58	0.83
1:G:25:SER:OG	1:G:34:LYS:NZ	2.11	0.83
1:A:2358:ILE:HG23	1:G:195:PHE:CE1	2.14	0.82
1:A:25:SER:OG	1:A:34:LYS:NZ	2.11	0.82
1:C:1092:PHE:HB3	1:C:1149:VAL:HB	1.60	0.82
1:E:195:PHE:CE1	1:G:2358:ILE:HG23	2.14	0.82
1:G:1024:TYR:O	1:G:1032:LYS:NZ	2.12	0.82
1:G:1092:PHE:HB3	1:G:1149:VAL:HB	1.60	0.82
1:E:1024:TYR:O	1:E:1032:LYS:NZ	2.12	0.82
1:C:1024:TYR:O	1:C:1032:LYS:NZ	2.12	0.82
1:E:1092:PHE:HB3	1:E:1149:VAL:HB	1.60	0.82
1:C:195:PHE:CE1	1:E:2358:ILE:HG23	2.14	0.81
1:A:195:PHE:CE1	1:C:2358:ILE:HG23	2.14	0.81
1:E:76:ARG:NH1	1:G:3936:TYR:HA	1.96	0.81
1:C:674:PHE:HB3	2:D:40:ARG:NH1	1.94	0.81
1:E:674:PHE:HB3	2:F:40:ARG:NH1	1.94	0.81
1:A:674:PHE:HB3	2:B:40:ARG:NH1	1.95	0.81
1:A:1092:PHE:HB3	1:A:1149:VAL:HB	1.60	0.81
1:C:4056:GLU:HG3	1:C:4166:LEU:HD21	1.63	0.81
1:A:4056:GLU:HG3	1:A:4166:LEU:HD21	1.63	0.80
1:A:2358:ILE:HG23	1:G:195:PHE:CD1	2.17	0.80
1:G:4861:LYS:HZ1	1:G:4909:TYR:HD2	1.27	0.80
1:A:4934:GLY:HA3	1:C:4937:ILE:CD1	2.12	0.80
1:G:1780:PRO:HG2	2:H:42:ARG:HE	1.47	0.80
1:E:4056:GLU:HG3	1:E:4166:LEU:HD21	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:76:ARG:NH1	1:C:3936:TYR:HA	1.97	0.80
2:B:14:THR:HG22	2:B:106:LEU:HD12	1.64	0.80
1:C:195:PHE:CD1	1:E:2358:ILE:HG23	2.17	0.80
1:A:3936:TYR:HA	1:G:76:ARG:NH1	1.97	0.80
1:A:195:PHE:CD1	1:C:2358:ILE:HG23	2.16	0.80
1:A:1780:PRO:HG2	2:B:42:ARG:HE	1.47	0.79
1:C:706:GLY:H	1:C:711:LEU:HD13	1.47	0.79
2:F:14:THR:HG22	2:F:106:LEU:HD12	1.64	0.79
1:G:103:TYR:OH	1:G:167:ASP:OD2	2.00	0.79
1:C:76:ARG:NH1	1:E:3936:TYR:HA	1.98	0.79
1:E:4843:LEU:HD11	1:G:4827:LEU:HD11	1.65	0.79
1:G:2893:GLU:OE2	1:G:2897:LYS:NZ	2.15	0.79
1:A:706:GLY:H	1:A:711:LEU:HD13	1.47	0.79
1:E:103:TYR:OH	1:E:167:ASP:OD2	2.01	0.79
1:A:103:TYR:OH	1:A:167:ASP:OD2	2.00	0.78
1:E:195:PHE:CD1	1:G:2358:ILE:HG23	2.17	0.78
2:D:14:THR:HG22	2:D:106:LEU:HD12	1.64	0.78
1:E:2128:TYR:OH	1:E:3676:ASP:OD2	2.00	0.78
1:C:1780:PRO:HG2	2:D:42:ARG:HE	1.47	0.78
1:E:3903:LEU:HD22	1:E:3915:ILE:HD12	1.66	0.78
1:E:706:GLY:H	1:E:711:LEU:HD13	1.48	0.78
1:G:4708:THR:HG21	1:G:4775:TYR:HB2	1.63	0.78
1:C:103:TYR:OH	1:C:167:ASP:OD2	2.00	0.77
1:G:1781:CYS:HG	2:H:46:PHE:HE1	1.30	0.77
1:A:3903:LEU:HD22	1:A:3915:ILE:HD12	1.66	0.77
1:G:4027:LEU:HD22	1:G:4044:MET:HE1	1.66	0.77
1:G:706:GLY:H	1:G:711:LEU:HD13	1.48	0.77
1:C:1245:PHE:HB2	1:C:1602:PRO:HB2	1.67	0.77
1:G:465:GLN:HE21	1:G:3711:THR:HA	1.50	0.77
1:G:3903:LEU:HD22	1:G:3915:ILE:HD12	1.67	0.77
1:A:1245:PHE:HB2	1:A:1602:PRO:HB2	1.67	0.76
1:C:2128:TYR:OH	1:C:3676:ASP:OD2	2.02	0.76
1:E:1780:PRO:HG2	2:F:42:ARG:HE	1.47	0.76
1:E:1245:PHE:HB2	1:E:1602:PRO:HB2	1.67	0.76
1:E:4849:TYR:OH	1:G:4574:ASN:HB3	1.86	0.76
1:G:1245:PHE:HB2	1:G:1602:PRO:HB2	1.68	0.76
1:C:3903:LEU:HD22	1:C:3915:ILE:HD12	1.66	0.75
1:C:4861:LYS:HZ1	1:C:4909:TYR:HD2	1.31	0.75
1:G:3969:ILE:HD11	1:G:3980:LEU:HD13	1.68	0.75
1:C:4934:GLY:HA2	1:E:4937:ILE:HD12	1.67	0.75
1:C:3948:LYS:HG3	1:C:4012:LEU:HD22	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2128:TYR:OH	1:A:3676:ASP:OD2	2.04	0.75
1:C:3958:ALA:HB3	1:C:4019:LEU:HD11	1.68	0.75
1:A:3948:LYS:HG3	1:A:4012:LEU:HD22	1.69	0.75
1:E:1115:LEU:HD12	1:E:1193:SER:HB2	1.69	0.75
1:E:45:ARG:HG2	1:E:443:LEU:HD21	1.69	0.75
1:A:3885:PHE:HE1	1:A:3919:THR:HG23	1.52	0.74
1:A:4839:MET:HG3	1:C:4822:THR:HG21	1.67	0.74
1:A:667:MET:SD	1:A:801:LYS:NZ	2.60	0.74
1:G:45:ARG:HG2	1:G:443:LEU:HD21	1.69	0.74
1:A:3958:ALA:HB3	1:A:4019:LEU:HD11	1.68	0.74
1:E:3948:LYS:HG3	1:E:4012:LEU:HD22	1.69	0.74
1:E:3958:ALA:HB3	1:E:4019:LEU:HD11	1.68	0.74
1:C:1115:LEU:HD12	1:C:1193:SER:HB2	1.69	0.74
1:C:3885:PHE:HE1	1:C:3919:THR:HG23	1.52	0.74
1:G:1115:LEU:HD12	1:G:1193:SER:HB2	1.69	0.74
1:A:1115:LEU:HD12	1:A:1193:SER:HB2	1.69	0.73
1:C:4138:ASP:O	1:C:4142:ASN:ND2	2.21	0.73
1:C:667:MET:SD	1:C:801:LYS:NZ	2.61	0.73
1:C:4839:MET:HG3	1:E:4822:THR:HG21	1.68	0.73
1:A:3996:PHE:HZ	1:A:4019:LEU:HD22	1.54	0.73
1:A:4934:GLY:HA2	1:C:4937:ILE:HD12	1.68	0.73
1:E:54:ASN:HB3	1:E:57:ASN:HB2	1.71	0.73
1:G:1708:ARG:NH1	1:G:1836:PHE:O	2.21	0.73
1:A:4138:ASP:O	1:A:4142:ASN:ND2	2.21	0.73
1:E:3996:PHE:HZ	1:E:4019:LEU:HD22	1.53	0.73
1:E:4138:ASP:O	1:E:4142:ASN:ND2	2.21	0.73
1:C:3996:PHE:HZ	1:C:4019:LEU:HD22	1.53	0.73
1:A:3936:TYR:HD1	1:G:76:ARG:HH22	1.37	0.73
1:A:4861:LYS:HZ1	1:A:4909:TYR:HD2	1.35	0.73
1:C:1927:LEU:HD11	1:C:2101:MET:HG2	1.71	0.73
1:G:3839:CYS:SG	1:G:3840:SER:N	2.60	0.73
2:H:14:THR:HG22	2:H:106:LEU:HD12	1.70	0.73
1:A:1927:LEU:HD11	1:A:2101:MET:HG2	1.71	0.73
1:A:54:ASN:HB3	1:A:57:ASN:HB2	1.70	0.73
1:G:172:VAL:HG22	1:G:179:TYR:HD1	1.54	0.73
1:A:45:ARG:HG2	1:A:443:LEU:HD21	1.69	0.72
1:C:45:ARG:HG2	1:C:443:LEU:HD21	1.69	0.72
1:E:1723:ALA:HB1	1:E:1775:HIS:HD2	1.54	0.72
1:E:76:ARG:HH22	1:G:3936:TYR:HD1	1.36	0.72
1:A:4934:GLY:CA	1:C:4937:ILE:HD12	2.19	0.72
1:C:4226:GLY:HA2	1:C:4230:LYS:HD3	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:54:ASN:HB3	1:C:57:ASN:HB2	1.71	0.72
1:E:667:MET:SD	1:E:801:LYS:NZ	2.60	0.72
1:A:76:ARG:HH22	1:C:3936:TYR:HD1	1.37	0.72
1:E:172:VAL:HG22	1:E:179:TYR:HD1	1.55	0.72
1:C:76:ARG:HH22	1:E:3936:TYR:HD1	1.37	0.72
1:G:1927:LEU:HD11	1:G:2101:MET:HG2	1.71	0.72
1:C:3839:CYS:SG	1:C:3840:SER:N	2.63	0.72
1:A:4888:TYR:CE1	1:G:4917:ASP:OD2	2.43	0.72
1:G:1828:ASP:HB3	1:G:1830:VAL:H	1.55	0.72
1:E:1927:LEU:HD11	1:E:2101:MET:HG2	1.71	0.72
1:G:4983:HIS:HD1	1:G:4988:TYR:HH	1.34	0.72
1:A:1723:ALA:HB1	1:A:1775:HIS:HD2	1.55	0.71
1:C:1723:ALA:HB1	1:C:1775:HIS:HD2	1.55	0.71
1:C:313:SER:O	1:C:350:HIS:ND1	2.23	0.71
1:C:4983:HIS:HD1	1:C:4988:TYR:HH	1.34	0.71
1:A:317:ARG:NH1	1:A:349:GLN:OE1	2.23	0.71
1:E:1708:ARG:NH1	1:E:1836:PHE:O	2.23	0.71
1:E:2233:CYS:HG	1:E:2271:THR:N	1.87	0.71
1:E:3885:PHE:HE1	1:E:3919:THR:HG23	1.52	0.71
1:A:235:ALA:O	1:A:238:SER:OG	2.07	0.71
1:E:1715:LEU:HD22	1:E:1844:LEU:HD11	1.72	0.71
1:G:235:ALA:O	1:G:238:SER:OG	2.07	0.71
1:A:1828:ASP:HB3	1:A:1830:VAL:H	1.56	0.71
1:C:317:ARG:NH1	1:C:349:GLN:OE1	2.23	0.71
1:A:313:SER:O	1:A:350:HIS:ND1	2.23	0.71
1:E:1828:ASP:HB3	1:E:1830:VAL:H	1.55	0.71
1:C:1708:ARG:NH1	1:C:1836:PHE:O	2.23	0.71
1:C:172:VAL:HG22	1:C:179:TYR:HD1	1.55	0.71
1:E:313:SER:O	1:E:350:HIS:ND1	2.23	0.71
1:G:4658:ILE:HG22	1:G:4792:LEU:HB3	1.73	0.71
1:A:1715:LEU:HD22	1:A:1844:LEU:HD11	1.73	0.71
1:C:1715:LEU:HD22	1:C:1844:LEU:HD11	1.72	0.71
1:E:317:ARG:NH1	1:E:349:GLN:OE1	2.23	0.71
1:G:2233:CYS:HG	1:G:2271:THR:N	1.89	0.71
1:G:4984:ASN:O	1:G:4986:ALA:N	2.22	0.71
1:A:172:VAL:HG22	1:A:179:TYR:HD1	1.54	0.71
1:E:829:TYR:OH	1:E:1612:PHE:O	2.07	0.71
1:E:4226:GLY:HA2	1:E:4230:LYS:HD3	1.71	0.71
1:G:317:ARG:NH1	1:G:349:GLN:OE1	2.23	0.71
1:G:835:ARG:HH12	1:G:1211:LEU:HD21	1.56	0.71
1:A:3839:CYS:SG	1:A:3840:SER:N	2.63	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:106:ALA:HA	1:C:149:THR:HA	1.73	0.70
1:E:1716:ILE:HD11	1:E:1844:LEU:HA	1.73	0.70
1:E:2822:THR:HG1	1:E:2938:THR:HG1	1.37	0.70
1:E:3839:CYS:SG	1:E:3840:SER:N	2.63	0.70
1:G:1715:LEU:HD22	1:G:1844:LEU:HD11	1.72	0.70
1:A:1708:ARG:NH1	1:A:1836:PHE:O	2.24	0.70
1:A:1716:ILE:HD11	1:A:1844:LEU:HA	1.73	0.70
1:E:697:GLY:HA3	1:E:1613:LEU:HD11	1.73	0.70
1:G:4837:LEU:HD11	1:G:4932:ILE:HG23	1.72	0.70
1:G:54:ASN:HB3	1:G:57:ASN:HB2	1.71	0.70
1:G:667:MET:SD	1:G:801:LYS:NZ	2.61	0.70
1:G:1704:PRO:HG2	1:G:1707:LEU:HD12	1.73	0.70
1:E:4861:LYS:HZ1	1:E:4909:TYR:HD2	1.38	0.70
1:A:4226:GLY:HA2	1:A:4230:LYS:HD3	1.71	0.70
1:C:1828:ASP:HB3	1:C:1830:VAL:H	1.56	0.70
1:C:4555:LEU:HD11	1:C:4656:LEU:HB2	1.73	0.70
1:A:4555:LEU:HD11	1:A:4656:LEU:HB2	1.73	0.70
1:C:3901:ASN:OD1	1:C:3904:ARG:NH1	2.17	0.70
1:E:106:ALA:HA	1:E:149:THR:HA	1.72	0.70
1:G:106:ALA:HA	1:G:149:THR:HA	1.73	0.70
1:E:835:ARG:HH12	1:E:1211:LEU:HD21	1.57	0.70
1:G:1723:ALA:HB1	1:G:1775:HIS:HD2	1.55	0.70
1:E:1802:ILE:HD12	1:E:1807:LEU:HD13	1.74	0.69
1:E:4860:ARG:NH2	1:G:4582:VAL:HB	2.07	0.69
1:A:465:GLN:HE21	1:A:3711:THR:HA	1.57	0.69
1:C:697:GLY:HA3	1:C:1613:LEU:HD11	1.72	0.69
1:C:1716:ILE:HD11	1:C:1844:LEU:HA	1.73	0.69
1:C:835:ARG:HH12	1:C:1211:LEU:HD21	1.57	0.69
1:G:1154:ASP:HB2	1:G:1159:THR:HB	1.74	0.69
1:G:1716:ILE:HD11	1:G:1844:LEU:HA	1.74	0.69
1:A:835:ARG:HH12	1:A:1211:LEU:HD21	1.57	0.69
1:E:235:ALA:O	1:E:238:SER:OG	2.07	0.69
1:A:4937:ILE:HD11	1:G:4934:GLY:HA3	1.72	0.69
1:A:1154:ASP:HB2	1:A:1159:THR:HB	1.74	0.69
1:A:2233:CYS:HG	1:A:2271:THR:N	1.89	0.69
1:A:697:GLY:HA3	1:A:1613:LEU:HD11	1.73	0.69
1:C:2166:LEU:HD12	1:C:2206:THR:HG23	1.74	0.69
1:E:4555:LEU:HD11	1:E:4656:LEU:HB2	1.73	0.69
1:G:1637:MET:HG3	1:G:1650:ILE:HD12	1.74	0.69
1:G:313:SER:O	1:G:350:HIS:ND1	2.23	0.69
1:E:3835:LEU:HD11	1:E:3884:LEU:HD13	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4934:GLY:CA	1:E:4937:ILE:CD1	2.69	0.69
1:G:2158:CYS:SG	1:G:2184:ASN:ND2	2.63	0.69
2:B:24:VAL:HG12	2:B:103:LEU:HA	1.75	0.69
1:C:595:ARG:NH2	1:C:631:LEU:O	2.25	0.69
1:G:697:GLY:HA3	1:G:1613:LEU:HD11	1.73	0.69
1:A:1673:VAL:HG12	1:A:1681:VAL:HG11	1.75	0.69
1:E:4708:THR:HG22	1:E:4710:SER:H	1.58	0.69
1:G:4682:GLU:OE2	1:G:4723:LYS:NZ	2.25	0.69
1:G:634:GLN:HB3	1:G:1640:HIS:CE1	2.28	0.69
1:A:106:ALA:HA	1:A:149:THR:HA	1.73	0.69
1:A:168:ASP:OD1	1:A:201:ASN:ND2	2.25	0.69
1:A:215:THR:HG22	1:A:273:HIS:HA	1.75	0.69
1:C:235:ALA:O	1:C:238:SER:OG	2.07	0.69
1:G:3980:LEU:HD21	1:G:3985:LEU:HD22	1.75	0.69
1:G:4708:THR:O	1:G:4721:LYS:NZ	2.26	0.69
1:G:887:ILE:HA	1:G:891:TRP:HB2	1.75	0.69
1:A:825:PRO:HD3	1:A:1619:ARG:HH11	1.58	0.69
1:C:829:TYR:OH	1:C:1612:PHE:O	2.07	0.69
1:C:825:PRO:HD3	1:C:1619:ARG:HH11	1.58	0.69
2:D:24:VAL:HG12	2:D:103:LEU:HA	1.75	0.69
1:E:1154:ASP:HB2	1:E:1159:THR:HB	1.74	0.69
1:A:143:GLY:O	1:A:145:ALA:N	2.26	0.69
1:A:634:GLN:HB3	1:A:1640:HIS:CE1	2.28	0.69
1:A:3835:LEU:HD11	1:A:3884:LEU:HD13	1.74	0.69
1:E:825:PRO:HD3	1:E:1619:ARG:HH11	1.58	0.69
1:E:4984:ASN:O	1:E:4986:ALA:N	2.26	0.69
1:G:825:PRO:HD3	1:G:1619:ARG:HH11	1.58	0.69
1:G:1673:VAL:HG12	1:G:1681:VAL:HG11	1.75	0.69
1:G:168:ASP:OD1	1:G:201:ASN:ND2	2.25	0.69
1:G:1802:ILE:HD12	1:G:1807:LEU:HD13	1.74	0.69
1:G:595:ARG:NH2	1:G:631:LEU:O	2.26	0.69
1:A:4991:PHE:HE2	1:A:5010:VAL:HG11	1.58	0.68
1:A:495:ASN:O	1:A:553:ARG:NH1	2.26	0.68
1:E:215:THR:HG22	1:E:273:HIS:HA	1.75	0.68
1:E:465:GLN:HE21	1:E:3711:THR:HA	1.57	0.68
1:A:3901:ASN:OD1	1:A:3904:ARG:NH1	2.16	0.68
1:A:4860:ARG:NH2	1:C:4582:VAL:HB	2.09	0.68
1:A:4934:GLY:CA	1:C:4937:ILE:CD1	2.70	0.68
1:E:887:ILE:HA	1:E:891:TRP:HB2	1.76	0.68
1:C:1673:VAL:HG12	1:C:1681:VAL:HG11	1.76	0.68
1:C:168:ASP:OD1	1:C:201:ASN:ND2	2.25	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:215:THR:HG22	1:C:273:HIS:HA	1.75	0.68
1:C:4983:HIS:ND1	1:C:4988:TYR:OH	2.26	0.68
1:E:634:GLN:HB3	1:E:1640:HIS:CE1	2.28	0.68
1:E:595:ARG:NH2	1:E:631:LEU:O	2.26	0.68
1:A:595:ARG:NH2	1:A:631:LEU:O	2.26	0.68
1:C:143:GLY:O	1:C:145:ALA:N	2.26	0.68
1:C:634:GLN:HB3	1:C:1640:HIS:CE1	2.28	0.68
1:G:215:THR:HG22	1:G:273:HIS:HA	1.75	0.68
1:G:2166:LEU:HD12	1:G:2206:THR:HG23	1.75	0.68
1:A:4708:THR:HG22	1:A:4710:SER:H	1.59	0.68
1:C:1802:ILE:HD12	1:C:1807:LEU:HD13	1.75	0.68
1:A:1802:ILE:HD12	1:A:1807:LEU:HD13	1.75	0.68
1:C:887:ILE:HA	1:C:891:TRP:HB2	1.75	0.68
1:E:3817:LEU:HD11	1:E:3821:LYS:NZ	2.08	0.68
1:A:4937:ILE:HD11	1:G:4934:GLY:HA2	1.76	0.68
1:A:1259:ARG:NH1	1:A:1597:VAL:HA	2.09	0.68
1:A:829:TYR:OH	1:A:1612:PHE:O	2.07	0.68
1:A:4983:HIS:HD1	1:A:4988:TYR:HH	1.41	0.68
1:C:465:GLN:HE21	1:C:3711:THR:HA	1.57	0.68
1:E:1673:VAL:HG12	1:E:1681:VAL:HG11	1.75	0.68
1:G:4983:HIS:ND1	1:G:4988:TYR:OH	2.25	0.68
1:C:495:ASN:O	1:C:553:ARG:NH1	2.27	0.68
1:E:1704:PRO:HG2	1:E:1707:LEU:HD12	1.76	0.68
1:E:2158:CYS:SG	1:E:2184:ASN:ND2	2.64	0.68
2:F:24:VAL:HG12	2:F:103:LEU:HA	1.75	0.68
1:G:495:ASN:O	1:G:553:ARG:NH1	2.27	0.68
1:C:1154:ASP:HB2	1:C:1159:THR:HB	1.74	0.68
1:C:4934:GLY:HA3	1:E:4937:ILE:CD1	2.24	0.68
1:A:2166:LEU:HD12	1:A:2206:THR:HG23	1.75	0.68
1:A:887:ILE:HA	1:A:891:TRP:HB2	1.75	0.68
1:G:3948:LYS:HG3	1:G:4012:LEU:HD22	1.76	0.68
1:E:4991:PHE:HE2	1:E:5010:VAL:HG11	1.59	0.67
1:E:495:ASN:O	1:E:553:ARG:NH1	2.27	0.67
1:G:143:GLY:O	1:G:145:ALA:N	2.26	0.67
1:A:3817:LEU:HD11	1:A:3821:LYS:NZ	2.08	0.67
1:G:4991:PHE:HE2	1:G:5010:VAL:HG11	1.58	0.67
1:A:4984:ASN:O	1:A:4986:ALA:N	2.26	0.67
1:C:3817:LEU:HD11	1:C:3821:LYS:NZ	2.08	0.67
1:C:4837:LEU:HD11	1:C:4932:ILE:HG23	1.76	0.67
1:E:1259:ARG:NH1	1:E:1597:VAL:HA	2.09	0.67
1:C:4984:ASN:O	1:C:4986:ALA:N	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4708:THR:HG22	1:G:4710:SER:H	1.60	0.67
1:C:2233:CYS:HG	1:C:2271:THR:N	1.93	0.67
1:A:4878:ASP:HA	1:C:4581:LYS:HB3	1.76	0.67
1:E:2166:LEU:HD12	1:E:2206:THR:HG23	1.75	0.67
1:G:1259:ARG:NH1	1:G:1597:VAL:HA	2.10	0.67
1:A:320:LYS:NZ	1:A:382:GLY:O	2.27	0.67
1:C:1637:MET:HG3	1:C:1650:ILE:HD12	1.77	0.67
1:C:4991:PHE:HE2	1:C:5010:VAL:HG11	1.59	0.67
1:E:4983:HIS:ND1	1:E:4988:TYR:OH	2.26	0.67
1:G:1639:LEU:HD23	1:G:1650:ILE:HG12	1.77	0.67
1:G:320:LYS:NZ	1:G:382:GLY:O	2.27	0.67
1:E:1637:MET:HG3	1:E:1650:ILE:HD12	1.77	0.66
1:E:1639:LEU:HD23	1:E:1650:ILE:HG12	1.77	0.66
1:A:1639:LEU:HD23	1:A:1650:ILE:HG12	1.77	0.66
1:A:1704:PRO:HG2	1:A:1707:LEU:HD12	1.76	0.66
1:A:4582:VAL:HB	1:G:4860:ARG:NH2	2.10	0.66
1:C:1291:LEU:HD23	1:C:1293:LEU:H	1.60	0.66
1:A:23:GLN:HE21	1:A:34:LYS:HB3	1.61	0.66
1:A:2499:LYS:HD2	1:A:2553:TYR:HE1	1.61	0.66
1:C:1259:ARG:NH1	1:C:1597:VAL:HA	2.10	0.66
1:E:3901:ASN:OD1	1:E:3904:ARG:NH1	2.17	0.66
1:A:1291:LEU:HD23	1:A:1293:LEU:H	1.61	0.66
1:A:2770:LYS:HB3	1:A:2775:TRP:HB2	1.77	0.66
1:C:320:LYS:NZ	1:C:382:GLY:O	2.27	0.66
1:C:4708:THR:HG22	1:C:4710:SER:H	1.59	0.66
1:C:4860:ARG:NH2	1:E:4582:VAL:HB	2.11	0.66
1:G:743:VAL:HG21	1:G:801:LYS:HD2	1.77	0.66
1:C:2299:VAL:HG21	1:C:2356:LEU:HB3	1.78	0.66
1:C:23:GLN:HE21	1:C:34:LYS:HB3	1.61	0.66
1:C:2499:LYS:HD2	1:C:2553:TYR:HE1	1.61	0.66
1:E:168:ASP:OD1	1:E:201:ASN:ND2	2.25	0.66
1:G:1291:LEU:HD23	1:G:1293:LEU:H	1.61	0.66
1:G:829:TYR:OH	1:G:1612:PHE:O	2.07	0.66
1:E:4983:HIS:HD1	1:E:4988:TYR:HH	1.40	0.66
1:E:4914:VAL:HG13	1:G:4888:TYR:HD1	1.60	0.66
1:G:4913:ARG:NH1	1:G:4917:ASP:HB2	2.09	0.66
1:C:2770:LYS:HB3	1:C:2775:TRP:HB2	1.77	0.66
1:G:595:ARG:HG2	1:G:1662:PHE:CZ	2.31	0.66
2:H:24:VAL:HG12	2:H:103:LEU:HA	1.78	0.66
1:C:1704:PRO:HG2	1:C:1707:LEU:HD12	1.76	0.66
1:E:2340:PHE:HB2	1:E:2435:ARG:HD3	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4878:ASP:HA	1:G:4581:LYS:HB3	1.77	0.66
1:C:4656:LEU:HA	1:C:4659:ILE:HG22	1.78	0.66
1:E:2499:LYS:HD2	1:E:2553:TYR:HE1	1.61	0.66
1:E:4843:LEU:CD1	1:G:4827:LEU:HD11	2.26	0.66
1:E:1291:LEU:HD23	1:E:1293:LEU:H	1.60	0.65
1:E:143:GLY:O	1:E:145:ALA:N	2.26	0.65
1:E:2299:VAL:HG21	1:E:2356:LEU:HB3	1.78	0.65
1:E:320:LYS:NZ	1:E:382:GLY:O	2.27	0.65
1:G:2340:PHE:HB2	1:G:2435:ARG:HD3	1.78	0.65
1:G:4856:PHE:O	1:G:4860:ARG:NE	2.28	0.65
1:A:743:VAL:HG21	1:A:801:LYS:HD2	1.77	0.65
1:C:743:VAL:HG21	1:C:801:LYS:HD2	1.77	0.65
1:C:1648:MET:SD	1:C:1656:ARG:NH2	2.69	0.65
1:E:3893:GLU:HA	1:E:3967:GLU:OE2	1.96	0.65
1:G:3958:ALA:HB3	1:G:4019:LEU:HD11	1.77	0.65
1:A:2340:PHE:HB2	1:A:2435:ARG:HD3	1.77	0.65
1:A:4837:LEU:HD11	1:A:4932:ILE:HG23	1.77	0.65
1:A:595:ARG:HG2	1:A:1662:PHE:CZ	2.31	0.65
1:E:4656:LEU:HA	1:E:4659:ILE:HG22	1.79	0.65
1:E:595:ARG:HG2	1:E:1662:PHE:CZ	2.31	0.65
1:G:3423:TRP:O	1:G:3427:PRO:N	2.29	0.65
1:G:3817:LEU:HD11	1:G:3821:LYS:NZ	2.12	0.65
1:A:2299:VAL:HG21	1:A:2356:LEU:HB3	1.78	0.65
1:G:4687:TYR:OH	1:G:4699:GLY:O	2.14	0.65
1:A:2158:CYS:SG	1:A:2184:ASN:ND2	2.64	0.65
1:A:4861:LYS:NZ	1:A:4909:TYR:HD2	1.94	0.65
1:C:1639:LEU:HD23	1:C:1650:ILE:HG12	1.77	0.65
1:C:2340:PHE:HB2	1:C:2435:ARG:HD3	1.77	0.65
1:C:3950:ASN:HA	1:C:3953:LYS:HD3	1.79	0.65
1:C:627:PRO:HG3	2:D:89:GLY:C	2.17	0.65
1:G:2299:VAL:HG21	1:G:2356:LEU:HB3	1.78	0.65
1:E:4917:ASP:OD2	1:G:4892:ARG:CZ	2.45	0.65
1:A:1455:PRO:HA	1:A:1549:PHE:HE2	1.61	0.65
1:A:3893:GLU:HA	1:A:3967:GLU:OE2	1.96	0.65
1:E:743:VAL:HG21	1:E:801:LYS:HD2	1.78	0.65
1:G:1648:MET:SD	1:G:1656:ARG:NH2	2.70	0.65
1:A:1637:MET:HG3	1:A:1650:ILE:HD12	1.77	0.65
1:A:1648:MET:SD	1:A:1656:ARG:NH2	2.69	0.65
1:C:1455:PRO:HA	1:C:1549:PHE:HE2	1.60	0.65
1:A:4656:LEU:HA	1:A:4659:ILE:HG22	1.79	0.65
1:E:3950:ASN:HA	1:E:3953:LYS:HD3	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:728:ARG:NH2	1:G:1487:LEU:O	2.30	0.65
1:G:2499:LYS:HD2	1:G:2553:TYR:HE1	1.61	0.65
1:G:2770:LYS:HB3	1:G:2775:TRP:HB2	1.78	0.65
1:A:3878:ASP:OD2	1:A:3953:LYS:HB3	1.97	0.64
1:C:4878:ASP:HA	1:E:4581:LYS:HB3	1.79	0.64
1:E:475:GLN:NE2	1:E:528:SER:O	2.30	0.64
1:C:3835:LEU:HD11	1:C:3884:LEU:HD13	1.77	0.64
1:C:3893:GLU:HA	1:C:3967:GLU:OE2	1.96	0.64
1:G:736:HIS:HE2	1:G:739:ALA:HB2	1.62	0.64
1:C:728:ARG:NH2	1:C:1487:LEU:O	2.30	0.64
1:C:1561:VAL:HG13	1:C:1562:ILE:HG22	1.78	0.64
1:E:2770:LYS:HB3	1:E:2775:TRP:HB2	1.77	0.64
1:E:4861:LYS:NZ	1:E:4909:TYR:HD2	1.95	0.64
1:C:595:ARG:HG2	1:C:1662:PHE:CZ	2.31	0.64
1:E:1561:VAL:HG13	1:E:1562:ILE:HG22	1.78	0.64
1:E:539:LEU:O	1:E:543:ASN:ND2	2.31	0.64
1:G:3768:SER:HA	1:G:3771:HIS:HB3	1.79	0.64
1:G:4172:GLU:HA	1:G:4175:ARG:NH1	2.12	0.64
1:A:3950:ASN:HA	1:A:3953:LYS:HD3	1.79	0.64
1:C:4821:LYS:HD2	1:C:4824:ARG:HH21	1.63	0.64
1:C:4861:LYS:NZ	1:C:4909:TYR:HD2	1.95	0.64
1:C:539:LEU:O	1:C:543:ASN:ND2	2.29	0.64
1:E:1648:MET:SD	1:E:1656:ARG:NH2	2.70	0.64
1:C:162:LYS:NZ	1:E:4050:GLU:OE2	2.31	0.64
1:E:627:PRO:HG3	2:F:89:GLY:C	2.18	0.64
1:G:4913:ARG:HH12	1:G:4917:ASP:HB2	1.63	0.64
1:E:728:ARG:NH2	1:E:1487:LEU:O	2.30	0.64
1:G:627:PRO:HG3	2:H:89:GLY:C	2.18	0.64
1:A:539:LEU:O	1:A:543:ASN:ND2	2.30	0.64
1:C:2158:CYS:SG	1:C:2184:ASN:ND2	2.63	0.64
1:E:4837:LEU:HD11	1:E:4932:ILE:HG23	1.79	0.64
1:G:2929:PHE:O	1:G:2933:ASN:ND2	2.30	0.64
1:G:23:GLN:HE21	1:G:34:LYS:HB3	1.61	0.64
1:E:23:GLN:HE21	1:E:34:LYS:HB3	1.61	0.64
1:G:1455:PRO:HA	1:G:1549:PHE:HE2	1.61	0.64
1:G:1667:LEU:HD23	1:G:1710:GLY:HA3	1.80	0.64
1:E:4934:GLY:HA2	1:G:4937:ILE:HD12	1.80	0.63
1:G:1075:PHE:HB2	1:G:1192:CYS:HB3	1.80	0.63
1:G:2625:ARG:HA	1:G:2910:THR:HG22	1.80	0.63
1:A:1667:LEU:HD23	1:A:1710:GLY:HA3	1.80	0.63
1:E:1243:PRO:HD2	1:E:1458:HIS:CB	2.25	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1235:THR:HA	1:G:1612:PHE:HE1	1.63	0.63
1:G:1561:VAL:HG13	1:G:1562:ILE:HG22	1.78	0.63
1:A:1235:THR:HA	1:A:1612:PHE:HE1	1.63	0.63
1:A:627:PRO:HG3	2:B:89:GLY:C	2.18	0.63
1:C:993:HIS:HE1	1:C:1020:ARG:HB3	1.62	0.63
1:C:1077:ALA:HB3	1:C:1189:LEU:HB3	1.80	0.63
1:G:1115:LEU:O	1:G:1132:TRP:NE1	2.31	0.63
1:G:3893:GLU:HA	1:G:3967:GLU:OE2	1.99	0.63
1:A:1561:VAL:HG13	1:A:1562:ILE:HG22	1.78	0.63
1:G:3885:PHE:CE1	1:G:3919:THR:HG23	2.33	0.63
1:G:669:ASP:OD2	1:G:790:ARG:HG2	1.98	0.63
1:C:2625:ARG:HA	1:C:2910:THR:HG22	1.80	0.63
1:C:4680:LYS:HD3	1:C:4686:LEU:HD21	1.81	0.63
1:E:3878:ASP:OD2	1:E:3953:LYS:HB3	1.98	0.63
1:G:4922:PHE:HA	1:G:4926:VAL:HB	1.81	0.63
1:A:1089:TYR:HD1	1:A:1152:MET:HG2	1.64	0.63
1:A:4691:GLN:HB2	1:A:4703:ARG:HH22	1.63	0.63
1:A:475:GLN:NE2	1:A:528:SER:O	2.30	0.63
1:A:669:ASP:OD2	1:A:790:ARG:HG2	1.98	0.63
1:C:475:GLN:NE2	1:C:528:SER:O	2.31	0.63
1:G:4868:ASP:OD1	1:G:4869:GLU:N	2.31	0.63
1:A:1075:PHE:HB2	1:A:1192:CYS:HB3	1.81	0.63
1:A:1849:LEU:HD13	1:A:1854:PHE:HD2	1.64	0.63
1:C:1667:LEU:HD23	1:C:1710:GLY:HA3	1.80	0.63
2:D:23:VAL:HG22	2:D:47:LYS:HG2	1.80	0.63
1:G:274:LEU:HD12	1:G:278:GLN:HE21	1.64	0.63
1:G:475:GLN:NE2	1:G:528:SER:O	2.31	0.63
1:G:569:ILE:HG23	1:G:570:GLU:HG2	1.81	0.63
1:A:569:ILE:HG23	1:A:570:GLU:HG2	1.81	0.63
1:E:2854:GLY:O	1:E:2856:ASN:ND2	2.32	0.63
1:C:4917:ASP:OD2	1:E:4892:ARG:CZ	2.46	0.63
1:G:168:ASP:HB3	1:G:199:LEU:HD22	1.80	0.63
1:G:1849:LEU:HD13	1:G:1854:PHE:HD2	1.64	0.63
1:A:728:ARG:NH2	1:A:1487:LEU:O	2.30	0.63
1:A:168:ASP:HB3	1:A:199:LEU:HD22	1.81	0.63
1:C:4691:GLN:HB2	1:C:4703:ARG:HH22	1.63	0.63
1:E:2625:ARG:HA	1:E:2910:THR:HG22	1.80	0.63
1:E:4680:LYS:HD3	1:E:4686:LEU:HD21	1.81	0.63
1:E:4914:VAL:HG13	1:G:4888:TYR:CD1	2.34	0.63
1:A:993:HIS:HE1	1:A:1020:ARG:HB3	1.63	0.62
1:E:4868:ASP:OD1	1:E:4869:GLU:N	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:23:VAL:HG22	2:B:47:LYS:HG2	1.81	0.62
1:E:274:LEU:HD12	1:E:278:GLN:HE21	1.64	0.62
1:A:2854:GLY:O	1:A:2856:ASN:ND2	2.32	0.62
1:A:1077:ALA:HB3	1:A:1189:LEU:HB3	1.81	0.62
1:C:1235:THR:HA	1:C:1612:PHE:HE1	1.64	0.62
1:C:3878:ASP:OD2	1:C:3953:LYS:HB3	1.98	0.62
1:E:1235:THR:HA	1:E:1612:PHE:HE1	1.63	0.62
1:E:168:ASP:HB3	1:E:199:LEU:HD22	1.80	0.62
1:E:669:ASP:OD2	1:E:790:ARG:HG2	1.98	0.62
1:G:993:HIS:HE1	1:G:1020:ARG:HB3	1.62	0.62
1:G:3813:GLN:OE1	1:G:3896:ASN:ND2	2.32	0.62
1:A:2625:ARG:HA	1:A:2910:THR:HG22	1.80	0.62
1:A:4983:HIS:ND1	1:A:4988:TYR:OH	2.26	0.62
1:E:1455:PRO:HA	1:E:1549:PHE:HE2	1.62	0.62
1:C:4934:GLY:HA2	1:E:4937:ILE:CD1	2.27	0.62
1:G:1077:ALA:HB3	1:G:1189:LEU:HB3	1.80	0.62
1:A:4843:LEU:HD11	1:C:4827:LEU:HD11	1.82	0.62
1:C:1089:TYR:HD1	1:C:1152:MET:HG2	1.64	0.62
1:C:4239:GLU:HA	1:C:4242:ILE:HD12	1.82	0.62
1:E:993:HIS:HE1	1:E:1020:ARG:HB3	1.63	0.62
1:G:284:HIS:NE2	1:G:286:THR:OG1	2.32	0.62
1:A:4680:LYS:HD3	1:A:4686:LEU:HD21	1.81	0.62
1:A:4828:SER:HA	1:A:4831:THR:HG22	1.81	0.62
1:E:1115:LEU:O	1:E:1132:TRP:NE1	2.31	0.62
1:E:1667:LEU:HD23	1:E:1710:GLY:HA3	1.81	0.62
1:E:284:HIS:NE2	1:E:286:THR:OG1	2.32	0.62
1:G:2854:GLY:O	1:G:2856:ASN:ND2	2.32	0.62
1:C:1115:LEU:O	1:C:1132:TRP:NE1	2.31	0.62
1:C:669:ASP:OD2	1:C:790:ARG:HG2	1.99	0.62
1:A:1109:LEU:HA	1:A:1120:LEU:HD13	1.82	0.62
1:E:1075:PHE:HB2	1:E:1192:CYS:HB3	1.81	0.62
1:E:4821:LYS:HD2	1:E:4824:ARG:HH21	1.62	0.62
1:G:539:LEU:O	1:G:543:ASN:ND2	2.30	0.62
1:A:1111:PRO:HB2	1:A:1607:ARG:HG3	1.82	0.62
1:A:274:LEU:HD12	1:A:278:GLN:HE21	1.63	0.62
1:C:172:VAL:HG22	1:C:179:TYR:CD1	2.34	0.62
1:C:2854:GLY:O	1:C:2856:ASN:ND2	2.33	0.62
1:C:4083:ASP:O	1:C:4085:ARG:N	2.33	0.62
1:E:69:LEU:HD13	1:E:101:LEU:HD11	1.82	0.62
1:G:1943:LEU:HD11	1:G:2098:VAL:HG22	1.81	0.62
1:A:1115:LEU:O	1:A:1132:TRP:NE1	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4239:GLU:HA	1:A:4242:ILE:HD12	1.82	0.61
1:C:284:HIS:NE2	1:C:286:THR:OG1	2.32	0.61
1:E:1077:ALA:HB3	1:E:1189:LEU:HB3	1.80	0.61
1:E:2133:GLU:HA	1:E:2136:ARG:HE	1.65	0.61
1:G:69:LEU:HD13	1:G:101:LEU:HD11	1.82	0.61
1:A:284:HIS:NE2	1:A:286:THR:OG1	2.32	0.61
1:A:3769:ARG:O	1:A:3773:ARG:NH1	2.33	0.61
1:A:3992:PHE:O	1:A:3996:PHE:N	2.30	0.61
1:C:623:GLU:OE2	2:D:89:GLY:N	2.33	0.61
1:E:1089:TYR:HD1	1:E:1152:MET:HG2	1.64	0.61
1:G:1089:TYR:HD1	1:G:1152:MET:HG2	1.64	0.61
1:C:168:ASP:HB3	1:C:199:LEU:HD22	1.80	0.61
1:E:4839:MET:O	1:G:4823:LEU:HD21	2.01	0.61
1:E:623:GLU:OE2	2:F:89:GLY:N	2.34	0.61
2:F:23:VAL:HG22	2:F:47:LYS:HG2	1.81	0.61
1:C:569:ILE:HG23	1:C:570:GLU:HG2	1.81	0.61
1:E:1849:LEU:HD13	1:E:1854:PHE:HD2	1.64	0.61
1:E:4083:ASP:O	1:E:4085:ARG:N	2.33	0.61
1:E:569:ILE:HG23	1:E:570:GLU:HG2	1.81	0.61
1:A:172:VAL:HG22	1:A:179:TYR:CD1	2.34	0.61
1:A:4083:ASP:O	1:A:4085:ARG:N	2.33	0.61
1:C:1075:PHE:HB2	1:C:1192:CYS:HB3	1.81	0.61
1:C:2822:THR:HG1	1:C:2938:THR:HG1	1.39	0.61
1:A:2358:ILE:CG2	1:G:195:PHE:CD1	2.83	0.61
1:C:1849:LEU:HD13	1:C:1854:PHE:HD2	1.64	0.61
1:C:274:LEU:HD12	1:C:278:GLN:HE21	1.64	0.61
1:C:4934:GLY:CA	1:E:4937:ILE:HD12	2.30	0.61
1:C:1111:PRO:HB2	1:C:1607:ARG:HG3	1.83	0.61
1:E:4691:GLN:HB2	1:E:4703:ARG:HH22	1.64	0.61
1:G:4083:ASP:O	1:G:4085:ARG:N	2.33	0.61
1:E:23:GLN:OE1	1:E:203:ASN:ND2	2.33	0.61
1:E:2248:ARG:HA	1:E:2251:PHE:HB3	1.83	0.61
1:G:4087:LEU:HG	1:G:4122:MET:HA	1.83	0.61
1:A:23:GLN:OE1	1:A:203:ASN:ND2	2.34	0.61
1:A:3767:GLN:HE22	1:A:3806:ASN:HB3	1.65	0.61
1:E:3769:ARG:O	1:E:3773:ARG:NH1	2.33	0.61
1:E:4239:GLU:HA	1:E:4242:ILE:HD12	1.82	0.61
1:A:1961:PHE:CD1	1:A:2066:LEU:HD13	2.36	0.61
1:A:688:LEU:HB2	1:A:775:GLY:HA3	1.83	0.61
1:C:69:LEU:HD13	1:C:101:LEU:HD11	1.82	0.61
1:C:195:PHE:CD1	1:E:2358:ILE:CG2	2.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3767:GLN:HE22	1:C:3806:ASN:HB3	1.64	0.61
1:C:3769:ARG:O	1:C:3773:ARG:NH1	2.32	0.61
1:E:347:PHE:HE1	1:E:387:ALA:HB2	1.65	0.61
1:G:1111:PRO:HB2	1:G:1607:ARG:HG3	1.83	0.61
1:G:2248:ARG:HA	1:G:2251:PHE:HB3	1.83	0.61
1:A:607:CYS:SG	1:A:1673:VAL:HA	2.41	0.60
1:A:69:LEU:HD13	1:A:101:LEU:HD11	1.82	0.60
1:E:1943:LEU:HD11	1:E:2098:VAL:HG22	1.83	0.60
1:A:2547:ALA:O	1:A:2550:LEU:HG	2.01	0.60
1:C:1961:PHE:CD1	1:C:2066:LEU:HD13	2.36	0.60
1:E:2547:ALA:O	1:E:2550:LEU:HG	2.02	0.60
1:G:172:VAL:HG22	1:G:179:TYR:CD1	2.34	0.60
1:G:347:PHE:HE1	1:G:387:ALA:HB2	1.65	0.60
1:A:4867:GLU:HB2	1:A:4872:PRO:HG2	1.84	0.60
1:E:3767:GLN:HE22	1:E:3806:ASN:HB3	1.67	0.60
1:G:1961:PHE:CD1	1:G:2066:LEU:HD13	2.36	0.60
1:G:3878:ASP:OD2	1:G:3953:LYS:HB3	1.99	0.60
1:G:4112:LEU:HD22	1:G:4123:ILE:HD13	1.82	0.60
1:G:4867:GLU:HB2	1:G:4872:PRO:HG2	1.83	0.60
1:G:688:LEU:HB2	1:G:775:GLY:HA3	1.83	0.60
1:A:22:LEU:HD12	1:A:37:LEU:HD23	1.84	0.60
1:A:4868:ASP:OD1	1:A:4869:GLU:N	2.31	0.60
1:C:1943:LEU:HD11	1:C:2098:VAL:HG22	1.83	0.60
1:C:2547:ALA:O	1:C:2550:LEU:HG	2.02	0.60
1:C:607:CYS:SG	1:C:1673:VAL:HA	2.41	0.60
1:E:172:VAL:HG22	1:E:179:TYR:CD1	2.34	0.60
1:E:1961:PHE:CD1	1:E:2066:LEU:HD13	2.36	0.60
1:E:4867:GLU:HB2	1:E:4872:PRO:HG2	1.84	0.60
1:A:4050:GLU:OE2	1:G:162:LYS:NZ	2.31	0.60
1:G:2547:ALA:O	1:G:2550:LEU:HG	2.02	0.60
1:G:4861:LYS:NZ	1:G:4909:TYR:HD2	1.98	0.60
1:A:244:LEU:HD22	1:A:375:LYS:HZ1	1.67	0.60
1:C:4828:SER:HA	1:C:4831:THR:HG22	1.83	0.60
1:C:76:ARG:CZ	1:E:3936:TYR:HA	2.32	0.60
1:E:317:ARG:HH22	1:E:322:LYS:HA	1.67	0.60
1:G:2450:ALA:O	1:G:2453:ILE:HG22	2.02	0.60
1:G:623:GLU:OE2	2:H:89:GLY:N	2.34	0.60
1:A:4856:PHE:O	1:A:4860:ARG:NE	2.33	0.60
1:C:768:PHE:HA	1:C:1474:VAL:HA	1.83	0.60
1:C:22:LEU:HD12	1:C:37:LEU:HD23	1.84	0.60
1:C:4843:LEU:HD11	1:E:4827:LEU:HD11	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1109:LEU:HA	1:G:1120:LEU:HD13	1.82	0.60
1:A:347:PHE:HE1	1:A:387:ALA:HB2	1.65	0.60
1:A:623:GLU:OE2	2:B:89:GLY:N	2.34	0.60
1:C:2450:ALA:O	1:C:2453:ILE:HG22	2.02	0.60
1:C:317:ARG:HH22	1:C:322:LYS:HA	1.67	0.60
1:E:768:PHE:HA	1:E:1474:VAL:HA	1.83	0.60
1:G:23:GLN:OE1	1:G:203:ASN:ND2	2.34	0.60
1:G:607:CYS:SG	1:G:1673:VAL:HA	2.41	0.60
1:C:1109:LEU:HA	1:C:1120:LEU:HD13	1.83	0.60
1:C:176:SER:HB2	1:C:178:ARG:HH21	1.67	0.60
1:C:2248:ARG:HA	1:C:2251:PHE:HB3	1.83	0.60
1:E:1083:VAL:O	1:E:1188:PHE:N	2.33	0.60
1:E:607:CYS:SG	1:E:1673:VAL:HA	2.41	0.60
1:E:4909:TYR:O	1:E:4913:ARG:N	2.33	0.60
1:A:3936:TYR:HA	1:G:76:ARG:CZ	2.31	0.60
1:A:76:ARG:CZ	1:C:3936:TYR:HA	2.31	0.60
1:A:4917:ASP:OD2	1:C:4892:ARG:CZ	2.49	0.60
1:G:2136:ARG:HH11	1:G:3720:TYR:HE2	1.48	0.60
1:C:347:PHE:HE1	1:C:387:ALA:HB2	1.65	0.60
1:C:4868:ASP:OD1	1:C:4869:GLU:N	2.32	0.60
1:E:1111:PRO:HB2	1:E:1607:ARG:HG3	1.83	0.60
1:E:2450:ALA:O	1:E:2453:ILE:HG22	2.02	0.60
1:C:4839:MET:O	1:E:4823:LEU:HD21	2.02	0.60
1:G:176:SER:HB2	1:G:178:ARG:HH21	1.67	0.60
1:A:1083:VAL:O	1:A:1188:PHE:N	2.33	0.59
1:A:2248:ARG:HA	1:A:2251:PHE:HB3	1.83	0.59
1:A:4570:ALA:O	1:A:4574:ASN:ND2	2.33	0.59
1:E:22:LEU:HD12	1:E:37:LEU:HD23	1.83	0.59
1:A:1781:CYS:HG	2:B:46:PHE:HE1	1.43	0.59
1:A:3709:ALA:HB2	1:A:3782:MET:SD	2.42	0.59
1:C:1808:ARG:HA	1:C:1848:LEU:HD21	1.84	0.59
1:G:3914:ASN:ND2	1:G:3979:SER:OG	2.32	0.59
1:A:4581:LYS:HB3	1:G:4878:ASP:HA	1.83	0.59
1:G:768:PHE:HA	1:G:1474:VAL:HA	1.83	0.59
1:A:195:PHE:CD1	1:C:2358:ILE:CG2	2.84	0.59
1:C:23:GLN:OE1	1:C:203:ASN:ND2	2.34	0.59
1:A:4839:MET:O	1:C:4823:LEU:HD21	2.01	0.59
1:C:4867:GLU:HB2	1:C:4872:PRO:HG2	1.84	0.59
1:C:4871:GLU:HB2	1:C:4872:PRO:HD3	1.84	0.59
1:G:316:PHE:HB3	1:G:346:CYS:HB3	1.85	0.59
1:G:4815:ASP:O	1:G:4819:GLY:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1455:PRO:HA	1:A:1549:PHE:CE2	2.37	0.59
1:A:1943:LEU:HD11	1:A:2098:VAL:HG22	1.83	0.59
1:A:4871:GLU:HB2	1:A:4872:PRO:HD3	1.84	0.59
1:E:317:ARG:NH2	1:E:321:GLU:O	2.36	0.59
1:E:4828:SER:HA	1:E:4831:THR:HG22	1.83	0.59
1:G:1257:VAL:HG12	1:G:1277:TRP:CH2	2.38	0.59
1:G:830:ARG:HD3	1:G:1616:GLU:OE2	2.02	0.59
1:G:1781:CYS:SG	2:H:46:PHE:HE1	2.25	0.59
1:G:677:ALA:HA	2:H:40:ARG:HB3	1.83	0.59
1:A:4821:LYS:HD2	1:A:4824:ARG:HH21	1.66	0.59
1:C:317:ARG:NH2	1:C:321:GLU:O	2.36	0.59
1:A:162:LYS:NZ	1:C:4050:GLU:OE2	2.33	0.59
1:E:4871:GLU:HB2	1:E:4872:PRO:HD3	1.85	0.59
1:A:2450:ALA:O	1:A:2453:ILE:HG22	2.02	0.59
1:A:317:ARG:NH2	1:A:321:GLU:O	2.36	0.59
1:A:4823:LEU:HD21	1:G:4839:MET:C	2.22	0.59
1:C:1083:VAL:O	1:C:1188:PHE:N	2.33	0.59
1:E:176:SER:HB2	1:E:178:ARG:HH21	1.67	0.59
1:E:195:PHE:CD1	1:G:2358:ILE:CG2	2.84	0.59
1:E:688:LEU:HB2	1:E:775:GLY:HA3	1.83	0.59
1:E:1220:GLN:NE2	1:G:3484:ALA:HB1	2.18	0.59
1:G:22:LEU:HD12	1:G:37:LEU:HD23	1.84	0.59
1:G:3995:VAL:HG13	1:G:3999:MET:HG3	1.85	0.59
1:C:316:PHE:HB3	1:C:346:CYS:HB3	1.85	0.59
1:C:533:ASN:HB3	1:C:536:ASN:HD22	1.68	0.59
1:C:821:LEU:O	1:C:1626:TRP:NE1	2.36	0.59
1:C:1220:GLN:NE2	1:E:3484:ALA:HB1	2.18	0.59
1:E:244:LEU:HD22	1:E:375:LYS:HZ1	1.68	0.59
1:E:4856:PHE:O	1:E:4860:ARG:NE	2.33	0.59
1:G:748:LEU:HD21	1:G:777:PHE:HD2	1.68	0.59
1:A:176:SER:HB2	1:A:178:ARG:HH21	1.67	0.59
1:A:317:ARG:HH22	1:A:322:LYS:HA	1.67	0.59
1:C:4035:VAL:HG12	1:C:4036:VAL:H	1.68	0.59
1:E:1808:ARG:HA	1:E:1848:LEU:HD21	1.85	0.59
1:E:830:ARG:HD3	1:E:1616:GLU:OE2	2.03	0.59
1:G:1808:ARG:HA	1:G:1848:LEU:HD21	1.85	0.59
1:G:2883:HIS:NE2	1:G:2906:VAL:O	2.30	0.59
1:C:830:ARG:HD3	1:C:1616:GLU:OE2	2.02	0.59
1:C:688:LEU:HB2	1:C:775:GLY:HA3	1.83	0.59
1:E:316:PHE:HB3	1:E:346:CYS:HB3	1.85	0.59
1:E:4035:VAL:HG12	1:E:4036:VAL:H	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4822:THR:HG21	1:G:4839:MET:HG3	1.83	0.59
1:G:4871:GLU:HB2	1:G:4872:PRO:HD3	1.85	0.59
1:A:4239:GLU:OE2	1:A:5014:TYR:OH	2.12	0.59
1:C:1257:VAL:HG12	1:C:1277:TRP:CH2	2.38	0.59
1:C:3709:ALA:HB2	1:C:3782:MET:SD	2.42	0.59
1:A:316:PHE:HB3	1:A:346:CYS:HB3	1.85	0.58
1:A:4185:GLY:O	1:A:4187:SER:N	2.34	0.58
1:A:636:ASN:OD1	1:A:637:LEU:N	2.36	0.58
1:C:1455:PRO:HA	1:C:1549:PHE:CE2	2.37	0.58
1:G:2870:GLU:OE2	1:G:2939:ARG:NE	2.35	0.58
1:A:1257:VAL:HG12	1:A:1277:TRP:CH2	2.38	0.58
1:A:748:LEU:HD21	1:A:777:PHE:HD2	1.68	0.58
1:A:830:ARG:HD3	1:A:1616:GLU:OE2	2.02	0.58
1:C:2774:ASN:OD1	1:C:2852:ARG:NE	2.36	0.58
1:C:4708:THR:HG22	1:C:4710:SER:N	2.18	0.58
1:C:617:ASN:O	1:C:621:ILE:HG12	2.03	0.58
1:E:636:ASN:OD1	1:E:637:LEU:N	2.36	0.58
1:G:1716:ILE:O	1:G:1721:GLU:N	2.36	0.58
1:G:617:ASN:O	1:G:621:ILE:HG12	2.02	0.58
1:G:636:ASN:OD1	1:G:637:LEU:N	2.36	0.58
1:A:1159:THR:HG23	1:A:1180:ARG:HG2	1.86	0.58
1:A:3885:PHE:CE1	1:A:3919:THR:HG23	2.36	0.58
1:C:636:ASN:OD1	1:C:637:LEU:N	2.37	0.58
1:E:3709:ALA:HB2	1:E:3782:MET:SD	2.42	0.58
1:E:4708:THR:HG23	1:E:4772:ASP:OD2	2.04	0.58
1:G:1455:PRO:HA	1:G:1549:PHE:CE2	2.37	0.58
1:G:4688:ILE:HG21	1:G:4728:HIS:HB3	1.84	0.58
1:A:3937:TYR:O	1:A:4002:LYS:NZ	2.36	0.58
1:E:4185:GLY:O	1:E:4187:SER:N	2.34	0.58
1:G:410:LEU:HD21	1:G:441:VAL:HA	1.86	0.58
1:G:533:ASN:HB3	1:G:536:ASN:HD22	1.68	0.58
1:A:1808:ARG:HA	1:A:1848:LEU:HD21	1.85	0.58
1:A:233:ILE:O	1:A:257:ARG:NH2	2.37	0.58
1:A:3484:ALA:HB1	1:G:1220:GLN:NE2	2.18	0.58
1:A:410:LEU:HD21	1:A:441:VAL:HA	1.86	0.58
1:A:1220:GLN:NE2	1:C:3484:ALA:HB1	2.18	0.58
1:C:3937:TYR:O	1:C:4002:LYS:NZ	2.37	0.58
1:C:3927:GLN:HB3	1:C:3992:PHE:CE2	2.39	0.58
1:C:410:LEU:HD21	1:C:441:VAL:HA	1.86	0.58
1:C:4856:PHE:O	1:C:4860:ARG:NE	2.32	0.58
1:E:1109:LEU:HA	1:E:1120:LEU:HD13	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1257:VAL:HG12	1:E:1277:TRP:CH2	2.38	0.58
1:E:533:ASN:HB3	1:E:536:ASN:HD22	1.68	0.58
1:G:4035:VAL:HG12	1:G:4036:VAL:H	1.69	0.58
1:A:768:PHE:HA	1:A:1474:VAL:HA	1.83	0.58
1:E:1206:GLN:O	1:E:1209:SER:OG	2.18	0.58
1:E:2745:VAL:HG21	1:E:2818:ALA:HB2	1.86	0.58
1:G:1159:THR:HG23	1:G:1180:ARG:HG2	1.86	0.58
1:G:1238:PHE:HE2	1:G:1612:PHE:HA	1.69	0.58
1:G:2774:ASN:OD1	1:G:2852:ARG:NE	2.36	0.58
1:A:635:THR:HA	1:A:1639:LEU:HA	1.86	0.58
1:A:4035:VAL:HG12	1:A:4036:VAL:H	1.67	0.58
1:A:617:ASN:O	1:A:621:ILE:HG12	2.03	0.58
1:C:1238:PHE:HE2	1:C:1612:PHE:HA	1.69	0.58
1:C:541:SER:HA	1:C:574:VAL:HG22	1.85	0.58
1:C:748:LEU:HD21	1:C:777:PHE:HD2	1.68	0.58
1:E:1716:ILE:O	1:E:1721:GLU:N	2.37	0.58
1:E:4708:THR:HG22	1:E:4710:SER:N	2.18	0.58
1:E:617:ASN:O	1:E:621:ILE:HG12	2.03	0.58
1:A:2917:ALA:HA	1:A:2920:ARG:HB3	1.84	0.58
1:C:4141:PHE:O	1:C:4145:VAL:HG23	2.04	0.58
1:C:831:ARG:HG3	1:C:840:VAL:HG21	1.86	0.58
1:C:1781:CYS:SG	2:D:46:PHE:CE1	2.97	0.58
1:E:1164:LEU:HG	1:E:1169:LEU:HD11	1.84	0.58
1:E:1236:THR:H	1:E:1612:PHE:HD1	1.52	0.58
1:E:748:LEU:HD21	1:E:777:PHE:HD2	1.68	0.58
1:G:4185:GLY:O	1:G:4187:SER:N	2.34	0.58
1:A:821:LEU:O	1:A:1626:TRP:NE1	2.37	0.58
1:A:2929:PHE:O	1:A:2933:ASN:ND2	2.37	0.58
1:C:2917:ALA:HA	1:C:2920:ARG:HB3	1.85	0.58
1:E:2917:ALA:HA	1:E:2920:ARG:HB3	1.85	0.58
1:G:2063:LEU:HD13	1:G:3661:TRP:CH2	2.39	0.58
1:G:317:ARG:HH22	1:G:322:LYS:HA	1.66	0.58
1:E:4794:TRP:HA	1:E:4797:VAL:HG12	1.86	0.58
1:E:677:ALA:HA	2:F:40:ARG:HB3	1.86	0.58
1:G:317:ARG:NH2	1:G:321:GLU:O	2.36	0.58
1:G:3767:GLN:OE1	1:G:3809:ASN:ND2	2.36	0.58
1:C:635:THR:HA	1:C:1639:LEU:HA	1.86	0.57
1:E:1455:PRO:HA	1:E:1549:PHE:CE2	2.38	0.57
1:E:635:THR:HA	1:E:1639:LEU:HA	1.86	0.57
1:G:1164:LEU:HG	1:G:1169:LEU:HD11	1.85	0.57
1:A:4708:THR:HG23	1:A:4772:ASP:OD2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:233:ILE:O	1:C:257:ARG:NH2	2.38	0.57
1:A:1716:ILE:O	1:A:1721:GLU:N	2.37	0.57
1:A:677:ALA:HA	2:B:40:ARG:HB3	1.86	0.57
1:C:2870:GLU:OE2	1:C:2939:ARG:NE	2.38	0.57
1:E:1159:THR:HG23	1:E:1180:ARG:HG2	1.86	0.57
1:E:76:ARG:CZ	1:G:3936:TYR:HA	2.34	0.57
1:G:4677:LEU:HD22	1:G:4711:PHE:CZ	2.39	0.57
1:G:4806:ASN:O	1:G:4809:PHE:HB3	2.04	0.57
1:G:831:ARG:HG3	1:G:840:VAL:HG21	1.86	0.57
1:A:2745:VAL:HG21	1:A:2818:ALA:HB2	1.86	0.57
1:A:831:ARG:HG3	1:A:840:VAL:HG21	1.87	0.57
1:C:1612:PHE:O	1:C:1613:LEU:HB2	2.05	0.57
1:C:2161:GLN:O	1:C:2164:SER:OG	2.16	0.57
1:C:3992:PHE:O	1:C:3996:PHE:N	2.30	0.57
1:C:677:ALA:HA	2:D:40:ARG:HB3	1.86	0.57
1:E:233:ILE:O	1:E:257:ARG:NH2	2.37	0.57
1:E:4917:ASP:OD2	1:G:4888:TYR:CE1	2.57	0.57
1:E:4922:PHE:HA	1:E:4926:VAL:HB	1.86	0.57
1:G:247:TYR:HE2	1:G:388:LEU:HD21	1.70	0.57
1:G:4554:TYR:HA	1:G:4557:ARG:NH1	2.18	0.57
1:G:4708:THR:HG22	1:G:4710:SER:N	2.19	0.57
1:A:247:TYR:HE2	1:A:388:LEU:HD21	1.69	0.57
1:A:4708:THR:HG22	1:A:4710:SER:N	2.17	0.57
1:A:4922:PHE:HA	1:A:4926:VAL:HB	1.87	0.57
2:B:7:ILE:HD11	2:B:73:LYS:HB2	1.86	0.57
1:E:821:LEU:O	1:E:1626:TRP:NE1	2.38	0.57
1:E:410:LEU:HD21	1:E:441:VAL:HA	1.86	0.57
1:E:541:SER:HA	1:E:574:VAL:HG22	1.86	0.57
2:F:27:THR:HG22	2:F:100:ASP:HB3	1.86	0.57
1:G:1236:THR:H	1:G:1612:PHE:HD1	1.53	0.57
1:G:3805:LEU:O	1:G:3807:GLY:N	2.37	0.57
1:G:4021:LYS:O	1:G:4025:VAL:HG23	2.04	0.57
1:A:1238:PHE:HE2	1:A:1612:PHE:HA	1.69	0.57
1:A:2149:VAL:O	1:A:2152:THR:OG1	2.16	0.57
1:A:533:ASN:HB3	1:A:536:ASN:HD22	1.68	0.57
2:B:27:THR:HG22	2:B:100:ASP:HB3	1.86	0.57
1:C:2929:PHE:O	1:C:2933:ASN:ND2	2.37	0.57
1:C:4708:THR:HG23	1:C:4772:ASP:OD2	2.05	0.57
1:C:4922:PHE:HA	1:C:4926:VAL:HB	1.86	0.57
1:E:1781:CYS:SG	2:F:46:PHE:CE1	2.97	0.57
1:E:2774:ASN:OD1	1:E:2852:ARG:NE	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:831:ARG:HG3	1:E:840:VAL:HG21	1.87	0.57
1:G:821:LEU:O	1:G:1626:TRP:NE1	2.37	0.57
1:G:3780:LEU:HD21	1:G:3820:LEU:HG	1.85	0.57
1:A:4027:LEU:HD22	1:A:4044:MET:HE1	1.87	0.57
1:A:4849:TYR:HA	1:A:4852:THR:HG22	1.86	0.57
1:C:2745:VAL:HG21	1:C:2818:ALA:HB2	1.86	0.57
1:C:247:TYR:HE2	1:C:388:LEU:HD21	1.69	0.57
1:C:4235:VAL:HG21	1:C:5019:TRP:CZ3	2.40	0.57
1:E:3885:PHE:CE1	1:E:3919:THR:HG23	2.37	0.57
1:E:3927:GLN:HB3	1:E:3992:PHE:CE2	2.39	0.57
1:E:4141:PHE:O	1:E:4145:VAL:HG23	2.04	0.57
1:E:4235:VAL:HG21	1:E:5019:TRP:CZ3	2.40	0.57
1:G:1083:VAL:O	1:G:1188:PHE:N	2.33	0.57
1:A:2774:ASN:OD1	1:A:2852:ARG:NE	2.36	0.57
1:C:1737:PRO:HB2	1:C:1739:THR:HG23	1.87	0.57
1:C:4027:LEU:HD22	1:C:4044:MET:HE1	1.87	0.57
1:E:3992:PHE:O	1:E:3996:PHE:N	2.30	0.57
1:G:1769:THR:OG1	1:G:1956:GLU:OE2	2.23	0.57
1:G:635:THR:HA	1:G:1639:LEU:HA	1.87	0.57
1:A:4235:VAL:HG21	1:A:5019:TRP:CZ3	2.40	0.57
1:C:1159:THR:HG23	1:C:1180:ARG:HG2	1.86	0.57
1:C:1716:ILE:O	1:C:1721:GLU:N	2.37	0.57
1:C:4658:ILE:HG22	1:C:4792:LEU:HB3	1.87	0.57
1:E:1705:GLY:HA3	1:E:1836:PHE:CD2	2.40	0.57
1:A:234:SER:OG	1:A:242:ARG:HA	2.05	0.57
1:A:4658:ILE:HG22	1:A:4792:LEU:HB3	1.87	0.57
1:C:1164:LEU:HG	1:C:1169:LEU:HD11	1.85	0.57
1:C:495:ASN:CA	1:C:553:ARG:HH12	2.18	0.57
1:G:4032:GLU:O	1:G:5006:GLN:NE2	2.38	0.57
1:G:541:SER:HA	1:G:574:VAL:HG22	1.86	0.57
1:G:825:PRO:HD3	1:G:1619:ARG:NH1	2.20	0.57
1:A:1737:PRO:HB2	1:A:1739:THR:HG23	1.87	0.56
1:A:4240:ASP:OD1	1:A:4675:LYS:NZ	2.38	0.56
1:A:4914:VAL:HG13	1:C:4888:TYR:HD1	1.69	0.56
1:A:541:SER:HA	1:A:574:VAL:HG22	1.87	0.56
1:C:1236:THR:H	1:C:1612:PHE:HD1	1.53	0.56
1:C:1663:HIS:O	1:C:1666:THR:OG1	2.19	0.56
1:A:4917:ASP:OD2	1:C:4888:TYR:CE1	2.58	0.56
1:G:2066:LEU:O	1:G:2069:THR:OG1	2.17	0.56
1:G:233:ILE:O	1:G:257:ARG:NH2	2.38	0.56
1:G:750:LEU:O	1:G:752:VAL:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1164:LEU:HG	1:A:1169:LEU:HD11	1.85	0.56
1:A:455:PRO:HB3	1:A:467:LYS:HD2	1.87	0.56
1:A:495:ASN:CA	1:A:553:ARG:HH12	2.19	0.56
1:C:215:THR:HG22	1:C:273:HIS:HD2	1.70	0.56
1:C:2301:TYR:HB3	1:C:2331:TYR:CE2	2.41	0.56
1:C:234:SER:OG	1:C:242:ARG:HA	2.05	0.56
1:C:4027:LEU:HD22	1:C:4044:MET:CE	2.35	0.56
1:E:3937:TYR:O	1:E:4002:LYS:NZ	2.36	0.56
1:G:4059:LEU:HD11	1:G:4166:LEU:HD23	1.87	0.56
1:A:1236:THR:H	1:A:1612:PHE:HD1	1.52	0.56
1:A:1781:CYS:SG	2:B:46:PHE:CE1	2.97	0.56
1:A:3927:GLN:HB3	1:A:3992:PHE:CE2	2.39	0.56
1:A:4027:LEU:HD22	1:A:4044:MET:CE	2.36	0.56
1:A:4222:VAL:HG11	1:A:4950:VAL:HA	1.86	0.56
1:A:530:ILE:HG23	1:A:537:CYS:SG	2.45	0.56
1:C:2123:LEU:O	1:C:2127:GLN:HG2	2.05	0.56
1:C:3835:LEU:HD11	1:C:3884:LEU:CD1	2.35	0.56
1:E:1238:PHE:HE2	1:E:1612:PHE:HA	1.69	0.56
1:E:825:PRO:HD3	1:E:1619:ARG:NH1	2.20	0.56
1:G:1781:CYS:SG	2:H:46:PHE:CE1	2.98	0.56
1:G:2296:GLU:HA	1:G:2299:VAL:HG22	1.87	0.56
1:A:4839:MET:C	1:C:4823:LEU:HD21	2.26	0.56
1:C:3885:PHE:CE1	1:C:3919:THR:HG23	2.37	0.56
1:C:4794:TRP:HA	1:C:4797:VAL:HG12	1.86	0.56
1:C:4839:MET:C	1:E:4823:LEU:HD21	2.25	0.56
1:G:2301:TYR:HB3	1:G:2331:TYR:CE2	2.40	0.56
1:G:3937:TYR:O	1:G:4002:LYS:NZ	2.37	0.56
1:A:2499:LYS:HD2	1:A:2553:TYR:CE1	2.41	0.56
1:A:2125:HIS:NE2	1:A:3724:ALA:HB1	2.21	0.56
1:C:4222:VAL:HG11	1:C:4950:VAL:HA	1.87	0.56
1:E:1612:PHE:O	1:E:1613:LEU:HB2	2.05	0.56
1:E:2123:LEU:O	1:E:2127:GLN:HG2	2.05	0.56
1:E:2929:PHE:O	1:E:2933:ASN:ND2	2.36	0.56
1:E:247:TYR:HE2	1:E:388:LEU:HD21	1.70	0.56
1:G:4680:LYS:HD3	1:G:4686:LEU:HD21	1.87	0.56
1:A:221:ARG:NE	1:A:253:CYS:O	2.39	0.56
1:A:750:LEU:O	1:A:752:VAL:N	2.38	0.56
1:E:1131:ARG:NH2	1:E:1137:GLU:OE1	2.39	0.56
1:E:2301:TYR:HB3	1:E:2331:TYR:CE2	2.40	0.56
1:E:234:SER:OG	1:E:242:ARG:HA	2.05	0.56
1:E:4934:GLY:CA	1:G:4937:ILE:HD12	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:530:ILE:HG23	1:G:537:CYS:SG	2.45	0.56
2:H:23:VAL:HG22	2:H:47:LYS:HG2	1.86	0.56
1:G:674:PHE:CB	2:H:40:ARG:NH1	2.68	0.56
1:A:3949:ARG:O	1:A:3952:SER:OG	2.20	0.56
1:C:1705:GLY:HA3	1:C:1836:PHE:CD2	2.41	0.56
1:C:692:TYR:CE1	1:C:711:LEU:HD21	2.41	0.56
2:D:27:THR:HG22	2:D:100:ASP:HB3	1.86	0.56
1:E:4087:LEU:HG	1:E:4122:MET:HA	1.88	0.56
1:E:4172:GLU:HA	1:E:4175:ARG:NH1	2.20	0.56
1:E:495:ASN:ND2	1:E:550:LYS:HD2	2.21	0.56
1:G:3105:LYS:O	1:G:3109:ASN:N	2.39	0.56
1:A:3995:VAL:O	1:A:3999:MET:HB2	2.05	0.56
1:A:495:ASN:ND2	1:A:550:LYS:HD2	2.21	0.56
1:E:4240:ASP:OD1	1:E:4675:LYS:NZ	2.39	0.56
1:A:825:PRO:HD3	1:A:1619:ARG:NH1	2.20	0.56
1:C:1131:ARG:NH2	1:C:1137:GLU:OE1	2.39	0.56
1:C:2149:VAL:O	1:C:2152:THR:OG1	2.16	0.56
1:C:2499:LYS:HD2	1:C:2553:TYR:CE1	2.41	0.56
1:C:4849:TYR:HA	1:C:4852:THR:HG22	1.86	0.56
1:C:732:SER:HB3	1:C:764:VAL:HG13	1.88	0.56
1:C:984:LEU:O	1:C:988:LEU:HG	2.06	0.56
2:D:7:ILE:HD11	2:D:73:LYS:HB2	1.86	0.56
1:E:1825:HIS:ND1	1:E:1825:HIS:O	2.39	0.56
1:E:3829:PHE:HD2	1:E:3915:ILE:HD11	1.71	0.56
1:E:530:ILE:HG23	1:E:537:CYS:SG	2.45	0.56
1:G:495:ASN:CA	1:G:553:ARG:HH12	2.18	0.56
1:G:638:ILE:HG23	1:G:678:GLN:HE22	1.70	0.56
1:G:984:LEU:O	1:G:988:LEU:HG	2.06	0.56
1:A:2301:TYR:HB3	1:A:2331:TYR:CE2	2.41	0.56
1:A:4172:GLU:HA	1:A:4175:ARG:NH1	2.20	0.56
1:A:4682:GLU:OE2	1:A:4723:LYS:NZ	2.39	0.56
1:A:4794:TRP:HA	1:A:4797:VAL:HG12	1.86	0.56
1:C:221:ARG:NE	1:C:253:CYS:O	2.38	0.56
1:C:2765:LYS:NZ	1:C:2769:ASP:OD2	2.37	0.56
1:C:287:THR:HB	1:C:289:ARG:NH1	2.21	0.56
1:C:28:VAL:HG12	1:C:29:LEU:HG	1.88	0.56
1:C:4087:LEU:HG	1:C:4122:MET:HA	1.88	0.56
1:C:4172:GLU:HA	1:C:4175:ARG:NH1	2.20	0.56
1:C:455:PRO:HB3	1:C:467:LYS:HD2	1.88	0.56
1:C:530:ILE:HG23	1:C:537:CYS:SG	2.45	0.56
1:E:1737:PRO:HB2	1:E:1739:THR:HG23	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2125:HIS:NE2	1:E:3724:ALA:HB1	2.20	0.56
1:E:215:THR:HG22	1:E:273:HIS:HD2	1.70	0.56
1:E:745:SER:HB3	1:E:758:ARG:HB2	1.88	0.56
1:G:2123:LEU:O	1:G:2127:GLN:HG2	2.06	0.56
1:G:3647:HIS:O	1:G:3651:ASN:ND2	2.39	0.56
1:G:3950:ASN:HA	1:G:3953:LYS:HD3	1.88	0.56
1:G:580:GLU:HA	1:G:620:LEU:HD11	1.87	0.56
1:A:1131:ARG:NH2	1:A:1137:GLU:OE1	2.39	0.56
1:A:1612:PHE:O	1:A:1613:LEU:HB2	2.05	0.56
1:A:3980:LEU:HD21	1:A:3985:LEU:HD22	1.88	0.56
1:A:4141:PHE:O	1:A:4145:VAL:HG23	2.05	0.56
1:A:4909:TYR:O	1:A:4913:ARG:N	2.34	0.56
1:C:2125:HIS:NE2	1:C:3724:ALA:HB1	2.21	0.56
1:C:580:GLU:HA	1:C:620:LEU:HD11	1.87	0.56
1:E:28:VAL:HG12	1:E:29:LEU:HG	1.88	0.56
1:E:4580:TYR:CE1	1:E:4631:PHE:HB2	2.41	0.56
1:G:2765:LYS:NZ	1:G:2769:ASP:OD2	2.36	0.56
1:G:495:ASN:ND2	1:G:550:LYS:HD2	2.21	0.56
1:G:745:SER:HB3	1:G:758:ARG:HB2	1.88	0.56
1:A:2123:LEU:O	1:A:2127:GLN:HG2	2.06	0.55
1:C:1089:TYR:HB2	1:C:1223:PHE:HB3	1.88	0.55
1:C:4914:VAL:HG13	1:E:4888:TYR:HD1	1.69	0.55
1:E:287:THR:HB	1:E:289:ARG:NH1	2.22	0.55
1:E:4239:GLU:OE2	1:E:5014:TYR:OH	2.12	0.55
1:G:1101:ARG:H	1:G:1193:SER:HB3	1.71	0.55
1:G:287:THR:HB	1:G:289:ARG:NH1	2.21	0.55
1:A:2296:GLU:HA	1:A:2299:VAL:HG22	1.88	0.55
1:A:215:THR:HG22	1:A:273:HIS:HD2	1.70	0.55
1:A:4580:TYR:CE1	1:A:4631:PHE:HB2	2.41	0.55
1:C:4720:VAL:O	1:C:4724:VAL:HG23	2.07	0.55
1:C:737:LEU:HD13	2:D:8:SER:HB3	1.88	0.55
1:E:1089:TYR:HB2	1:E:1223:PHE:HB3	1.88	0.55
1:E:1101:ARG:H	1:E:1193:SER:HB3	1.71	0.55
1:E:3995:VAL:O	1:E:3999:MET:HB2	2.05	0.55
1:G:1131:ARG:NH2	1:G:1137:GLU:OE1	2.39	0.55
1:G:215:THR:HG22	1:G:273:HIS:HD2	1.70	0.55
1:G:4236:SER:O	1:G:4675:LYS:NZ	2.39	0.55
1:E:4839:MET:HG3	1:G:4822:THR:CG2	2.33	0.55
1:A:692:TYR:CE1	1:A:711:LEU:HD21	2.42	0.55
1:A:842:PRO:HD2	1:A:1195:GLY:O	2.06	0.55
1:C:2112:GLN:O	1:C:2113:SER:OG	2.25	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1099:GLU:OE1	1:E:1127:HIS:NE2	2.40	0.55
1:E:221:ARG:NE	1:E:253:CYS:O	2.39	0.55
1:C:4849:TYR:OH	1:E:4574:ASN:HB3	2.05	0.55
1:E:4222:VAL:HG11	1:E:4950:VAL:HA	1.87	0.55
1:G:1089:TYR:HB2	1:G:1223:PHE:HB3	1.88	0.55
1:G:1433:TYR:HD2	1:G:1519:LEU:HD23	1.72	0.55
1:G:2112:GLN:O	1:G:2113:SER:OG	2.25	0.55
1:G:2499:LYS:HD2	1:G:2553:TYR:CE1	2.41	0.55
1:G:244:LEU:HD22	1:G:375:LYS:HZ1	1.71	0.55
1:G:842:PRO:HD2	1:G:1195:GLY:O	2.06	0.55
1:A:3813:GLN:OE1	1:A:3896:ASN:ND2	2.39	0.55
1:C:3995:VAL:O	1:C:3999:MET:HB2	2.05	0.55
1:C:4240:ASP:OD1	1:C:4675:LYS:NZ	2.38	0.55
1:C:750:LEU:O	1:C:752:VAL:N	2.39	0.55
1:E:2870:GLU:OE2	1:E:2939:ARG:NE	2.38	0.55
1:E:4658:ILE:HG22	1:E:4792:LEU:HB3	1.87	0.55
1:G:1737:PRO:HB2	1:G:1739:THR:HG23	1.89	0.55
1:G:1806:ALA:O	1:G:1810:LYS:HG3	2.06	0.55
1:G:234:SER:OG	1:G:242:ARG:HA	2.05	0.55
1:G:4686:LEU:HD13	1:G:4692:PRO:HD3	1.89	0.55
1:A:4720:VAL:O	1:A:4724:VAL:HG23	2.06	0.55
1:A:580:GLU:HA	1:A:620:LEU:HD11	1.87	0.55
1:C:1099:GLU:OE1	1:C:1127:HIS:NE2	2.39	0.55
1:C:1825:HIS:ND1	1:C:1825:HIS:O	2.39	0.55
1:C:495:ASN:ND2	1:C:550:LYS:HD2	2.21	0.55
1:C:825:PRO:HD3	1:C:1619:ARG:NH1	2.20	0.55
1:E:1433:TYR:HD2	1:E:1519:LEU:HD23	1.72	0.55
1:E:3835:LEU:HD11	1:E:3884:LEU:CD1	2.36	0.55
1:E:3916:ILE:HG23	1:E:3980:LEU:HD12	1.89	0.55
1:E:4027:LEU:HD22	1:E:4044:MET:CE	2.35	0.55
1:E:580:GLU:HA	1:E:620:LEU:HD11	1.88	0.55
1:E:750:LEU:O	1:E:752:VAL:N	2.38	0.55
1:E:828:GLU:HG3	1:E:830:ARG:H	1.72	0.55
2:F:7:ILE:HD11	2:F:73:LYS:HB2	1.86	0.55
1:G:1033:ARG:HA	1:G:1036:ARG:HG2	1.89	0.55
1:G:4879:MET:HA	1:G:4882:CYS:HB3	1.88	0.55
1:A:1705:GLY:HA3	1:A:1836:PHE:CD2	2.41	0.55
1:A:4087:LEU:HG	1:A:4122:MET:HA	1.88	0.55
1:C:4562:LEU:HD21	1:C:4656:LEU:HD12	1.89	0.55
1:E:4708:THR:O	1:E:4721:LYS:NZ	2.39	0.55
1:A:1101:ARG:H	1:A:1193:SER:HB3	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:828:GLU:HG3	1:A:830:ARG:H	1.72	0.55
1:A:984:LEU:O	1:A:988:LEU:HG	2.06	0.55
1:C:842:PRO:HD2	1:C:1195:GLY:O	2.06	0.55
1:C:4682:GLU:OE2	1:C:4723:LYS:NZ	2.39	0.55
1:E:737:LEU:HD13	2:F:8:SER:HB3	1.88	0.55
1:G:221:ARG:NE	1:G:253:CYS:O	2.39	0.55
1:G:3709:ALA:HB2	1:G:3782:MET:SD	2.47	0.55
1:G:455:PRO:HB3	1:G:467:LYS:HD2	1.88	0.55
1:G:4712:PRO:HG2	1:G:4718:LYS:HD2	1.88	0.55
1:G:4708:THR:HG23	1:G:4772:ASP:OD2	2.06	0.55
1:A:1099:GLU:OE1	1:A:1127:HIS:NE2	2.39	0.55
1:A:28:VAL:HG12	1:A:29:LEU:HG	1.88	0.55
1:A:4562:LEU:HD21	1:A:4656:LEU:HD12	1.89	0.55
1:C:4003:LEU:HB2	1:C:4013:LEU:HD13	1.89	0.55
1:E:4570:ALA:O	1:E:4574:ASN:ND2	2.32	0.55
1:G:1105:ALA:HB3	1:G:1191:VAL:HG21	1.88	0.55
1:G:4235:VAL:HG21	1:G:5019:TRP:CZ3	2.42	0.55
1:A:2870:GLU:OE2	1:A:2939:ARG:NE	2.37	0.55
1:A:4708:THR:O	1:A:4721:LYS:NZ	2.39	0.55
1:A:732:SER:HB3	1:A:764:VAL:HG13	1.89	0.55
1:C:3829:PHE:HD2	1:C:3915:ILE:HD11	1.71	0.55
1:C:4570:ALA:O	1:C:4574:ASN:ND2	2.32	0.55
1:E:1033:ARG:HA	1:E:1036:ARG:HG2	1.89	0.55
1:E:2499:LYS:HD2	1:E:2553:TYR:CE1	2.41	0.55
1:E:3980:LEU:HD21	1:E:3985:LEU:HD22	1.88	0.55
1:E:3938:SER:HA	1:E:4002:LYS:HZ2	1.72	0.55
1:E:4003:LEU:HB2	1:E:4013:LEU:HD13	1.89	0.55
1:E:567:VAL:O	1:E:571:SER:OG	2.21	0.55
1:E:842:PRO:HD2	1:E:1195:GLY:O	2.07	0.55
1:G:28:VAL:HG12	1:G:29:LEU:HG	1.88	0.55
1:G:2136:ARG:NH1	1:G:3720:TYR:HE2	2.04	0.55
1:G:3891:LEU:HD23	1:G:3899:PHE:CZ	2.42	0.55
1:E:162:LYS:NZ	1:G:3987:ASP:OD1	2.37	0.55
1:G:561:LEU:HD11	1:G:599:VAL:HG22	1.89	0.55
1:G:692:TYR:CE1	1:G:711:LEU:HD21	2.41	0.55
1:G:828:GLU:HG3	1:G:830:ARG:H	1.72	0.55
1:A:1456:ASP:O	1:A:1457:TYR:HB2	2.07	0.55
1:A:1237:TRP:CD1	1:A:1611:HIS:HA	2.42	0.55
1:A:1806:ALA:O	1:A:1810:LYS:HG3	2.06	0.55
1:A:2142:TYR:HD2	1:A:2197:LEU:HD12	1.72	0.55
1:A:287:THR:HB	1:A:289:ARG:NH1	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3780:LEU:HD21	1:A:3820:LEU:HG	1.89	0.55
1:C:1101:ARG:H	1:C:1193:SER:HB3	1.71	0.55
1:C:244:LEU:HD22	1:C:375:LYS:HZ1	1.72	0.55
1:E:4849:TYR:HA	1:E:4852:THR:HG22	1.89	0.55
1:E:495:ASN:CA	1:E:553:ARG:HH12	2.18	0.55
1:G:1612:PHE:O	1:G:1613:LEU:HB2	2.05	0.55
1:A:1089:TYR:HB2	1:A:1223:PHE:HB3	1.88	0.54
1:A:1433:TYR:HD2	1:A:1519:LEU:HD23	1.72	0.54
1:A:1585:LYS:NZ	1:A:1596:GLU:HB2	2.23	0.54
1:A:1825:HIS:ND1	1:A:1825:HIS:O	2.39	0.54
1:C:2142:TYR:HD2	1:C:2197:LEU:HD12	1.72	0.54
1:C:4708:THR:O	1:C:4721:LYS:NZ	2.40	0.54
1:C:828:GLU:HG3	1:C:830:ARG:H	1.72	0.54
1:E:1806:ALA:O	1:E:1810:LYS:HG3	2.06	0.54
1:E:2142:TYR:HD2	1:E:2197:LEU:HD12	1.72	0.54
1:E:4720:VAL:O	1:E:4724:VAL:HG23	2.06	0.54
1:G:1237:TRP:CD1	1:G:1611:HIS:HA	2.43	0.54
1:G:3923:LEU:HD12	1:G:3961:VAL:HG12	1.89	0.54
1:G:706:GLY:N	1:G:711:LEU:HD13	2.21	0.54
1:A:1770:SER:OG	1:A:1771:LEU:N	2.40	0.54
1:A:3829:PHE:HD2	1:A:3915:ILE:HD11	1.71	0.54
1:C:1585:LYS:NZ	1:C:1596:GLU:HB2	2.23	0.54
1:C:1770:SER:OG	1:C:1771:LEU:N	2.40	0.54
1:C:441:VAL:O	1:C:444:SER:OG	2.16	0.54
1:E:1238:PHE:CE2	1:E:1612:PHE:HA	2.42	0.54
1:E:1237:TRP:CD1	1:E:1611:HIS:HA	2.43	0.54
1:E:3780:LEU:HD21	1:E:3820:LEU:HG	1.89	0.54
1:E:4682:GLU:OE2	1:E:4723:LYS:NZ	2.39	0.54
1:A:2161:GLN:O	1:A:2164:SER:OG	2.16	0.54
1:A:3916:ILE:HG23	1:A:3980:LEU:HD12	1.89	0.54
1:A:745:SER:HB3	1:A:758:ARG:HB2	1.88	0.54
1:C:1781:CYS:SG	2:D:46:PHE:HE1	2.30	0.54
1:C:3916:ILE:HG23	1:C:3980:LEU:HD12	1.89	0.54
1:C:4856:PHE:CE2	1:C:4860:ARG:NH1	2.76	0.54
1:E:2902:HIS:HB3	1:E:2905:LEU:HG	1.89	0.54
1:G:2142:TYR:HD2	1:G:2197:LEU:HD12	1.72	0.54
1:G:3904:ARG:HD3	1:G:3976:ASN:HA	1.88	0.54
1:G:4192:ARG:NH1	1:G:5028:PHE:CD2	2.76	0.54
1:G:641:VAL:HG11	1:G:704:GLY:HA2	1.89	0.54
1:G:732:SER:HB3	1:G:764:VAL:HG13	1.88	0.54
1:A:1033:ARG:HA	1:A:1036:ARG:HG2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1235:THR:HG21	1:A:1702:HIS:CE1	2.43	0.54
1:A:1238:PHE:CE2	1:A:1612:PHE:HA	2.42	0.54
1:A:1850:VAL:HA	1:A:1945:TYR:CE1	2.43	0.54
1:A:2133:GLU:HA	1:A:2136:ARG:HE	1.72	0.54
1:A:1781:CYS:SG	2:B:46:PHE:HE1	2.30	0.54
1:C:1235:THR:HG21	1:C:1702:HIS:CE1	2.42	0.54
1:C:1237:TRP:CD1	1:C:1611:HIS:HA	2.42	0.54
1:E:706:GLY:N	1:E:711:LEU:HD13	2.21	0.54
1:G:1825:HIS:O	1:G:1825:HIS:ND1	2.39	0.54
1:G:2745:VAL:HG21	1:G:2818:ALA:HB2	1.89	0.54
1:G:4056:GLU:HG3	1:G:4166:LEU:HD21	1.88	0.54
2:H:4:VAL:HG22	2:H:74:LEU:HG	1.88	0.54
1:C:1033:ARG:HA	1:C:1036:ARG:HG2	1.89	0.54
1:C:1806:ALA:O	1:C:1810:LYS:HG3	2.06	0.54
1:C:3780:LEU:HD21	1:C:3820:LEU:HG	1.89	0.54
1:C:4103:PHE:HB2	1:C:4108:ILE:HD11	1.89	0.54
1:C:641:VAL:HG11	1:C:704:GLY:HA2	1.89	0.54
1:E:1781:CYS:SG	2:F:46:PHE:HE1	2.30	0.54
1:E:4027:LEU:HD22	1:E:4044:MET:HE1	1.89	0.54
1:E:4562:LEU:HD21	1:E:4656:LEU:HD12	1.89	0.54
1:C:4917:ASP:OD2	1:E:4888:TYR:CE1	2.60	0.54
1:E:641:VAL:HG11	1:E:704:GLY:HA2	1.90	0.54
2:F:37:ASP:OD1	2:F:38:SER:N	2.41	0.54
2:F:4:VAL:HG22	2:F:74:LEU:HG	1.89	0.54
2:H:7:ILE:HD11	2:H:73:LYS:HB2	1.89	0.54
1:A:4003:LEU:HB2	1:A:4013:LEU:HD13	1.90	0.54
1:C:4047:MET:HG3	1:C:4048:LEU:N	2.23	0.54
2:D:37:ASP:OD1	2:D:38:SER:N	2.41	0.54
2:D:2:VAL:HG23	2:D:76:ILE:HA	1.90	0.54
1:E:984:LEU:O	1:E:988:LEU:HG	2.06	0.54
1:G:1099:GLU:OE1	1:G:1127:HIS:NE2	2.39	0.54
1:G:1850:VAL:HA	1:G:1945:TYR:CE1	2.43	0.54
1:G:287:THR:HB	1:G:289:ARG:HH11	1.73	0.54
1:C:4192:ARG:NH1	1:C:5028:PHE:CD2	2.76	0.54
1:C:745:SER:HB3	1:C:758:ARG:HB2	1.88	0.54
1:E:111:HIS:HD2	1:E:114:SER:H	1.56	0.54
1:E:455:PRO:HB3	1:E:467:LYS:HD2	1.89	0.54
1:G:1705:GLY:HA3	1:G:1836:PHE:CD2	2.43	0.54
1:G:1808:ARG:HB2	1:G:1854:PHE:CE1	2.43	0.54
1:G:37:LEU:HD11	1:G:47:CYS:HB3	1.90	0.54
1:G:451:TYR:CZ	1:G:474:ARG:HD2	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:5027:CYS:SG	1:A:5030:LYS:HG2	2.48	0.54
1:C:1105:ALA:HB3	1:C:1191:VAL:HG21	1.89	0.54
1:E:1808:ARG:HB2	1:E:1854:PHE:CE1	2.43	0.54
1:E:2112:GLN:O	1:E:2113:SER:OG	2.24	0.54
1:E:692:TYR:CE1	1:E:711:LEU:HD21	2.41	0.54
1:G:2355:ARG:HA	1:G:2358:ILE:HD12	1.90	0.54
1:G:5027:CYS:SG	1:G:5030:LYS:HG2	2.48	0.54
1:A:1105:ALA:HB3	1:A:1191:VAL:HG21	1.88	0.54
1:A:4192:ARG:NH1	1:A:5028:PHE:CD2	2.76	0.54
2:B:2:VAL:HG23	2:B:76:ILE:HA	1.90	0.54
1:C:2296:GLU:HA	1:C:2299:VAL:HG22	1.88	0.54
1:C:2355:ARG:HA	1:C:2358:ILE:HD12	1.90	0.54
1:E:1105:ALA:HB3	1:E:1191:VAL:HG21	1.89	0.54
1:E:1235:THR:HG21	1:E:1702:HIS:CE1	2.43	0.54
1:E:2296:GLU:HA	1:E:2299:VAL:HG22	1.88	0.54
1:E:4047:MET:HG3	1:E:4048:LEU:N	2.23	0.54
1:E:4193:ILE:HG22	1:E:5006:GLN:OE1	2.08	0.54
1:E:561:LEU:HD11	1:E:599:VAL:HG22	1.90	0.54
1:E:732:SER:HB3	1:E:764:VAL:HG13	1.90	0.54
1:G:1291:LEU:HB3	1:G:1550:PRO:HG2	1.89	0.54
1:G:4980:LEU:HA	1:G:4984:ASN:HB3	1.90	0.54
1:A:111:HIS:HD2	1:A:114:SER:H	1.56	0.54
1:C:1206:GLN:O	1:C:1209:SER:OG	2.18	0.54
1:C:1291:LEU:HB3	1:C:1550:PRO:HG2	1.90	0.54
1:C:1433:TYR:HD2	1:C:1519:LEU:HD23	1.72	0.54
1:C:2063:LEU:HD13	1:C:3661:TRP:CH2	2.43	0.54
1:C:5027:CYS:SG	1:C:5030:LYS:HG2	2.48	0.54
1:C:561:LEU:HD11	1:C:599:VAL:HG22	1.90	0.54
1:C:790:ARG:HH21	1:C:1625:GLY:HA3	1.73	0.54
1:E:293:LEU:HD13	1:E:378:LEU:HD12	1.90	0.54
1:G:293:LEU:HD13	1:G:378:LEU:HD12	1.90	0.54
1:A:1245:PHE:CZ	1:A:1646:ARG:NH1	2.77	0.53
1:C:3813:GLN:OE1	1:C:3896:ASN:ND2	2.41	0.53
1:C:402:ARG:NH1	1:C:405:HIS:CD2	2.76	0.53
1:C:4193:ILE:HG22	1:C:5006:GLN:OE1	2.08	0.53
1:E:1585:LYS:NZ	1:E:1596:GLU:HB2	2.23	0.53
1:E:2139:PRO:HG3	1:E:3658:LYS:NZ	2.23	0.53
1:E:3813:GLN:OE1	1:E:3896:ASN:ND2	2.41	0.53
1:E:3996:PHE:CZ	1:E:4019:LEU:HD22	2.41	0.53
1:G:111:HIS:HD2	1:G:114:SER:H	1.56	0.53
1:G:1235:THR:HG21	1:G:1702:HIS:CE1	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3839:CYS:SG	1:G:3881:THR:HB	2.48	0.53
1:G:3969:ILE:HG23	1:G:3977:GLN:HG2	1.88	0.53
1:A:1808:ARG:HB2	1:A:1854:PHE:CE1	2.43	0.53
1:A:4103:PHE:HB2	1:A:4108:ILE:HD11	1.89	0.53
1:A:737:LEU:HD13	2:B:8:SER:HB3	1.89	0.53
1:E:790:ARG:HH21	1:E:1625:GLY:HA3	1.74	0.53
1:E:4103:PHE:HB2	1:E:4108:ILE:HD11	1.90	0.53
1:E:451:TYR:CZ	1:E:474:ARG:HD2	2.43	0.53
1:E:5027:CYS:SG	1:E:5030:LYS:HG2	2.48	0.53
1:C:1238:PHE:CE2	1:C:1612:PHE:HA	2.42	0.53
1:C:1653:LEU:HD23	1:C:1707:LEU:HD11	1.90	0.53
1:E:2149:VAL:O	1:E:2152:THR:OG1	2.16	0.53
1:A:3817:LEU:HD11	1:A:3821:LYS:HZ1	1.72	0.53
1:C:1456:ASP:O	1:C:1457:TYR:HB2	2.08	0.53
1:C:1245:PHE:CZ	1:C:1646:ARG:NH1	2.77	0.53
1:C:1781:CYS:HG	2:D:46:PHE:HE1	1.50	0.53
1:C:1808:ARG:HB2	1:C:1854:PHE:CE1	2.43	0.53
1:A:4843:LEU:CD1	1:C:4827:LEU:HD11	2.38	0.53
1:E:2063:LEU:HD13	1:E:3661:TRP:CH2	2.43	0.53
1:E:402:ARG:NH1	1:E:405:HIS:CD2	2.77	0.53
1:E:4980:LEU:HA	1:E:4984:ASN:HB3	1.91	0.53
1:G:402:ARG:NH1	1:G:405:HIS:CD2	2.76	0.53
1:G:768:PHE:HB3	1:G:1474:VAL:HG22	1.90	0.53
1:A:768:PHE:HB3	1:A:1474:VAL:HG22	1.90	0.53
1:A:2063:LEU:HD13	1:A:3661:TRP:CH2	2.43	0.53
1:A:641:VAL:HG11	1:A:704:GLY:HA2	1.89	0.53
1:C:1850:VAL:HA	1:C:1945:TYR:CE1	2.43	0.53
1:C:4933:GLN:O	1:C:4937:ILE:HG12	2.08	0.53
1:E:2355:ARG:HA	1:E:2358:ILE:HD12	1.90	0.53
1:G:1238:PHE:CE2	1:G:1612:PHE:HA	2.43	0.53
1:G:1667:LEU:HG	1:G:1714:LEU:HD11	1.91	0.53
1:A:2066:LEU:O	1:A:2069:THR:OG1	2.19	0.53
1:A:561:LEU:HD11	1:A:599:VAL:HG22	1.90	0.53
1:C:1143:TRP:HB2	1:C:1147:ASP:HB2	1.90	0.53
1:C:4239:GLU:OE2	1:C:5014:TYR:OH	2.12	0.53
1:C:451:TYR:CZ	1:C:474:ARG:HD2	2.43	0.53
1:C:4980:LEU:HA	1:C:4984:ASN:HB3	1.91	0.53
1:E:4974:GLY:O	1:E:4977:THR:OG1	2.21	0.53
1:G:3927:GLN:HB3	1:G:3992:PHE:CE2	2.44	0.53
1:G:4141:PHE:O	1:G:4145:VAL:HG23	2.08	0.53
1:G:441:VAL:O	1:G:444:SER:OG	2.16	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4839:MET:C	1:G:4823:LEU:HD21	2.29	0.53
2:H:88:PRO:O	2:H:90:ILE:HD12	2.09	0.53
1:A:3835:LEU:HD11	1:A:3884:LEU:CD1	2.36	0.53
1:A:4688:ILE:HG21	1:A:4728:HIS:HB3	1.90	0.53
2:B:4:VAL:HG22	2:B:74:LEU:HG	1.89	0.53
1:C:2902:HIS:HB3	1:C:2905:LEU:HG	1.89	0.53
1:E:1850:VAL:HA	1:E:1945:TYR:CE1	2.43	0.53
1:E:1972:ASN:O	1:E:1975:SER:OG	2.26	0.53
1:E:2551:ASN:O	1:E:2554:LEU:HG	2.09	0.53
1:E:3817:LEU:HD11	1:E:3821:LYS:HZ2	1.74	0.53
1:G:1143:TRP:HB2	1:G:1147:ASP:HB2	1.90	0.53
1:G:4720:VAL:O	1:G:4724:VAL:HG23	2.08	0.53
1:A:2876:GLU:OE2	1:A:2916:LYS:HD3	2.09	0.53
1:A:287:THR:HB	1:A:289:ARG:HH11	1.73	0.53
1:A:3768:SER:HA	1:A:3771:HIS:HB3	1.91	0.53
1:A:451:TYR:CZ	1:A:474:ARG:HD2	2.43	0.53
1:A:37:LEU:HD11	1:A:47:CYS:HB3	1.89	0.53
1:C:4702:ASP:HA	1:C:4778:TRP:HE1	1.74	0.53
2:D:88:PRO:O	2:D:90:ILE:HD12	2.09	0.53
1:E:1143:TRP:HB2	1:E:1147:ASP:HB2	1.90	0.53
1:E:217:GLY:O	1:E:261:ARG:NH1	2.42	0.53
1:E:2765:LYS:NZ	1:E:2769:ASP:OD2	2.37	0.53
1:E:4688:ILE:HG21	1:E:4728:HIS:HB3	1.90	0.53
1:G:1245:PHE:CZ	1:G:1646:ARG:NH1	2.77	0.53
1:G:4118:ASP:HB2	1:G:4122:MET:HB2	1.89	0.53
1:A:1691:GLN:HE22	1:A:1802:ILE:HA	1.74	0.53
1:C:842:PRO:HA	1:C:1073:ARG:HH12	1.74	0.53
1:C:2341:VAL:HG11	1:C:2346:VAL:HG13	1.91	0.53
1:C:293:LEU:HD13	1:C:378:LEU:HD12	1.90	0.53
1:C:4185:GLY:O	1:C:4187:SER:N	2.36	0.53
2:D:4:VAL:HG22	2:D:74:LEU:HG	1.90	0.53
1:E:2066:LEU:O	1:E:2069:THR:OG1	2.18	0.53
1:E:3878:ASP:O	1:E:3881:THR:HG22	2.09	0.53
1:E:639:ASN:OD1	1:E:640:TYR:N	2.42	0.53
1:G:790:ARG:HH21	1:G:1625:GLY:HA3	1.74	0.53
1:G:1737:PRO:HB3	1:G:2149:VAL:HG11	1.91	0.53
1:G:3786:CYS:O	1:G:3789:GLU:HG2	2.08	0.53
2:H:2:VAL:HG23	2:H:76:ILE:HA	1.90	0.53
1:A:1291:LEU:HB3	1:A:1550:PRO:HG2	1.90	0.53
1:A:2341:VAL:HG11	1:A:2346:VAL:HG13	1.91	0.53
1:A:2902:HIS:HB3	1:A:2905:LEU:HG	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:706:GLY:N	1:A:711:LEU:HD13	2.21	0.53
1:C:768:PHE:HB3	1:C:1474:VAL:HG22	1.90	0.53
1:E:1291:LEU:HB3	1:E:1550:PRO:HG2	1.89	0.53
1:E:287:THR:HB	1:E:289:ARG:HH11	1.74	0.53
2:F:2:VAL:HG23	2:F:76:ILE:HA	1.89	0.53
1:G:833:GLY:HA3	1:G:838:HIS:CD2	2.44	0.53
1:A:1737:PRO:HB3	1:A:2149:VAL:HG11	1.91	0.52
1:A:2355:ARG:HA	1:A:2358:ILE:HD12	1.91	0.52
1:A:3795:SER:O	1:A:3799:LYS:HG2	2.09	0.52
1:A:4702:ASP:HA	1:A:4778:TRP:HE1	1.74	0.52
1:A:4980:LEU:HA	1:A:4984:ASN:HB3	1.91	0.52
1:A:639:ASN:OD1	1:A:640:TYR:N	2.42	0.52
1:A:833:GLY:HA3	1:A:838:HIS:CD2	2.45	0.52
1:C:111:HIS:HD2	1:C:114:SER:H	1.56	0.52
1:C:3920:VAL:HG22	1:C:3965:LEU:HD21	1.90	0.52
1:E:1781:CYS:HG	2:F:46:PHE:HE1	1.51	0.52
1:E:4055:VAL:HG13	1:E:4058:ILE:HD11	1.91	0.52
1:E:4702:ASP:HA	1:E:4778:TRP:HE1	1.75	0.52
1:G:1770:SER:OG	1:G:1771:LEU:N	2.40	0.52
1:A:1143:TRP:HB2	1:A:1147:ASP:HB2	1.90	0.52
1:A:4815:ASP:O	1:A:4819:GLY:N	2.40	0.52
1:A:4849:TYR:OH	1:C:4574:ASN:HB3	2.08	0.52
2:B:88:PRO:O	2:B:90:ILE:HD12	2.10	0.52
1:C:1769:THR:OG1	1:C:1956:GLU:OE2	2.26	0.52
1:C:2551:ASN:O	1:C:2554:LEU:HG	2.09	0.52
1:C:2876:GLU:OE2	1:C:2916:LYS:HD3	2.09	0.52
1:C:3817:LEU:HD11	1:C:3821:LYS:HZ1	1.74	0.52
1:E:768:PHE:HB3	1:E:1474:VAL:HG22	1.90	0.52
1:E:1245:PHE:CZ	1:E:1646:ARG:NH1	2.77	0.52
1:E:1667:LEU:HG	1:E:1714:LEU:HD11	1.91	0.52
1:G:2902:HIS:HB3	1:G:2905:LEU:HG	1.91	0.52
1:A:790:ARG:HH21	1:A:1625:GLY:HA3	1.73	0.52
1:A:1667:LEU:HG	1:A:1714:LEU:HD11	1.91	0.52
1:A:293:LEU:HD13	1:A:378:LEU:HD12	1.91	0.52
1:A:4047:MET:HG3	1:A:4048:LEU:N	2.23	0.52
1:A:4849:TYR:O	1:A:4852:THR:HG22	2.10	0.52
1:C:217:GLY:O	1:C:261:ARG:NH1	2.42	0.52
1:C:4655:PHE:O	1:C:4658:ILE:HG13	2.10	0.52
1:C:590:LEU:HB2	1:C:599:VAL:HG11	1.91	0.52
1:C:833:GLY:HA3	1:C:838:HIS:CD2	2.45	0.52
1:E:1584:ARG:HH11	1:E:1643:GLU:HG3	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3768:SER:HA	1:E:3771:HIS:HB3	1.91	0.52
1:G:4909:TYR:O	1:G:4913:ARG:N	2.40	0.52
1:G:567:VAL:HG12	1:G:574:VAL:HG11	1.92	0.52
1:A:1769:THR:OG1	1:A:1956:GLU:OE2	2.25	0.52
1:A:1805:GLU:O	1:A:1808:ARG:HG2	2.10	0.52
1:A:217:GLY:O	1:A:261:ARG:NH1	2.42	0.52
1:A:2803:GLU:HA	1:A:2806:ARG:HB2	1.92	0.52
1:A:402:ARG:NH1	1:A:405:HIS:CD2	2.77	0.52
1:A:441:VAL:O	1:A:444:SER:OG	2.16	0.52
1:E:37:LEU:HD11	1:E:47:CYS:HB3	1.91	0.52
1:G:1585:LYS:NZ	1:G:1596:GLU:HB2	2.24	0.52
1:G:3885:PHE:HE1	1:G:3919:THR:HG23	1.73	0.52
1:G:664:PHE:CE2	1:G:779:PRO:HB3	2.45	0.52
1:A:231:LEU:HD11	1:A:245:VAL:HG13	1.91	0.52
1:A:2551:ASN:O	1:A:2554:LEU:HG	2.09	0.52
1:A:4193:ILE:HG22	1:A:5006:GLN:OE1	2.09	0.52
1:A:4555:LEU:HD21	1:A:4656:LEU:O	2.10	0.52
1:A:4686:LEU:HD13	1:A:4692:PRO:HD3	1.91	0.52
1:A:4914:VAL:HG13	1:C:4888:TYR:CD1	2.45	0.52
1:A:4934:GLY:HA3	1:C:4937:ILE:HD13	1.88	0.52
1:A:840:VAL:HG12	1:A:1199:VAL:HG13	1.92	0.52
1:C:840:VAL:HG12	1:C:1199:VAL:HG13	1.92	0.52
1:C:1584:ARG:HH11	1:C:1643:GLU:HG3	1.75	0.52
1:C:223:PHE:HD1	1:C:230:CYS:HB3	1.75	0.52
1:C:3795:SER:O	1:C:3799:LYS:HG2	2.10	0.52
1:C:3878:ASP:O	1:C:3881:THR:HG22	2.09	0.52
1:C:4055:VAL:HG13	1:C:4058:ILE:HD11	1.92	0.52
1:C:4914:VAL:HG13	1:E:4888:TYR:CD1	2.45	0.52
1:C:706:GLY:N	1:C:711:LEU:HD13	2.21	0.52
1:E:2453:ILE:HA	1:E:2456:ILE:HD12	1.92	0.52
1:E:3920:VAL:HG22	1:E:3965:LEU:HD21	1.90	0.52
1:E:3963:ASN:HA	1:E:3966:THR:HG22	1.92	0.52
1:E:567:VAL:HG12	1:E:574:VAL:HG11	1.91	0.52
1:E:664:PHE:CE2	1:E:779:PRO:HB3	2.45	0.52
1:G:1687:SER:CB	2:H:90:ILE:HG12	2.40	0.52
1:G:1961:PHE:HZ	1:G:2063:LEU:HD23	1.74	0.52
1:G:2151:ASP:O	1:G:2154:SER:OG	2.19	0.52
1:G:4076:ALA:HB2	1:G:4100:GLN:HB3	1.91	0.52
1:G:4664:LEU:O	1:G:4667:PRO:HD2	2.09	0.52
1:G:590:LEU:HB2	1:G:599:VAL:HG11	1.92	0.52
1:A:1584:ARG:HH11	1:A:1643:GLU:HG3	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:287:THR:HB	1:C:289:ARG:HH11	1.73	0.52
1:C:3980:LEU:HD21	1:C:3985:LEU:HD22	1.91	0.52
1:C:411:TYR:HB2	1:C:486:LEU:HD21	1.91	0.52
1:C:4909:TYR:O	1:C:4913:ARG:N	2.34	0.52
1:C:613:ALA:HB1	1:C:618:GLN:HE22	1.75	0.52
1:E:3795:SER:O	1:E:3799:LYS:HG2	2.09	0.52
1:E:4914:VAL:O	1:E:4918:ILE:HG12	2.10	0.52
1:E:4917:ASP:OD2	1:G:4892:ARG:NE	2.43	0.52
1:G:635:THR:OG1	1:G:1693:GLN:NE2	2.42	0.52
1:G:4901:ILE:HG21	1:G:4913:ARG:HH21	1.75	0.52
1:A:3920:VAL:HG22	1:A:3965:LEU:HD21	1.90	0.52
1:A:411:TYR:HB2	1:A:486:LEU:HD21	1.91	0.52
1:A:448:LEU:HD12	1:A:525:LEU:HD11	1.92	0.52
2:B:37:ASP:OD1	2:B:38:SER:N	2.41	0.52
1:E:2876:GLU:OE2	1:E:2916:LYS:HD3	2.09	0.52
1:E:4555:LEU:HD21	1:E:4656:LEU:O	2.10	0.52
1:E:833:GLY:HA3	1:E:838:HIS:CD2	2.45	0.52
1:G:1584:ARG:HH11	1:G:1643:GLU:HG3	1.74	0.52
1:G:1805:GLU:O	1:G:1808:ARG:HG2	2.09	0.52
1:C:1737:PRO:HB3	1:C:2149:VAL:HG11	1.92	0.52
1:C:231:LEU:HD11	1:C:245:VAL:HG13	1.92	0.52
1:C:4688:ILE:HG21	1:C:4728:HIS:HB3	1.89	0.52
1:C:639:ASN:OD1	1:C:640:TYR:N	2.42	0.52
1:E:3698:LEU:HD23	1:E:3773:ARG:HD2	1.91	0.52
1:E:842:PRO:HA	1:E:1073:ARG:HH12	1.74	0.52
1:G:2551:ASN:O	1:G:2554:LEU:HG	2.09	0.52
1:G:217:GLY:O	1:G:261:ARG:NH1	2.42	0.52
1:G:3817:LEU:HD11	1:G:3821:LYS:HZ1	1.74	0.52
1:C:2453:ILE:HA	1:C:2456:ILE:HD12	1.92	0.52
1:C:547:VAL:HG12	1:C:564:LEU:HD12	1.92	0.52
1:C:664:PHE:CE2	1:C:779:PRO:HB3	2.45	0.52
1:C:853:PRO:HB3	1:C:1023:PRO:HB3	1.92	0.52
1:E:1111:PRO:HG3	1:E:1609:PRO:HD3	1.92	0.52
1:E:1737:PRO:HB3	1:E:2149:VAL:HG11	1.92	0.52
1:E:613:ALA:HB1	1:E:618:GLN:HE22	1.75	0.52
1:G:1127:HIS:ND1	1:G:1128:ARG:HG2	2.25	0.52
1:G:2149:VAL:O	1:G:2152:THR:OG1	2.16	0.52
1:G:639:ASN:OD1	1:G:640:TYR:N	2.42	0.52
1:A:2143:THR:N	1:A:3651:ASN:OD1	2.43	0.52
1:A:4826:ILE:O	1:A:4829:SER:HB2	2.10	0.52
1:C:2143:THR:N	1:C:3651:ASN:OD1	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:37:LEU:HD11	1:C:47:CYS:HB3	1.91	0.52
1:C:4686:LEU:HD13	1:C:4692:PRO:HD3	1.91	0.52
1:C:638:ILE:HG23	1:C:678:GLN:HE22	1.75	0.52
1:E:840:VAL:HG12	1:E:1199:VAL:HG13	1.92	0.52
1:E:4677:LEU:HD22	1:E:4711:PHE:CZ	2.45	0.52
2:F:49:MET:N	2:F:54:GLU:OE2	2.43	0.52
1:G:2917:ALA:HA	1:G:2920:ARG:HB3	1.91	0.52
1:G:674:PHE:O	2:H:40:ARG:NH1	2.42	0.52
1:A:3878:ASP:O	1:A:3881:THR:HG22	2.10	0.51
1:A:4164:LEU:HD23	1:A:4168:GLU:OE2	2.10	0.51
1:A:567:VAL:HG12	1:A:574:VAL:HG11	1.92	0.51
1:A:863:LEU:H	1:A:930:LYS:HE3	1.75	0.51
2:B:49:MET:N	2:B:54:GLU:OE2	2.43	0.51
1:C:1972:ASN:O	1:C:1975:SER:OG	2.26	0.51
1:C:3996:PHE:CZ	1:C:4019:LEU:HD22	2.41	0.51
1:E:1653:LEU:HD23	1:E:1707:LEU:HD11	1.91	0.51
1:E:1691:GLN:HE22	1:E:1802:ILE:HA	1.74	0.51
1:E:411:TYR:HB2	1:E:486:LEU:HD21	1.91	0.51
1:E:4826:ILE:O	1:E:4829:SER:HB2	2.11	0.51
1:E:4849:TYR:O	1:E:4852:THR:HG22	2.10	0.51
1:E:629:ARG:NH1	1:E:1688:HIS:CD2	2.78	0.51
1:G:840:VAL:HG12	1:G:1199:VAL:HG13	1.92	0.51
1:A:223:PHE:HD1	1:A:230:CYS:HB3	1.75	0.51
1:A:4574:ASN:HB3	1:G:4849:TYR:OH	2.10	0.51
1:A:613:ALA:HB1	1:A:618:GLN:HE22	1.75	0.51
1:A:629:ARG:NH1	1:A:1688:HIS:CD2	2.78	0.51
1:A:842:PRO:HA	1:A:1073:ARG:HH12	1.74	0.51
1:C:3768:SER:HA	1:C:3771:HIS:HB3	1.91	0.51
1:C:3879:GLU:OE2	1:C:3883:ASP:OD2	2.28	0.51
1:E:853:PRO:HB3	1:E:1023:PRO:HB3	1.92	0.51
1:E:1127:HIS:ND1	1:E:1128:ARG:HG2	2.26	0.51
1:G:12:GLN:O	1:G:165:VAL:HG23	2.10	0.51
1:G:1111:PRO:HG3	1:G:1609:PRO:HD3	1.93	0.51
1:G:231:LEU:HD11	1:G:245:VAL:HG13	1.92	0.51
1:G:2453:ILE:HA	1:G:2456:ILE:HD12	1.92	0.51
1:A:2755:ILE:HD13	1:A:2810:LYS:HG2	1.93	0.51
1:A:3963:ASN:HA	1:A:3966:THR:HG22	1.92	0.51
1:A:4677:LEU:HD22	1:A:4711:PHE:CZ	2.45	0.51
1:A:664:PHE:CE2	1:A:779:PRO:HB3	2.45	0.51
1:C:1206:GLN:H	1:C:1227:ALA:HB3	1.76	0.51
1:C:492:ASP:OD1	1:C:546:TRP:NE1	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:753:PRO:HB2	1:C:769:GLU:O	2.11	0.51
2:D:49:MET:N	2:D:54:GLU:OE2	2.43	0.51
1:E:1206:GLN:H	1:E:1227:ALA:HB3	1.75	0.51
1:E:1805:GLU:O	1:E:1808:ARG:HG2	2.10	0.51
1:E:4164:LEU:HD23	1:E:4168:GLU:OE2	2.10	0.51
1:E:4192:ARG:NH1	1:E:5028:PHE:CD2	2.78	0.51
1:E:646:PRO:HD2	1:E:779:PRO:HG2	1.92	0.51
1:G:629:ARG:NH1	1:G:1688:HIS:CD2	2.78	0.51
1:A:1127:HIS:ND1	1:A:1128:ARG:HG2	2.26	0.51
1:A:2112:GLN:O	1:A:2113:SER:OG	2.24	0.51
1:A:2453:ILE:HA	1:A:2456:ILE:HD12	1.93	0.51
1:A:547:VAL:HG12	1:A:564:LEU:HD12	1.92	0.51
1:A:638:ILE:HG23	1:A:678:GLN:HE22	1.76	0.51
1:A:646:PRO:HD2	1:A:779:PRO:HG2	1.92	0.51
1:C:1667:LEU:HG	1:C:1714:LEU:HD11	1.91	0.51
1:C:1805:GLU:O	1:C:1808:ARG:HG2	2.10	0.51
1:C:4677:LEU:HD22	1:C:4711:PHE:CZ	2.45	0.51
1:E:1849:LEU:HG	1:E:1945:TYR:CE2	2.46	0.51
1:G:4033:GLY:O	1:G:4189:ARG:NH2	2.29	0.51
1:G:4691:GLN:HB2	1:G:4703:ARG:HH22	1.75	0.51
1:G:411:TYR:HB2	1:G:486:LEU:HD21	1.91	0.51
1:G:634:GLN:HB3	1:G:1640:HIS:HE1	1.74	0.51
1:A:853:PRO:HB3	1:A:1023:PRO:HB3	1.92	0.51
1:A:4055:VAL:HG13	1:A:4058:ILE:HD11	1.91	0.51
1:A:590:LEU:HB2	1:A:599:VAL:HG11	1.91	0.51
1:C:835:ARG:NH2	1:C:1093:GLU:OE2	2.43	0.51
1:C:3698:LEU:HD23	1:C:3773:ARG:HD2	1.91	0.51
1:C:3963:ASN:HA	1:C:3966:THR:HG22	1.92	0.51
1:C:4164:LEU:HD23	1:C:4168:GLU:OE2	2.10	0.51
1:C:4576:ILE:HG22	1:C:4643:LEU:HD12	1.92	0.51
1:E:989:ALA:HB1	1:E:1035:ASN:HB3	1.93	0.51
1:E:1821:ASP:OD1	1:E:1822:GLY:N	2.44	0.51
1:E:2755:ILE:HD13	1:E:2810:LYS:HG2	1.93	0.51
1:E:3879:GLU:OE2	1:E:3883:ASP:OD2	2.28	0.51
1:E:638:ILE:HG23	1:E:678:GLN:HE22	1.76	0.51
2:F:88:PRO:O	2:F:90:ILE:HD12	2.09	0.51
1:G:842:PRO:HA	1:G:1073:ARG:HH12	1.74	0.51
1:G:835:ARG:NH2	1:G:1093:GLU:OE2	2.43	0.51
1:G:37:LEU:HD13	1:G:191:VAL:HG21	1.93	0.51
1:G:4712:PRO:HD3	1:G:4721:LYS:HE3	1.93	0.51
1:A:256:ALA:HB3	1:A:481:GLU:OE2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2807:TRP:O	1:A:2811:GLU:HG2	2.11	0.51
1:A:3698:LEU:HD23	1:A:3773:ARG:HD2	1.92	0.51
1:A:3965:LEU:HA	1:A:3968:TYR:CD2	2.46	0.51
1:A:4205:TRP:HZ2	1:A:4214:LYS:HE2	1.76	0.51
1:C:1691:GLN:HE22	1:C:1802:ILE:HA	1.75	0.51
1:C:3965:LEU:HA	1:C:3968:TYR:CD2	2.46	0.51
1:C:863:LEU:H	1:C:930:LYS:HE3	1.76	0.51
1:G:1972:ASN:O	1:G:1975:SER:OG	2.27	0.51
1:G:4555:LEU:HD21	1:G:4656:LEU:O	2.11	0.51
1:G:613:ALA:HB1	1:G:618:GLN:HE22	1.75	0.51
1:A:2476:ILE:HA	1:A:2495:VAL:HG21	1.92	0.51
1:A:635:THR:OG1	1:A:1693:GLN:NE2	2.43	0.51
1:C:1127:HIS:ND1	1:C:1128:ARG:HG2	2.26	0.51
1:C:12:GLN:O	1:C:165:VAL:HG23	2.11	0.51
1:C:2907:PRO:O	1:C:2910:THR:OG1	2.16	0.51
1:E:3965:LEU:HA	1:E:3968:TYR:CD2	2.46	0.51
1:E:590:LEU:HB2	1:E:599:VAL:HG11	1.92	0.51
1:E:753:PRO:HB2	1:E:769:GLU:O	2.11	0.51
1:G:1206:GLN:H	1:G:1227:ALA:HB3	1.75	0.51
1:A:1653:LEU:HD23	1:A:1707:LEU:HD11	1.91	0.51
1:A:1658:ASP:OD1	1:A:1661:ARG:NH2	2.44	0.51
1:A:3879:GLU:OE2	1:A:3883:ASP:OD2	2.28	0.51
1:A:4655:PHE:O	1:A:4658:ILE:HG13	2.10	0.51
2:B:25:HIS:CG	2:B:40:ARG:HE	2.29	0.51
1:C:1101:ARG:N	1:C:1193:SER:HB3	2.25	0.51
1:C:2803:GLU:HA	1:C:2806:ARG:HB2	1.92	0.51
1:C:37:LEU:HD13	1:C:191:VAL:HG21	1.92	0.51
1:C:4849:TYR:O	1:C:4852:THR:HG22	2.10	0.51
1:E:1658:ASP:OD1	1:E:1661:ARG:NH2	2.44	0.51
2:F:25:HIS:CG	2:F:40:ARG:HE	2.29	0.51
1:G:1653:LEU:HD23	1:G:1707:LEU:HD11	1.92	0.51
1:G:1691:GLN:HE22	1:G:1802:ILE:HA	1.75	0.51
1:E:4878:ASP:HA	1:G:4581:LYS:CB	2.40	0.51
1:A:1849:LEU:HG	1:A:1945:TYR:CE2	2.46	0.51
1:C:635:THR:OG1	1:C:1693:GLN:NE2	2.43	0.51
1:C:1849:LEU:HG	1:C:1945:TYR:CE2	2.46	0.51
1:C:2807:TRP:O	1:C:2811:GLU:HG2	2.11	0.51
1:C:4555:LEU:HD21	1:C:4656:LEU:O	2.10	0.51
1:C:674:PHE:O	2:D:40:ARG:NH1	2.44	0.51
1:E:1769:THR:OG1	1:E:1956:GLU:OE2	2.25	0.51
1:E:223:PHE:HD1	1:E:230:CYS:HB3	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2341:VAL:HG11	1:E:2346:VAL:HG13	1.92	0.51
1:E:668:VAL:HA	1:E:789:VAL:HG12	1.93	0.51
1:G:1821:ASP:OD1	1:G:1822:GLY:N	2.44	0.51
1:G:2341:VAL:HG11	1:G:2346:VAL:HG13	1.91	0.51
1:G:2476:ILE:HA	1:G:2495:VAL:HG21	1.93	0.51
1:G:2561:LEU:HD11	1:G:2601:ASP:HA	1.93	0.51
1:G:2827:ARG:HB2	1:G:2934:GLY:HA3	1.92	0.51
1:G:2063:LEU:HD13	1:G:3661:TRP:HH2	1.76	0.51
1:A:4030:LEU:HD21	1:A:4040:ILE:HG12	1.93	0.51
1:A:403:MET:HE1	1:A:448:LEU:HD23	1.92	0.51
1:A:492:ASP:OD1	1:A:546:TRP:NE1	2.44	0.51
1:A:668:VAL:HA	1:A:789:VAL:HG12	1.93	0.51
1:C:1658:ASP:OD1	1:C:1661:ARG:NH2	2.44	0.51
1:C:4843:LEU:CD1	1:E:4827:LEU:HD11	2.39	0.51
1:C:668:VAL:HA	1:C:789:VAL:HG12	1.93	0.51
1:E:1113:VAL:HG12	1:E:1114:GLU:O	2.11	0.51
1:E:2143:THR:N	1:E:3651:ASN:OD1	2.43	0.51
1:E:492:ASP:OD1	1:E:546:TRP:NE1	2.43	0.51
1:E:4983:HIS:O	1:E:4985:LEU:N	2.44	0.51
1:E:669:ASP:HB2	1:E:788:LYS:HG3	1.93	0.51
1:G:1671:ARG:NH1	1:G:1713:ASP:OD2	2.43	0.51
1:G:3878:ASP:O	1:G:3881:THR:HG22	2.11	0.51
1:G:4055:VAL:HG13	1:G:4058:ILE:HD11	1.92	0.51
1:A:753:PRO:HB2	1:A:769:GLU:O	2.11	0.50
1:C:629:ARG:NH1	1:C:1688:HIS:CD2	2.78	0.50
1:C:3661:TRP:O	1:C:3664:THR:HG23	2.11	0.50
1:C:4684:ASP:OD2	1:C:4686:LEU:HD23	2.11	0.50
1:E:37:LEU:HD13	1:E:191:VAL:HG21	1.92	0.50
1:E:4655:PHE:O	1:E:4658:ILE:HG13	2.10	0.50
1:E:4686:LEU:HD13	1:E:4692:PRO:HD3	1.92	0.50
1:E:446:GLN:HG3	1:E:521:LEU:HD21	1.93	0.50
1:E:635:THR:OG1	1:E:1693:GLN:NE2	2.43	0.50
1:G:1113:VAL:HG12	1:G:1114:GLU:O	2.11	0.50
1:G:1698:LEU:HG	1:G:1712:TYR:CE1	2.46	0.50
1:G:223:PHE:HD1	1:G:230:CYS:HB3	1.75	0.50
1:G:4221:VAL:O	1:G:4225:GLY:N	2.37	0.50
1:G:448:LEU:HD12	1:G:525:LEU:HD11	1.93	0.50
1:G:4661:TYR:HE2	1:G:4789:PHE:HB2	1.76	0.50
1:G:4778:TRP:O	1:G:4782:VAL:HG23	2.11	0.50
1:G:4856:PHE:CE2	1:G:4860:ARG:NH1	2.79	0.50
1:A:1113:VAL:HG12	1:A:1114:GLU:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1698:LEU:HG	1:C:1712:TYR:CE1	2.46	0.50
1:C:1712:TYR:O	1:C:1716:ILE:HG12	2.11	0.50
1:C:548:VAL:O	1:C:551:LEU:HB3	2.12	0.50
1:C:646:PRO:HD2	1:C:779:PRO:HG2	1.92	0.50
1:E:1698:LEU:HG	1:E:1712:TYR:CE1	2.46	0.50
1:E:2161:GLN:O	1:E:2164:SER:OG	2.16	0.50
1:E:4049:VAL:HG21	1:E:4159:ARG:HD3	1.93	0.50
1:E:547:VAL:HG12	1:E:564:LEU:HD12	1.92	0.50
1:G:1849:LEU:HG	1:G:1945:TYR:CE2	2.46	0.50
1:A:1101:ARG:N	1:A:1193:SER:HB3	2.25	0.50
1:C:113:HIS:CE1	1:C:402:ARG:HB3	2.47	0.50
1:C:4030:LEU:HD21	1:C:4040:ILE:HG12	1.93	0.50
1:C:4238:CYS:O	1:C:4242:ILE:HG13	2.12	0.50
1:C:448:LEU:HD12	1:C:525:LEU:HD11	1.93	0.50
1:E:1775:HIS:NE2	1:E:1851:MET:HG3	2.25	0.50
1:E:2803:GLU:HA	1:E:2806:ARG:HB2	1.92	0.50
1:E:3661:TRP:O	1:E:3664:THR:HG23	2.11	0.50
1:E:113:HIS:CE1	1:E:402:ARG:HB3	2.47	0.50
1:E:634:GLN:HB3	1:E:1640:HIS:HE1	1.74	0.50
1:G:1101:ARG:N	1:G:1193:SER:HB3	2.25	0.50
1:G:1285:GLU:HG2	1:G:1286:MET:HG2	1.93	0.50
1:G:4193:ILE:HG22	1:G:5006:GLN:OE1	2.11	0.50
1:A:839:LEU:HD22	1:A:1075:PHE:CE1	2.47	0.50
1:A:1087:ARG:HB3	1:A:1223:PHE:CD1	2.47	0.50
1:A:4984:ASN:HD21	1:A:4987:ASN:ND2	2.10	0.50
1:C:4983:HIS:HE1	1:C:5023:PRO:HG2	1.76	0.50
1:C:567:VAL:HG12	1:C:574:VAL:HG11	1.92	0.50
1:C:839:LEU:HD22	1:C:1075:PHE:CE1	2.47	0.50
1:E:20:VAL:HG12	1:E:204:PRO:HA	1.94	0.50
1:E:674:PHE:O	2:F:40:ARG:NH1	2.44	0.50
1:G:1293:LEU:HD11	1:G:1598:GLN:HG2	1.94	0.50
1:G:4240:ASP:OD1	1:G:4675:LYS:NZ	2.36	0.50
1:G:4640:GLU:HB3	1:G:4641:PRO:HD3	1.93	0.50
1:A:4937:ILE:CD1	1:G:4934:GLY:CA	2.87	0.50
1:G:668:VAL:HA	1:G:789:VAL:HG12	1.94	0.50
1:G:989:ALA:HB1	1:G:1035:ASN:HB3	1.93	0.50
1:G:737:LEU:HD13	2:H:8:SER:HB3	1.92	0.50
1:A:989:ALA:HB1	1:A:1035:ASN:HB3	1.92	0.50
1:A:1089:TYR:HE2	1:A:1091:GLU:OE2	1.95	0.50
1:A:1698:LEU:HG	1:A:1712:TYR:CE1	2.47	0.50
1:A:4983:HIS:O	1:A:4985:LEU:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1687:SER:CB	2:B:90:ILE:HG12	2.42	0.50
1:C:1113:VAL:HG12	1:C:1114:GLU:O	2.11	0.50
1:C:4826:ILE:O	1:C:4829:SER:HB2	2.11	0.50
1:C:495:ASN:CB	1:C:553:ARG:HH12	2.25	0.50
1:E:1285:GLU:HG2	1:E:1286:MET:HG2	1.92	0.50
1:E:231:LEU:HD11	1:E:245:VAL:HG13	1.91	0.50
1:E:2807:TRP:O	1:E:2811:GLU:HG2	2.12	0.50
1:E:863:LEU:H	1:E:930:LYS:HE3	1.75	0.50
1:G:1658:ASP:OD1	1:G:1661:ARG:NH2	2.44	0.50
1:G:2107:GLN:NE2	1:G:3680:ALA:O	2.44	0.50
1:G:4579:PHE:HB2	1:G:4631:PHE:CE1	2.47	0.50
1:G:495:ASN:CB	1:G:553:ARG:HH12	2.25	0.50
1:G:547:VAL:HG12	1:G:564:LEU:HD12	1.92	0.50
1:G:753:PRO:HB2	1:G:769:GLU:O	2.11	0.50
1:A:15:ARG:N	1:A:18:ASP:OD2	2.45	0.50
1:A:222:LEU:HD22	1:A:231:LEU:HD23	1.94	0.50
1:A:3661:TRP:O	1:A:3664:THR:HG23	2.11	0.50
1:A:3977:GLN:NE2	1:A:4032:GLU:OE2	2.44	0.50
1:A:4878:ASP:HA	1:C:4581:LYS:CB	2.41	0.50
1:A:4983:HIS:HE1	1:A:5023:PRO:HG2	1.76	0.50
1:C:1598:GLN:NE2	1:C:1643:GLU:OE2	2.45	0.50
1:C:2755:ILE:HD13	1:C:2810:LYS:HG2	1.93	0.50
1:E:835:ARG:NH2	1:E:1093:GLU:OE2	2.44	0.50
1:E:1101:ARG:N	1:E:1193:SER:HB3	2.26	0.50
1:E:3771:HIS:HE1	1:E:3815:LYS:HB3	1.76	0.50
1:E:4205:TRP:HZ2	1:E:4214:LYS:HE2	1.76	0.50
1:E:4221:VAL:O	1:E:4225:GLY:N	2.43	0.50
1:G:1775:HIS:NE2	1:G:1851:MET:HG3	2.26	0.50
1:G:4859:PHE:HZ	1:G:4912:TYR:HB3	1.76	0.50
1:G:548:VAL:O	1:G:551:LEU:HB3	2.12	0.50
1:G:669:ASP:HB2	1:G:788:LYS:HG3	1.94	0.50
1:A:1227:ALA:HA	1:A:1230:MET:HB2	1.94	0.50
1:A:1821:ASP:OD1	1:A:1822:GLY:N	2.44	0.50
1:A:3989:VAL:HG12	1:A:4047:MET:HE1	1.93	0.50
1:C:634:GLN:HB3	1:C:1640:HIS:HE1	1.74	0.50
1:C:669:ASP:HB2	1:C:788:LYS:HG3	1.93	0.50
1:E:1663:HIS:O	1:E:1666:THR:OG1	2.19	0.50
1:E:828:GLU:O	1:E:840:VAL:HG23	2.12	0.50
1:G:3927:GLN:O	1:G:3931:SER:N	2.34	0.50
1:G:446:GLN:HG3	1:G:521:LEU:HD21	1.94	0.50
1:G:4851:TYR:O	1:G:4855:ALA:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:839:LEU:HD22	1:G:1075:PHE:CE1	2.47	0.50
1:G:853:PRO:HB3	1:G:1023:PRO:HB3	1.93	0.50
1:G:887:ILE:HD11	1:G:907:LEU:HB3	1.94	0.50
1:A:1285:GLU:HG2	1:A:1286:MET:HG2	1.92	0.50
1:A:1775:HIS:NE2	1:A:1851:MET:HG3	2.26	0.50
1:A:2561:LEU:HD11	1:A:2601:ASP:HA	1.93	0.50
1:A:887:ILE:HD11	1:A:907:LEU:HB3	1.94	0.50
1:C:3771:HIS:CE1	1:C:3812:VAL:HA	2.47	0.50
1:C:3771:HIS:HE1	1:C:3815:LYS:HB3	1.77	0.50
2:D:25:HIS:CG	2:D:40:ARG:HE	2.29	0.50
1:E:839:LEU:HD22	1:E:1075:PHE:CE1	2.47	0.50
1:E:1712:TYR:O	1:E:1716:ILE:HG12	2.11	0.50
1:E:2326:CYS:O	1:E:2330:ARG:HG2	2.12	0.50
1:E:3902:TYR:O	1:E:3906:GLN:N	2.45	0.50
1:E:1687:SER:CB	2:F:90:ILE:HG12	2.42	0.50
1:G:4145:VAL:O	1:G:4149:ASN:N	2.40	0.50
1:G:4555:LEU:HD11	1:G:4656:LEU:HB2	1.92	0.50
1:G:4661:TYR:CE1	1:G:4665:LYS:HB2	2.46	0.50
1:A:1111:PRO:HG3	1:A:1609:PRO:HD3	1.93	0.50
1:A:1206:GLN:H	1:A:1227:ALA:HB3	1.76	0.50
1:A:1259:ARG:HH12	1:A:1597:VAL:HA	1.77	0.50
1:A:1712:TYR:O	1:A:1716:ILE:HG12	2.11	0.50
1:A:3713:LYS:O	1:A:3715:LYS:N	2.45	0.50
1:A:3839:CYS:SG	1:A:3881:THR:HB	2.52	0.50
1:A:4684:ASP:OD2	1:A:4686:LEU:HD23	2.11	0.50
1:C:1087:ARG:HB3	1:C:1223:PHE:CD1	2.47	0.50
1:C:1089:TYR:HE2	1:C:1091:GLU:OE2	1.95	0.50
1:C:2326:CYS:O	1:C:2330:ARG:HG2	2.12	0.50
1:C:2476:ILE:HA	1:C:2495:VAL:HG21	1.93	0.50
1:C:3958:ALA:CB	1:C:4019:LEU:HD11	2.40	0.50
1:C:3977:GLN:NE2	1:C:4032:GLU:OE2	2.44	0.50
1:C:4984:ASN:HD21	1:C:4987:ASN:ND2	2.09	0.50
1:E:103:TYR:CE2	1:E:163:VAL:HA	2.47	0.50
1:G:2155:LEU:HD13	1:G:2188:ASN:HD22	1.77	0.50
1:G:2803:GLU:HA	1:G:2806:ARG:HB2	1.93	0.50
1:A:2561:LEU:HD21	1:A:2601:ASP:HA	1.94	0.49
1:A:3882:GLN:OE1	1:A:3957:VAL:HA	2.12	0.49
1:A:446:GLN:HG3	1:A:521:LEU:HD21	1.93	0.49
1:A:4856:PHE:CE2	1:A:4860:ARG:NH1	2.80	0.49
1:A:634:GLN:HB3	1:A:1640:HIS:HE1	1.74	0.49
1:A:716:PHE:H	1:A:738:LEU:HD13	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1821:ASP:OD1	1:C:1822:GLY:N	2.44	0.49
1:C:2561:LEU:HD11	1:C:2601:ASP:HA	1.93	0.49
1:C:3805:LEU:O	1:C:3807:GLY:N	2.45	0.49
1:C:716:PHE:H	1:C:738:LEU:HD13	1.77	0.49
1:E:15:ARG:N	1:E:18:ASP:OD2	2.45	0.49
1:E:2476:ILE:HA	1:E:2495:VAL:HG21	1.93	0.49
1:E:2561:LEU:HD11	1:E:2601:ASP:HA	1.93	0.49
1:E:3835:LEU:CD1	1:E:3884:LEU:HD13	2.42	0.49
1:E:3977:GLN:NE2	1:E:4032:GLU:OE2	2.45	0.49
1:E:448:LEU:HD12	1:E:525:LEU:HD11	1.93	0.49
1:E:4967:TYR:HD2	1:E:4968:PHE:CE1	2.30	0.49
1:G:1163:THR:HG22	1:G:1168:VAL:HA	1.94	0.49
1:G:2532:ALA:HA	1:G:2550:LEU:HD22	1.94	0.49
1:G:4661:TYR:OH	1:G:4788:SER:HB3	2.12	0.49
1:A:2532:ALA:HA	1:A:2550:LEU:HD22	1.94	0.49
1:A:3996:PHE:CZ	1:A:4019:LEU:HD22	2.41	0.49
1:A:4238:CYS:O	1:A:4242:ILE:HG13	2.12	0.49
1:C:1775:HIS:NE2	1:C:1851:MET:HG3	2.28	0.49
1:C:4049:VAL:HG21	1:C:4159:ARG:HD3	1.93	0.49
2:D:87:HIS:HD2	2:D:88:PRO:HD2	1.77	0.49
1:E:2561:LEU:HD21	1:E:2601:ASP:HA	1.93	0.49
1:E:4118:ASP:HB2	1:E:4122:MET:HB2	1.94	0.49
1:E:4684:ASP:OD2	1:E:4686:LEU:HD23	2.12	0.49
1:E:4925:ILE:HG23	1:E:4929:LEU:HD12	1.94	0.49
1:E:4984:ASN:HD21	1:E:4987:ASN:ND2	2.09	0.49
1:G:1087:ARG:HB3	1:G:1223:PHE:CD1	2.47	0.49
1:G:2326:CYS:O	1:G:2330:ARG:HG2	2.12	0.49
1:G:3733:CYS:HB2	1:G:3803:SER:OG	2.11	0.49
1:G:3886:ARG:O	1:G:3890:LEU:HD13	2.11	0.49
1:G:4035:VAL:HG12	1:G:4036:VAL:N	2.27	0.49
1:A:1663:HIS:O	1:A:1666:THR:OG1	2.19	0.49
1:A:3771:HIS:HE1	1:A:3815:LYS:HB3	1.77	0.49
1:A:495:ASN:CB	1:A:553:ARG:HH12	2.25	0.49
2:B:87:HIS:HD2	2:B:88:PRO:HD2	1.78	0.49
1:C:1293:LEU:HD11	1:C:1598:GLN:HG2	1.94	0.49
1:C:674:PHE:CB	2:D:40:ARG:NH1	2.72	0.49
1:E:1089:TYR:HE2	1:E:1091:GLU:OE2	1.95	0.49
1:E:1723:ALA:HB1	1:E:1775:HIS:CD2	2.43	0.49
1:E:3817:LEU:HD11	1:E:3821:LYS:HZ1	1.77	0.49
1:E:3891:LEU:HB3	1:E:3899:PHE:CE2	2.47	0.49
1:E:4983:HIS:HE1	1:E:5023:PRO:HG2	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:887:ILE:HD11	1:E:907:LEU:HB3	1.94	0.49
1:G:1457:TYR:OH	1:G:1553:PHE:CE1	2.60	0.49
1:G:1970:GLN:HE22	1:G:3645:PRO:HD2	1.77	0.49
1:G:462:GLU:HG3	1:G:3823:LYS:HZ3	1.77	0.49
1:G:646:PRO:HD2	1:G:779:PRO:HG2	1.92	0.49
1:A:2155:LEU:HD13	1:A:2188:ASN:HD22	1.78	0.49
1:A:2124:LEU:HD21	1:A:3677:LEU:HD21	1.95	0.49
1:A:37:LEU:HD13	1:A:191:VAL:HG21	1.93	0.49
1:A:113:HIS:CE1	1:A:402:ARG:HB3	2.46	0.49
1:A:54:ASN:O	1:A:56:GLN:N	2.46	0.49
1:C:1078:GLU:HB3	1:C:1081:TYR:CD2	2.48	0.49
1:C:4118:ASP:HB2	1:C:4122:MET:HB2	1.94	0.49
1:C:4983:HIS:O	1:C:4985:LEU:N	2.44	0.49
1:C:887:ILE:HD11	1:C:907:LEU:HB3	1.94	0.49
1:E:1163:THR:HG22	1:E:1168:VAL:HA	1.94	0.49
1:E:597:HIS:HB2	1:E:1665:HIS:CD2	2.48	0.49
1:E:712:TYR:HB3	1:E:768:PHE:CE1	2.48	0.49
1:G:1206:GLN:O	1:G:1209:SER:OG	2.18	0.49
1:G:597:HIS:HB2	1:G:1665:HIS:CD2	2.47	0.49
1:G:828:GLU:O	1:G:840:VAL:HG23	2.12	0.49
1:G:863:LEU:H	1:G:930:LYS:HE3	1.76	0.49
1:A:1163:THR:HG22	1:A:1168:VAL:HA	1.94	0.49
1:A:415:ILE:HG23	1:A:493:ARG:HD2	1.95	0.49
1:A:548:VAL:O	1:A:551:LEU:HB3	2.12	0.49
1:C:1285:GLU:HG2	1:C:1286:MET:HG2	1.93	0.49
1:C:20:VAL:HG12	1:C:204:PRO:HA	1.95	0.49
1:C:256:ALA:HB3	1:C:481:GLU:OE2	2.13	0.49
1:C:2561:LEU:HD21	1:C:2601:ASP:HA	1.94	0.49
1:C:3839:CYS:SG	1:C:3881:THR:HB	2.52	0.49
1:C:3798:LEU:HD11	1:C:3884:LEU:HD12	1.94	0.49
1:C:4205:TRP:HZ2	1:C:4214:LYS:HE2	1.76	0.49
1:C:4973:HIS:HD2	1:C:4977:THR:HG23	1.77	0.49
1:C:54:ASN:O	1:C:56:GLN:N	2.46	0.49
1:E:1259:ARG:HH12	1:E:1597:VAL:HA	1.77	0.49
1:E:2155:LEU:HD13	1:E:2188:ASN:HD22	1.77	0.49
1:E:3669:PHE:O	1:E:3672:ARG:HG2	2.13	0.49
1:E:4030:LEU:HD21	1:E:4040:ILE:HG12	1.93	0.49
1:E:4888:TYR:O	1:E:4892:ARG:HD3	2.12	0.49
1:E:495:ASN:CB	1:E:553:ARG:HH12	2.25	0.49
1:G:4240:ASP:CG	1:G:4675:LYS:HZ3	2.15	0.49
1:G:494:LEU:HB3	1:G:519:VAL:HG22	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:54:ASN:O	1:G:56:GLN:N	2.46	0.49
1:A:2139:PRO:HG3	1:A:3658:LYS:NZ	2.27	0.49
1:C:403:MET:HE2	1:C:448:LEU:HD23	1.94	0.49
1:C:4878:ASP:HA	1:E:4581:LYS:CB	2.43	0.49
1:C:712:TYR:HB3	1:C:768:PHE:CE1	2.47	0.49
1:C:989:ALA:HB1	1:C:1035:ASN:HB3	1.93	0.49
1:E:1227:ALA:HA	1:E:1230:MET:HB2	1.95	0.49
1:G:1598:GLN:NE2	1:G:1643:GLU:OE2	2.45	0.49
1:G:1712:TYR:O	1:G:1716:ILE:HG12	2.12	0.49
1:G:2116:LEU:O	1:G:2120:MET:HG3	2.12	0.49
1:G:4574:ASN:HA	1:G:4577:LEU:HB2	1.92	0.49
1:G:716:PHE:H	1:G:738:LEU:HD13	1.77	0.49
1:A:2821:TRP:CD1	1:A:2939:ARG:HA	2.48	0.49
1:A:3647:HIS:O	1:A:3651:ASN:ND2	2.46	0.49
1:A:3771:HIS:CE1	1:A:3812:VAL:HA	2.47	0.49
1:A:462:GLU:HG3	1:A:3823:LYS:NZ	2.27	0.49
1:A:669:ASP:HB2	1:A:788:LYS:HG3	1.94	0.49
1:C:1163:THR:HG22	1:C:1168:VAL:HA	1.94	0.49
1:C:1687:SER:CB	2:D:90:ILE:HG12	2.42	0.49
1:C:3817:LEU:HD13	1:C:3899:PHE:HD1	1.78	0.49
1:C:3882:GLN:OE1	1:C:3957:VAL:HA	2.12	0.49
1:C:4032:GLU:HB2	1:C:5006:GLN:CD	2.32	0.49
1:C:446:GLN:HG3	1:C:521:LEU:HD21	1.93	0.49
1:E:462:GLU:HG3	1:E:3823:LYS:NZ	2.28	0.49
1:E:441:VAL:O	1:E:444:SER:OG	2.16	0.49
1:E:4856:PHE:CE2	1:E:4860:ARG:NH1	2.81	0.49
1:E:4973:HIS:HD2	1:E:4977:THR:HG23	1.77	0.49
1:G:4032:GLU:HB2	1:G:5006:GLN:CD	2.33	0.49
1:G:4904:PRO:HB2	1:G:4910:GLU:HG3	1.93	0.49
1:G:495:ASN:HB3	1:G:553:ARG:HH12	1.77	0.49
2:H:87:HIS:HD2	2:H:88:PRO:HD2	1.78	0.49
1:A:1078:GLU:HB3	1:A:1081:TYR:CD2	2.48	0.49
1:A:1598:GLN:NE2	1:A:1643:GLU:OE2	2.45	0.49
1:A:291:LEU:HA	1:A:301:VAL:HA	1.95	0.49
1:C:49:LEU:HD21	1:C:191:VAL:HG23	1.95	0.49
1:C:4147:LEU:HD21	1:C:4163:PHE:HE2	1.78	0.49
1:E:1598:GLN:NE2	1:E:1643:GLU:OE2	2.45	0.49
1:E:4032:GLU:HB2	1:E:5006:GLN:CD	2.32	0.49
1:E:4554:TYR:HA	1:E:4557:ARG:NH1	2.28	0.49
1:E:4664:LEU:O	1:E:4667:PRO:HD2	2.13	0.49
1:E:495:ASN:HB3	1:E:553:ARG:HH12	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:49:LEU:HD21	1:G:191:VAL:HG23	1.95	0.49
1:G:2561:LEU:HD21	1:G:2601:ASP:HA	1.94	0.49
1:G:4977:THR:O	1:G:4981:GLU:N	2.45	0.49
1:G:5013:MET:HG3	1:G:5018:CYS:HB2	1.94	0.49
1:A:3817:LEU:HD13	1:A:3899:PHE:HD1	1.78	0.49
1:A:4967:TYR:HD2	1:A:4968:PHE:CE1	2.30	0.49
1:A:49:LEU:HD21	1:A:191:VAL:HG23	1.95	0.49
1:C:1253:PRO:O	1:C:1254:HIS:HB2	2.13	0.49
1:C:1259:ARG:HH12	1:C:1597:VAL:HA	1.78	0.49
1:C:2532:ALA:HA	1:C:2550:LEU:HD22	1.94	0.49
1:C:3780:LEU:HD12	1:C:3828:PHE:CE1	2.48	0.49
1:C:4680:LYS:O	1:C:4685:GLY:N	2.44	0.49
1:C:4967:TYR:HD2	1:C:4968:PHE:CE1	2.30	0.49
1:C:494:LEU:HB3	1:C:519:VAL:HG22	1.95	0.49
1:C:540:PHE:HA	1:C:543:ASN:HB2	1.94	0.49
1:E:1456:ASP:O	1:E:1457:TYR:HB2	2.13	0.49
1:E:3969:ILE:HG23	1:E:3977:GLN:HG2	1.95	0.49
1:E:494:LEU:HB3	1:E:519:VAL:HG22	1.95	0.49
1:G:1227:ALA:HA	1:G:1230:MET:HB2	1.94	0.49
1:G:4849:TYR:HA	1:G:4852:THR:HG22	1.95	0.49
1:A:2326:CYS:O	1:A:2330:ARG:HG2	2.12	0.49
1:A:274:LEU:HD12	1:A:278:GLN:NE2	2.27	0.49
1:A:283:ARG:HD2	1:A:290:TYR:CZ	2.48	0.49
1:A:701:GLY:O	1:A:1647:CYS:HB3	2.13	0.49
1:A:712:TYR:HB3	1:A:768:PHE:CE1	2.48	0.49
1:C:2107:GLN:NE2	1:C:3680:ALA:O	2.46	0.49
1:C:2139:PRO:HG3	1:C:3658:LYS:NZ	2.28	0.49
1:C:215:THR:CG2	1:C:273:HIS:HD2	2.26	0.49
1:C:3959:LYS:HG3	1:C:4022:ASP:OD2	2.13	0.49
1:C:4640:GLU:HB3	1:C:4641:PRO:HD3	1.93	0.49
1:C:4712:PRO:HG2	1:C:4718:LYS:HD2	1.95	0.49
1:C:4977:THR:O	1:C:4981:GLU:N	2.46	0.49
1:C:828:GLU:O	1:C:840:VAL:HG23	2.12	0.49
1:C:931:THR:CB	1:C:988:LEU:HD22	2.43	0.49
1:E:1087:ARG:HB3	1:E:1223:PHE:CD1	2.47	0.49
1:E:1253:PRO:O	1:E:1254:HIS:HB2	2.13	0.49
1:E:2107:GLN:NE2	1:E:3680:ALA:O	2.46	0.49
1:E:3805:LEU:O	1:E:3807:GLY:N	2.46	0.49
1:E:3882:GLN:OE1	1:E:3957:VAL:HA	2.12	0.49
1:E:4147:LEU:HD21	1:E:4163:PHE:HE2	1.77	0.49
1:E:548:VAL:O	1:E:551:LEU:HB3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:54:ASN:O	1:E:56:GLN:N	2.46	0.49
1:E:716:PHE:H	1:E:738:LEU:HD13	1.77	0.49
1:G:1078:GLU:HB3	1:G:1081:TYR:CD2	2.47	0.49
1:G:1456:ASP:O	1:G:1457:TYR:HB2	2.12	0.49
1:G:701:GLY:O	1:G:1647:CYS:HB3	2.13	0.49
2:H:25:HIS:CD2	2:H:104:LEU:HD11	2.48	0.49
1:A:2765:LYS:NZ	1:A:2769:ASP:OD2	2.37	0.48
1:A:3767:GLN:NE2	1:A:3806:ASN:HB3	2.27	0.48
1:A:3891:LEU:HB3	1:A:3899:PHE:CE2	2.47	0.48
1:A:4032:GLU:HB2	1:A:5006:GLN:CD	2.32	0.48
1:A:828:GLU:O	1:A:840:VAL:HG23	2.12	0.48
1:A:931:THR:CB	1:A:988:LEU:HD22	2.43	0.48
1:C:2068:GLU:N	1:C:2068:GLU:OE1	2.46	0.48
1:C:291:LEU:HA	1:C:301:VAL:HA	1.94	0.48
1:C:3835:LEU:HD12	1:C:3836:MET:N	2.28	0.48
1:C:701:GLY:O	1:C:1647:CYS:HB3	2.13	0.48
1:E:49:LEU:HD21	1:E:191:VAL:HG23	1.95	0.48
1:E:222:LEU:HD22	1:E:231:LEU:HD23	1.94	0.48
1:E:3647:HIS:O	1:E:3651:ASN:ND2	2.46	0.48
1:E:3771:HIS:CE1	1:E:3812:VAL:HA	2.48	0.48
1:E:3959:LYS:HG3	1:E:4022:ASP:OD2	2.13	0.48
1:E:4035:VAL:HG12	1:E:4036:VAL:N	2.28	0.48
1:G:2807:TRP:O	1:G:2811:GLU:HG2	2.13	0.48
1:G:113:HIS:CE1	1:G:402:ARG:HB3	2.47	0.48
1:G:4967:TYR:HD2	1:G:4968:PHE:CE1	2.31	0.48
1:A:3780:LEU:HD12	1:A:3828:PHE:CE1	2.48	0.48
1:A:4049:VAL:HG21	1:A:4159:ARG:HD3	1.94	0.48
1:A:4973:HIS:HD2	1:A:4977:THR:HG23	1.78	0.48
1:A:495:ASN:HB3	1:A:553:ARG:HH12	1.77	0.48
1:C:2752:ASP:HA	1:C:2755:ILE:HD12	1.94	0.48
1:C:274:LEU:HD12	1:C:278:GLN:NE2	2.27	0.48
1:C:3713:LYS:O	1:C:3715:LYS:N	2.46	0.48
1:C:3805:LEU:HB2	1:C:3890:LEU:HD23	1.95	0.48
1:C:3891:LEU:HB3	1:C:3899:PHE:CE2	2.48	0.48
1:E:2532:ALA:HA	1:E:2550:LEU:HD22	1.94	0.48
1:E:283:ARG:HD2	1:E:290:TYR:CZ	2.48	0.48
1:E:4238:CYS:O	1:E:4242:ILE:HG13	2.12	0.48
1:E:4713:SER:OG	1:E:4775:TYR:OH	2.31	0.48
1:G:4983:HIS:O	1:G:4985:LEU:N	2.46	0.48
1:A:2063:LEU:HD13	1:A:3661:TRP:CZ3	2.48	0.48
1:A:4147:LEU:HD21	1:A:4163:PHE:HE2	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4977:THR:O	1:A:4981:GLU:N	2.46	0.48
1:A:597:HIS:NE2	1:A:598:LYS:NZ	2.61	0.48
1:C:1111:PRO:HG3	1:C:1609:PRO:HD3	1.94	0.48
1:C:1738:LEU:HB2	1:C:2146:PRO:HD3	1.95	0.48
1:C:546:TRP:O	1:C:550:LYS:HG2	2.13	0.48
1:E:1951:LEU:HD22	1:E:2133:GLU:HG2	1.96	0.48
1:E:2821:TRP:CD1	1:E:2939:ARG:HA	2.48	0.48
1:E:4680:LYS:O	1:E:4685:GLY:N	2.43	0.48
1:G:1089:TYR:HE2	1:G:1091:GLU:OE2	1.95	0.48
1:G:1735:ILE:HD11	1:G:2156:LEU:HD11	1.95	0.48
1:G:2288:LEU:O	1:G:3849:ARG:HD3	2.13	0.48
1:G:256:ALA:HB3	1:G:481:GLU:OE2	2.13	0.48
1:G:299:LEU:HD22	1:G:378:LEU:HG	1.95	0.48
1:G:492:ASP:OD1	1:G:546:TRP:NE1	2.46	0.48
1:A:1293:LEU:HD11	1:A:1598:GLN:HG2	1.94	0.48
1:A:530:ILE:O	1:A:530:ILE:HG22	2.14	0.48
1:A:674:PHE:O	2:B:40:ARG:NH1	2.45	0.48
1:C:3669:PHE:O	1:C:3672:ARG:HG2	2.14	0.48
1:C:3835:LEU:CD1	1:C:3884:LEU:HD13	2.42	0.48
1:C:4664:LEU:O	1:C:4667:PRO:HD2	2.13	0.48
1:E:102:LEU:HB2	1:E:105:HIS:CE1	2.49	0.48
1:E:1849:LEU:HD13	1:E:1854:PHE:CD2	2.48	0.48
1:E:1738:LEU:HB2	1:E:2146:PRO:HD3	1.96	0.48
1:E:291:LEU:HA	1:E:301:VAL:HA	1.94	0.48
1:E:350:HIS:NE2	1:E:352:ALA:HB3	2.27	0.48
1:A:3987:ASP:OD1	1:G:162:LYS:NZ	2.46	0.48
1:G:2143:THR:N	1:G:3651:ASN:OD1	2.47	0.48
1:G:283:ARG:HD2	1:G:290:TYR:CZ	2.48	0.48
1:G:291:LEU:O	1:G:312:THR:OG1	2.23	0.48
1:G:3962:PHE:CE1	1:G:4023:MET:HG3	2.49	0.48
2:H:37:ASP:OD1	2:H:38:SER:N	2.45	0.48
1:A:291:LEU:O	1:A:312:THR:OG1	2.23	0.48
1:A:3959:LYS:HG3	1:A:4022:ASP:OD2	2.13	0.48
1:A:4554:TYR:HA	1:A:4557:ARG:NH1	2.28	0.48
1:C:597:HIS:HB2	1:C:1665:HIS:CD2	2.47	0.48
1:C:2063:LEU:HD13	1:C:3661:TRP:CZ3	2.49	0.48
1:C:283:ARG:HD2	1:C:290:TYR:CZ	2.48	0.48
1:E:1293:LEU:HD11	1:E:1598:GLN:HG2	1.94	0.48
1:E:256:ALA:HB3	1:E:481:GLU:OE2	2.14	0.48
1:E:3839:CYS:SG	1:E:3881:THR:HB	2.52	0.48
1:E:4640:GLU:HB3	1:E:4641:PRO:HD3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1457:TYR:CZ	1:G:1553:PHE:CE1	3.02	0.48
1:G:1710:GLY:O	1:G:1714:LEU:HG	2.13	0.48
1:G:3969:ILE:HG22	1:G:3969:ILE:O	2.13	0.48
1:G:4562:LEU:HD21	1:G:4656:LEU:HD12	1.95	0.48
1:A:4827:LEU:HD11	1:G:4843:LEU:HD11	1.93	0.48
1:G:931:THR:CB	1:G:988:LEU:HD22	2.43	0.48
1:A:42:PHE:CE1	1:A:114:SER:HB2	2.49	0.48
1:A:3835:LEU:CD1	1:A:3884:LEU:HD13	2.42	0.48
1:A:3958:ALA:CB	1:A:4019:LEU:HD11	2.40	0.48
1:A:4680:LYS:O	1:A:4685:GLY:N	2.43	0.48
1:A:4713:SER:OG	1:A:4775:TYR:OH	2.31	0.48
1:C:222:LEU:HD22	1:C:231:LEU:HD23	1.95	0.48
1:C:2124:LEU:HD21	1:C:3677:LEU:HD21	1.96	0.48
1:C:3884:LEU:O	1:C:3887:PHE:HB3	2.14	0.48
1:C:3969:ILE:HG23	1:C:3977:GLN:HG2	1.94	0.48
1:E:1243:PRO:CD	1:E:1458:HIS:HB3	2.38	0.48
1:E:3884:LEU:O	1:E:3887:PHE:HB3	2.14	0.48
1:E:4933:GLN:O	1:E:4937:ILE:HG12	2.14	0.48
1:E:546:TRP:O	1:E:550:LYS:HG2	2.13	0.48
1:E:597:HIS:NE2	1:E:598:LYS:NZ	2.61	0.48
1:E:931:THR:CB	1:E:988:LEU:HD22	2.43	0.48
2:F:87:HIS:HD2	2:F:88:PRO:HD2	1.78	0.48
1:G:1259:ARG:HH12	1:G:1597:VAL:HA	1.77	0.48
1:G:215:THR:CG2	1:G:273:HIS:HD2	2.27	0.48
1:G:222:LEU:HD22	1:G:231:LEU:HD23	1.95	0.48
1:G:2748:PRO:HD2	1:G:2751:LEU:HD12	1.95	0.48
1:G:274:LEU:HD12	1:G:278:GLN:NE2	2.27	0.48
1:G:4705:VAL:HG22	1:G:4711:PHE:HD1	1.77	0.48
1:G:712:TYR:HB3	1:G:768:PHE:CE1	2.48	0.48
1:G:645:ARG:NH1	1:G:824:GLU:OE2	2.47	0.48
2:H:25:HIS:CG	2:H:40:ARG:HE	2.30	0.48
1:A:20:VAL:HG12	1:A:204:PRO:HA	1.94	0.48
1:A:3969:ILE:HG23	1:A:3977:GLN:HG2	1.95	0.48
1:A:4041:ALA:O	1:A:4044:MET:HB3	2.14	0.48
1:A:4235:VAL:HG11	1:A:5019:TRP:HH2	1.79	0.48
1:C:1227:ALA:HA	1:C:1230:MET:HB2	1.94	0.48
1:C:1671:ARG:NH1	1:C:1713:ASP:OD2	2.47	0.48
1:C:1951:LEU:HD22	1:C:2133:GLU:HG2	1.95	0.48
1:C:2155:LEU:HD13	1:C:2188:ASN:HD22	1.77	0.48
1:C:224:HIS:HE1	1:C:386:ASP:HA	1.79	0.48
1:C:2821:TRP:CD1	1:C:2939:ARG:HA	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:308:HIS:CE1	1:C:311:ALA:HB2	2.49	0.48
1:C:3767:GLN:NE2	1:C:3806:ASN:HB3	2.28	0.48
1:C:4041:ALA:O	1:C:4044:MET:HB3	2.14	0.48
1:C:530:ILE:HG22	1:C:530:ILE:O	2.13	0.48
1:C:495:ASN:HB3	1:C:553:ARG:HH12	1.77	0.48
1:E:2771:ILE:HG23	1:E:2852:ARG:HB2	1.95	0.48
1:E:3780:LEU:HD12	1:E:3828:PHE:CE1	2.48	0.48
1:E:4703:ARG:O	1:E:4706:LEU:HG	2.14	0.48
1:E:4977:THR:O	1:E:4981:GLU:N	2.45	0.48
1:G:1253:PRO:O	1:G:1254:HIS:HB2	2.14	0.48
1:G:20:VAL:HG12	1:G:204:PRO:HA	1.95	0.48
1:G:415:ILE:HG23	1:G:493:ARG:HD2	1.96	0.48
1:G:4973:HIS:HD2	1:G:4977:THR:HG23	1.78	0.48
1:A:2068:GLU:O	1:A:2071:ARG:HB2	2.14	0.48
1:A:2272:PRO:O	1:A:2275:VAL:HB	2.14	0.48
1:A:308:HIS:CE1	1:A:311:ALA:HB2	2.49	0.48
1:A:3805:LEU:O	1:A:3807:GLY:N	2.47	0.48
1:A:3936:TYR:HD1	1:G:76:ARG:NH2	2.10	0.48
1:A:456:SER:HB2	1:A:459:LEU:HD13	1.95	0.48
1:C:42:PHE:CE1	1:C:114:SER:HB2	2.49	0.48
1:C:3699:HIS:HD2	1:C:3773:ARG:HA	1.79	0.48
1:A:76:ARG:NH2	1:C:3936:TYR:HD1	2.10	0.48
1:C:3949:ARG:O	1:C:3952:SER:OG	2.20	0.48
1:C:4772:ASP:OD1	1:C:4773:VAL:N	2.47	0.48
1:E:701:GLY:O	1:E:1647:CYS:HB3	2.13	0.48
1:E:215:THR:CG2	1:E:273:HIS:HD2	2.26	0.48
1:E:2498:HIS:O	1:E:2501:SER:OG	2.30	0.48
1:E:1958:LEU:HD11	1:E:3657:TYR:HE2	1.78	0.48
1:E:667:MET:HG3	1:E:743:VAL:HG22	1.95	0.48
1:G:2068:GLU:O	1:G:2071:ARG:HB2	2.13	0.48
1:G:2161:GLN:O	1:G:2164:SER:OG	2.16	0.48
1:G:2272:PRO:O	1:G:2275:VAL:HB	2.14	0.48
1:G:3998:HIS:O	1:G:4002:LYS:HG2	2.13	0.48
1:G:4791:TYR:O	1:G:4795:TYR:N	2.45	0.48
1:G:4857:ASN:O	1:G:4859:PHE:N	2.46	0.48
1:G:4974:GLY:O	1:G:4977:THR:OG1	2.21	0.48
1:A:1723:ALA:HB1	1:A:1775:HIS:CD2	2.43	0.48
1:A:1958:LEU:HD11	1:A:3657:TYR:HE2	1.79	0.48
1:A:2354:VAL:O	1:A:2358:ILE:HG13	2.14	0.48
1:A:2752:ASP:HA	1:A:2755:ILE:HD12	1.95	0.48
1:A:3674:ILE:HD11	1:A:3728:ILE:HG22	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3699:HIS:HD2	1:A:3773:ARG:HA	1.79	0.48
1:A:3902:TYR:O	1:A:3906:GLN:N	2.46	0.48
1:A:4640:GLU:HB3	1:A:4641:PRO:HD3	1.94	0.48
1:C:2068:GLU:O	1:C:2071:ARG:HB2	2.14	0.48
1:C:4033:GLY:O	1:C:4189:ARG:NH2	2.37	0.48
1:E:1078:GLU:HB3	1:E:1081:TYR:CD2	2.48	0.48
1:E:1961:PHE:HZ	1:E:2063:LEU:HD23	1.79	0.48
1:E:2752:ASP:HA	1:E:2755:ILE:HD12	1.95	0.48
1:E:299:LEU:HD22	1:E:378:LEU:HG	1.95	0.48
1:E:3835:LEU:HD12	1:E:3836:MET:N	2.28	0.48
1:E:4934:GLY:HA3	1:G:4937:ILE:CD1	2.44	0.48
1:E:540:PHE:HA	1:E:543:ASN:HB2	1.96	0.48
1:G:4051:SER:OG	1:G:4054:ASN:HB3	2.14	0.48
1:G:5011:TRP:O	1:G:5015:GLN:HG2	2.14	0.48
1:G:546:TRP:O	1:G:550:LYS:HG2	2.14	0.48
1:A:150:MET:HG2	1:A:171:LEU:CD2	2.44	0.48
1:A:2107:GLN:NE2	1:A:3680:ALA:O	2.46	0.48
1:A:236:ALA:HA	1:A:242:ARG:HH11	1.79	0.48
1:A:4118:ASP:HB2	1:A:4122:MET:HB2	1.94	0.48
1:A:597:HIS:HB2	1:A:1665:HIS:CD2	2.48	0.48
1:C:1723:ALA:HB1	1:C:1775:HIS:CD2	2.43	0.48
1:C:2771:ILE:HG23	1:C:2852:ARG:HB2	1.95	0.48
1:C:3722:TYR:CZ	1:C:3782:MET:HG3	2.49	0.48
1:C:556:ALA:HB3	1:C:560:ILE:HD11	1.96	0.48
2:D:38:SER:HB3	2:D:41:ASP:OD2	2.14	0.48
1:E:2354:VAL:O	1:E:2358:ILE:HG13	2.14	0.48
1:E:2907:PRO:O	1:E:2910:THR:OG1	2.16	0.48
1:E:308:HIS:CE1	1:E:311:ALA:HB2	2.49	0.48
1:E:3958:ALA:CB	1:E:4019:LEU:HD11	2.40	0.48
1:E:415:ILE:HG23	1:E:493:ARG:HD2	1.96	0.48
1:G:1100:MET:O	1:G:1125:ASN:HA	2.14	0.48
1:G:15:ARG:N	1:G:18:ASP:OD2	2.47	0.48
1:G:291:LEU:HA	1:G:301:VAL:HA	1.95	0.48
1:G:597:HIS:NE2	1:G:598:LYS:NZ	2.61	0.48
1:A:2116:LEU:O	1:A:2120:MET:HG3	2.14	0.47
1:A:3923:LEU:HD12	1:A:3961:VAL:HG12	1.96	0.47
1:A:4664:LEU:O	1:A:4667:PRO:HD2	2.14	0.47
1:A:494:LEU:HB3	1:A:519:VAL:HG22	1.96	0.47
1:A:835:ARG:NH2	1:A:1093:GLU:OE2	2.43	0.47
2:B:38:SER:HB3	2:B:41:ASP:OD2	2.14	0.47
1:C:2116:LEU:O	1:C:2120:MET:HG3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:350:HIS:NE2	1:C:352:ALA:HB3	2.29	0.47
1:C:3835:LEU:C	1:C:3835:LEU:HD12	2.35	0.47
1:C:3902:TYR:O	1:C:3906:GLN:N	2.46	0.47
1:C:3923:LEU:HD12	1:C:3961:VAL:HG12	1.95	0.47
1:C:597:HIS:NE2	1:C:598:LYS:NZ	2.61	0.47
1:C:645:ARG:NH1	1:C:824:GLU:OE2	2.47	0.47
1:E:17:ASP:HB2	1:E:98:HIS:CE1	2.49	0.47
1:G:2183:GLY:O	1:G:2187:ASN:ND2	2.47	0.47
1:G:4901:ILE:HG21	1:G:4913:ARG:NH2	2.29	0.47
1:A:1972:ASN:O	1:A:1975:SER:OG	2.27	0.47
1:A:3884:LEU:O	1:A:3887:PHE:HB3	2.14	0.47
1:A:3989:VAL:O	1:A:3993:LEU:HG	2.14	0.47
1:C:3989:VAL:O	1:C:3993:LEU:HG	2.14	0.47
1:C:4035:VAL:HG12	1:C:4036:VAL:N	2.28	0.47
1:E:12:GLN:O	1:E:165:VAL:HG23	2.14	0.47
1:E:2116:LEU:O	1:E:2120:MET:HG3	2.14	0.47
1:E:3699:HIS:HD2	1:E:3773:ARG:HA	1.79	0.47
1:E:3713:LYS:O	1:E:3715:LYS:N	2.45	0.47
1:E:3817:LEU:HD13	1:E:3899:PHE:HD1	1.78	0.47
1:E:4772:ASP:OD1	1:E:4773:VAL:N	2.47	0.47
1:E:530:ILE:HG22	1:E:530:ILE:O	2.13	0.47
1:G:2145:SER:HB3	1:G:3647:HIS:CD2	2.49	0.47
1:G:224:HIS:HE1	1:G:386:ASP:HA	1.79	0.47
1:G:4984:ASN:HD21	1:G:4987:ASN:ND2	2.12	0.47
1:A:2068:GLU:N	1:A:2068:GLU:OE1	2.45	0.47
1:A:350:HIS:NE2	1:A:352:ALA:HB3	2.29	0.47
1:A:4695:ASP:OD1	1:A:4696:ASP:N	2.47	0.47
1:A:567:VAL:O	1:A:571:SER:OG	2.21	0.47
1:C:15:ARG:N	1:C:18:ASP:OD2	2.47	0.47
1:C:1961:PHE:HZ	1:C:2063:LEU:HD23	1.79	0.47
1:C:2748:PRO:HD2	1:C:2751:LEU:HD12	1.97	0.47
1:C:3647:HIS:O	1:C:3651:ASN:ND2	2.46	0.47
1:C:415:ILE:HG23	1:C:493:ARG:HD2	1.97	0.47
1:E:1735:ILE:HD11	1:E:2156:LEU:HD11	1.97	0.47
1:E:2272:PRO:O	1:E:2275:VAL:HB	2.14	0.47
1:E:2883:HIS:NE2	1:E:2906:VAL:O	2.35	0.47
1:E:2063:LEU:HD13	1:E:3661:TRP:CZ3	2.49	0.47
1:C:76:ARG:NH2	1:E:3936:TYR:HD1	2.10	0.47
1:G:462:GLU:HG3	1:G:3823:LYS:NZ	2.29	0.47
1:G:667:MET:HG3	1:G:743:VAL:HG22	1.95	0.47
1:G:17:ASP:HB2	1:G:98:HIS:CE1	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1253:PRO:O	1:A:1254:HIS:HB2	2.14	0.47
1:A:1586:ASN:O	1:A:1588:ALA:N	2.46	0.47
1:A:1738:LEU:HB2	1:A:2146:PRO:HD3	1.96	0.47
1:A:215:THR:CG2	1:A:273:HIS:HD2	2.27	0.47
1:A:224:HIS:HE1	1:A:386:ASP:HA	1.79	0.47
1:A:2771:ILE:HG23	1:A:2852:ARG:HB2	1.96	0.47
1:A:3722:TYR:CZ	1:A:3782:MET:HG3	2.49	0.47
1:A:3835:LEU:HD12	1:A:3836:MET:N	2.29	0.47
1:A:516:LYS:HG3	1:A:555:GLU:OE2	2.14	0.47
1:C:299:LEU:HD22	1:C:378:LEU:HG	1.95	0.47
1:C:3992:PHE:HB3	1:C:3996:PHE:CE2	2.49	0.47
1:E:2354:VAL:HB	1:E:2453:ILE:HD11	1.97	0.47
1:E:274:LEU:HD12	1:E:278:GLN:NE2	2.27	0.47
1:E:2124:LEU:HD21	1:E:3677:LEU:HD21	1.97	0.47
1:E:4041:ALA:O	1:E:4044:MET:HB3	2.14	0.47
1:E:3989:VAL:HG12	1:E:4047:MET:HE1	1.96	0.47
1:G:1586:ASN:O	1:G:1588:ALA:N	2.46	0.47
1:G:2142:TYR:CD2	1:G:2197:LEU:HD12	2.48	0.47
1:G:308:HIS:CE1	1:G:311:ALA:HB2	2.49	0.47
1:G:3993:LEU:HA	1:G:3996:PHE:HB2	1.96	0.47
1:G:4164:LEU:HD23	1:G:4168:GLU:OE2	2.14	0.47
1:G:4702:ASP:HA	1:G:4778:TRP:HE1	1.79	0.47
1:G:530:ILE:HG22	1:G:530:ILE:O	2.13	0.47
1:A:1100:MET:O	1:A:1125:ASN:HA	2.14	0.47
1:A:2134:LEU:O	1:A:2138:LEU:HG	2.15	0.47
1:A:2902:HIS:CG	1:A:2903:PRO:HD2	2.50	0.47
1:A:3992:PHE:HB3	1:A:3996:PHE:CE2	2.49	0.47
1:A:4703:ARG:O	1:A:4706:LEU:HG	2.14	0.47
1:A:645:ARG:NH1	1:A:824:GLU:OE2	2.47	0.47
1:C:1100:MET:O	1:C:1125:ASN:HA	2.14	0.47
1:C:1958:LEU:HD11	1:C:3657:TYR:HE2	1.79	0.47
1:C:4242:ILE:HG12	1:C:4993:MET:SD	2.54	0.47
1:C:572:PRO:HG3	1:C:609:CYS:SG	2.55	0.47
1:E:1100:MET:O	1:E:1125:ASN:HA	2.14	0.47
1:E:149:THR:OG1	1:E:172:VAL:HB	2.15	0.47
1:E:2068:GLU:N	1:E:2068:GLU:OE1	2.45	0.47
1:E:4235:VAL:HG11	1:E:5019:TRP:HH2	1.79	0.47
1:G:1254:HIS:HD2	1:G:1280:GLN:N	2.13	0.47
1:G:2868:SER:O	1:G:2872:GLN:N	2.38	0.47
1:G:4695:ASP:OD1	1:G:4696:ASP:N	2.46	0.47
2:H:25:HIS:CE1	2:H:45:PRO:HG3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:49:MET:N	2:H:54:GLU:OE2	2.48	0.47
1:A:2142:TYR:CD2	1:A:2197:LEU:HD12	2.50	0.47
1:A:2437:ALA:HB3	1:A:2508:ARG:HH21	1.80	0.47
1:A:2748:PRO:HD2	1:A:2751:LEU:HD12	1.97	0.47
1:A:4712:PRO:HG2	1:A:4718:LYS:HD2	1.97	0.47
1:C:1717:SER:HA	1:C:1721:GLU:HB2	1.97	0.47
1:C:4235:VAL:HG11	1:C:5019:TRP:HH2	1.80	0.47
1:C:4695:ASP:OD1	1:C:4696:ASP:N	2.47	0.47
1:C:667:MET:HG3	1:C:743:VAL:HG22	1.95	0.47
1:C:17:ASP:HB2	1:C:98:HIS:CE1	2.49	0.47
1:E:1438:ARG:HE	1:E:1440:PHE:HE1	1.63	0.47
1:E:3992:PHE:HB3	1:E:3996:PHE:CE2	2.49	0.47
1:E:645:ARG:NH1	1:E:824:GLU:OE2	2.47	0.47
1:G:3986:TRP:O	1:G:3990:VAL:HG23	2.15	0.47
1:G:4049:VAL:HA	1:G:4052:SER:HB3	1.95	0.47
1:G:572:PRO:HG3	1:G:609:CYS:SG	2.55	0.47
1:G:650:VAL:N	1:G:777:PHE:O	2.47	0.47
1:A:103:TYR:CE2	1:A:163:VAL:HA	2.50	0.47
1:A:3669:PHE:O	1:A:3672:ARG:HG2	2.15	0.47
1:A:3805:LEU:HB2	1:A:3890:LEU:HD23	1.96	0.47
1:A:421:PHE:HE2	1:A:436:LEU:HD21	1.79	0.47
1:C:2272:PRO:O	1:C:2275:VAL:HB	2.14	0.47
1:C:206:CYS:HB3	1:C:271:GLY:HA3	1.97	0.47
1:C:4554:TYR:HA	1:C:4557:ARG:NH1	2.29	0.47
1:C:4703:ARG:O	1:C:4706:LEU:HG	2.14	0.47
1:C:4934:GLY:HA3	1:E:4937:ILE:HD13	1.94	0.47
1:E:421:PHE:HE2	1:E:436:LEU:HD21	1.80	0.47
1:C:4942:GLU:HG3	1:E:4944:ARG:HD2	1.97	0.47
1:E:516:LYS:HG3	1:E:555:GLU:OE2	2.14	0.47
1:G:1076:ARG:HG2	1:G:1077:ALA:O	2.15	0.47
1:G:1453:VAL:HG12	1:G:1454:THR:O	2.15	0.47
1:G:2752:ASP:HA	1:G:2755:ILE:HD12	1.95	0.47
1:G:3661:TRP:O	1:G:3664:THR:HG23	2.14	0.47
1:G:4931:ILE:O	1:G:4935:LEU:N	2.45	0.47
1:G:516:LYS:HG3	1:G:555:GLU:OE2	2.14	0.47
1:A:1254:HIS:HD2	1:A:1280:GLN:N	2.13	0.47
1:A:4035:VAL:HG12	1:A:4036:VAL:N	2.28	0.47
1:A:4580:TYR:HE1	1:A:4631:PHE:HB2	1.80	0.47
1:A:667:MET:HG3	1:A:743:VAL:HG22	1.95	0.47
1:C:150:MET:HG2	1:C:171:LEU:CD2	2.44	0.47
1:C:1735:ILE:HD11	1:C:2156:LEU:HD11	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2165:LEU:HD13	1:C:2174:GLU:HB2	1.97	0.47
1:C:2354:VAL:HB	1:C:2453:ILE:HD11	1.97	0.47
1:C:898:ASP:OD2	1:C:900:ASN:HB2	2.15	0.47
1:E:1293:LEU:HB3	1:E:1584:ARG:HG2	1.95	0.47
1:E:3674:ILE:HD11	1:E:3728:ILE:HG22	1.96	0.47
1:E:3829:PHE:CD2	1:E:3915:ILE:HD11	2.50	0.47
1:E:3989:VAL:O	1:E:3993:LEU:HG	2.14	0.47
1:G:236:ALA:HA	1:G:242:ARG:HH11	1.79	0.47
1:G:2862:LEU:HD21	1:G:2929:PHE:HB2	1.96	0.47
1:G:3805:LEU:HB2	1:G:3890:LEU:HD23	1.96	0.47
1:G:4834:GLY:HA2	1:G:4837:LEU:HB3	1.97	0.47
1:A:4940:PHE:HZ	1:G:4931:ILE:HG23	1.80	0.47
1:G:4235:VAL:HG22	1:G:4992:LEU:HD11	1.97	0.47
1:A:195:PHE:HD1	1:C:2358:ILE:CG2	2.27	0.47
1:A:2498:HIS:O	1:A:2501:SER:OG	2.30	0.47
1:A:2557:ALA:C	1:A:2560:PRO:HD2	2.35	0.47
1:C:3829:PHE:CD2	1:C:3915:ILE:HD11	2.50	0.47
1:C:3938:SER:HA	1:C:4002:LYS:HZ3	1.80	0.47
1:C:4044:MET:HG3	1:C:4150:LEU:HD11	1.96	0.47
1:C:421:PHE:HE2	1:C:436:LEU:HD21	1.80	0.47
1:C:462:GLU:HG3	1:C:3823:LYS:NZ	2.28	0.47
1:C:4713:SER:OG	1:C:4775:TYR:OH	2.32	0.47
1:C:567:VAL:O	1:C:571:SER:OG	2.21	0.47
1:E:3722:TYR:CZ	1:E:3782:MET:HG3	2.49	0.47
1:E:224:HIS:HE1	1:E:386:ASP:HA	1.79	0.47
1:E:214:VAL:HG21	1:E:390:LEU:HD12	1.97	0.47
1:E:4044:MET:HG3	1:E:4150:LEU:HD11	1.96	0.47
1:E:556:ALA:HB3	1:E:560:ILE:HD11	1.97	0.47
1:G:4923:PHE:O	1:G:4928:LEU:HG	2.15	0.47
1:G:4968:PHE:CE2	1:G:4978:HIS:CD2	3.03	0.47
1:A:149:THR:OG1	1:A:172:VAL:HB	2.14	0.47
1:A:2735:PHE:HD2	1:A:2891:LYS:HD2	1.79	0.47
1:A:2902:HIS:H	1:A:2905:LEU:HD12	1.80	0.47
1:A:3998:HIS:O	1:A:4002:LYS:HG2	2.15	0.47
1:A:4242:ILE:HG12	1:A:4993:MET:SD	2.54	0.47
1:A:540:PHE:HA	1:A:543:ASN:HB2	1.96	0.47
1:C:2066:LEU:O	1:C:2069:THR:OG1	2.19	0.47
1:C:4036:VAL:HG12	1:C:4037:ASN:N	2.30	0.47
1:E:150:MET:HG2	1:E:171:LEU:CD2	2.45	0.47
1:E:3923:LEU:HD12	1:E:3961:VAL:HG12	1.96	0.47
1:E:4712:PRO:HG2	1:E:4718:LYS:HD2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:38:SER:HB3	2:F:41:ASP:OD2	2.14	0.47
1:G:2755:ILE:HD13	1:G:2810:LYS:HG2	1.97	0.47
1:G:350:HIS:NE2	1:G:352:ALA:HB3	2.29	0.47
1:G:4684:ASP:OD2	1:G:4686:LEU:HD23	2.14	0.47
1:A:1076:ARG:HG2	1:A:1077:ALA:O	2.15	0.47
1:A:1717:SER:HA	1:A:1721:GLU:HB2	1.97	0.47
1:A:1951:LEU:HD22	1:A:2133:GLU:HG2	1.96	0.47
1:A:1961:PHE:HZ	1:A:2063:LEU:HD23	1.79	0.47
1:A:1735:ILE:HD11	1:A:2156:LEU:HD11	1.97	0.47
1:A:2189:LYS:HD2	1:A:2192:TYR:HD2	1.79	0.47
1:A:2358:ILE:CG2	1:G:195:PHE:HD1	2.27	0.47
1:A:299:LEU:HD22	1:A:378:LEU:HG	1.96	0.47
1:A:556:ALA:HB3	1:A:560:ILE:HD11	1.97	0.47
1:C:456:SER:HB2	1:C:459:LEU:HD13	1.95	0.47
1:E:42:PHE:CE1	1:E:114:SER:HB2	2.49	0.47
1:E:1717:SER:HA	1:E:1721:GLU:HB2	1.97	0.47
1:E:3835:LEU:C	1:E:3835:LEU:HD12	2.35	0.47
1:G:1293:LEU:HB3	1:G:1584:ARG:HG2	1.96	0.47
1:G:150:MET:HG2	1:G:171:LEU:CD2	2.45	0.47
1:G:1961:PHE:CZ	1:G:2063:LEU:HD23	2.50	0.47
1:G:2902:HIS:CG	1:G:2903:PRO:HD2	2.50	0.47
1:G:58:VAL:HG22	1:G:305:CYS:HA	1.96	0.47
1:G:668:VAL:HG12	1:G:740:PRO:HA	1.97	0.47
1:A:2238:TYR:O	1:A:2242:ILE:HG23	2.15	0.46
1:A:2354:VAL:HB	1:A:2453:ILE:HD11	1.97	0.46
1:A:58:VAL:HG22	1:A:305:CYS:HA	1.97	0.46
1:A:572:PRO:HG3	1:A:609:CYS:SG	2.55	0.46
1:C:102:LEU:HB2	1:C:105:HIS:CE1	2.50	0.46
1:C:1093:GLU:HA	1:C:1148:VAL:HG22	1.97	0.46
1:C:1100:MET:HB3	1:C:1102:VAL:HG23	1.97	0.46
1:C:1230:MET:SD	1:C:1828:ASP:HA	2.55	0.46
1:C:1438:ARG:HE	1:C:1440:PHE:HE1	1.63	0.46
1:C:149:THR:OG1	1:C:172:VAL:HB	2.14	0.46
1:C:236:ALA:HA	1:C:242:ARG:HH11	1.79	0.46
1:C:58:VAL:HG22	1:C:305:CYS:HA	1.97	0.46
1:C:4661:TYR:CE1	1:C:4665:LYS:HB2	2.50	0.46
1:C:4974:GLY:O	1:C:4977:THR:OG1	2.21	0.46
1:E:1433:TYR:CE1	1:E:1578:ALA:HB3	2.51	0.46
1:E:2142:TYR:CD2	1:E:2197:LEU:HD12	2.50	0.46
1:E:898:ASP:OD2	1:E:900:ASN:HB2	2.15	0.46
1:G:149:THR:OG1	1:G:172:VAL:HB	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2354:VAL:O	1:G:2358:ILE:HG13	2.14	0.46
1:G:2557:ALA:C	1:G:2560:PRO:HD2	2.35	0.46
1:G:3980:LEU:O	1:G:3983:SER:OG	2.27	0.46
1:G:4150:LEU:O	1:G:4154:VAL:HG12	2.15	0.46
1:G:4957:LYS:HG2	1:G:4958:CYS:O	2.15	0.46
1:A:1671:ARG:NH1	1:A:1713:ASP:OD2	2.48	0.46
1:A:2742:THR:OG1	1:A:2811:GLU:OE1	2.28	0.46
1:A:3802:ILE:HD12	1:A:3886:ARG:HG3	1.97	0.46
1:A:17:ASP:HB2	1:A:98:HIS:CE1	2.49	0.46
1:E:1100:MET:HB3	1:E:1102:VAL:HG23	1.98	0.46
1:E:1687:SER:HB3	2:F:90:ILE:HG12	1.97	0.46
1:E:1770:SER:OG	1:E:1771:LEU:N	2.40	0.46
1:E:4661:TYR:CE1	1:E:4665:LYS:HB2	2.51	0.46
1:G:102:LEU:HB2	1:G:105:HIS:CE1	2.50	0.46
1:G:170:ILE:HD12	1:G:197:GLN:HB2	1.97	0.46
1:G:1738:LEU:HB2	1:G:2146:PRO:HD3	1.98	0.46
1:G:4172:GLU:HA	1:G:4175:ARG:HH12	1.79	0.46
1:G:421:PHE:HE2	1:G:436:LEU:HD21	1.80	0.46
1:G:4653:VAL:HA	1:G:4656:LEU:HG	1.97	0.46
1:G:839:LEU:HD13	1:G:1075:PHE:CG	2.51	0.46
1:A:4036:VAL:HG12	1:A:4037:ASN:N	2.30	0.46
1:A:546:TRP:O	1:A:550:LYS:HG2	2.14	0.46
1:C:2354:VAL:O	1:C:2358:ILE:HG13	2.15	0.46
1:C:2557:ALA:C	1:C:2560:PRO:HD2	2.36	0.46
1:C:3998:HIS:O	1:C:4002:LYS:HG2	2.16	0.46
1:C:34:LYS:N	1:C:53:SER:OG	2.48	0.46
1:C:681:HIS:H	1:C:784:SER:HB3	1.81	0.46
1:E:1439:VAL:HG12	1:E:1441:ALA:H	1.80	0.46
1:E:2165:LEU:HD13	1:E:2174:GLU:HB2	1.97	0.46
1:E:2735:PHE:HD2	1:E:2891:LYS:HD2	1.79	0.46
1:E:283:ARG:NE	1:E:288:GLY:O	2.48	0.46
1:E:2902:HIS:CG	1:E:2903:PRO:HD2	2.50	0.46
1:E:3798:LEU:HD11	1:E:3884:LEU:HD12	1.97	0.46
1:E:3998:HIS:O	1:E:4002:LYS:HG2	2.15	0.46
1:E:4036:VAL:HG12	1:E:4037:ASN:N	2.30	0.46
1:E:456:SER:HB2	1:E:459:LEU:HD13	1.96	0.46
1:E:5013:MET:HG3	1:E:5018:CYS:HB2	1.97	0.46
1:E:839:LEU:HD13	1:E:1075:PHE:CG	2.51	0.46
1:G:993:HIS:CE1	1:G:1020:ARG:HB3	2.48	0.46
1:G:42:PHE:CE1	1:G:114:SER:HB2	2.49	0.46
1:G:2165:LEU:HD13	1:G:2174:GLU:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2189:LYS:HD2	1:G:2192:TYR:HD2	1.80	0.46
1:G:2498:HIS:O	1:G:2501:SER:OG	2.30	0.46
1:G:2855:TYR:CD2	1:G:2857:PRO:HD3	2.51	0.46
1:G:4682:GLU:CD	1:G:4723:LYS:NZ	2.68	0.46
1:G:556:ALA:HB3	1:G:560:ILE:HD11	1.97	0.46
1:A:1230:MET:SD	1:A:1828:ASP:HA	2.55	0.46
1:A:2165:LEU:HD13	1:A:2174:GLU:HB2	1.97	0.46
1:A:283:ARG:NE	1:A:288:GLY:O	2.49	0.46
1:A:462:GLU:HG3	1:A:3823:LYS:HZ3	1.78	0.46
1:A:4772:ASP:OD1	1:A:4773:VAL:N	2.47	0.46
1:C:1076:ARG:HG2	1:C:1077:ALA:O	2.15	0.46
1:C:1453:VAL:HG12	1:C:1454:THR:O	2.15	0.46
1:C:2133:GLU:HA	1:C:2136:ARG:HE	1.80	0.46
1:C:588:SER:O	1:C:592:LYS:HG3	2.16	0.46
1:E:1671:ARG:NH1	1:E:1713:ASP:OD2	2.48	0.46
1:E:1230:MET:SD	1:E:1828:ASP:HA	2.55	0.46
1:E:2238:TYR:O	1:E:2242:ILE:HG23	2.15	0.46
1:C:162:LYS:NZ	1:E:3987:ASP:OD1	2.46	0.46
2:F:55:VAL:HG23	2:F:60:GLU:HB2	1.98	0.46
1:G:4047:MET:HG3	1:G:4048:LEU:N	2.30	0.46
1:A:1206:GLN:O	1:A:1209:SER:OG	2.18	0.46
1:A:34:LYS:N	1:A:53:SER:OG	2.48	0.46
1:A:3835:LEU:C	1:A:3835:LEU:HD12	2.36	0.46
1:A:473:ASN:O	1:A:477:LEU:HG	2.16	0.46
1:A:4968:PHE:CE2	1:A:4978:HIS:CD2	3.03	0.46
1:C:125:ARG:HG2	1:C:134:ASP:OD2	2.16	0.46
1:C:214:VAL:HG21	1:C:390:LEU:HD12	1.97	0.46
1:C:3674:ILE:HD11	1:C:3728:ILE:HG22	1.96	0.46
1:A:162:LYS:NZ	1:C:3987:ASP:OD1	2.49	0.46
1:C:4149:ASN:OD1	1:C:4153:HIS:HD2	1.98	0.46
1:E:2068:GLU:O	1:E:2071:ARG:HB2	2.14	0.46
1:E:206:CYS:HB3	1:E:271:GLY:HA3	1.97	0.46
1:E:2145:SER:HB3	1:E:3647:HIS:CD2	2.51	0.46
1:E:2437:ALA:HB3	1:E:2508:ARG:HH21	1.79	0.46
1:E:4149:ASN:OD1	1:E:4153:HIS:HD2	1.99	0.46
1:E:4242:ILE:HG12	1:E:4993:MET:SD	2.55	0.46
1:E:4968:PHE:CE2	1:E:4978:HIS:CD2	3.03	0.46
1:E:58:VAL:HG22	1:E:305:CYS:HA	1.97	0.46
2:F:27:THR:HA	2:F:38:SER:HA	1.97	0.46
1:G:1093:GLU:HA	1:G:1148:VAL:HG22	1.97	0.46
1:G:2238:TYR:O	1:G:2242:ILE:HG23	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2437:ALA:HB3	1:G:2508:ARG:HH21	1.80	0.46
1:G:2771:ILE:HG23	1:G:2852:ARG:HB2	1.96	0.46
1:G:3713:LYS:O	1:G:3715:LYS:N	2.47	0.46
1:G:4772:ASP:OD1	1:G:4773:VAL:N	2.48	0.46
1:G:473:ASN:O	1:G:477:LEU:HG	2.16	0.46
1:G:540:PHE:HA	1:G:543:ASN:HB2	1.96	0.46
1:A:1453:VAL:HG12	1:A:1454:THR:O	2.15	0.46
1:A:2788:HIS:CG	1:A:2789:PRO:HD2	2.51	0.46
1:A:4044:MET:HG3	1:A:4150:LEU:HD11	1.97	0.46
1:A:400:ALA:O	1:A:404:ILE:HG13	2.16	0.46
1:A:692:TYR:CD1	1:A:711:LEU:HD21	2.51	0.46
1:A:650:VAL:N	1:A:777:PHE:O	2.47	0.46
1:A:839:LEU:HD13	1:A:1075:PHE:CG	2.51	0.46
1:C:1433:TYR:CE1	1:C:1578:ALA:HB3	2.51	0.46
1:C:839:LEU:HD13	1:C:1075:PHE:CG	2.51	0.46
1:E:1453:VAL:HG12	1:E:1454:THR:O	2.15	0.46
1:E:31:GLU:HA	1:E:32:GLN:HA	1.71	0.46
1:E:3805:LEU:HB2	1:E:3890:LEU:HD23	1.96	0.46
1:E:4815:ASP:O	1:E:4819:GLY:N	2.46	0.46
1:E:572:PRO:HG3	1:E:609:CYS:SG	2.55	0.46
1:E:681:HIS:H	1:E:784:SER:HB3	1.81	0.46
1:G:1438:ARG:HE	1:G:1440:PHE:HE1	1.63	0.46
1:G:1717:SER:HA	1:G:1721:GLU:HB2	1.98	0.46
1:G:2354:VAL:HB	1:G:2453:ILE:HD11	1.97	0.46
1:G:4165:GLU:HA	1:G:4168:GLU:HG2	1.97	0.46
1:A:125:ARG:HG2	1:A:134:ASP:OD2	2.16	0.46
1:A:1438:ARG:HE	1:A:1440:PHE:HE1	1.63	0.46
1:A:2183:GLY:O	1:A:2187:ASN:ND2	2.49	0.46
1:C:2142:TYR:CD2	1:C:2197:LEU:HD12	2.50	0.46
1:C:2189:LYS:HD2	1:C:2192:TYR:HD2	1.80	0.46
1:C:2437:ALA:HB3	1:C:2508:ARG:HH21	1.80	0.46
1:E:1121:ALA:O	1:E:1133:HIS:ND1	2.49	0.46
1:E:214:VAL:HG22	1:E:341:TYR:CE1	2.51	0.46
1:E:3645:PRO:HB2	1:E:3648:ARG:HB3	1.98	0.46
1:E:4957:LYS:HG2	1:E:4958:CYS:O	2.16	0.46
1:G:1641:ILE:O	1:G:1645:ASN:N	2.49	0.46
1:G:1951:LEU:HD22	1:G:2133:GLU:HG2	1.98	0.46
1:G:283:ARG:NE	1:G:288:GLY:O	2.48	0.46
1:G:356:TRP:O	1:G:378:LEU:HA	2.16	0.46
1:A:170:ILE:HD12	1:A:197:GLN:HB2	1.98	0.46
1:A:2855:TYR:CD2	1:A:2857:PRO:HD3	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3371:LYS:HA	1:A:3374:ALA:HB3	1.98	0.46
1:A:606:LEU:HB3	1:A:617:ASN:HD21	1.81	0.46
2:B:92:PRO:HG2	2:B:95:ALA:HB2	1.98	0.46
1:C:2145:SER:HB3	1:C:3647:HIS:CD2	2.51	0.46
1:C:2238:TYR:O	1:C:2242:ILE:HG23	2.15	0.46
1:C:214:VAL:HG22	1:C:341:TYR:CE1	2.51	0.46
1:C:452:PHE:HB3	1:C:528:SER:HB3	1.98	0.46
1:C:4684:ASP:OD2	1:C:4686:LEU:HB3	2.15	0.46
1:C:692:TYR:CD1	1:C:711:LEU:HD21	2.51	0.46
1:E:1237:TRP:CH2	1:E:1655:GLU:HB3	2.51	0.46
1:E:125:ARG:HG2	1:E:134:ASP:OD2	2.16	0.46
1:E:2134:LEU:O	1:E:2138:LEU:HG	2.16	0.46
1:E:2183:GLY:O	1:E:2187:ASN:ND2	2.49	0.46
1:E:2557:ALA:C	1:E:2560:PRO:HD2	2.36	0.46
1:E:2748:PRO:HD2	1:E:2751:LEU:HD12	1.97	0.46
1:E:4154:VAL:HG13	1:E:4154:VAL:O	2.16	0.46
1:G:1121:ALA:O	1:G:1133:HIS:ND1	2.49	0.46
1:G:1687:SER:HB3	2:H:90:ILE:HG12	1.96	0.46
1:G:2139:PRO:HG3	1:G:3658:LYS:NZ	2.31	0.46
1:G:403:MET:HE2	1:G:448:LEU:HD23	1.96	0.46
1:G:4686:LEU:O	1:G:4691:GLN:N	2.41	0.46
1:G:588:SER:O	1:G:592:LYS:HG3	2.16	0.46
1:A:102:LEU:HB2	1:A:105:HIS:CE1	2.50	0.46
1:A:1121:ALA:O	1:A:1133:HIS:ND1	2.49	0.46
1:A:1439:VAL:HG12	1:A:1441:ALA:H	1.80	0.46
1:A:1687:SER:HB3	2:B:90:ILE:HG12	1.97	0.46
1:A:3829:PHE:CD2	1:A:3915:ILE:HD11	2.50	0.46
1:A:4675:LYS:HG3	1:A:4715:TYR:HE1	1.81	0.46
1:A:5013:MET:HG3	1:A:5018:CYS:HB2	1.98	0.46
1:A:588:SER:O	1:A:592:LYS:HG3	2.16	0.46
1:C:1237:TRP:CH2	1:C:1655:GLU:HB3	2.51	0.46
1:C:1439:VAL:HG12	1:C:1441:ALA:H	1.80	0.46
1:C:2788:HIS:CG	1:C:2789:PRO:HD2	2.51	0.46
1:C:2742:THR:OG1	1:C:2811:GLU:OE1	2.28	0.46
1:C:2902:HIS:CG	1:C:2903:PRO:HD2	2.50	0.46
1:C:4023:MET:O	1:C:4026:MET:HG2	2.16	0.46
1:E:170:ILE:HD12	1:E:197:GLN:HB2	1.98	0.46
1:E:291:LEU:O	1:E:312:THR:OG1	2.23	0.46
1:E:34:LYS:N	1:E:53:SER:OG	2.48	0.46
1:E:403:MET:HE2	1:E:448:LEU:HD23	1.96	0.46
1:E:4901:ILE:HG21	1:E:4913:ARG:HH21	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1230:MET:SD	1:G:1828:ASP:HA	2.55	0.46
1:G:1433:TYR:CE1	1:G:1578:ALA:HB3	2.51	0.46
1:G:3889:GLN:O	1:G:3893:GLU:HG3	2.16	0.46
1:G:456:SER:HB2	1:G:459:LEU:HD13	1.97	0.46
1:A:737:LEU:HB3	1:A:738:LEU:H	1.46	0.46
1:A:736:HIS:NE2	1:A:739:ALA:HB2	2.31	0.46
1:C:1288:PHE:HE2	1:C:1460:HIS:HA	1.81	0.46
1:C:1687:SER:HB3	2:D:90:ILE:HG12	1.98	0.46
1:C:231:LEU:HD11	1:C:245:VAL:CG1	2.46	0.46
1:C:3891:LEU:HB3	1:C:3899:PHE:HE2	1.81	0.46
1:C:4154:VAL:HG13	1:C:4154:VAL:O	2.16	0.46
1:C:4221:VAL:O	1:C:4225:GLY:N	2.43	0.46
1:C:4675:LYS:HG3	1:C:4715:TYR:HE1	1.81	0.46
1:C:516:LYS:HG3	1:C:555:GLU:OE2	2.15	0.46
1:E:1076:ARG:HG2	1:E:1077:ALA:O	2.15	0.46
1:E:1093:GLU:HA	1:E:1148:VAL:HG22	1.97	0.46
1:E:356:TRP:O	1:E:378:LEU:HA	2.16	0.46
1:E:4181:ILE:HD11	1:E:4193:ILE:HD11	1.98	0.46
1:G:1288:PHE:HE2	1:G:1460:HIS:HA	1.81	0.46
1:G:2068:GLU:N	1:G:2068:GLU:OE1	2.46	0.46
1:G:206:CYS:HB3	1:G:271:GLY:HA3	1.97	0.46
1:G:2106:ALA:HB1	1:G:3700:GLN:HG3	1.96	0.46
1:G:214:VAL:HG22	1:G:341:TYR:CE1	2.51	0.46
1:G:909:ASN:O	1:G:912:SER:OG	2.28	0.46
1:A:1100:MET:HB3	1:A:1102:VAL:HG23	1.98	0.45
1:A:1433:TYR:CE1	1:A:1578:ALA:HB3	2.51	0.45
1:A:356:TRP:O	1:A:378:LEU:HA	2.16	0.45
1:A:3645:PRO:HB2	1:A:3648:ARG:HB3	1.98	0.45
1:A:3817:LEU:HD11	1:A:3821:LYS:HZ2	1.79	0.45
1:A:4023:MET:O	1:A:4026:MET:HG2	2.16	0.45
1:A:4149:ASN:OD1	1:A:4153:HIS:HD2	1.98	0.45
1:A:4661:TYR:CE1	1:A:4665:LYS:HB2	2.50	0.45
1:A:4684:ASP:OD2	1:A:4686:LEU:HB3	2.16	0.45
1:C:1641:ILE:O	1:C:1645:ASN:N	2.49	0.45
1:C:2134:LEU:O	1:C:2138:LEU:HG	2.16	0.45
1:C:2183:GLY:O	1:C:2187:ASN:ND2	2.49	0.45
1:C:650:VAL:N	1:C:777:PHE:O	2.47	0.45
1:E:1518:CYS:SG	1:E:1528:THR:N	2.85	0.45
1:E:2189:LYS:HD2	1:E:2192:TYR:HD2	1.80	0.45
1:G:1100:MET:HB3	1:G:1102:VAL:HG23	1.98	0.45
1:G:1116:GLY:HA3	1:G:1132:TRP:CD1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1701:ALA:HB1	1:G:1830:VAL:HG13	1.98	0.45
1:G:2210:VAL:O	1:G:2214:VAL:HG23	2.16	0.45
1:G:231:LEU:HD11	1:G:245:VAL:CG1	2.46	0.45
1:G:4103:PHE:HB2	1:G:4108:ILE:HD11	1.98	0.45
1:A:4888:TYR:HD1	1:G:4914:VAL:HG13	1.81	0.45
1:G:606:LEU:HB3	1:G:617:ASN:HD21	1.82	0.45
1:G:681:HIS:H	1:G:784:SER:HB3	1.80	0.45
1:A:1112:ASP:HA	1:A:1607:ARG:HH11	1.82	0.45
1:A:1641:ILE:O	1:A:1645:ASN:N	2.50	0.45
1:A:1710:GLY:O	1:A:1714:LEU:HG	2.17	0.45
1:A:214:VAL:HG22	1:A:341:TYR:CE1	2.51	0.45
1:A:4931:ILE:HG23	1:C:4940:PHE:HZ	1.79	0.45
1:A:4837:LEU:CD1	1:A:4932:ILE:HG23	2.45	0.45
1:A:636:ASN:HD21	2:B:35:LYS:NZ	2.15	0.45
1:A:681:HIS:H	1:A:784:SER:HB3	1.81	0.45
1:C:170:ILE:HD12	1:C:197:GLN:HB2	1.98	0.45
1:C:195:PHE:HD1	1:E:2358:ILE:CG2	2.27	0.45
1:C:291:LEU:O	1:C:312:THR:OG1	2.23	0.45
1:C:4968:PHE:CE2	1:C:4978:HIS:CD2	3.03	0.45
1:C:675:LEU:HD23	1:C:676:THR:HG23	1.99	0.45
1:E:1254:HIS:HD2	1:E:1280:GLN:H	1.64	0.45
1:E:195:PHE:HD1	1:G:2358:ILE:CG2	2.28	0.45
1:E:1943:LEU:HD22	1:E:2123:LEU:HD13	1.98	0.45
1:E:236:ALA:HA	1:E:242:ARG:HH11	1.80	0.45
1:E:294:THR:HG22	1:E:296:ASP:H	1.81	0.45
1:E:452:PHE:HB3	1:E:528:SER:HB3	1.98	0.45
1:E:692:TYR:CD1	1:E:711:LEU:HD21	2.51	0.45
1:G:125:ARG:HG2	1:G:134:ASP:OD2	2.16	0.45
1:G:1581:LEU:HD11	1:G:1595:LEU:HD23	1.98	0.45
1:G:4554:TYR:HA	1:G:4557:ARG:CZ	2.46	0.45
1:G:4678:ALA:HB1	1:G:4720:VAL:HG11	1.97	0.45
1:G:4983:HIS:HE1	1:G:5023:PRO:HG2	1.81	0.45
1:G:607:CYS:SG	1:G:618:GLN:HG2	2.56	0.45
2:H:54:GLU:HG3	2:H:55:VAL:HG13	1.98	0.45
1:A:1116:GLY:HA3	1:A:1132:TRP:CD1	2.51	0.45
1:A:1288:PHE:HE2	1:A:1460:HIS:HA	1.82	0.45
1:A:206:CYS:HB3	1:A:271:GLY:HA3	1.97	0.45
1:A:2210:VAL:O	1:A:2214:VAL:HG23	2.17	0.45
1:A:2758:PHE:HD2	1:A:2809:ILE:HD13	1.81	0.45
1:A:3798:LEU:HD11	1:A:3884:LEU:HD12	1.97	0.45
1:A:452:PHE:HB3	1:A:528:SER:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1116:GLY:HA2	1:C:1121:ALA:HB3	1.99	0.45
1:C:1121:ALA:O	1:C:1133:HIS:ND1	2.49	0.45
1:C:2498:HIS:O	1:C:2501:SER:OG	2.30	0.45
1:C:283:ARG:NE	1:C:288:GLY:O	2.49	0.45
1:C:473:ASN:O	1:C:477:LEU:HG	2.15	0.45
1:E:990:GLU:HG3	1:E:1024:TYR:HB3	1.99	0.45
1:E:1152:MET:HB2	1:E:1161:ILE:HB	1.98	0.45
1:E:1641:ILE:O	1:E:1645:ASN:N	2.49	0.45
1:E:4023:MET:O	1:E:4026:MET:HG2	2.16	0.45
1:E:4223:ASN:HD21	1:E:4946:GLN:NE2	2.14	0.45
1:E:606:LEU:HB3	1:E:617:ASN:HD21	1.81	0.45
1:E:674:PHE:CB	2:F:40:ARG:NH1	2.73	0.45
1:A:2333:ASP:O	1:A:2336:ARG:HB3	2.17	0.45
1:C:4837:LEU:CD1	1:C:4932:ILE:HG23	2.44	0.45
1:C:668:VAL:HG12	1:C:740:PRO:HA	1.98	0.45
1:E:231:LEU:HD11	1:E:245:VAL:CG1	2.47	0.45
1:E:2788:HIS:CG	1:E:2789:PRO:HD2	2.52	0.45
1:E:3767:GLN:NE2	1:E:3806:ASN:HB3	2.29	0.45
1:E:4857:ASN:O	1:E:4859:PHE:N	2.48	0.45
1:E:588:SER:O	1:E:592:LYS:HG3	2.16	0.45
1:E:675:LEU:HD23	1:E:676:THR:HG23	1.99	0.45
1:G:990:GLU:HG3	1:G:1024:TYR:HB3	1.98	0.45
1:G:1439:VAL:HG12	1:G:1441:ALA:H	1.80	0.45
1:G:2821:TRP:CD1	1:G:2939:ARG:HA	2.52	0.45
1:G:3802:ILE:O	1:G:3806:ASN:N	2.50	0.45
1:G:400:ALA:O	1:G:404:ILE:HG13	2.17	0.45
1:G:692:TYR:CD1	1:G:711:LEU:HD21	2.51	0.45
1:A:1093:GLU:HA	1:A:1148:VAL:HG22	1.97	0.45
1:A:1293:LEU:HB3	1:A:1584:ARG:HG2	1.97	0.45
1:A:2347:GLU:O	1:A:2351:ASN:ND2	2.40	0.45
1:A:4965:SER:HA	1:A:4975:PHE:CD1	2.52	0.45
1:C:2151:ASP:O	1:C:2154:SER:OG	2.19	0.45
1:C:2758:PHE:HD2	1:C:2809:ILE:HD13	1.81	0.45
1:C:2855:TYR:CD2	1:C:2857:PRO:HD3	2.51	0.45
1:A:4836:GLN:HB3	1:C:4826:ILE:HD11	1.98	0.45
1:C:606:LEU:HB3	1:C:617:ASN:HD21	1.82	0.45
2:D:92:PRO:HG2	2:D:95:ALA:HB2	1.98	0.45
1:E:1254:HIS:HD2	1:E:1280:GLN:N	2.13	0.45
1:E:1701:ALA:HB1	1:E:1830:VAL:HG13	1.98	0.45
1:E:2855:TYR:CD2	1:E:2857:PRO:HD3	2.51	0.45
1:E:400:ALA:O	1:E:404:ILE:HG13	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4861:LYS:NZ	1:E:4909:TYR:CD2	2.79	0.45
1:E:4901:ILE:HG21	1:E:4913:ARG:NH2	2.31	0.45
1:G:1970:GLN:HA	1:G:1973:GLN:HG2	1.98	0.45
1:G:1943:LEU:HD22	1:G:2123:LEU:HD13	1.98	0.45
1:G:214:VAL:HG21	1:G:390:LEU:HD12	1.97	0.45
1:G:294:THR:HG22	1:G:296:ASP:H	1.81	0.45
1:G:34:LYS:N	1:G:53:SER:OG	2.49	0.45
1:G:452:PHE:HB3	1:G:528:SER:HB3	1.99	0.45
1:G:4661:TYR:CE2	1:G:4789:PHE:HB2	2.51	0.45
1:A:1701:ALA:HB1	1:A:1830:VAL:HG13	1.98	0.45
1:A:1818:ALA:HB1	1:A:1838:PHE:CE1	2.52	0.45
1:A:3780:LEU:HD23	1:A:3819:TYR:CD2	2.52	0.45
1:A:3891:LEU:HB3	1:A:3899:PHE:HE2	1.81	0.45
1:A:214:VAL:HG21	1:A:390:LEU:HD12	1.97	0.45
1:C:2735:PHE:HD2	1:C:2891:LYS:HD2	1.81	0.45
1:C:4888:TYR:O	1:C:4892:ARG:HD3	2.17	0.45
1:C:4965:SER:HA	1:C:4975:PHE:CD1	2.52	0.45
1:E:1288:PHE:HE2	1:E:1460:HIS:HA	1.81	0.45
1:E:2210:VAL:O	1:E:2214:VAL:HG23	2.16	0.45
1:E:2499:LYS:O	1:E:2503:VAL:HG23	2.17	0.45
1:G:1237:TRP:CH2	1:G:1655:GLU:HB3	2.51	0.45
1:G:15:ARG:HB2	1:G:18:ASP:OD2	2.16	0.45
1:G:3887:PHE:O	1:G:3891:LEU:HD13	2.17	0.45
1:G:675:LEU:HD23	1:G:676:THR:HG23	1.99	0.45
1:A:1152:MET:HB2	1:A:1161:ILE:HB	1.98	0.45
1:A:294:THR:HG22	1:A:296:ASP:H	1.82	0.45
1:A:3886:ARG:O	1:A:3890:LEU:HD13	2.17	0.45
1:C:1152:MET:HB2	1:C:1161:ILE:HB	1.98	0.45
1:C:1518:CYS:SG	1:C:1528:THR:N	2.85	0.45
1:C:2902:HIS:H	1:C:2905:LEU:HD12	1.82	0.45
1:C:2883:HIS:NE2	1:C:2906:VAL:O	2.35	0.45
1:C:3817:LEU:HD11	1:C:3821:LYS:HZ2	1.78	0.45
1:C:4677:LEU:HD22	1:C:4711:PHE:CE1	2.52	0.45
1:C:4705:VAL:HG22	1:C:4711:PHE:HD1	1.81	0.45
1:C:4857:ASN:O	1:C:4859:PHE:N	2.49	0.45
1:C:4928:LEU:HD23	1:C:4931:ILE:HD12	1.97	0.45
1:C:537:CYS:HB3	1:C:571:SER:HB3	1.98	0.45
1:C:736:HIS:NE2	1:C:739:ALA:HB2	2.31	0.45
1:E:1116:GLY:HA2	1:E:1121:ALA:HB3	1.99	0.45
1:E:2763:HIS:NE2	1:E:2792:ARG:O	2.50	0.45
1:E:3802:ILE:HD12	1:E:3886:ARG:HG3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4684:ASP:OD2	1:E:4686:LEU:HB3	2.16	0.45
1:E:473:ASN:O	1:E:477:LEU:HG	2.16	0.45
1:C:4836:GLN:HB3	1:E:4826:ILE:HD11	1.99	0.45
1:E:668:VAL:HG12	1:E:740:PRO:HA	1.98	0.45
1:G:1518:CYS:SG	1:G:1528:THR:N	2.85	0.45
1:G:1734:TYR:HB2	1:G:2141:ALA:HB2	1.98	0.45
1:G:2333:ASP:O	1:G:2336:ARG:HB3	2.16	0.45
1:G:2788:HIS:CG	1:G:2789:PRO:HD2	2.51	0.45
1:A:1579:MET:O	1:A:1582:SER:OG	2.24	0.45
1:A:4662:ASN:HA	1:A:4666:VAL:HG21	1.99	0.45
1:A:4957:LYS:HG2	1:A:4958:CYS:O	2.16	0.45
2:B:27:THR:HA	2:B:38:SER:HA	1.97	0.45
1:C:1930:LYS:HA	1:C:1930:LYS:HD2	1.82	0.45
1:C:2503:VAL:HG12	1:C:2559:LEU:HD12	1.99	0.45
1:C:356:TRP:O	1:C:378:LEU:HA	2.16	0.45
1:C:3989:VAL:HG12	1:C:4047:MET:HE1	1.99	0.45
1:C:4925:ILE:HG23	1:C:4929:LEU:HD12	1.99	0.45
1:C:70:GLU:O	1:C:71:GLN:HG3	2.17	0.45
1:E:3371:LYS:HA	1:E:3374:ALA:HB3	1.98	0.45
1:E:3887:PHE:CZ	1:E:3891:LEU:HD11	2.51	0.45
1:E:4675:LYS:HG3	1:E:4715:TYR:HE1	1.81	0.45
1:E:595:ARG:HG2	1:E:1662:PHE:CE1	2.52	0.45
1:E:70:GLU:O	1:E:71:GLN:HG3	2.17	0.45
1:G:3771:HIS:CE1	1:G:3812:VAL:HA	2.51	0.45
1:G:4044:MET:HG3	1:G:4150:LEU:HD11	1.99	0.45
1:G:4685:GLY:O	1:G:4689:THR:N	2.50	0.45
2:H:78:PRO:HA	2:H:81:ALA:HB3	1.98	0.45
1:A:1930:LYS:HD2	1:A:1930:LYS:HA	1.82	0.45
1:A:1943:LEU:HD22	1:A:2123:LEU:HD13	1.98	0.45
1:A:2159:LEU:HA	1:A:2162:ILE:HG22	1.98	0.45
1:A:4857:ASN:O	1:A:4859:PHE:N	2.50	0.45
1:A:4861:LYS:NZ	1:A:4909:TYR:CD2	2.79	0.45
1:C:990:GLU:HG3	1:C:1024:TYR:HB3	1.99	0.45
1:C:1116:GLY:HA3	1:C:1132:TRP:CD1	2.52	0.45
1:C:1701:ALA:HB1	1:C:1830:VAL:HG13	1.98	0.45
1:C:2347:GLU:O	1:C:2351:ASN:ND2	2.40	0.45
1:C:5013:MET:HG3	1:C:5018:CYS:HB2	1.98	0.45
1:C:687:ALA:HB2	1:C:711:LEU:HD23	1.99	0.45
2:D:27:THR:HA	2:D:38:SER:HA	1.97	0.45
1:E:4662:ASN:HA	1:E:4666:VAL:HG21	1.99	0.45
1:E:69:LEU:HD23	1:E:109:LEU:HD23	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1152:MET:HB2	1:G:1161:ILE:HB	1.98	0.45
1:G:1254:HIS:HD2	1:G:1280:GLN:H	1.64	0.45
1:G:1942:LEU:HG	1:G:1946:PHE:HE2	1.81	0.45
1:G:1958:LEU:HD13	1:G:2134:LEU:HD11	1.99	0.45
1:G:3977:GLN:NE2	1:G:4032:GLU:OE2	2.50	0.45
1:A:4581:LYS:HA	1:G:4856:PHE:CZ	2.51	0.45
2:H:27:THR:HG22	2:H:100:ASP:HB3	1.97	0.45
1:A:1237:TRP:CH2	1:A:1655:GLU:HB3	2.51	0.45
1:A:1581:LEU:HD11	1:A:1595:LEU:HD23	1.99	0.45
1:A:12:GLN:O	1:A:165:VAL:HG23	2.17	0.45
1:A:1719:HIS:CD2	1:A:1802:ILE:HG23	2.52	0.45
1:A:2499:LYS:O	1:A:2503:VAL:HG23	2.17	0.45
1:A:4723:LYS:HA	1:A:4726:ASP:HB2	1.99	0.45
1:A:70:GLU:O	1:A:71:GLN:HG3	2.17	0.45
2:B:36:PHE:CZ	2:B:97:LEU:HD22	2.52	0.45
1:C:1254:HIS:HD2	1:C:1280:GLN:N	2.13	0.45
1:C:2333:ASP:O	1:C:2336:ARG:HB3	2.16	0.45
1:C:3802:ILE:HD12	1:C:3886:ARG:HG3	1.98	0.45
1:C:3886:ARG:O	1:C:3890:LEU:HD13	2.16	0.45
1:C:3927:GLN:NE2	1:C:3988:ALA:HA	2.32	0.45
1:C:4662:ASN:HA	1:C:4666:VAL:HG21	1.99	0.45
1:C:4901:ILE:HG21	1:C:4913:ARG:NH2	2.32	0.45
1:E:15:ARG:HB2	1:E:18:ASP:OD2	2.17	0.45
1:E:1818:ALA:HB1	1:E:1838:PHE:CE1	2.52	0.45
1:E:4677:LEU:HD22	1:E:4711:PHE:CE1	2.52	0.45
1:E:736:HIS:HD2	1:E:742:ASP:OD2	2.00	0.45
1:E:736:HIS:NE2	1:E:739:ALA:HB2	2.31	0.45
1:G:1254:HIS:CE1	1:G:1256:GLU:HB2	2.52	0.45
1:G:4181:ILE:HD11	1:G:4193:ILE:HD11	1.99	0.45
1:A:1205:GLY:HA3	1:A:1227:ALA:HB3	1.98	0.44
1:A:2145:SER:HB3	1:A:3647:HIS:CD2	2.51	0.44
1:A:4045:VAL:HG21	1:A:4154:VAL:HG11	1.99	0.44
1:A:4154:VAL:O	1:A:4154:VAL:HG13	2.16	0.44
1:A:4555:LEU:HD11	1:A:4656:LEU:HD13	1.99	0.44
1:A:675:LEU:HD23	1:A:676:THR:HG23	1.98	0.44
1:A:898:ASP:OD2	1:A:900:ASN:HB2	2.16	0.44
1:C:1112:ASP:HA	1:C:1607:ARG:HH11	1.82	0.44
1:C:1293:LEU:HB3	1:C:1584:ARG:HG2	1.97	0.44
1:C:1719:HIS:CD2	1:C:1802:ILE:HG23	2.52	0.44
1:E:993:HIS:CE1	1:E:1020:ARG:HB3	2.48	0.44
1:E:1116:GLY:HA3	1:E:1132:TRP:CD1	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1288:PHE:CD1	1:E:1553:PHE:HD1	2.35	0.44
1:E:1942:LEU:HG	1:E:1946:PHE:HE2	1.82	0.44
1:E:2212:VAL:HG21	1:E:2256:TYR:CZ	2.52	0.44
1:E:4045:VAL:HG21	1:E:4154:VAL:HG11	1.98	0.44
1:E:4935:LEU:HB2	1:G:4940:PHE:HE2	1.82	0.44
1:C:4931:ILE:HG23	1:E:4940:PHE:HZ	1.81	0.44
1:E:687:ALA:HB2	1:E:711:LEU:HD23	1.99	0.44
1:E:728:ARG:HA	1:E:729:PRO:HD3	1.85	0.44
1:G:1719:HIS:CD2	1:G:1802:ILE:HG23	2.52	0.44
1:G:69:LEU:HD23	1:G:109:LEU:HD23	1.99	0.44
1:G:705:ASN:OD1	1:G:706:GLY:N	2.51	0.44
1:G:70:GLU:O	1:G:71:GLN:HG3	2.17	0.44
1:G:898:ASP:OD2	1:G:900:ASN:HB2	2.17	0.44
1:A:1254:HIS:HD2	1:A:1280:GLN:H	1.64	0.44
1:A:252:VAL:HA	1:A:255:HIS:ND1	2.33	0.44
1:A:2143:THR:HG23	1:A:3654:LEU:HD11	1.99	0.44
1:A:3722:TYR:OH	1:A:3782:MET:HG3	2.18	0.44
1:A:4181:ILE:HD11	1:A:4193:ILE:HD11	1.99	0.44
1:A:4839:MET:HG3	1:C:4822:THR:CG2	2.40	0.44
1:A:495:ASN:C	1:A:553:ARG:HH12	2.21	0.44
1:A:668:VAL:HG12	1:A:740:PRO:HA	1.98	0.44
1:A:692:TYR:CZ	1:A:694:PRO:HG3	2.52	0.44
1:C:1288:PHE:CD1	1:C:1553:PHE:HD1	2.35	0.44
1:C:595:ARG:HG2	1:C:1662:PHE:CE1	2.52	0.44
1:C:1805:GLU:HA	1:C:1808:ARG:HG2	2.00	0.44
1:C:2159:LEU:HA	1:C:2162:ILE:HG22	1.99	0.44
1:C:2210:VAL:O	1:C:2214:VAL:HG23	2.17	0.44
1:C:2499:LYS:O	1:C:2503:VAL:HG23	2.17	0.44
1:C:260:TRP:CZ3	1:C:284:HIS:HB2	2.53	0.44
1:C:3645:PRO:HB2	1:C:3648:ARG:HB3	1.98	0.44
1:C:3722:TYR:OH	1:C:3782:MET:HG3	2.17	0.44
1:C:3887:PHE:CZ	1:C:3891:LEU:HD11	2.52	0.44
1:C:400:ALA:O	1:C:404:ILE:HG13	2.17	0.44
1:C:4861:LYS:NZ	1:C:4909:TYR:CD2	2.79	0.44
1:C:4957:LYS:HG2	1:C:4958:CYS:O	2.16	0.44
1:C:62:LEU:HA	1:C:65:CYS:SG	2.57	0.44
1:E:1684:ALA:O	1:E:1687:SER:OG	2.16	0.44
1:E:1710:GLY:O	1:E:1714:LEU:HG	2.17	0.44
1:E:2758:PHE:HD2	1:E:2809:ILE:HD13	1.81	0.44
1:E:445:LEU:HD23	1:E:521:LEU:HB3	1.99	0.44
1:G:2066:LEU:O	1:G:2070:VAL:HG23	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:403:MET:CE	1:G:448:LEU:HD23	2.48	0.44
1:G:595:ARG:HG2	1:G:1662:PHE:CE1	2.52	0.44
1:G:758:ARG:HG2	1:G:763:PRO:HA	1.99	0.44
1:A:1518:CYS:SG	1:A:1528:THR:N	2.85	0.44
1:A:1942:LEU:HG	1:A:1946:PHE:HE2	1.81	0.44
1:A:60:PRO:HD2	1:A:281:ARG:NH2	2.32	0.44
1:A:445:LEU:HD23	1:A:521:LEU:HB3	1.99	0.44
1:A:537:CYS:HB3	1:A:571:SER:HB3	1.99	0.44
1:A:758:ARG:HG2	1:A:763:PRO:HA	2.00	0.44
1:C:1942:LEU:HG	1:C:1946:PHE:HE2	1.81	0.44
1:C:1943:LEU:HD22	1:C:2123:LEU:HD13	1.98	0.44
1:C:2812:SER:HG	1:C:2882:TYR:HH	1.63	0.44
2:D:55:VAL:HG23	2:D:60:GLU:HB2	1.98	0.44
1:E:1970:GLN:HA	1:E:1973:GLN:HG2	1.99	0.44
1:E:3886:ARG:O	1:E:3890:LEU:HD13	2.17	0.44
1:E:3889:GLN:O	1:E:3893:GLU:HG3	2.18	0.44
1:E:401:ALA:O	1:E:404:ILE:HB	2.18	0.44
1:E:4695:ASP:OD1	1:E:4696:ASP:N	2.47	0.44
1:E:4965:SER:HA	1:E:4975:PHE:CD1	2.52	0.44
1:G:1456:ASP:O	1:G:1457:TYR:CB	2.65	0.44
1:G:1581:LEU:HD13	1:G:1594:ARG:C	2.38	0.44
1:G:1112:ASP:HA	1:G:1607:ARG:HH11	1.82	0.44
1:G:2114:PRO:HB3	1:G:3707:ARG:HD3	1.99	0.44
1:G:4229:GLU:HB3	1:G:4233:LEU:HG	1.98	0.44
1:G:4934:GLY:HA2	1:G:4937:ILE:HG12	2.00	0.44
2:H:55:VAL:HG23	2:H:60:GLU:HB2	2.00	0.44
1:A:990:GLU:HG3	1:A:1024:TYR:HB3	1.98	0.44
1:A:2503:VAL:HG12	1:A:2559:LEU:HD12	1.98	0.44
1:A:401:ALA:O	1:A:404:ILE:HB	2.18	0.44
1:A:4677:LEU:HD22	1:A:4711:PHE:CE1	2.52	0.44
1:A:4888:TYR:HE1	1:G:4917:ASP:CB	2.31	0.44
1:A:4901:ILE:HG21	1:A:4913:ARG:NH2	2.32	0.44
2:B:55:VAL:HG23	2:B:60:GLU:HB2	1.98	0.44
1:C:2927:LEU:HD23	1:C:2930:LEU:HD12	1.99	0.44
1:C:2143:THR:HG23	1:C:3654:LEU:HD11	1.99	0.44
1:C:3965:LEU:HA	1:C:3968:TYR:HD2	1.83	0.44
1:C:554:LEU:HD22	1:C:1596:GLU:HG2	2.00	0.44
1:C:607:CYS:SG	1:C:618:GLN:HG2	2.58	0.44
1:C:736:HIS:HD2	1:C:742:ASP:OD2	2.00	0.44
1:E:2902:HIS:H	1:E:2905:LEU:HD12	1.81	0.44
1:E:2875:ALA:HB2	1:E:2927:LEU:HD12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4059:LEU:HD22	1:E:4167:ALA:HB2	1.99	0.44
1:E:537:CYS:HB3	1:E:571:SER:HB3	1.98	0.44
1:E:62:LEU:HA	1:E:65:CYS:SG	2.57	0.44
1:G:104:GLY:HA3	1:G:159:GLU:HG2	2.00	0.44
1:G:1660:GLN:NE2	1:G:1704:PRO:HB2	2.32	0.44
1:G:4024:VAL:HA	1:G:4027:LEU:HD12	1.99	0.44
1:G:4045:VAL:HG21	1:G:4154:VAL:HG11	1.99	0.44
1:G:445:LEU:HD23	1:G:521:LEU:HB3	1.98	0.44
1:G:687:ALA:HB2	1:G:711:LEU:HD23	1.99	0.44
1:G:737:LEU:HD11	2:H:7:ILE:CG2	2.38	0.44
1:A:1849:LEU:HD13	1:A:1854:PHE:CD2	2.48	0.44
1:A:3889:GLN:O	1:A:3893:GLU:HG3	2.17	0.44
1:A:595:ARG:HG2	1:A:1662:PHE:CE1	2.52	0.44
1:A:674:PHE:CB	2:B:40:ARG:NH1	2.72	0.44
1:C:1254:HIS:HD2	1:C:1280:GLN:H	1.65	0.44
1:C:1581:LEU:HD13	1:C:1594:ARG:C	2.38	0.44
1:C:15:ARG:HB2	1:C:18:ASP:OD2	2.16	0.44
2:D:36:PHE:CZ	2:D:97:LEU:HD22	2.52	0.44
1:E:1581:LEU:HD13	1:E:1594:ARG:C	2.38	0.44
1:E:1581:LEU:HD11	1:E:1595:LEU:HD23	1.99	0.44
1:E:2151:ASP:O	1:E:2154:SER:OG	2.19	0.44
1:E:2333:ASP:O	1:E:2336:ARG:HB3	2.17	0.44
1:E:3780:LEU:HD23	1:E:3819:TYR:CD2	2.52	0.44
1:E:342:GLY:N	1:E:390:LEU:O	2.50	0.44
1:E:403:MET:CE	1:E:448:LEU:HD23	2.48	0.44
1:E:5011:TRP:O	1:E:5015:GLN:HG2	2.18	0.44
2:F:92:PRO:HG2	2:F:95:ALA:HB2	1.98	0.44
1:G:1288:PHE:CD1	1:G:1553:PHE:HD1	2.35	0.44
1:G:1723:ALA:HB1	1:G:1775:HIS:CD2	2.43	0.44
1:G:2763:HIS:NE2	1:G:2792:ARG:O	2.51	0.44
1:G:293:LEU:HB2	1:G:378:LEU:HD12	2.00	0.44
1:E:4934:GLY:CA	1:G:4937:ILE:CD1	2.95	0.44
1:A:2773:ASN:HB3	1:A:2775:TRP:CD1	2.53	0.44
1:A:3798:LEU:HD12	1:A:3880:PHE:CE1	2.53	0.44
1:A:3927:GLN:NE2	1:A:3988:ALA:HA	2.32	0.44
1:A:519:VAL:HG12	1:A:523:TYR:HE2	1.83	0.44
1:A:705:ASN:OD1	1:A:706:GLY:N	2.51	0.44
1:C:118:LEU:HA	1:C:137:LEU:HD23	2.00	0.44
1:C:1579:MET:O	1:C:1582:SER:OG	2.25	0.44
1:C:1970:GLN:HA	1:C:1973:GLN:HG2	1.99	0.44
1:C:2066:LEU:O	1:C:2070:VAL:HG23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1254:HIS:CD2	1:E:1280:GLN:HB3	2.53	0.44
1:E:2351:ASN:O	1:E:2355:ARG:HG2	2.18	0.44
1:E:2927:LEU:HD23	1:E:2930:LEU:HD12	1.99	0.44
1:E:3722:TYR:OH	1:E:3782:MET:HG3	2.17	0.44
1:E:3927:GLN:HG3	1:E:3928:GLU:N	2.32	0.44
1:E:4057:MET:HA	1:E:4060:LYS:HG2	2.00	0.44
1:E:692:TYR:CZ	1:E:694:PRO:HG3	2.52	0.44
2:F:15:PHE:HE1	2:F:67:SER:HB3	1.83	0.44
1:G:1254:HIS:CD2	1:G:1280:GLN:HB3	2.53	0.44
1:G:2212:VAL:HG21	1:G:2256:TYR:CZ	2.53	0.44
1:G:2499:LYS:O	1:G:2503:VAL:HG23	2.17	0.44
1:G:2827:ARG:HB2	1:G:2934:GLY:CA	2.47	0.44
1:G:260:TRP:CZ3	1:G:284:HIS:HB2	2.52	0.44
1:G:3674:ILE:HD11	1:G:3728:ILE:HG22	1.99	0.44
1:G:3798:LEU:O	1:G:3802:ILE:HG12	2.18	0.44
1:G:3829:PHE:HD2	1:G:3915:ILE:HD11	1.82	0.44
1:G:537:CYS:HB3	1:G:571:SER:HB3	1.99	0.44
1:G:764:VAL:HG12	1:G:764:VAL:O	2.18	0.44
1:A:1714:LEU:O	1:A:1718:ILE:HG12	2.17	0.44
1:A:1805:GLU:HA	1:A:1808:ARG:HG2	2.00	0.44
1:A:1734:TYR:HB2	1:A:2141:ALA:HB2	2.00	0.44
1:A:2151:ASP:O	1:A:2154:SER:OG	2.19	0.44
1:A:231:LEU:HD11	1:A:245:VAL:CG1	2.47	0.44
1:A:260:TRP:CZ3	1:A:284:HIS:HB2	2.52	0.44
1:A:59:PRO:HD2	1:A:304:ALA:HB1	2.00	0.44
1:A:3840:SER:O	1:A:3922:TYR:OH	2.22	0.44
1:A:342:GLY:N	1:A:390:LEU:O	2.50	0.44
1:A:4705:VAL:HG22	1:A:4711:PHE:HD1	1.81	0.44
1:A:4963:ILE:HD11	1:A:5025:GLY:O	2.18	0.44
1:A:736:HIS:HD2	1:A:742:ASP:OD2	2.00	0.44
1:A:871:ARG:HB2	1:A:929:LEU:HD12	2.00	0.44
1:C:1205:GLY:HA3	1:C:1227:ALA:HB3	2.00	0.44
1:C:1710:GLY:O	1:C:1714:LEU:HG	2.18	0.44
1:C:342:GLY:N	1:C:390:LEU:O	2.50	0.44
1:C:4963:ILE:HD11	1:C:5025:GLY:O	2.18	0.44
1:C:519:VAL:HG12	1:C:523:TYR:HE2	1.83	0.44
1:E:60:PRO:HD2	1:E:281:ARG:NH2	2.32	0.44
1:E:565:TYR:HB2	1:E:602:VAL:HG22	2.00	0.44
1:E:614:VAL:HG13	1:E:617:ASN:HB3	2.00	0.44
1:E:758:ARG:HG2	1:E:763:PRO:HA	1.99	0.44
1:G:1818:ALA:HB1	1:G:1838:PHE:CE1	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:60:PRO:HD2	1:G:281:ARG:NH2	2.32	0.44
1:G:2829:GLY:HA2	1:G:2933:ASN:HA	2.00	0.44
1:G:59:PRO:HD2	1:G:304:ALA:HB1	1.99	0.44
1:G:3952:SER:HB2	1:G:4015:GLU:OE1	2.18	0.44
1:G:4573:ILE:HG22	1:G:4577:LEU:CD1	2.48	0.44
1:G:4798:MET:O	1:G:4802:GLY:N	2.50	0.44
1:G:692:TYR:CZ	1:G:694:PRO:HG3	2.52	0.44
2:H:15:PHE:HE1	2:H:67:SER:HB3	1.83	0.44
1:A:1288:PHE:CD1	1:A:1553:PHE:HD1	2.35	0.44
1:A:116:MET:HE1	1:A:139:GLU:OE2	2.18	0.44
1:A:1858:ASP:O	1:A:1862:ILE:HG12	2.18	0.44
1:A:210:GLU:HG2	1:A:273:HIS:HE1	1.83	0.44
1:A:3887:PHE:CZ	1:A:3891:LEU:HD11	2.52	0.44
1:A:4550:LYS:HB2	1:A:4550:LYS:HE3	1.85	0.44
1:C:2207:VAL:HG11	1:C:2235:PHE:CD2	2.53	0.44
1:C:403:MET:CE	1:C:448:LEU:HD23	2.48	0.44
1:C:5011:TRP:O	1:C:5015:GLN:HG2	2.18	0.44
1:C:495:ASN:C	1:C:553:ARG:HH12	2.22	0.44
1:E:118:LEU:HA	1:E:137:LEU:HD23	2.00	0.44
1:E:1714:LEU:O	1:E:1718:ILE:HG12	2.18	0.44
1:E:1719:HIS:CD2	1:E:1802:ILE:HG23	2.52	0.44
1:E:2066:LEU:O	1:E:2070:VAL:HG23	2.17	0.44
1:E:519:VAL:HG12	1:E:523:TYR:HE2	1.83	0.44
1:G:1715:LEU:HD21	1:G:1807:LEU:HD11	1.99	0.44
1:G:244:LEU:HD23	1:G:300:VAL:HG12	2.00	0.44
1:G:2756:ASN:OD1	1:G:2806:ARG:NH2	2.51	0.44
1:G:3963:ASN:HA	1:G:3966:THR:HG22	2.00	0.44
1:G:554:LEU:HD22	1:G:1596:GLU:HG2	2.00	0.44
1:A:554:LEU:HD22	1:A:1596:GLU:HG2	2.00	0.44
1:A:2066:LEU:O	1:A:2070:VAL:HG23	2.17	0.44
1:A:2207:VAL:HG11	1:A:2235:PHE:CD2	2.53	0.44
1:A:4033:GLY:O	1:A:4189:ARG:NH2	2.40	0.44
2:B:15:PHE:HE1	2:B:67:SER:HB3	1.83	0.44
1:C:1087:ARG:HB3	1:C:1223:PHE:HD1	1.82	0.44
1:C:1581:LEU:HD11	1:C:1595:LEU:HD23	1.99	0.44
1:C:1717:SER:HA	1:C:1721:GLU:CB	2.48	0.44
1:C:3780:LEU:HD23	1:C:3819:TYR:CD2	2.52	0.44
1:C:3889:GLN:O	1:C:3893:GLU:HG3	2.18	0.44
1:C:4045:VAL:HG21	1:C:4154:VAL:HG11	1.99	0.44
1:C:4181:ILE:HD11	1:C:4193:ILE:HD11	1.98	0.44
1:C:4555:LEU:HD11	1:C:4656:LEU:HD13	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4901:ILE:HG21	1:C:4913:ARG:HH21	1.82	0.44
1:C:445:LEU:HD23	1:C:521:LEU:HB3	1.99	0.44
1:C:758:ARG:HG2	1:C:763:PRO:HA	1.99	0.44
1:C:909:ASN:O	1:C:912:SER:OG	2.28	0.44
1:E:1579:MET:O	1:E:1582:SER:OG	2.25	0.44
1:E:1586:ASN:O	1:E:1588:ALA:N	2.46	0.44
1:E:1717:SER:HA	1:E:1721:GLU:CB	2.48	0.44
1:E:3965:LEU:HA	1:E:3968:TYR:HD2	1.83	0.44
1:E:4205:TRP:CZ2	1:E:4214:LYS:HE2	2.53	0.44
1:E:4580:TYR:HE1	1:E:4631:PHE:HB2	1.80	0.44
1:E:484:LEU:HD11	1:E:536:ASN:OD1	2.18	0.44
1:E:705:ASN:OD1	1:E:706:GLY:N	2.51	0.44
2:F:36:PHE:CZ	2:F:97:LEU:HD22	2.52	0.44
1:G:103:TYR:CE2	1:G:163:VAL:HA	2.53	0.44
1:G:1858:ASP:O	1:G:1862:ILE:HG12	2.18	0.44
1:G:207:SER:OG	1:G:208:CYS:N	2.51	0.44
1:G:2503:VAL:HG12	1:G:2559:LEU:HD12	1.99	0.44
1:G:210:GLU:HG2	1:G:273:HIS:HE1	1.83	0.44
1:G:2902:HIS:H	1:G:2905:LEU:HD12	1.82	0.44
1:G:3817:LEU:HD13	1:G:3899:PHE:HD1	1.83	0.44
1:G:342:GLY:N	1:G:390:LEU:O	2.51	0.44
1:A:4581:LYS:CB	1:G:4878:ASP:HA	2.48	0.44
1:A:1662:PHE:O	1:A:1666:THR:HG23	2.18	0.43
1:A:1667:LEU:HD23	1:A:1710:GLY:CA	2.47	0.43
1:A:3666:ASP:O	1:A:3669:PHE:HD2	2.01	0.43
1:A:755:ILE:O	1:A:767:VAL:HG22	2.18	0.43
1:C:1653:LEU:HD23	1:C:1707:LEU:CD1	2.48	0.43
1:C:1818:ALA:HB1	1:C:1838:PHE:CE1	2.52	0.43
1:C:1858:ASP:O	1:C:1862:ILE:HG12	2.18	0.43
1:C:3371:LYS:HA	1:C:3374:ALA:HB3	1.99	0.43
1:C:3798:LEU:HD12	1:C:3880:PHE:CE1	2.53	0.43
1:C:4579:PHE:HB2	1:C:4631:PHE:CE1	2.53	0.43
1:C:4821:LYS:HD3	1:C:4824:ARG:HE	1.83	0.43
1:C:4180:ARG:NH2	1:C:4981:GLU:OE1	2.50	0.43
1:C:614:VAL:HG13	1:C:617:ASN:HB3	2.00	0.43
1:C:692:TYR:CZ	1:C:694:PRO:HG3	2.52	0.43
1:E:2503:VAL:HG12	1:E:2559:LEU:HD12	1.99	0.43
1:E:453:GLU:HA	1:E:454:PRO:HD3	1.88	0.43
1:E:4180:ARG:NH2	1:E:4981:GLU:OE1	2.51	0.43
1:E:49:LEU:HD23	1:E:49:LEU:HA	1.76	0.43
1:G:1641:ILE:HD12	1:G:1642:PRO:HD2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1805:GLU:HA	1:G:1808:ARG:HG2	1.99	0.43
1:G:2351:ASN:O	1:G:2355:ARG:HG2	2.18	0.43
1:G:3780:LEU:HD12	1:G:3828:PHE:CE1	2.53	0.43
1:G:565:TYR:HB2	1:G:602:VAL:HG22	2.00	0.43
1:A:118:LEU:HA	1:A:137:LEU:HD23	2.00	0.43
1:A:1970:GLN:HA	1:A:1973:GLN:HG2	1.99	0.43
1:A:2773:ASN:HD22	1:A:2775:TRP:HE1	1.65	0.43
1:A:607:CYS:SG	1:A:618:GLN:HG2	2.57	0.43
1:A:687:ALA:HB2	1:A:711:LEU:HD23	1.99	0.43
1:A:764:VAL:O	1:A:764:VAL:HG12	2.18	0.43
1:C:1155:LEU:O	1:C:1157:GLU:N	2.51	0.43
1:C:2773:ASN:HD22	1:C:2775:TRP:HE1	1.65	0.43
1:C:2773:ASN:HB3	1:C:2775:TRP:CD1	2.53	0.43
1:C:2763:HIS:NE2	1:C:2792:ARG:O	2.50	0.43
1:C:4721:LYS:HB2	1:C:4741:LEU:HD13	2.00	0.43
1:C:4815:ASP:O	1:C:4819:GLY:N	2.47	0.43
1:C:4823:LEU:HA	1:C:4823:LEU:HD23	1.86	0.43
1:C:60:PRO:HD2	1:C:281:ARG:NH2	2.32	0.43
1:C:755:ILE:O	1:C:767:VAL:HG22	2.18	0.43
2:D:54:GLU:HG3	2:D:55:VAL:HG13	1.99	0.43
1:E:1641:ILE:HD12	1:E:1642:PRO:HD2	2.00	0.43
1:E:260:TRP:CZ3	1:E:284:HIS:HB2	2.53	0.43
1:E:293:LEU:HB2	1:E:378:LEU:HD12	2.00	0.43
1:E:4705:VAL:HG22	1:E:4711:PHE:HD1	1.82	0.43
1:E:4960:ILE:HD13	1:E:4983:HIS:HB3	2.00	0.43
1:E:764:VAL:O	1:E:764:VAL:HG12	2.18	0.43
1:G:2207:VAL:HG11	1:G:2235:PHE:CD2	2.54	0.43
1:G:2773:ASN:HB3	1:G:2775:TRP:CD1	2.53	0.43
1:G:4552:LEU:HD21	1:G:4663:CYS:SG	2.59	0.43
1:G:614:VAL:HG13	1:G:617:ASN:HB3	2.00	0.43
1:G:871:ARG:HB2	1:G:929:LEU:HD12	2.00	0.43
1:A:1591:CYS:N	1:A:1592:PRO:HD2	2.34	0.43
1:A:1762:LEU:HA	1:A:1763:PRO:HD2	1.92	0.43
1:A:1849:LEU:HG	1:A:1945:TYR:CD2	2.53	0.43
1:A:2875:ALA:HB2	1:A:2927:LEU:HD12	1.99	0.43
1:A:2927:LEU:HD23	1:A:2930:LEU:HD12	2.00	0.43
1:A:35:LEU:HD13	1:A:49:LEU:HD22	2.00	0.43
1:A:4192:ARG:HH11	1:A:5028:PHE:HB3	1.84	0.43
1:A:403:MET:CE	1:A:448:LEU:HD23	2.48	0.43
1:A:69:LEU:HD23	1:A:109:LEU:HD23	1.99	0.43
1:C:993:HIS:CE1	1:C:1020:ARG:HB3	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1598:GLN:O	1:C:1600:LEU:N	2.49	0.43
1:C:1662:PHE:O	1:C:1666:THR:HG23	2.18	0.43
1:C:401:ALA:O	1:C:404:ILE:HB	2.18	0.43
1:C:4059:LEU:HD22	1:C:4167:ALA:HB2	1.99	0.43
1:C:4192:ARG:HH11	1:C:5028:PHE:HB3	1.83	0.43
1:C:4205:TRP:CZ2	1:C:4214:LYS:HE2	2.53	0.43
2:D:15:PHE:HE1	2:D:67:SER:HB3	1.84	0.43
1:E:554:LEU:HD22	1:E:1596:GLU:HG2	2.00	0.43
1:E:1762:LEU:HA	1:E:1763:PRO:HD2	1.92	0.43
1:E:2159:LEU:HA	1:E:2162:ILE:HG22	1.99	0.43
1:E:2242:ILE:HD11	1:E:2246:ASN:ND2	2.33	0.43
1:E:2326:CYS:O	1:E:2329:GLU:HG2	2.19	0.43
1:E:2773:ASN:HD22	1:E:2775:TRP:HE1	1.65	0.43
1:E:4555:LEU:HD11	1:E:4656:LEU:HD13	1.99	0.43
1:E:4823:LEU:HA	1:E:4823:LEU:HD23	1.86	0.43
1:E:4205:TRP:CZ2	1:E:4986:ALA:HB2	2.54	0.43
1:E:755:ILE:O	1:E:767:VAL:HG22	2.18	0.43
1:G:2159:LEU:HA	1:G:2162:ILE:HG22	1.99	0.43
1:A:1738:LEU:HD11	1:A:2143:THR:HB	2.01	0.43
1:A:4239:GLU:OE1	1:A:4675:LYS:HD2	2.18	0.43
1:C:1232:ARG:HG3	1:C:1828:ASP:OD2	2.18	0.43
1:C:1254:HIS:CE1	1:C:1256:GLU:HB2	2.52	0.43
1:C:1254:HIS:CD2	1:C:1280:GLN:HB3	2.52	0.43
1:C:2212:VAL:HG21	1:C:2256:TYR:CZ	2.53	0.43
1:C:2326:CYS:O	1:C:2329:GLU:HG2	2.19	0.43
1:C:449:ILE:HG12	1:C:525:LEU:HA	2.01	0.43
1:C:69:LEU:HD23	1:C:109:LEU:HD23	1.99	0.43
1:C:705:ASN:OD1	1:C:706:GLY:N	2.51	0.43
1:C:871:ARG:HB2	1:C:929:LEU:HD12	2.00	0.43
1:E:101:LEU:HD22	1:E:107:ILE:HG21	2.01	0.43
1:E:1849:LEU:HG	1:E:1945:TYR:CD2	2.54	0.43
1:E:3927:GLN:NE2	1:E:3988:ALA:HA	2.32	0.43
1:E:4239:GLU:OE1	1:E:4675:LYS:HD2	2.19	0.43
1:E:4842:GLY:O	1:E:4846:VAL:HG23	2.18	0.43
1:E:636:ASN:HD21	2:F:35:LYS:NZ	2.16	0.43
1:G:252:VAL:HA	1:G:255:HIS:ND1	2.33	0.43
1:G:3382:GLU:O	1:G:3386:GLU:N	2.48	0.43
1:G:3795:SER:O	1:G:3799:LYS:HG2	2.17	0.43
1:G:4717:ASP:OD1	1:G:4719:PHE:HB2	2.19	0.43
1:G:519:VAL:HG12	1:G:523:TYR:HE2	1.83	0.43
1:G:681:HIS:O	1:G:682:LEU:HD12	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1254:HIS:CE1	1:A:1256:GLU:HB2	2.53	0.43
1:A:1638:ALA:HA	1:A:1649:ASP:HA	2.01	0.43
1:A:2212:VAL:HG21	1:A:2256:TYR:CZ	2.53	0.43
1:A:2326:CYS:O	1:A:2329:GLU:HG2	2.19	0.43
1:A:293:LEU:HB2	1:A:378:LEU:HD12	2.00	0.43
1:A:3969:ILE:O	1:A:3969:ILE:HG22	2.18	0.43
1:A:4221:VAL:O	1:A:4225:GLY:N	2.43	0.43
1:A:4693:GLY:O	1:A:4695:ASP:N	2.52	0.43
1:A:4901:ILE:HG21	1:A:4913:ARG:HH21	1.83	0.43
1:A:4960:ILE:HD13	1:A:4983:HIS:HB3	2.00	0.43
1:C:207:SER:OG	1:C:208:CYS:N	2.51	0.43
1:C:3927:GLN:HG3	1:C:3928:GLU:N	2.32	0.43
1:C:4051:SER:HG	1:C:4054:ASN:HB3	1.84	0.43
1:E:1254:HIS:CE1	1:E:1256:GLU:HB2	2.53	0.43
1:E:1653:LEU:HD23	1:E:1707:LEU:CD1	2.49	0.43
1:E:252:VAL:HA	1:E:255:HIS:ND1	2.34	0.43
1:E:401:ALA:HA	1:E:404:ILE:HD12	2.01	0.43
1:E:4686:LEU:O	1:E:4691:GLN:N	2.40	0.43
1:E:4723:LYS:HA	1:E:4726:ASP:HB2	1.99	0.43
1:G:1717:SER:HA	1:G:1721:GLU:CB	2.48	0.43
1:G:2773:ASN:HD22	1:G:2775:TRP:HE1	1.65	0.43
1:G:401:ALA:HA	1:G:404:ILE:HD12	2.01	0.43
1:G:736:HIS:HD2	1:G:742:ASP:OD2	2.00	0.43
1:A:1087:ARG:HB3	1:A:1223:PHE:HD1	1.82	0.43
1:A:1641:ILE:HD12	1:A:1642:PRO:HD2	2.00	0.43
1:A:2139:PRO:HG3	1:A:3658:LYS:HZ2	1.82	0.43
1:A:2242:ILE:HD11	1:A:2246:ASN:ND2	2.33	0.43
1:A:244:LEU:HD23	1:A:300:VAL:HG12	2.01	0.43
1:A:3842:LEU:HB3	1:A:3929:SER:OG	2.19	0.43
1:A:401:ALA:HA	1:A:404:ILE:HD12	2.01	0.43
1:A:4892:ARG:HD2	1:G:4918:ILE:HD13	2.00	0.43
1:A:614:VAL:HG13	1:A:617:ASN:HB3	2.00	0.43
1:A:62:LEU:HA	1:A:65:CYS:SG	2.58	0.43
1:C:1714:LEU:O	1:C:1718:ILE:HG12	2.18	0.43
1:C:2515:GLN:O	1:C:2518:LEU:HB3	2.19	0.43
1:C:252:VAL:HA	1:C:255:HIS:ND1	2.33	0.43
1:A:4942:GLU:HG3	1:C:4944:ARG:HD2	2.01	0.43
1:E:1638:ALA:HA	1:E:1649:ASP:HA	2.01	0.43
1:E:1961:PHE:CZ	1:E:2063:LEU:HD23	2.54	0.43
1:E:2773:ASN:HB3	1:E:2775:TRP:CD1	2.53	0.43
1:E:871:ARG:HB2	1:E:929:LEU:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:118:LEU:HA	1:G:137:LEU:HD23	2.00	0.43
1:G:2283:ASN:HB2	1:G:2286:LEU:HB3	2.00	0.43
1:G:2515:GLN:O	1:G:2518:LEU:HB3	2.19	0.43
1:G:31:GLU:HA	1:G:32:GLN:HA	1.71	0.43
1:G:401:ALA:O	1:G:404:ILE:HB	2.18	0.43
1:G:4179:GLY:HA3	1:G:4197:ILE:HD11	2.01	0.43
1:G:4208:PRO:HG2	1:G:4210:VAL:HG23	2.00	0.43
1:G:4686:LEU:HA	1:G:4690:GLU:H	1.82	0.43
1:G:495:ASN:C	1:G:553:ARG:HH12	2.22	0.43
1:G:667:MET:HG2	1:G:668:VAL:O	2.19	0.43
1:A:1155:LEU:O	1:A:1157:GLU:N	2.52	0.43
1:A:1581:LEU:HD13	1:A:1594:ARG:C	2.38	0.43
1:A:2341:VAL:HG22	1:A:2342:ASN:H	1.83	0.43
1:A:4552:LEU:HD21	1:A:4663:CYS:SG	2.59	0.43
1:A:667:MET:HG2	1:A:668:VAL:O	2.19	0.43
1:C:1293:LEU:HD23	1:C:1584:ARG:HG2	2.01	0.43
1:C:1591:CYS:N	1:C:1592:PRO:HD2	2.33	0.43
1:C:1237:TRP:HD1	1:C:1611:HIS:HA	1.84	0.43
1:C:1745:ILE:O	1:C:1746:THR:OG1	2.35	0.43
1:C:2875:ALA:HB2	1:C:2927:LEU:HD12	2.00	0.43
1:C:347:PHE:CE1	1:C:387:ALA:HB2	2.51	0.43
1:C:3969:ILE:HG22	1:C:3969:ILE:O	2.18	0.43
1:C:833:GLY:HA3	1:C:838:HIS:HD2	1.84	0.43
1:C:875:ALA:CB	1:C:922:LEU:HA	2.49	0.43
1:E:1663:HIS:O	1:E:1667:LEU:HD13	2.19	0.43
1:E:1781:CYS:SG	1:E:1783:VAL:HG22	2.59	0.43
1:E:210:GLU:HG2	1:E:273:HIS:HE1	1.83	0.43
1:E:2143:THR:HG23	1:E:3654:LEU:HD11	1.99	0.43
1:E:3798:LEU:HD12	1:E:3880:PHE:CE1	2.53	0.43
1:E:3969:ILE:O	1:E:3969:ILE:HG22	2.18	0.43
1:E:4205:TRP:HB2	1:E:4245:MET:HE1	2.00	0.43
1:E:545:ASP:OD1	1:E:546:TRP:N	2.52	0.43
2:F:74:LEU:HB2	2:F:99:PHE:HB2	2.01	0.43
1:G:2242:ILE:HD11	1:G:2246:ASN:ND2	2.33	0.43
1:G:2326:CYS:O	1:G:2329:GLU:HG2	2.19	0.43
1:G:229:GLU:HA	1:G:249:GLY:HA2	2.00	0.43
1:G:3649:ALA:O	1:G:3653:PHE:N	2.43	0.43
1:G:4677:LEU:CD1	1:G:4702:ASP:HB3	2.48	0.43
1:G:62:LEU:HA	1:G:65:CYS:SG	2.58	0.43
1:G:755:ILE:O	1:G:767:VAL:HG22	2.18	0.43
1:A:1232:ARG:HG3	1:A:1828:ASP:OD2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1254:HIS:CD2	1:A:1280:GLN:HB3	2.52	0.43
1:A:1433:TYR:HE1	1:A:1578:ALA:HB3	1.83	0.43
1:A:15:ARG:HB2	1:A:18:ASP:OD2	2.18	0.43
1:A:2515:GLN:O	1:A:2518:LEU:HB3	2.19	0.43
1:A:4059:LEU:HD22	1:A:4167:ALA:HB2	1.99	0.43
1:A:4562:LEU:HD11	1:A:4656:LEU:HD13	2.00	0.43
1:A:4928:LEU:HD23	1:A:4931:ILE:HD12	2.00	0.43
1:A:4973:HIS:NE2	1:A:4976:GLU:HB3	2.34	0.43
1:C:116:MET:HE1	1:C:139:GLU:OE2	2.18	0.43
1:C:2242:ILE:HD11	1:C:2246:ASN:ND2	2.33	0.43
1:C:2822:THR:OG1	1:C:2938:THR:OG1	2.17	0.43
1:C:35:LEU:HD13	1:C:49:LEU:HD22	2.00	0.43
1:C:3666:ASP:O	1:C:3669:PHE:HD2	2.01	0.43
1:C:4723:LYS:HA	1:C:4726:ASP:HB2	1.99	0.43
1:C:4917:ASP:OD2	1:E:4892:ARG:NE	2.52	0.43
1:C:626:LEU:HB2	1:C:627:PRO:HD3	2.01	0.43
1:C:764:VAL:O	1:C:764:VAL:HG12	2.17	0.43
1:E:1858:ASP:O	1:E:1862:ILE:HG12	2.18	0.43
1:E:2207:VAL:HG11	1:E:2235:PHE:CD2	2.54	0.43
1:E:3666:ASP:O	1:E:3669:PHE:HD2	2.01	0.43
1:E:3891:LEU:HB3	1:E:3899:PHE:HE2	1.81	0.43
1:E:449:ILE:HG12	1:E:525:LEU:HA	2.00	0.43
1:E:4661:TYR:HE2	1:E:4789:PHE:HB2	1.84	0.43
1:E:4721:LYS:HB2	1:E:4741:LEU:HD13	2.00	0.43
1:E:4934:GLY:HA2	1:E:4937:ILE:HG12	2.01	0.43
1:G:1087:ARG:HB3	1:G:1223:PHE:HD1	1.82	0.43
1:G:1433:TYR:HE1	1:G:1578:ALA:HB3	1.83	0.43
1:G:1667:LEU:HD23	1:G:1710:GLY:CA	2.48	0.43
1:G:2124:LEU:HG	1:G:3673:MET:HE3	1.99	0.43
1:G:4204:GLN:CG	1:G:4245:MET:HG2	2.49	0.43
1:G:4724:VAL:HG13	1:G:4728:HIS:HD2	1.83	0.43
1:A:4822:THR:CG2	1:G:4839:MET:HG3	2.47	0.43
1:G:4927:ILE:O	1:G:4931:ILE:N	2.50	0.43
1:G:696:PRO:HG2	1:G:1613:LEU:HD22	2.01	0.43
1:G:669:ASP:CG	1:G:790:ARG:HG2	2.39	0.43
2:H:27:THR:HA	2:H:38:SER:HA	2.00	0.43
1:A:1663:HIS:O	1:A:1667:LEU:HD13	2.19	0.43
1:A:1781:CYS:SG	1:A:1783:VAL:HG22	2.59	0.43
1:A:2351:ASN:O	1:A:2355:ARG:HG2	2.18	0.43
1:A:3927:GLN:HG3	1:A:3928:GLU:N	2.32	0.43
1:A:4208:PRO:HB2	1:A:4209:GLN:H	1.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4205:TRP:CZ2	1:A:4214:LYS:HE2	2.53	0.43
1:A:4813:LEU:O	1:A:4816:ILE:HG22	2.19	0.43
1:A:4869:GLU:O	1:A:4871:GLU:N	2.44	0.43
1:A:548:VAL:HG21	1:A:582:HIS:HB3	2.00	0.43
1:A:565:TYR:HB2	1:A:602:VAL:HG22	2.00	0.43
1:C:294:THR:HG22	1:C:296:ASP:H	1.84	0.43
1:C:4914:VAL:O	1:C:4918:ILE:HG12	2.19	0.43
1:C:565:TYR:HB2	1:C:602:VAL:HG22	2.00	0.43
1:C:669:ASP:CG	1:C:790:ARG:HG2	2.39	0.43
1:E:1591:CYS:N	1:E:1592:PRO:HD2	2.34	0.43
1:E:1598:GLN:O	1:E:1600:LEU:N	2.50	0.43
1:E:2515:GLN:O	1:E:2518:LEU:HB3	2.19	0.43
1:E:3887:PHE:O	1:E:3891:LEU:HD13	2.19	0.43
1:E:4552:LEU:HD21	1:E:4663:CYS:SG	2.59	0.43
1:E:4852:THR:HG21	1:E:4883:TYR:HB2	2.01	0.43
1:E:650:VAL:N	1:E:777:PHE:O	2.47	0.43
1:E:781:VAL:HG11	1:E:789:VAL:HG21	2.01	0.43
1:E:669:ASP:CG	1:E:790:ARG:HG2	2.39	0.43
1:G:1663:HIS:O	1:G:1666:THR:OG1	2.18	0.43
1:G:281:ARG:HG2	1:G:312:THR:HG23	2.01	0.43
1:G:4027:LEU:HB3	1:G:4044:MET:HE3	2.01	0.43
1:G:4204:GLN:HG2	1:G:4245:MET:HG2	2.01	0.43
1:G:4239:GLU:OE1	1:G:4675:LYS:HD2	2.17	0.43
1:G:4963:ILE:HD11	1:G:5025:GLY:O	2.18	0.43
1:A:1660:GLN:NE2	1:A:1704:PRO:HB2	2.33	0.43
1:A:1961:PHE:CZ	1:A:2063:LEU:HD23	2.54	0.43
1:A:281:ARG:HG2	1:A:312:THR:HG23	2.01	0.43
1:A:347:PHE:CE1	1:A:387:ALA:HB2	2.51	0.43
1:A:449:ILE:HG12	1:A:525:LEU:HA	2.01	0.43
1:A:4826:ILE:HD11	1:G:4836:GLN:OE1	2.19	0.43
1:A:4205:TRP:CZ2	1:A:4986:ALA:HB2	2.53	0.43
1:A:575:LEU:HD22	1:A:606:LEU:HA	2.01	0.43
1:A:622:THR:HG21	1:A:1681:VAL:HG13	2.00	0.43
2:B:54:GLU:HG3	2:B:55:VAL:HG13	2.00	0.43
1:C:4661:TYR:HE2	1:C:4789:PHE:HB2	1.84	0.43
1:C:4239:GLU:OE1	1:C:4675:LYS:HD2	2.18	0.43
1:C:4839:MET:HG3	1:E:4822:THR:CG2	2.41	0.43
1:C:4869:GLU:O	1:C:4871:GLU:N	2.44	0.43
1:E:1087:ARG:HB3	1:E:1223:PHE:HD1	1.82	0.43
1:E:1126:GLY:HA2	1:E:1143:TRP:HE1	1.84	0.43
1:E:2341:VAL:HG22	1:E:2342:ASN:H	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3798:LEU:O	1:E:3802:ILE:HG12	2.19	0.43
1:E:4963:ILE:HD11	1:E:5025:GLY:O	2.18	0.43
1:E:495:ASN:C	1:E:553:ARG:HH12	2.21	0.43
1:E:607:CYS:SG	1:E:618:GLN:HG2	2.58	0.43
1:G:1591:CYS:N	1:G:1592:PRO:HD2	2.34	0.43
1:G:1638:ALA:HA	1:G:1649:ASP:HA	2.01	0.43
1:G:2347:GLU:O	1:G:2351:ASN:ND2	2.40	0.43
1:G:4036:VAL:HG12	1:G:4037:ASN:N	2.34	0.43
1:G:4185:GLY:HA2	1:G:5009:TYR:CE2	2.54	0.43
1:A:4888:TYR:CZ	1:G:4917:ASP:OD2	2.71	0.43
1:G:4928:LEU:HD23	1:G:4931:ILE:HD12	2.01	0.43
1:G:4965:SER:HA	1:G:4975:PHE:CD1	2.53	0.43
1:G:622:THR:HG21	1:G:1681:VAL:HG13	2.01	0.43
1:A:1116:GLY:HA2	1:A:1121:ALA:HB3	2.00	0.42
1:A:1293:LEU:HD23	1:A:1584:ARG:HG2	2.00	0.42
1:A:1653:LEU:HD23	1:A:1707:LEU:CD1	2.49	0.42
1:A:1717:SER:HA	1:A:1721:GLU:CB	2.49	0.42
1:A:2505:PHE:CE1	1:A:2509:VAL:HG21	2.54	0.42
1:A:4021:LYS:O	1:A:4025:VAL:HG23	2.18	0.42
1:A:4914:VAL:O	1:A:4918:ILE:HG12	2.19	0.42
1:A:4223:ASN:HD21	1:A:4946:GLN:NE2	2.17	0.42
1:A:715:GLY:HA2	1:A:719:LEU:HA	2.01	0.42
2:B:74:LEU:HB2	2:B:99:PHE:HB2	2.01	0.42
1:C:104:GLY:HA3	1:C:159:GLU:HG2	2.00	0.42
1:C:1660:GLN:NE2	1:C:1704:PRO:HB2	2.33	0.42
1:C:2799:GLU:O	1:C:2803:GLU:HG2	2.19	0.42
1:C:59:PRO:HD2	1:C:304:ALA:HB1	2.01	0.42
1:C:3784:SER:OG	1:C:3825:GLU:OE1	2.28	0.42
1:C:3840:SER:O	1:C:3922:TYR:OH	2.22	0.42
1:C:4960:ILE:HD13	1:C:4983:HIS:HB3	2.00	0.42
2:D:78:PRO:HA	2:D:81:ALA:HB3	2.01	0.42
1:E:2290:LEU:O	1:E:3849:ARG:NH1	2.52	0.42
1:E:2802:LYS:O	1:E:2806:ARG:HG3	2.19	0.42
1:E:4097:MET:HG3	1:E:4108:ILE:CG2	2.49	0.42
1:E:4693:GLY:O	1:E:4695:ASP:N	2.52	0.42
1:E:59:PRO:HD2	1:E:304:ALA:HB1	2.00	0.42
1:E:628:GLY:C	1:E:630:GLU:H	2.23	0.42
1:G:1116:GLY:HA2	1:G:1121:ALA:HB3	2.00	0.42
1:G:1126:GLY:HA2	1:G:1143:TRP:HE1	1.84	0.42
1:G:1714:LEU:O	1:G:1718:ILE:HG12	2.19	0.42
1:G:2799:GLU:O	1:G:2803:GLU:HG2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4684:ASP:OD2	1:G:4686:LEU:HB3	2.18	0.42
1:G:575:LEU:HD22	1:G:606:LEU:HA	2.01	0.42
1:A:2124:LEU:HD11	1:A:2128:TYR:HE2	1.85	0.42
1:A:2335:LEU:O	1:A:2339:VAL:HG22	2.19	0.42
1:A:2339:VAL:HG23	1:A:2340:PHE:N	2.34	0.42
1:A:2799:GLU:O	1:A:2803:GLU:HG2	2.20	0.42
1:A:545:ASP:OD1	1:A:546:TRP:N	2.52	0.42
1:A:628:GLY:C	1:A:630:GLU:H	2.23	0.42
1:A:669:ASP:CG	1:A:790:ARG:HG2	2.39	0.42
1:C:103:TYR:CE2	1:C:163:VAL:HA	2.53	0.42
1:C:1638:ALA:HA	1:C:1649:ASP:HA	2.01	0.42
1:C:1738:LEU:HD11	1:C:2143:THR:HB	2.01	0.42
1:C:1849:LEU:HD13	1:C:1854:PHE:CD2	2.48	0.42
1:C:1849:LEU:HG	1:C:1945:TYR:CD2	2.54	0.42
1:C:293:LEU:HB2	1:C:378:LEU:HD12	2.00	0.42
1:C:4552:LEU:HD21	1:C:4663:CYS:SG	2.58	0.42
1:C:4562:LEU:HD11	1:C:4656:LEU:HD13	2.00	0.42
1:C:462:GLU:HG3	1:C:3823:LYS:HZ3	1.83	0.42
1:C:4685:GLY:O	1:C:4689:THR:N	2.53	0.42
1:C:545:ASP:OD1	1:C:546:TRP:N	2.52	0.42
1:C:646:PRO:HB3	1:C:793:LEU:HD11	2.01	0.42
1:E:1738:LEU:HD11	1:E:2143:THR:HB	2.01	0.42
1:E:1805:GLU:HA	1:E:1808:ARG:HG2	1.99	0.42
1:E:462:GLU:HG3	1:E:3823:LYS:HZ3	1.83	0.42
1:E:4577:LEU:HG	1:E:4580:TYR:HE2	1.84	0.42
1:E:4860:ARG:HD3	1:G:4582:VAL:HG11	2.02	0.42
1:E:4865:LYS:HB2	1:E:4874:MET:HB3	2.00	0.42
1:E:35:LEU:HD13	1:E:49:LEU:HD22	2.00	0.42
1:G:1598:GLN:O	1:G:1600:LEU:N	2.50	0.42
1:G:1662:PHE:O	1:G:1666:THR:HG23	2.20	0.42
1:G:61:ASP:OD2	1:G:402:ARG:NH2	2.53	0.42
1:G:4181:ILE:HB	1:G:4988:TYR:CE1	2.54	0.42
1:G:4665:LYS:O	1:G:4669:VAL:HG23	2.20	0.42
1:G:548:VAL:HG21	1:G:582:HIS:HB3	2.00	0.42
1:A:1715:LEU:HD21	1:A:1807:LEU:HD11	2.01	0.42
1:A:2283:ASN:HB2	1:A:2286:LEU:HB3	2.01	0.42
1:A:229:GLU:HA	1:A:249:GLY:HA2	2.00	0.42
1:A:2763:HIS:NE2	1:A:2792:ARG:O	2.50	0.42
1:A:665:GLU:HB2	1:A:792:LEU:HB2	2.02	0.42
1:C:1078:GLU:HG3	1:C:1237:TRP:CZ2	2.54	0.42
1:C:1667:LEU:HD23	1:C:1710:GLY:CA	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2137:ALA:HA	1:C:2140:ARG:HH21	1.84	0.42
1:C:2339:VAL:HG23	1:C:2340:PHE:N	2.34	0.42
1:C:244:LEU:HD23	1:C:300:VAL:HG12	2.01	0.42
1:C:3798:LEU:O	1:C:3802:ILE:HG12	2.19	0.42
1:C:3924:LEU:O	1:C:3928:GLU:HG3	2.19	0.42
1:C:401:ALA:HA	1:C:404:ILE:HD12	2.01	0.42
1:C:4057:MET:HA	1:C:4060:LYS:HG2	2.00	0.42
1:C:453:GLU:HA	1:C:454:PRO:HD3	1.88	0.42
1:C:4205:TRP:CZ2	1:C:4986:ALA:HB2	2.54	0.42
1:C:622:THR:HG21	1:C:1681:VAL:HG13	2.01	0.42
1:E:1112:ASP:HA	1:E:1607:ARG:HH11	1.82	0.42
1:E:1433:TYR:HE1	1:E:1578:ALA:HB3	1.83	0.42
1:E:1831:GLY:HA3	1:E:1836:PHE:HB2	2.01	0.42
1:E:244:LEU:HD23	1:E:300:VAL:HG12	2.02	0.42
1:E:3919:THR:HG22	1:E:3965:LEU:HD11	2.02	0.42
1:E:4076:ALA:HB2	1:E:4100:GLN:HB3	2.00	0.42
1:E:548:VAL:HG21	1:E:582:HIS:HB3	2.00	0.42
1:E:935:LEU:HB2	1:E:937:CYS:SG	2.59	0.42
2:F:78:PRO:HA	2:F:81:ALA:HB3	2.02	0.42
1:G:1155:LEU:O	1:G:1157:GLU:N	2.51	0.42
1:G:1205:GLY:HA3	1:G:1227:ALA:HB3	2.01	0.42
1:G:1254:HIS:CD2	1:G:1280:GLN:H	2.37	0.42
1:G:1736:VAL:HA	1:G:1737:PRO:HD2	1.87	0.42
1:G:712:TYR:HB3	1:G:768:PHE:CZ	2.55	0.42
1:G:875:ALA:CB	1:G:922:LEU:HA	2.49	0.42
1:A:993:HIS:CE1	1:A:1020:ARG:HB3	2.49	0.42
1:A:1078:GLU:HG3	1:A:1237:TRP:CZ2	2.54	0.42
1:A:3798:LEU:O	1:A:3802:ILE:HG12	2.19	0.42
1:A:5011:TRP:O	1:A:5015:GLN:HG2	2.18	0.42
1:A:833:GLY:HA3	1:A:838:HIS:HD2	1.85	0.42
1:C:1781:CYS:SG	1:C:1783:VAL:HG22	2.59	0.42
1:C:2212:VAL:HG21	1:C:2256:TYR:CE2	2.55	0.42
1:C:2335:LEU:O	1:C:2339:VAL:HG22	2.19	0.42
1:C:4028:LEU:HA	1:C:4028:LEU:HD23	1.79	0.42
1:C:681:HIS:O	1:C:682:LEU:HD12	2.19	0.42
1:E:1254:HIS:CD2	1:E:1280:GLN:H	2.38	0.42
1:E:107:ILE:HG13	1:E:148:TRP:O	2.20	0.42
1:E:2283:ASN:HB2	1:E:2286:LEU:HB3	2.01	0.42
1:E:229:GLU:HA	1:E:249:GLY:HA2	2.01	0.42
1:E:2505:PHE:CE1	1:E:2509:VAL:HG21	2.54	0.42
1:E:347:PHE:CE1	1:E:387:ALA:HB2	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4021:LYS:O	1:E:4025:VAL:HG23	2.19	0.42
1:E:4028:LEU:HD23	1:E:4028:LEU:HA	1.79	0.42
1:E:4038:GLY:O	1:E:4042:ARG:HG2	2.19	0.42
1:E:4051:SER:HG	1:E:4054:ASN:HB3	1.84	0.42
1:E:4666:VAL:HG13	1:E:4783:ILE:HG12	2.02	0.42
1:G:1293:LEU:HD23	1:G:1584:ARG:HG2	2.01	0.42
1:G:4192:ARG:HH11	1:G:5028:PHE:HB3	1.83	0.42
1:G:4567:LEU:HD11	1:G:4816:ILE:HA	2.01	0.42
1:G:736:HIS:NE2	1:G:739:ALA:HB2	2.30	0.42
2:H:24:VAL:HG21	2:H:59:TRP:HZ2	1.83	0.42
1:A:1254:HIS:CD2	1:A:1280:GLN:H	2.37	0.42
1:A:4053:SER:HA	1:A:4056:GLU:HB3	2.01	0.42
1:A:4057:MET:HA	1:A:4060:LYS:HG2	1.99	0.42
1:A:4666:VAL:HG13	1:A:4783:ILE:HG12	2.01	0.42
1:A:909:ASN:O	1:A:912:SER:OG	2.28	0.42
1:A:935:LEU:HB2	1:A:937:CYS:SG	2.60	0.42
1:C:2505:PHE:CE1	1:C:2509:VAL:HG21	2.54	0.42
1:C:2802:LYS:O	1:C:2806:ARG:HG3	2.20	0.42
1:C:3915:ILE:HG21	1:C:3915:ILE:HD13	1.75	0.42
1:C:4038:GLY:O	1:C:4042:ARG:HG2	2.19	0.42
1:C:4097:MET:HG3	1:C:4108:ILE:HG23	2.02	0.42
1:C:5027:CYS:H	1:C:5030:LYS:HB2	1.85	0.42
1:C:792:LEU:HD22	1:C:799:GLU:O	2.20	0.42
1:E:1155:LEU:O	1:E:1157:GLU:N	2.52	0.42
1:E:1074:ILE:O	1:E:1238:PHE:HA	2.20	0.42
1:E:1660:GLN:NE2	1:E:1704:PRO:HB2	2.35	0.42
1:E:2212:VAL:HG21	1:E:2256:TYR:CE2	2.55	0.42
1:E:281:ARG:HG2	1:E:312:THR:HG23	2.01	0.42
1:E:626:LEU:HB2	1:E:627:PRO:HD3	2.01	0.42
1:G:1868:PRO:HD3	1:G:1925:GLY:HA3	2.01	0.42
1:G:2134:LEU:O	1:G:2138:LEU:HG	2.19	0.42
1:G:2465:ASP:O	1:G:2467:VAL:N	2.52	0.42
1:G:2867:LEU:HD22	1:G:2871:LEU:HB3	2.02	0.42
1:G:4205:TRP:O	1:G:4205:TRP:CE3	2.72	0.42
1:G:4888:TYR:O	1:G:4892:ARG:NH2	2.43	0.42
1:G:545:ASP:OD1	1:G:546:TRP:N	2.53	0.42
1:G:781:VAL:HG11	1:G:789:VAL:HG21	2.01	0.42
1:G:935:LEU:HB2	1:G:937:CYS:SG	2.59	0.42
1:A:1126:GLY:HA2	1:A:1143:TRP:HE1	1.83	0.42
1:A:107:ILE:HG13	1:A:148:TRP:O	2.19	0.42
1:A:1637:MET:O	1:A:1650:ILE:N	2.36	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3965:LEU:HA	1:A:3968:TYR:HD2	1.82	0.42
1:A:4205:TRP:HB2	1:A:4245:MET:HE1	2.01	0.42
1:A:468:LEU:O	1:A:472:ARG:HG2	2.20	0.42
1:A:875:ALA:CB	1:A:922:LEU:HA	2.49	0.42
1:C:1663:HIS:O	1:C:1667:LEU:HD13	2.19	0.42
1:C:1727:ARG:HD2	1:C:1772:ARG:HD3	2.02	0.42
1:C:210:GLU:HG2	1:C:273:HIS:HE1	1.83	0.42
1:C:2283:ASN:HB2	1:C:2286:LEU:HB3	2.01	0.42
1:C:229:GLU:HA	1:C:249:GLY:HA2	2.00	0.42
1:C:281:ARG:HG2	1:C:312:THR:HG23	2.02	0.42
1:C:4021:LYS:O	1:C:4025:VAL:HG23	2.18	0.42
1:C:541:SER:HB2	1:C:577:ILE:HD12	2.01	0.42
1:E:1205:GLY:HA3	1:E:1227:ALA:HB3	2.00	0.42
1:E:1232:ARG:HG3	1:E:1828:ASP:OD2	2.19	0.42
1:E:1662:PHE:O	1:E:1666:THR:HG23	2.19	0.42
1:E:3915:ILE:HG21	1:E:3915:ILE:HD13	1.75	0.42
1:E:3924:LEU:O	1:E:3928:GLU:HG3	2.20	0.42
1:E:4799:SER:HA	1:E:4812:HIS:CE1	2.55	0.42
1:E:61:ASP:OD2	1:E:402:ARG:NH2	2.53	0.42
1:E:667:MET:HG2	1:E:668:VAL:O	2.19	0.42
1:E:681:HIS:O	1:E:682:LEU:HD12	2.20	0.42
1:E:712:TYR:HB3	1:E:768:PHE:CZ	2.55	0.42
1:G:1211:LEU:O	1:G:1213:PHE:N	2.53	0.42
1:G:107:ILE:HG13	1:G:148:TRP:O	2.20	0.42
1:G:2505:PHE:CE1	1:G:2509:VAL:HG21	2.54	0.42
1:A:1246:GLU:HA	1:A:1247:PRO:HD3	1.87	0.42
1:A:1528:THR:HG22	1:A:1538:THR:H	1.85	0.42
1:A:1598:GLN:O	1:A:1600:LEU:N	2.49	0.42
1:A:2802:LYS:O	1:A:2806:ARG:HG3	2.19	0.42
1:A:4030:LEU:HD23	1:A:4031:LEU:HD12	2.02	0.42
1:A:4076:ALA:HB2	1:A:4100:GLN:HB3	2.00	0.42
1:A:5027:CYS:H	1:A:5030:LYS:HB2	1.85	0.42
1:C:1077:ALA:O	1:C:1189:LEU:HD13	2.20	0.42
1:C:1187:GLY:HA2	1:C:1188:PHE:HA	1.91	0.42
1:C:1456:ASP:O	1:C:1457:TYR:CB	2.67	0.42
1:C:1699:GLU:CD	1:C:1810:LYS:HZ3	2.17	0.42
1:C:3887:PHE:O	1:C:3891:LEU:HD13	2.19	0.42
1:C:3842:LEU:HB3	1:C:3929:SER:OG	2.20	0.42
1:C:3919:THR:HG22	1:C:3965:LEU:HD11	2.02	0.42
1:C:4223:ASN:HD21	1:C:4946:GLN:NE2	2.16	0.42
1:C:468:LEU:O	1:C:472:ARG:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4973:HIS:NE2	1:C:4976:GLU:HB3	2.35	0.42
1:C:548:VAL:HG21	1:C:582:HIS:HB3	2.01	0.42
1:C:667:MET:HA	1:C:743:VAL:HA	2.01	0.42
1:E:1211:LEU:O	1:E:1213:PHE:N	2.53	0.42
1:E:1769:THR:OG1	1:E:1770:SER:N	2.53	0.42
1:E:1734:TYR:HB2	1:E:2141:ALA:HB2	2.01	0.42
1:E:2339:VAL:HG23	1:E:2340:PHE:N	2.35	0.42
1:G:1849:LEU:HG	1:G:1945:TYR:CD2	2.54	0.42
1:G:2287:ALA:O	1:G:2349:ASN:ND2	2.38	0.42
1:G:223:PHE:CD1	1:G:230:CYS:HB3	2.55	0.42
1:G:2340:PHE:CG	1:G:2435:ARG:NH1	2.88	0.42
1:G:2761:TYR:CE2	1:G:2862:LEU:HD22	2.54	0.42
1:G:2868:SER:OG	1:G:2871:LEU:HD13	2.19	0.42
1:G:35:LEU:HD13	1:G:49:LEU:HD22	2.00	0.42
1:G:347:PHE:CE1	1:G:387:ALA:HB2	2.51	0.42
1:G:4661:TYR:OH	1:G:4786:ASP:OD2	2.36	0.42
1:G:4888:TYR:O	1:G:4892:ARG:HD3	2.20	0.42
1:G:646:PRO:HB3	1:G:793:LEU:HD11	2.02	0.42
1:A:1297:PHE:CE1	1:A:1519:LEU:HD11	2.55	0.42
1:A:2212:VAL:HG21	1:A:2256:TYR:CE2	2.55	0.42
1:A:2735:PHE:CD2	1:A:2891:LYS:HD2	2.55	0.42
1:A:3887:PHE:O	1:A:3891:LEU:HD13	2.19	0.42
1:A:4038:GLY:O	1:A:4042:ARG:HG2	2.19	0.42
1:A:4821:LYS:HD3	1:A:4824:ARG:HE	1.84	0.42
1:A:4913:ARG:NH1	1:A:4917:ASP:HB2	2.35	0.42
1:A:4963:ILE:HD12	1:A:4963:ILE:HG23	1.81	0.42
1:A:589:LEU:HG	1:A:593:HIS:HD2	1.84	0.42
1:A:792:LEU:HD22	1:A:799:GLU:O	2.20	0.42
1:A:665:GLU:OE2	1:A:802:PHE:HB3	2.20	0.42
2:B:78:PRO:HA	2:B:81:ALA:HB3	2.02	0.42
1:C:1093:GLU:HA	1:C:1148:VAL:HG13	2.02	0.42
1:C:1211:LEU:O	1:C:1213:PHE:N	2.53	0.42
1:C:639:ASN:HA	1:C:1635:THR:HG22	2.01	0.42
1:C:2465:ASP:O	1:C:2467:VAL:N	2.52	0.42
1:C:2507:ASP:CG	1:C:2559:LEU:HD22	2.40	0.42
1:C:2290:LEU:O	1:C:3849:ARG:NH1	2.52	0.42
1:C:4097:MET:HG3	1:C:4108:ILE:CG2	2.50	0.42
1:C:4576:ILE:CG2	1:C:4643:LEU:HD12	2.49	0.42
1:C:4562:LEU:HD21	1:C:4656:LEU:CD1	2.49	0.42
1:C:4856:PHE:CZ	1:E:4581:LYS:HA	2.54	0.42
1:C:696:PRO:HG2	1:C:1613:LEU:HD22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:781:VAL:HG11	1:C:789:VAL:HG21	2.01	0.42
2:D:74:LEU:HB2	2:D:99:PHE:HB2	2.01	0.42
1:E:1077:ALA:O	1:E:1189:LEU:HD13	2.20	0.42
1:E:4562:LEU:HD11	1:E:4656:LEU:HD13	2.01	0.42
1:E:5027:CYS:H	1:E:5030:LYS:HB2	1.85	0.42
1:E:575:LEU:HD22	1:E:606:LEU:HA	2.01	0.42
1:E:646:PRO:HB3	1:E:793:LEU:HD11	2.02	0.42
1:E:875:ALA:CB	1:E:922:LEU:HA	2.49	0.42
2:F:54:GLU:HG3	2:F:55:VAL:HG13	2.00	0.42
1:G:1684:ALA:O	1:G:1687:SER:OG	2.17	0.42
1:G:1727:ARG:HD2	1:G:1772:ARG:HD3	2.02	0.42
1:G:1849:LEU:HD13	1:G:1854:PHE:CD2	2.48	0.42
1:G:2212:VAL:HG21	1:G:2256:TYR:CE2	2.55	0.42
1:E:4917:ASP:CB	1:G:4888:TYR:HE1	2.32	0.42
1:G:715:GLY:HA2	1:G:719:LEU:HA	2.01	0.42
1:A:1670:TYR:HB2	1:A:1714:LEU:HD21	2.02	0.42
1:A:3919:THR:HG22	1:A:3965:LEU:HD11	2.01	0.42
1:A:4097:MET:HG3	1:A:4108:ILE:CG2	2.50	0.42
1:A:646:PRO:HB3	1:A:793:LEU:HD11	2.01	0.42
1:A:737:LEU:HD11	2:B:7:ILE:CG2	2.39	0.42
1:A:781:VAL:HG11	1:A:789:VAL:HG21	2.01	0.42
1:C:1074:ILE:O	1:C:1238:PHE:HA	2.20	0.42
1:C:1254:HIS:CD2	1:C:1280:GLN:H	2.38	0.42
1:C:1641:ILE:HD12	1:C:1642:PRO:HD2	2.01	0.42
1:C:2340:PHE:CG	1:C:2435:ARG:NH1	2.87	0.42
1:C:667:MET:HG2	1:C:668:VAL:O	2.19	0.42
1:E:1078:GLU:HG3	1:E:1237:TRP:CZ2	2.54	0.42
1:E:207:SER:OG	1:E:208:CYS:N	2.51	0.42
1:E:2335:LEU:O	1:E:2339:VAL:HG22	2.19	0.42
1:E:2465:ASP:O	1:E:2467:VAL:N	2.52	0.42
1:E:2735:PHE:CD2	1:E:2891:LYS:HD2	2.55	0.42
1:E:3842:LEU:HB3	1:E:3929:SER:OG	2.20	0.42
1:E:4097:MET:HG3	1:E:4108:ILE:HG23	2.02	0.42
1:E:414:PHE:O	1:E:418:LEU:HD13	2.20	0.42
1:E:468:LEU:O	1:E:472:ARG:HG2	2.20	0.42
1:E:4973:HIS:NE2	1:E:4976:GLU:HB3	2.34	0.42
1:E:495:ASN:HB3	1:E:553:ARG:HH22	1.85	0.42
1:G:1663:HIS:O	1:G:1667:LEU:HD13	2.19	0.42
1:G:3923:LEU:HD12	1:G:3961:VAL:CG1	2.50	0.42
1:G:484:LEU:HD11	1:G:536:ASN:OD1	2.20	0.42
1:A:104:GLY:HA3	1:A:159:GLU:HG2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1077:ALA:O	1:A:1189:LEU:HD13	2.20	0.42
1:A:2121:PHE:CD1	1:A:3701:LEU:HD12	2.55	0.42
1:A:4576:ILE:HG22	1:A:4643:LEU:HD12	2.02	0.42
1:A:4641:PRO:O	1:A:4644:TRP:HB3	2.20	0.42
1:A:4865:LYS:HB2	1:A:4874:MET:HB3	2.01	0.42
1:A:643:SER:HA	1:A:782:SER:HA	2.02	0.42
1:C:1433:TYR:HE1	1:C:1578:ALA:HB3	1.83	0.42
1:C:4076:ALA:HB2	1:C:4100:GLN:HB3	2.01	0.42
1:C:4989:MET:O	1:C:4993:MET:HG2	2.20	0.42
1:C:935:LEU:HB2	1:C:937:CYS:SG	2.60	0.42
1:E:1727:ARG:HD2	1:E:1772:ARG:HD3	2.02	0.42
1:E:2507:ASP:CG	1:E:2559:LEU:HD22	2.40	0.42
1:E:2121:PHE:CD1	1:E:3701:LEU:HD12	2.55	0.42
1:E:4181:ILE:HB	1:E:4988:TYR:CE1	2.55	0.42
1:E:544:LEU:O	1:E:548:VAL:HG23	2.20	0.42
1:E:589:LEU:HG	1:E:593:HIS:HD2	1.85	0.42
1:E:715:GLY:HA2	1:E:719:LEU:HA	2.01	0.42
1:G:102:LEU:HD12	1:G:105:HIS:CE1	2.55	0.42
1:G:1078:GLU:HG3	1:G:1237:TRP:CZ2	2.55	0.42
1:G:1187:GLY:HA2	1:G:1188:PHE:HA	1.91	0.42
1:G:2339:VAL:HG23	1:G:2340:PHE:N	2.35	0.42
1:G:2507:ASP:CG	1:G:2559:LEU:HD22	2.40	0.42
1:G:544:LEU:O	1:G:548:VAL:HG23	2.20	0.42
1:G:589:LEU:HG	1:G:593:HIS:HD2	1.84	0.42
1:G:628:GLY:C	1:G:630:GLU:H	2.23	0.42
1:G:716:PHE:HD2	1:G:722:TRP:CH2	2.38	0.42
1:G:643:SER:HA	1:G:782:SER:HA	2.01	0.42
2:H:11:ASP:OD1	2:H:12:GLY:N	2.53	0.42
1:A:1074:ILE:O	1:A:1238:PHE:HA	2.20	0.41
1:A:2290:LEU:O	1:A:3849:ARG:NH1	2.53	0.41
1:A:3996:PHE:HB3	1:A:4020:GLN:OE1	2.20	0.41
1:A:4097:MET:HG3	1:A:4108:ILE:HG23	2.02	0.41
1:A:441:VAL:HG12	1:A:445:LEU:HD13	2.02	0.41
1:A:4721:LYS:HB2	1:A:4741:LEU:HD13	2.01	0.41
1:A:4779:LYS:O	1:A:4783:ILE:HG13	2.21	0.41
1:C:111:HIS:CD2	1:C:113:HIS:H	2.38	0.41
1:C:107:ILE:HG13	1:C:148:TRP:O	2.20	0.41
1:C:1810:LYS:O	1:C:1814:MET:HG2	2.20	0.41
1:C:1831:GLY:HA3	1:C:1836:PHE:HB2	2.02	0.41
1:C:2351:ASN:O	1:C:2355:ARG:HG2	2.18	0.41
1:C:3996:PHE:HB3	1:C:4020:GLN:OE1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:441:VAL:HG12	1:C:445:LEU:HD13	2.02	0.41
1:C:4799:SER:HA	1:C:4812:HIS:CE1	2.55	0.41
1:C:4852:THR:HG21	1:C:4883:TYR:HB2	2.01	0.41
1:C:495:ASN:HB3	1:C:553:ARG:HH22	1.85	0.41
1:C:589:LEU:HG	1:C:593:HIS:HD2	1.85	0.41
1:C:857:ASP:HA	1:C:859:VAL:H	1.85	0.41
1:E:1667:LEU:HD23	1:E:1710:GLY:CA	2.48	0.41
1:E:2340:PHE:CG	1:E:2435:ARG:NH1	2.87	0.41
1:E:4053:SER:HA	1:E:4056:GLU:HB3	2.01	0.41
1:G:1232:ARG:HG3	1:G:1828:ASP:OD2	2.19	0.41
1:G:665:GLU:OE2	1:G:802:PHE:HB3	2.20	0.41
1:A:1074:ILE:HG23	1:A:1115:LEU:HD11	2.03	0.41
1:A:1087:ARG:NH1	1:A:1221:GLU:O	2.49	0.41
1:A:1944:GLU:HG3	1:A:2126:ARG:NH1	2.35	0.41
1:A:207:SER:OG	1:A:208:CYS:N	2.51	0.41
1:A:2507:ASP:CG	1:A:2559:LEU:HD22	2.40	0.41
1:A:4653:VAL:HA	1:A:4656:LEU:HG	2.02	0.41
1:A:4685:GLY:O	1:A:4689:THR:N	2.53	0.41
1:A:541:SER:HB2	1:A:577:ILE:HD12	2.02	0.41
1:A:696:PRO:HG2	1:A:1613:LEU:HD22	2.02	0.41
1:A:718:GLY:H	1:A:737:LEU:HG	1.85	0.41
1:A:765:GLN:NE2	1:A:1478:ASP:HA	2.35	0.41
1:C:1089:TYR:CB	1:C:1223:PHE:HB3	2.50	0.41
1:C:1297:PHE:CE1	1:C:1519:LEU:HD11	2.55	0.41
1:C:2121:PHE:CD1	1:C:3701:LEU:HD12	2.55	0.41
1:C:2341:VAL:HG22	1:C:2342:ASN:H	1.83	0.41
1:C:4641:PRO:O	1:C:4644:TRP:HB3	2.20	0.41
1:C:628:GLY:C	1:C:630:GLU:H	2.23	0.41
1:C:712:TYR:HB3	1:C:768:PHE:CZ	2.55	0.41
1:C:643:SER:HA	1:C:782:SER:HA	2.02	0.41
1:E:1074:ILE:HG23	1:E:1115:LEU:HD11	2.02	0.41
1:E:1868:PRO:HD3	1:E:1925:GLY:HA3	2.02	0.41
1:E:530:ILE:O	1:E:530:ILE:CG2	2.68	0.41
2:F:25:HIS:HD2	2:F:104:LEU:HD21	1.85	0.41
2:F:58:GLY:HA3	2:F:76:ILE:HG23	2.02	0.41
1:G:1074:ILE:O	1:G:1238:PHE:HA	2.20	0.41
1:G:116:MET:HE1	1:G:139:GLU:OE2	2.21	0.41
1:G:1433:TYR:CD2	1:G:1583:GLU:HB2	2.55	0.41
1:G:1944:GLU:HG3	1:G:2126:ARG:NH1	2.35	0.41
1:G:2144:ILE:HD11	1:G:2197:LEU:HD11	2.02	0.41
1:G:2335:LEU:O	1:G:2339:VAL:HG22	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3645:PRO:HB2	1:G:3648:ARG:HB3	2.02	0.41
1:G:449:ILE:HG12	1:G:525:LEU:HA	2.01	0.41
1:G:626:LEU:HB2	1:G:627:PRO:HD3	2.01	0.41
1:G:765:GLN:NE2	1:G:1478:ASP:HA	2.35	0.41
1:G:792:LEU:HD22	1:G:799:GLU:O	2.20	0.41
1:A:3915:ILE:HG21	1:A:3915:ILE:HD13	1.75	0.41
1:A:3886:ARG:HD3	1:A:3960:GLN:HE22	1.86	0.41
1:A:4562:LEU:HD21	1:A:4656:LEU:CD1	2.49	0.41
1:A:4631:PHE:CE2	1:A:4633:GLU:HB3	2.55	0.41
1:A:4951:LYS:O	1:A:4955:GLU:HG2	2.20	0.41
1:A:5022:PHE:HA	1:A:5023:PRO:HD3	1.96	0.41
1:A:61:ASP:OD2	1:A:402:ARG:NH2	2.53	0.41
1:C:3767:GLN:OE1	1:C:3809:ASN:ND2	2.42	0.41
1:C:4693:GLY:O	1:C:4695:ASP:N	2.52	0.41
1:C:4865:LYS:HB2	1:C:4874:MET:HB3	2.00	0.41
1:C:4913:ARG:NH1	1:C:4917:ASP:HB2	2.36	0.41
1:C:530:ILE:CG2	1:C:530:ILE:O	2.69	0.41
1:C:665:GLU:HB2	1:C:792:LEU:HB2	2.02	0.41
1:E:111:HIS:CD2	1:E:113:HIS:H	2.39	0.41
1:E:1293:LEU:HD23	1:E:1584:ARG:HG2	2.01	0.41
1:E:1528:THR:HG22	1:E:1538:THR:H	1.85	0.41
1:E:1715:LEU:HD21	1:E:1807:LEU:HD11	2.01	0.41
1:G:1652:GLU:OE2	1:G:1655:GLU:OE2	2.38	0.41
1:G:1853:ILE:O	1:G:1854:PHE:HB2	2.21	0.41
1:G:3666:ASP:O	1:G:3669:PHE:HD2	2.02	0.41
1:G:4154:VAL:O	1:G:4154:VAL:HG13	2.21	0.41
1:G:4235:VAL:HG21	1:G:5019:TRP:CH2	2.55	0.41
1:G:667:MET:HA	1:G:743:VAL:HA	2.02	0.41
2:H:29:MET:HG2	2:H:98:VAL:O	2.20	0.41
1:A:101:LEU:HD22	1:A:107:ILE:HG21	2.01	0.41
1:A:1211:LEU:O	1:A:1213:PHE:N	2.53	0.41
1:A:3924:LEU:O	1:A:3928:GLU:HG3	2.20	0.41
1:A:4661:TYR:HE2	1:A:4789:PHE:HB2	1.84	0.41
1:A:64:ILE:O	1:A:111:HIS:HE1	2.04	0.41
1:A:712:TYR:HB3	1:A:768:PHE:CZ	2.55	0.41
2:B:18:ARG:NH1	2:B:51:GLY:HA3	2.36	0.41
1:C:101:LEU:HD22	1:C:107:ILE:HG21	2.02	0.41
1:C:1528:THR:HG22	1:C:1538:THR:H	1.85	0.41
1:C:1734:TYR:HB2	1:C:2141:ALA:HB2	2.01	0.41
1:C:1944:GLU:HG3	1:C:2126:ARG:NH1	2.35	0.41
1:E:3996:PHE:HB3	1:E:4020:GLN:OE1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4631:PHE:CE2	1:E:4633:GLU:HB3	2.55	0.41
1:E:4779:LYS:O	1:E:4783:ILE:HG13	2.20	0.41
1:E:717:ASP:O	1:E:720:HIS:NE2	2.54	0.41
1:E:792:LEU:HD22	1:E:799:GLU:O	2.20	0.41
1:E:857:ASP:HA	1:E:859:VAL:H	1.86	0.41
1:G:1110:ARG:HA	1:G:1111:PRO:HD2	1.84	0.41
1:G:1294:PRO:HD3	1:G:1549:PHE:CE1	2.56	0.41
1:G:1237:TRP:HD1	1:G:1611:HIS:HA	1.84	0.41
1:G:3990:VAL:HG13	1:G:4051:SER:HB2	2.02	0.41
1:G:4023:MET:O	1:G:4027:LEU:HG	2.19	0.41
1:G:468:LEU:O	1:G:472:ARG:HG2	2.20	0.41
1:G:4779:LYS:O	1:G:4783:ILE:HG13	2.21	0.41
1:A:1187:GLY:HA2	1:A:1188:PHE:HA	1.91	0.41
1:A:102:LEU:HD22	1:A:160:GLY:O	2.20	0.41
1:A:2756:ASN:OD1	1:A:2806:ARG:NH2	2.54	0.41
1:A:2907:PRO:O	1:A:2910:THR:OG1	2.16	0.41
1:A:3955:MET:O	1:A:4019:LEU:HD12	2.21	0.41
1:A:4989:MET:O	1:A:4993:MET:HG2	2.20	0.41
1:A:667:MET:HA	1:A:743:VAL:HA	2.01	0.41
1:A:840:VAL:HG12	1:A:1199:VAL:HG22	2.03	0.41
1:C:1074:ILE:HG23	1:C:1115:LEU:HD11	2.02	0.41
1:C:3651:ASN:O	1:C:3655:GLU:HG2	2.21	0.41
1:C:414:PHE:O	1:C:418:LEU:HD13	2.20	0.41
1:C:4666:VAL:HG13	1:C:4783:ILE:HG12	2.01	0.41
1:C:4813:LEU:HA	1:C:4813:LEU:HD23	1.89	0.41
1:C:4826:ILE:O	1:C:4830:VAL:HG23	2.21	0.41
1:C:575:LEU:HD22	1:C:606:LEU:HA	2.02	0.41
1:C:597:HIS:CE1	1:C:1661:ARG:HH12	2.39	0.41
1:E:64:ILE:O	1:E:111:HIS:HE1	2.04	0.41
1:E:1297:PHE:CE1	1:E:1519:LEU:HD11	2.55	0.41
1:E:622:THR:HG21	1:E:1681:VAL:HG13	2.00	0.41
1:E:1736:VAL:HA	1:E:1737:PRO:HD2	1.85	0.41
1:E:2799:GLU:O	1:E:2803:GLU:HG2	2.19	0.41
1:E:4172:GLU:HA	1:E:4175:ARG:HH12	1.85	0.41
1:E:4579:PHE:HB2	1:E:4631:PHE:CE1	2.55	0.41
1:E:765:GLN:NE2	1:E:1478:ASP:HA	2.35	0.41
1:G:1769:THR:OG1	1:G:1770:SER:N	2.53	0.41
1:G:1831:GLY:HA3	1:G:1836:PHE:HB2	2.02	0.41
1:G:292:ALA:O	1:G:299:LEU:HD12	2.21	0.41
1:G:3959:LYS:HG3	1:G:4022:ASP:OD2	2.21	0.41
1:G:4693:GLY:O	1:G:4695:ASP:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4703:ARG:O	1:G:4706:LEU:HG	2.20	0.41
1:G:495:ASN:HB3	1:G:553:ARG:HH22	1.85	0.41
1:A:111:HIS:CD2	1:A:113:HIS:H	2.39	0.41
1:A:4028:LEU:HD23	1:A:4028:LEU:HA	1.80	0.41
1:A:416:LYS:N	1:A:416:LYS:HD2	2.36	0.41
1:A:4861:LYS:HE2	1:A:4907:ASP:OD2	2.21	0.41
1:A:495:ASN:HB3	1:A:553:ARG:HH22	1.86	0.41
1:C:1075:PHE:CE1	1:C:1238:PHE:HB3	2.56	0.41
1:C:1086:GLY:O	1:C:1155:LEU:HD12	2.21	0.41
1:C:1433:TYR:CD2	1:C:1583:GLU:HB2	2.55	0.41
1:C:2862:LEU:HD21	1:C:2929:PHE:HB2	2.02	0.41
1:C:3775:ALA:O	1:C:3778:MET:HB3	2.21	0.41
1:C:3955:MET:O	1:C:4019:LEU:HD12	2.21	0.41
1:C:4208:PRO:HB2	1:C:4209:GLN:H	1.70	0.41
1:C:484:LEU:HD11	1:C:536:ASN:OD1	2.20	0.41
1:C:4856:PHE:HE1	1:C:4877:ASP:O	2.04	0.41
1:C:715:GLY:HA2	1:C:719:LEU:HA	2.01	0.41
1:E:840:VAL:HG12	1:E:1199:VAL:HG22	2.03	0.41
1:E:626:LEU:HB3	1:E:1688:HIS:CE1	2.56	0.41
1:E:2100:HIS:HB3	1:E:2104:ARG:NH1	2.36	0.41
1:E:223:PHE:CD1	1:E:230:CYS:HB3	2.55	0.41
1:E:3817:LEU:HD13	1:E:3899:PHE:CD1	2.56	0.41
1:E:4550:LYS:HB2	1:E:4550:LYS:HE3	1.85	0.41
1:E:4685:GLY:O	1:E:4689:THR:N	2.53	0.41
1:E:4686:LEU:HA	1:E:4690:GLU:H	1.86	0.41
1:E:4826:ILE:O	1:E:4830:VAL:HG23	2.21	0.41
1:E:4989:MET:O	1:E:4993:MET:HG2	2.20	0.41
1:E:665:GLU:OE2	1:E:802:PHE:HB3	2.20	0.41
1:G:1528:THR:HG22	1:G:1538:THR:H	1.85	0.41
1:G:639:ASN:HA	1:G:1635:THR:HG22	2.02	0.41
1:G:597:HIS:CE1	1:G:1661:ARG:HH12	2.39	0.41
1:G:2340:PHE:CD1	1:G:2435:ARG:NH1	2.81	0.41
1:G:4097:MET:HG3	1:G:4108:ILE:CG2	2.51	0.41
1:G:4856:PHE:HE1	1:G:4877:ASP:O	2.04	0.41
1:G:491:ILE:HG22	1:G:495:ASN:ND2	2.36	0.41
1:G:4218:ILE:HG22	1:G:4950:VAL:HG13	2.02	0.41
1:G:752:VAL:HG12	1:G:754:SER:H	1.85	0.41
2:H:18:ARG:NH1	2:H:51:GLY:HA3	2.35	0.41
1:A:102:LEU:HD12	1:A:105:HIS:CE1	2.55	0.41
1:A:639:ASN:HA	1:A:1635:THR:HG22	2.02	0.41
1:A:1727:ARG:HD2	1:A:1772:ARG:HD3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1867:GLU:HG2	1:A:2097:LEU:HD22	2.03	0.41
1:A:2149:VAL:O	1:A:2153:MET:HG2	2.21	0.41
1:A:3898:ASP:OD1	1:A:3899:PHE:N	2.54	0.41
1:A:4577:LEU:HG	1:A:4580:TYR:HE2	1.84	0.41
1:A:717:ASP:O	1:A:720:HIS:NE2	2.54	0.41
1:A:857:ASP:HA	1:A:859:VAL:H	1.85	0.41
1:C:102:LEU:HD12	1:C:105:HIS:CE1	2.55	0.41
1:C:1082:THR:HG22	1:C:1189:LEU:HG	2.03	0.41
1:C:1126:GLY:HA2	1:C:1143:TRP:HE1	1.84	0.41
1:C:1586:ASN:O	1:C:1588:ALA:N	2.46	0.41
1:C:2100:HIS:HB3	1:C:2104:ARG:NH1	2.36	0.41
1:C:292:ALA:O	1:C:299:LEU:HD12	2.21	0.41
1:C:4661:TYR:CE2	1:C:4789:PHE:HB2	2.56	0.41
1:C:4563:ARG:NH1	1:C:4791:TYR:HE2	2.19	0.41
1:C:544:LEU:O	1:C:548:VAL:HG23	2.21	0.41
1:C:718:GLY:H	1:C:737:LEU:HG	1.85	0.41
2:D:18:ARG:NH1	2:D:51:GLY:HA3	2.36	0.41
1:E:1086:GLY:O	1:E:1155:LEU:HD12	2.21	0.41
1:E:116:MET:HE1	1:E:139:GLU:OE2	2.20	0.41
1:E:1237:TRP:HD1	1:E:1611:HIS:HA	1.84	0.41
1:E:1944:GLU:HG3	1:E:2126:ARG:NH1	2.35	0.41
1:E:2756:ASN:OD1	1:E:2806:ARG:NH2	2.53	0.41
1:E:2862:LEU:HD21	1:E:2929:PHE:HB2	2.02	0.41
1:E:3705:PHE:HZ	1:E:3721:LEU:HD23	1.85	0.41
1:E:3955:MET:O	1:E:4019:LEU:HD12	2.21	0.41
1:E:4562:LEU:HD21	1:E:4656:LEU:CD1	2.49	0.41
2:F:18:ARG:NH1	2:F:51:GLY:HA3	2.36	0.41
1:G:1074:ILE:HG23	1:G:1115:LEU:HD11	2.03	0.41
1:G:64:ILE:O	1:G:111:HIS:HE1	2.04	0.41
1:G:1297:PHE:CE1	1:G:1519:LEU:HD11	2.55	0.41
1:G:416:LYS:HD2	1:G:416:LYS:N	2.36	0.41
1:G:4813:LEU:O	1:G:4816:ILE:HG22	2.20	0.41
1:G:4973:HIS:NE2	1:G:4976:GLU:HB3	2.35	0.41
1:G:49:LEU:HA	1:G:49:LEU:HD23	1.76	0.41
1:A:1093:GLU:HA	1:A:1148:VAL:HG13	2.02	0.41
1:A:1652:GLU:OE2	1:A:1655:GLU:OE2	2.39	0.41
1:A:4053:SER:O	1:A:4056:GLU:HB3	2.21	0.41
1:A:414:PHE:O	1:A:418:LEU:HD13	2.20	0.41
1:A:4799:SER:HA	1:A:4812:HIS:CE1	2.55	0.41
1:A:4823:LEU:HD21	1:G:4839:MET:O	2.20	0.41
1:A:4180:ARG:NH2	1:A:4981:GLU:OE1	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:544:LEU:O	1:A:548:VAL:HG23	2.20	0.41
1:A:626:LEU:HB3	1:A:1688:HIS:CE1	2.56	0.41
1:C:64:ILE:O	1:C:111:HIS:HE1	2.04	0.41
1:C:118:LEU:O	1:C:146:CYS:HA	2.21	0.41
1:C:765:GLN:NE2	1:C:1478:ASP:HA	2.35	0.41
1:C:2758:PHE:CD2	1:C:2809:ILE:HD13	2.55	0.41
1:C:2735:PHE:CD2	1:C:2891:LYS:HD2	2.56	0.41
1:C:31:GLU:HA	1:C:32:GLN:HA	1.71	0.41
1:C:4053:SER:HA	1:C:4056:GLU:HB3	2.01	0.41
1:C:4686:LEU:HA	1:C:4690:GLU:H	1.86	0.41
1:C:61:ASP:OD2	1:C:402:ARG:NH2	2.53	0.41
1:C:626:LEU:HB3	1:C:1688:HIS:CE1	2.56	0.41
1:C:737:LEU:HB3	1:C:738:LEU:H	1.46	0.41
1:C:636:ASN:HD21	2:D:35:LYS:NZ	2.19	0.41
1:E:1433:TYR:CD2	1:E:1583:GLU:HB2	2.55	0.41
1:E:1652:GLU:OE2	1:E:1655:GLU:OE2	2.39	0.41
1:E:4053:SER:O	1:E:4056:GLU:HB3	2.21	0.41
1:E:4563:ARG:NH1	1:E:4791:TYR:HE2	2.19	0.41
1:E:649:PHE:CE1	1:E:776:LEU:HD23	2.56	0.41
1:E:696:PRO:HG2	1:E:1613:LEU:HD22	2.01	0.41
1:E:718:GLY:H	1:E:737:LEU:HG	1.85	0.41
1:E:643:SER:HA	1:E:782:SER:HA	2.01	0.41
1:G:840:VAL:HG12	1:G:1199:VAL:HG22	2.03	0.41
1:G:1286:MET:O	1:G:1287:LEU:HD12	2.21	0.41
1:G:3780:LEU:HD23	1:G:3819:TYR:CD2	2.56	0.41
1:G:3920:VAL:HG22	1:G:3965:LEU:HD21	2.02	0.41
1:G:548:VAL:HG11	1:G:582:HIS:HA	2.03	0.41
1:A:1086:GLY:O	1:A:1155:LEU:HD12	2.21	0.41
1:A:1949:GLN:O	1:A:1952:GLN:HB3	2.21	0.41
1:A:2758:PHE:CD2	1:A:2809:ILE:HD13	2.55	0.41
1:A:4181:ILE:HB	1:A:4988:TYR:CE1	2.56	0.41
1:A:4682:GLU:CD	1:A:4723:LYS:NZ	2.74	0.41
1:A:750:LEU:C	1:A:751:SER:HG	2.22	0.41
2:B:11:ASP:OD1	2:B:12:GLY:N	2.54	0.41
1:C:1715:LEU:HD21	1:C:1807:LEU:HD11	2.01	0.41
1:C:4071:ILE:O	1:C:4073:GLY:N	2.54	0.41
1:C:416:LYS:N	1:C:416:LYS:HD2	2.36	0.41
1:C:4842:GLY:O	1:C:4846:VAL:HG23	2.21	0.41
1:C:491:ILE:HG22	1:C:495:ASN:ND2	2.36	0.41
1:C:648:ILE:CD1	1:C:815:VAL:HA	2.51	0.41
1:E:1143:TRP:HE3	1:E:1144:GLN:O	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1867:GLU:HG2	1:E:2097:LEU:HD22	2.02	0.41
1:E:3781:GLN:NE2	1:E:3819:TYR:OH	2.35	0.41
1:E:3886:ARG:HD3	1:E:3960:GLN:HE22	1.85	0.41
1:E:4192:ARG:HH11	1:E:5028:PHE:HB3	1.86	0.41
1:E:4821:LYS:HD3	1:E:4824:ARG:HE	1.85	0.41
1:E:4951:LYS:O	1:E:4955:GLU:HG2	2.20	0.41
1:E:667:MET:HA	1:E:743:VAL:HA	2.01	0.41
1:E:737:LEU:HD11	2:F:7:ILE:CG2	2.39	0.41
1:G:1089:TYR:CD1	1:G:1152:MET:HG2	2.50	0.41
1:G:2149:VAL:O	1:G:2153:MET:HG2	2.21	0.41
1:G:2341:VAL:HG22	1:G:2342:ASN:H	1.85	0.41
1:G:2870:GLU:O	1:G:2874:MET:HG3	2.21	0.41
1:G:302:VAL:HG22	1:G:303:ASP:N	2.36	0.41
1:G:3799:LYS:HD3	1:G:3883:ASP:OD2	2.21	0.41
1:G:4138:ASP:O	1:G:4142:ASN:ND2	2.52	0.41
1:G:414:PHE:O	1:G:418:LEU:HD13	2.20	0.41
1:G:857:ASP:HA	1:G:859:VAL:H	1.85	0.41
2:H:26:TYR:H	2:H:39:SER:HG	1.64	0.41
1:A:1433:TYR:CD2	1:A:1583:GLU:HB2	2.55	0.41
1:A:1810:LYS:O	1:A:1814:MET:HG2	2.21	0.41
1:A:1831:GLY:HA3	1:A:1836:PHE:HB2	2.02	0.41
1:A:1838:PHE:HB3	1:A:1842:LEU:HD13	2.03	0.41
1:A:1853:ILE:O	1:A:1854:PHE:HB2	2.21	0.41
1:A:2465:ASP:O	1:A:2467:VAL:N	2.52	0.41
1:A:2930:LEU:HD13	1:A:2937:VAL:HG21	2.03	0.41
1:A:3775:ALA:O	1:A:3778:MET:HB3	2.21	0.41
1:A:4071:ILE:O	1:A:4073:GLY:N	2.54	0.41
1:A:4888:TYR:O	1:A:4892:ARG:HD3	2.21	0.41
1:A:484:LEU:HD11	1:A:536:ASN:OD1	2.20	0.41
1:A:548:VAL:HG11	1:A:582:HIS:HA	2.02	0.41
1:A:716:PHE:HD2	1:A:722:TRP:CH2	2.39	0.41
1:C:1961:PHE:CZ	1:C:2063:LEU:HD23	2.54	0.41
1:C:66:CYS:SG	1:C:205:ILE:HG13	2.61	0.41
1:C:1734:TYR:CE2	1:C:2137:ALA:HB1	2.56	0.41
1:C:2381:GLU:HA	1:C:2384:ILE:HD12	2.03	0.41
1:C:750:LEU:C	1:C:751:SER:HG	2.23	0.41
2:D:25:HIS:HD2	2:D:104:LEU:HD21	1.86	0.41
2:D:11:ASP:OD1	2:D:12:GLY:N	2.54	0.41
1:E:1286:MET:O	1:E:1287:LEU:HD12	2.21	0.41
1:E:1670:TYR:HB2	1:E:1714:LEU:HD21	2.02	0.41
1:E:4017:LEU:O	1:E:4020:GLN:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4217:PHE:CZ	1:E:4234:PHE:HA	2.56	0.41
1:G:1082:THR:HG22	1:G:1189:LEU:HG	2.03	0.41
1:G:3669:PHE:HA	1:G:3672:ARG:HG2	2.02	0.41
1:G:3794:VAL:O	1:G:3797:THR:OG1	2.26	0.41
1:G:4104:THR:O	1:G:4108:ILE:HG12	2.21	0.41
1:G:4851:TYR:HD2	1:G:4916:PHE:CE1	2.38	0.41
1:G:5027:CYS:H	1:G:5030:LYS:HB2	1.86	0.41
1:G:541:SER:HB2	1:G:577:ILE:HD12	2.03	0.41
1:G:679:ALA:CB	2:H:71:ARG:HH22	2.34	0.41
1:A:1082:THR:HG22	1:A:1189:LEU:HG	2.03	0.41
1:A:1075:PHE:CE1	1:A:1238:PHE:HB3	2.56	0.41
1:A:292:ALA:O	1:A:299:LEU:HD12	2.21	0.41
1:A:31:GLU:HA	1:A:32:GLN:HA	1.71	0.41
1:A:4661:TYR:CE2	1:A:4789:PHE:HB2	2.56	0.41
1:A:4563:ARG:NH1	1:A:4791:TYR:HE2	2.19	0.41
1:A:681:HIS:O	1:A:682:LEU:HD12	2.20	0.41
1:C:1286:MET:O	1:C:1287:LEU:HD12	2.21	0.41
1:C:2756:ASN:OD1	1:C:2806:ARG:NH2	2.54	0.41
1:C:3886:ARG:HD3	1:C:3960:GLN:HE22	1.86	0.41
1:C:4017:LEU:O	1:C:4020:GLN:HB3	2.21	0.41
1:C:665:GLU:OE2	1:C:802:PHE:HB3	2.21	0.41
1:E:1082:THR:HG22	1:E:1189:LEU:HG	2.03	0.41
1:E:41:GLY:HA2	1:E:137:LEU:HD12	2.02	0.41
1:E:1641:ILE:HA	1:E:1642:PRO:HD2	1.95	0.41
1:E:1725:ARG:HD3	1:E:1725:ARG:HA	1.93	0.41
1:E:3775:ALA:O	1:E:3778:MET:HB3	2.20	0.41
1:E:3782:MET:HB3	1:E:3797:THR:HG21	2.03	0.41
1:E:3899:PHE:O	1:E:3903:LEU:HG	2.21	0.41
1:E:4030:LEU:HD23	1:E:4031:LEU:HD12	2.02	0.41
1:E:4208:PRO:HG2	1:E:4210:VAL:HG23	2.03	0.41
1:E:4641:PRO:O	1:E:4644:TRP:HB3	2.20	0.41
1:E:4661:TYR:CE2	1:E:4789:PHE:HB2	2.55	0.41
1:E:541:SER:HB2	1:E:577:ILE:HD12	2.02	0.41
1:E:648:ILE:CD1	1:E:815:VAL:HA	2.51	0.41
1:G:118:LEU:O	1:G:146:CYS:HA	2.21	0.41
1:G:1810:LYS:O	1:G:1814:MET:HG2	2.20	0.41
1:G:4027:LEU:HD22	1:G:4044:MET:CE	2.45	0.41
1:G:4865:LYS:HB2	1:G:4874:MET:HB3	2.02	0.41
1:A:1868:PRO:HD3	1:A:1925:GLY:HA3	2.02	0.40
1:A:66:CYS:SG	1:A:205:ILE:HG13	2.61	0.40
1:A:244:LEU:HD22	1:A:375:LYS:NZ	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3782:MET:HB3	1:A:3797:THR:HG21	2.03	0.40
1:A:3817:LEU:HD13	1:A:3899:PHE:CD1	2.55	0.40
1:A:4017:LEU:O	1:A:4020:GLN:HB3	2.21	0.40
1:A:4686:LEU:HA	1:A:4690:GLU:H	1.86	0.40
1:A:4826:ILE:HD11	1:G:4836:GLN:HB3	2.03	0.40
2:B:58:GLY:HA3	2:B:76:ILE:HG23	2.03	0.40
1:C:840:VAL:HG12	1:C:1199:VAL:HG22	2.03	0.40
1:C:2149:VAL:O	1:C:2153:MET:HG2	2.21	0.40
1:C:2423:MET:HG3	1:C:2498:HIS:ND1	2.36	0.40
1:C:3782:MET:HB3	1:C:3797:THR:HG21	2.03	0.40
1:C:752:VAL:HG12	1:C:754:SER:H	1.85	0.40
1:E:1093:GLU:HA	1:E:1148:VAL:HG13	2.02	0.40
1:E:1087:ARG:NH1	1:E:1221:GLU:O	2.47	0.40
1:E:1810:LYS:O	1:E:1814:MET:HG2	2.20	0.40
1:E:1838:PHE:HB3	1:E:1842:LEU:HD13	2.03	0.40
1:E:2865:VAL:O	1:E:2928:LYS:NZ	2.38	0.40
1:E:292:ALA:O	1:E:299:LEU:HD12	2.21	0.40
1:E:548:VAL:HG11	1:E:582:HIS:HA	2.03	0.40
1:E:62:LEU:HD12	1:E:65:CYS:HB2	2.03	0.40
1:E:716:PHE:HD2	1:E:722:TRP:CH2	2.39	0.40
1:G:1086:GLY:O	1:G:1155:LEU:HD12	2.21	0.40
1:G:1089:TYR:CB	1:G:1223:PHE:HB3	2.51	0.40
1:G:626:LEU:HB3	1:G:1688:HIS:CE1	2.55	0.40
1:G:2865:VAL:O	1:G:2928:LYS:NZ	2.41	0.40
1:G:4813:LEU:HD23	1:G:4813:LEU:HA	1.90	0.40
1:G:4869:GLU:O	1:G:4871:GLU:N	2.44	0.40
1:A:1286:MET:O	1:A:1287:LEU:HD12	2.21	0.40
1:A:26:ALA:HB2	1:A:182:LEU:HD21	2.03	0.40
1:A:302:VAL:HG22	1:A:303:ASP:N	2.36	0.40
1:A:3899:PHE:O	1:A:3903:LEU:HG	2.21	0.40
1:A:472:ARG:NE	1:A:532:GLY:HA3	2.36	0.40
1:C:1670:TYR:HB2	1:C:1714:LEU:HD21	2.02	0.40
1:C:1762:LEU:HA	1:C:1763:PRO:HD2	1.92	0.40
1:C:2094:LEU:HA	1:C:2097:LEU:HG	2.04	0.40
1:C:3898:ASP:OD1	1:C:3899:PHE:N	2.54	0.40
1:C:4208:PRO:HG2	1:C:4210:VAL:HG23	2.03	0.40
1:C:4217:PHE:CZ	1:C:4234:PHE:HA	2.56	0.40
1:C:717:ASP:O	1:C:720:HIS:NE2	2.54	0.40
1:C:790:ARG:HH21	1:C:1625:GLY:CA	2.34	0.40
1:C:679:ALA:CB	2:D:71:ARG:HH22	2.35	0.40
1:E:639:ASN:HA	1:E:1635:THR:HG22	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2496:PRO:HB2	1:E:2552:ARG:HD2	2.03	0.40
1:E:441:VAL:HG12	1:E:445:LEU:HD13	2.02	0.40
1:E:66:CYS:SG	1:E:205:ILE:HG13	2.61	0.40
1:G:111:HIS:CD2	1:G:113:HIS:H	2.38	0.40
1:G:1143:TRP:HE3	1:G:1144:GLN:O	2.04	0.40
1:G:1781:CYS:SG	1:G:1783:VAL:HG22	2.62	0.40
1:G:4175:ARG:HB3	1:G:4176:PRO:HD3	2.03	0.40
1:G:4208:PRO:HB2	1:G:4209:GLN:H	1.72	0.40
1:G:441:VAL:HG12	1:G:445:LEU:HD13	2.02	0.40
1:A:118:LEU:O	1:A:146:CYS:HA	2.21	0.40
1:A:1287:LEU:HD22	1:A:1556:PRO:HG3	2.03	0.40
1:A:3927:GLN:CD	1:A:3988:ALA:HA	2.42	0.40
1:A:3984:ARG:HH21	1:A:3984:ARG:HD2	1.70	0.40
1:A:648:ILE:CD1	1:A:815:VAL:HA	2.52	0.40
1:A:752:VAL:HG12	1:A:754:SER:H	1.85	0.40
1:C:1248:VAL:HA	1:C:1249:PRO:HD3	1.88	0.40
1:C:1838:PHE:HB3	1:C:1842:LEU:HD13	2.04	0.40
1:C:1958:LEU:HD13	1:C:2134:LEU:HD11	2.03	0.40
1:C:2160:GLY:O	1:C:2164:SER:N	2.51	0.40
1:C:223:PHE:CD1	1:C:230:CYS:HB3	2.54	0.40
1:C:3984:ARG:HD2	1:C:3984:ARG:HH21	1.72	0.40
1:C:4550:LYS:HB2	1:C:4550:LYS:HE3	1.84	0.40
1:C:4913:ARG:HH12	1:C:4917:ASP:HB2	1.86	0.40
1:C:4934:GLY:HA2	1:C:4937:ILE:HG12	2.03	0.40
1:C:589:LEU:HG	1:C:593:HIS:CD2	2.57	0.40
1:C:716:PHE:HD2	1:C:722:TRP:CH2	2.39	0.40
1:E:102:LEU:HD12	1:E:105:HIS:CE1	2.57	0.40
1:E:1248:VAL:HA	1:E:1249:PRO:HD3	1.89	0.40
1:E:1853:ILE:O	1:E:1854:PHE:HB2	2.21	0.40
1:E:1949:GLN:O	1:E:1952:GLN:HB3	2.22	0.40
1:E:3651:ASN:O	1:E:3655:GLU:HG2	2.21	0.40
1:E:4653:VAL:HA	1:E:4656:LEU:HG	2.02	0.40
1:E:4682:GLU:CD	1:E:4723:LYS:NZ	2.75	0.40
1:E:752:VAL:HG12	1:E:754:SER:H	1.85	0.40
1:G:1075:PHE:CE1	1:G:1238:PHE:HB3	2.56	0.40
1:G:1077:ALA:O	1:G:1189:LEU:HD13	2.20	0.40
1:G:2133:GLU:HG3	1:G:2136:ARG:HH21	1.87	0.40
1:G:2495:VAL:HG12	1:G:2553:TYR:OH	2.22	0.40
1:G:26:ALA:HB2	1:G:182:LEU:HD21	2.03	0.40
1:G:649:PHE:CE1	1:G:776:LEU:HD23	2.57	0.40
1:A:1691:GLN:NE2	1:A:1802:ILE:HA	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2100:HIS:HB3	1:A:2104:ARG:NH1	2.36	0.40
1:A:2381:GLU:HA	1:A:2384:ILE:HD12	2.03	0.40
1:A:2423:MET:HG3	1:A:2498:HIS:ND1	2.36	0.40
1:A:3651:ASN:O	1:A:3655:GLU:HG2	2.22	0.40
1:A:2124:LEU:CD2	1:A:3677:LEU:HD21	2.52	0.40
1:A:4852:THR:HG21	1:A:4883:TYR:HB2	2.03	0.40
1:A:530:ILE:O	1:A:530:ILE:CG2	2.68	0.40
1:A:626:LEU:HB2	1:A:627:PRO:HD3	2.01	0.40
1:C:1143:TRP:HE3	1:C:1144:GLN:O	2.04	0.40
1:C:1294:PRO:HD3	1:C:1549:PHE:CE1	2.57	0.40
1:C:1652:GLU:OE2	1:C:1655:GLU:OE2	2.38	0.40
1:C:1949:GLN:O	1:C:1952:GLN:HB3	2.21	0.40
1:C:1867:GLU:HG2	1:C:2097:LEU:HD22	2.03	0.40
1:C:3817:LEU:HD13	1:C:3899:PHE:CD1	2.56	0.40
1:C:4172:GLU:HA	1:C:4175:ARG:HH12	1.85	0.40
1:C:4686:LEU:O	1:C:4691:GLN:N	2.41	0.40
1:C:4878:ASP:O	1:C:4881:THR:OG1	2.31	0.40
1:C:737:LEU:HD11	2:D:7:ILE:CG2	2.39	0.40
1:E:1089:TYR:CB	1:E:1223:PHE:HB3	2.51	0.40
1:E:1294:PRO:HD3	1:E:1549:PHE:CE1	2.57	0.40
1:E:2139:PRO:HG3	1:E:3658:LYS:HZ3	1.86	0.40
1:E:2930:LEU:HD13	1:E:2937:VAL:HG21	2.03	0.40
1:E:302:VAL:HG22	1:E:303:ASP:N	2.36	0.40
1:E:56:GLN:HA	1:E:309:THR:OG1	2.22	0.40
1:E:3898:ASP:OD1	1:E:3899:PHE:N	2.55	0.40
1:E:4235:VAL:HG11	1:E:5019:TRP:CH2	2.56	0.40
1:E:665:GLU:HB2	1:E:792:LEU:HB2	2.02	0.40
1:E:689:THR:HA	1:E:778:PHE:HE1	1.86	0.40
2:F:11:ASP:OD1	2:F:12:GLY:N	2.54	0.40
1:G:1093:GLU:HA	1:G:1148:VAL:HG13	2.02	0.40
1:G:1671:ARG:HD2	1:G:1713:ASP:HB3	2.04	0.40
1:G:1745:ILE:O	1:G:1746:THR:OG1	2.35	0.40
1:G:2423:MET:HG3	1:G:2498:HIS:ND1	2.36	0.40
1:A:597:HIS:CE1	1:A:1661:ARG:HH12	2.39	0.40
1:A:1743:ARG:NH1	1:A:1963:GLU:HG3	2.37	0.40
1:A:2160:GLY:O	1:A:2164:SER:N	2.51	0.40
1:A:3705:PHE:HZ	1:A:3721:LEU:HD23	1.85	0.40
1:A:4208:PRO:HG2	1:A:4210:VAL:HG23	2.03	0.40
1:A:4681:LEU:HD21	1:A:4687:TYR:HB2	2.03	0.40
2:B:25:HIS:HD2	2:B:104:LEU:HD21	1.86	0.40
1:C:1089:TYR:CD1	1:C:1152:MET:HG2	2.50	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1637:MET:O	1:C:1650:ILE:N	2.36	0.40
1:C:2124:LEU:HD11	1:C:2128:TYR:HE2	1.86	0.40
1:C:2495:VAL:HG12	1:C:2553:TYR:OH	2.22	0.40
1:C:4030:LEU:HD23	1:C:4031:LEU:HD12	2.02	0.40
1:C:4053:SER:O	1:C:4056:GLU:HB3	2.21	0.40
1:C:4181:ILE:HB	1:C:4988:TYR:CE1	2.56	0.40
1:C:4922:PHE:O	1:C:4927:ILE:HG12	2.22	0.40
1:C:62:LEU:HD12	1:C:65:CYS:HB2	2.04	0.40
1:C:689:THR:HA	1:C:778:PHE:HE1	1.87	0.40
1:E:3786:CYS:O	1:E:3789:GLU:HG2	2.22	0.40
1:E:3780:LEU:HD23	1:E:3819:TYR:HD2	1.87	0.40
1:E:4686:LEU:HD12	1:E:4687:TYR:N	2.37	0.40
1:E:472:ARG:NE	1:E:532:GLY:HA3	2.37	0.40
1:E:4927:ILE:O	1:E:4931:ILE:HG13	2.21	0.40
1:G:1949:GLN:O	1:G:1952:GLN:HB3	2.21	0.40
1:G:2802:LYS:O	1:G:2806:ARG:HG3	2.20	0.40
1:G:3914:ASN:OD1	1:G:3916:ILE:HB	2.21	0.40
1:G:4930:ALA:HA	1:G:4933:GLN:HG2	2.02	0.40
1:G:665:GLU:HB2	1:G:792:LEU:HB2	2.02	0.40
1:G:648:ILE:CD1	1:G:815:VAL:HA	2.51	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	3499/5037 (70%)	3211 (92%)	199 (6%)	89 (2%)	7	49
1	C	3499/5037 (70%)	3211 (92%)	201 (6%)	87 (2%)	7	49
1	E	3499/5037 (70%)	3211 (92%)	199 (6%)	89 (2%)	7	49
1	G	3499/5037 (70%)	3211 (92%)	199 (6%)	89 (2%)	7	49

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	B	105/108 (97%)	97 (92%)	8 (8%)	0	100	100
2	D	105/108 (97%)	97 (92%)	8 (8%)	0	100	100
2	F	105/108 (97%)	97 (92%)	8 (8%)	0	100	100
2	H	105/108 (97%)	97 (92%)	7 (7%)	1 (1%)	19	66
All	All	14416/20580 (70%)	13232 (92%)	829 (6%)	355 (2%)	11	49

All (355) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	55	ALA
1	A	737	LEU
1	A	858	THR
1	A	896	VAL
1	A	916	PRO
1	A	1254	HIS
1	A	1457	TYR
1	A	2465	ASP
1	A	3806	ASN
1	A	4084	PRO
1	A	4121	GLU
1	A	4691	GLN
1	A	4868	ASP
1	A	4984	ASN
1	A	4985	LEU
1	C	55	ALA
1	C	737	LEU
1	C	858	THR
1	C	896	VAL
1	C	916	PRO
1	C	1254	HIS
1	C	1457	TYR
1	C	2465	ASP
1	C	3806	ASN
1	C	4084	PRO
1	C	4121	GLU
1	C	4691	GLN
1	C	4868	ASP
1	C	4984	ASN
1	C	4985	LEU
1	E	55	ALA
1	E	737	LEU

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Mol	Chain	Res	Type
1	E	858	THR
1	E	896	VAL
1	E	916	PRO
1	E	1254	HIS
1	E	2465	ASP
1	E	3806	ASN
1	E	4084	PRO
1	E	4121	GLU
1	E	4691	GLN
1	E	4868	ASP
1	E	4984	ASN
1	E	4985	LEU
1	G	55	ALA
1	G	737	LEU
1	G	858	THR
1	G	896	VAL
1	G	916	PRO
1	G	1254	HIS
1	G	1457	TYR
1	G	2465	ASP
1	G	3806	ASN
1	G	4084	PRO
1	G	4691	GLN
1	G	4868	ASP
1	G	4984	ASN
1	G	4985	LEU
1	A	610	ASN
1	A	673	PRO
1	A	698	GLY
1	A	817	PRO
1	A	939	VAL
1	A	1249	PRO
1	A	1465	ASP
1	A	1676	LEU
1	A	1746	THR
1	A	2341	VAL
1	A	4036	VAL
1	A	4128	PHE
1	A	4206	GLU
1	C	610	ASN
1	C	673	PRO
1	C	698	GLY

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Mol	Chain	Res	Type
1	C	817	PRO
1	C	939	VAL
1	C	1465	ASP
1	C	1676	LEU
1	C	1746	THR
1	C	2341	VAL
1	C	4036	VAL
1	C	4128	PHE
1	C	4206	GLU
1	E	610	ASN
1	E	673	PRO
1	E	698	GLY
1	E	939	VAL
1	E	1249	PRO
1	E	1457	TYR
1	E	1465	ASP
1	E	1676	LEU
1	E	1746	THR
1	E	2341	VAL
1	E	4036	VAL
1	E	4128	PHE
1	E	4206	GLU
1	G	610	ASN
1	G	673	PRO
1	G	698	GLY
1	G	939	VAL
1	G	1249	PRO
1	G	1465	ASP
1	G	1676	LEU
1	G	1746	THR
1	G	2341	VAL
1	G	3457	ASN
1	G	4036	VAL
1	G	4128	PHE
1	A	31	GLU
1	A	57	ASN
1	A	144	GLU
1	A	213	TYR
1	A	700	GLU
1	A	716	PHE
1	A	725	HIS
1	A	826	ILE

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Mol	Chain	Res	Type
1	A	827	LYS
1	A	1156	THR
1	A	1212	ARG
1	A	1539	PHE
1	A	1544	PRO
1	A	1854	PHE
1	A	1856	ASP
1	A	1934	SER
1	A	2466	LEU
1	A	2826	ALA
1	A	3456	GLN
1	A	3457	ASN
1	A	3714	SER
1	A	3842	LEU
1	A	3906	GLN
1	A	3941	ASP
1	A	4052	SER
1	A	4203	ALA
1	A	4208	PRO
1	A	4694	ASP
1	A	4973	HIS
1	C	31	GLU
1	C	144	GLU
1	C	213	TYR
1	C	700	GLU
1	C	716	PHE
1	C	725	HIS
1	C	826	ILE
1	C	827	LYS
1	C	1156	THR
1	C	1212	ARG
1	C	1249	PRO
1	C	1539	PHE
1	C	1544	PRO
1	C	1854	PHE
1	C	1856	ASP
1	C	1934	SER
1	C	2466	LEU
1	C	2826	ALA
1	C	3456	GLN
1	C	3457	ASN
1	C	3714	SER

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Mol	Chain	Res	Type
1	C	3842	LEU
1	C	3906	GLN
1	C	3941	ASP
1	C	4052	SER
1	C	4203	ALA
1	C	4208	PRO
1	C	4694	ASP
1	C	4973	HIS
1	E	31	GLU
1	E	144	GLU
1	E	213	TYR
1	E	700	GLU
1	E	716	PHE
1	E	725	HIS
1	E	817	PRO
1	E	826	ILE
1	E	827	LYS
1	E	1156	THR
1	E	1212	ARG
1	E	1539	PHE
1	E	1544	PRO
1	E	1854	PHE
1	E	1856	ASP
1	E	1934	SER
1	E	2466	LEU
1	E	2826	ALA
1	E	3456	GLN
1	E	3457	ASN
1	E	3714	SER
1	E	3842	LEU
1	E	3906	GLN
1	E	3941	ASP
1	E	4052	SER
1	E	4203	ALA
1	E	4208	PRO
1	E	4694	ASP
1	E	4973	HIS
1	G	31	GLU
1	G	57	ASN
1	G	144	GLU
1	G	213	TYR
1	G	700	GLU

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Mol	Chain	Res	Type
1	G	716	PHE
1	G	725	HIS
1	G	817	PRO
1	G	826	ILE
1	G	827	LYS
1	G	1156	THR
1	G	1212	ARG
1	G	1539	PHE
1	G	1544	PRO
1	G	1854	PHE
1	G	1856	ASP
1	G	1934	SER
1	G	2466	LEU
1	G	3658	LYS
1	G	3714	SER
1	G	3842	LEU
1	G	3843	ASP
1	G	3906	GLN
1	G	3941	ASP
1	G	4121	GLU
1	G	4203	ALA
1	G	4208	PRO
1	G	4694	ASP
1	G	4973	HIS
1	A	355	LEU
1	A	720	HIS
1	A	765	GLN
1	A	828	GLU
1	A	1624	LEU
1	A	1690	ASP
1	A	3695	PRO
1	A	3843	ASP
1	A	4087	LEU
1	A	4636	THR
1	A	4905	ALA
1	C	57	ASN
1	C	355	LEU
1	C	720	HIS
1	C	765	GLN
1	C	828	GLU
1	C	1624	LEU
1	C	1690	ASP

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Mol	Chain	Res	Type
1	C	3695	PRO
1	C	3843	ASP
1	C	4087	LEU
1	C	4636	THR
1	C	4905	ALA
1	E	57	ASN
1	E	355	LEU
1	E	720	HIS
1	E	765	GLN
1	E	828	GLU
1	E	1460	HIS
1	E	1624	LEU
1	E	1690	ASP
1	E	3695	PRO
1	E	3843	ASP
1	E	4087	LEU
1	E	4636	THR
1	E	4905	ALA
1	G	355	LEU
1	G	720	HIS
1	G	765	GLN
1	G	828	GLU
1	G	1624	LEU
1	G	1690	ASP
1	G	2826	ALA
1	G	3695	PRO
1	G	4087	LEU
1	G	4206	GLU
1	G	4636	THR
1	G	4637	GLY
1	G	4858	PHE
1	A	676	THR
1	A	818	ARG
1	A	1206	GLN
1	A	1538	THR
1	A	1589	PRO
1	A	1762	LEU
1	A	4637	GLY
1	C	676	THR
1	C	818	ARG
1	C	1206	GLN
1	C	1538	THR

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Mol	Chain	Res	Type
1	C	1589	PRO
1	C	1762	LEU
1	C	4637	GLY
1	E	676	THR
1	E	818	ARG
1	E	1538	THR
1	E	1589	PRO
1	E	1762	LEU
1	E	4637	GLY
1	G	676	THR
1	G	818	ARG
1	G	1206	GLN
1	G	1538	THR
1	G	1589	PRO
1	G	1762	LEU
1	G	3456	GLN
1	G	3718	GLU
1	G	3841	VAL
1	A	1082	THR
1	A	4858	PHE
1	C	724	GLY
1	C	1082	THR
1	E	724	GLY
1	E	1206	GLN
1	E	1482	ASN
1	E	4858	PHE
1	G	724	GLY
1	G	1082	THR
1	G	1482	ASN
1	G	1830	VAL
1	A	915	GLU
1	A	1830	VAL
1	A	2113	SER
1	A	3841	VAL
1	C	1830	VAL
1	C	2113	SER
1	C	3841	VAL
1	E	915	GLU
1	E	1830	VAL
1	E	2113	SER
1	G	915	GLU
1	G	2113	SER

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Mol	Chain	Res	Type
1	A	438	ILE
1	A	724	GLY
1	A	767	VAL
1	A	4872	PRO
1	C	438	ILE
1	C	767	VAL
1	C	915	GLU
1	C	4872	PRO
1	E	438	ILE
1	E	767	VAL
1	E	3841	VAL
1	E	4872	PRO
1	G	438	ILE
1	G	532	GLY
1	G	4072	VAL
1	A	532	GLY
1	C	532	GLY
1	C	842	PRO
1	E	532	GLY
1	G	767	VAL
1	G	842	PRO
1	G	4872	PRO
1	A	842	PRO
1	A	4072	VAL
1	C	4072	VAL
1	E	842	PRO
1	E	4072	VAL
2	H	86	GLY
1	A	1095	VAL

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	2503/4276 (58%)	2489 (99%)	14 (1%)	90	96
1	C	2504/4276 (59%)	2490 (99%)	14 (1%)	90	96

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	E	2504/4276 (59%)	2490 (99%)	14 (1%)	90	96
1	G	2502/4276 (58%)	2489 (100%)	13 (0%)	92	97
2	B	89/90 (99%)	89 (100%)	0	100	100
2	D	89/90 (99%)	89 (100%)	0	100	100
2	F	89/90 (99%)	89 (100%)	0	100	100
2	H	89/90 (99%)	89 (100%)	0	100	100
All	All	10369/17464 (59%)	10314 (100%)	55 (0%)	92	97

All (55) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	377	ILE
1	A	380	GLN
1	A	510	GLU
1	A	806	PRO
1	A	862	VAL
1	A	865	PRO
1	A	908	VAL
1	A	914	PRO
1	A	979	PRO
1	A	1055	PRO
1	A	1096	THR
1	A	2066	LEU
1	A	3884	LEU
1	A	4972	PRO
1	C	377	ILE
1	C	380	GLN
1	C	510	GLU
1	C	806	PRO
1	C	862	VAL
1	C	865	PRO
1	C	908	VAL
1	C	914	PRO
1	C	979	PRO
1	C	1055	PRO
1	C	1096	THR
1	C	2066	LEU
1	C	3884	LEU
1	C	4972	PRO
1	E	377	ILE

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Mol	Chain	Res	Type
1	E	380	GLN
1	E	510	GLU
1	E	806	PRO
1	E	862	VAL
1	E	865	PRO
1	E	908	VAL
1	E	914	PRO
1	E	979	PRO
1	E	1055	PRO
1	E	1096	THR
1	E	2066	LEU
1	E	3884	LEU
1	E	4972	PRO
1	G	377	ILE
1	G	380	GLN
1	G	510	GLU
1	G	806	PRO
1	G	865	PRO
1	G	908	VAL
1	G	914	PRO
1	G	979	PRO
1	G	1055	PRO
1	G	1096	THR
1	G	2066	LEU
1	G	4169	SER
1	G	4972	PRO

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (169) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	23	GLN
1	A	105	HIS
1	A	111	HIS
1	A	113	HIS
1	A	203	ASN
1	A	273	HIS
1	A	405	HIS
1	A	465	GLN
1	A	495	ASN
1	A	582	HIS
1	A	593	HIS
1	A	617	ASN

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Mol	Chain	Res	Type
1	A	681	HIS
1	A	1203	ASN
1	A	1254	HIS
1	A	1281	ASN
1	A	1640	HIS
1	A	1663	HIS
1	A	1665	HIS
1	A	1679	ASN
1	A	1691	GLN
1	A	1693	GLN
1	A	1719	HIS
1	A	1775	HIS
1	A	1953	HIS
1	A	2188	ASN
1	A	2196	ASN
1	A	2245	GLN
1	A	2856	ASN
1	A	3699	HIS
1	A	3771	HIS
1	A	3960	GLN
1	A	3970	GLN
1	A	3982	HIS
1	A	3998	HIS
1	A	4153	HIS
1	A	4223	ASN
1	A	4987	ASN
1	A	5006	GLN
2	B	25	HIS
2	B	87	HIS
1	C	23	GLN
1	C	105	HIS
1	C	111	HIS
1	C	113	HIS
1	C	203	ASN
1	C	273	HIS
1	C	405	HIS
1	C	465	GLN
1	C	495	ASN
1	C	582	HIS
1	C	593	HIS
1	C	617	ASN
1	C	681	HIS

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Mol	Chain	Res	Type
1	C	1203	ASN
1	C	1254	HIS
1	C	1281	ASN
1	C	1640	HIS
1	C	1663	HIS
1	C	1665	HIS
1	C	1679	ASN
1	C	1691	GLN
1	C	1693	GLN
1	C	1719	HIS
1	C	1775	HIS
1	C	2188	ASN
1	C	2196	ASN
1	C	2245	GLN
1	C	2260	ASN
1	C	2856	ASN
1	C	3699	HIS
1	C	3771	HIS
1	C	3960	GLN
1	C	3970	GLN
1	C	3982	HIS
1	C	3998	HIS
1	C	4153	HIS
1	C	4223	ASN
1	C	4650	HIS
1	C	4987	ASN
1	C	5006	GLN
2	D	25	HIS
2	D	87	HIS
1	E	23	GLN
1	E	105	HIS
1	E	111	HIS
1	E	113	HIS
1	E	203	ASN
1	E	218	HIS
1	E	273	HIS
1	E	405	HIS
1	E	465	GLN
1	E	495	ASN
1	E	582	HIS
1	E	593	HIS
1	E	617	ASN

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Mol	Chain	Res	Type
1	E	681	HIS
1	E	1203	ASN
1	E	1254	HIS
1	E	1281	ASN
1	E	1663	HIS
1	E	1665	HIS
1	E	1679	ASN
1	E	1691	GLN
1	E	1693	GLN
1	E	1719	HIS
1	E	1775	HIS
1	E	1953	HIS
1	E	2188	ASN
1	E	2196	ASN
1	E	2245	GLN
1	E	2856	ASN
1	E	3699	HIS
1	E	3771	HIS
1	E	3896	ASN
1	E	3960	GLN
1	E	3970	GLN
1	E	3982	HIS
1	E	3998	HIS
1	E	4153	HIS
1	E	4223	ASN
1	E	4650	HIS
1	E	4987	ASN
1	E	5006	GLN
2	F	25	HIS
2	F	87	HIS
1	G	23	GLN
1	G	105	HIS
1	G	111	HIS
1	G	113	HIS
1	G	203	ASN
1	G	273	HIS
1	G	405	HIS
1	G	461	HIS
1	G	465	GLN
1	G	495	ASN
1	G	582	HIS
1	G	593	HIS

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Mol	Chain	Res	Type
1	G	617	ASN
1	G	681	HIS
1	G	1203	ASN
1	G	1254	HIS
1	G	1281	ASN
1	G	1640	HIS
1	G	1663	HIS
1	G	1665	HIS
1	G	1679	ASN
1	G	1691	GLN
1	G	1693	GLN
1	G	1719	HIS
1	G	1775	HIS
1	G	1970	GLN
1	G	2188	ASN
1	G	2260	ASN
1	G	2856	ASN
1	G	3699	HIS
1	G	3851	ASN
1	G	3900	GLN
1	G	3960	GLN
1	G	3977	GLN
1	G	3994	HIS
1	G	3998	HIS
1	G	4153	HIS
1	G	4223	ASN
1	G	4707	ASN
1	G	4812	HIS
1	G	4987	ASN
2	H	25	HIS
2	H	87	HIS

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 [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

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

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.