



wwPDB EM Map/Model Validation Report ⓘ

Apr 10, 2016 – 02:30 PM BST

PDB ID : 4V8W
EMDB ID: : EMD-2357
Title : Structure and conformational variability of the Mycobacterium tuberculosis fatty acid synthase multienzyme complex
Authors : Ciccarelli, L.; Connell, S.R.; Enderle, M.; Mills, D.J.; Vonck, J.; Grininger, M.
Deposited on : 2013-04-18
Resolution : 17.50 Å(reported)
Based on PDB ID : 3ZEN

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 : 1.7.1 (RC1), CSD as537be (2016)
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) : trunk27241

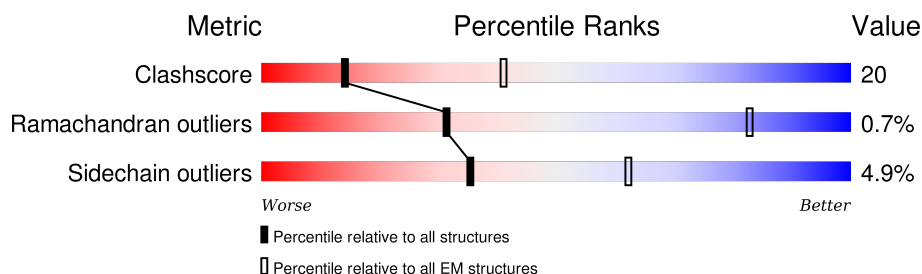
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 17.50 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	3089	57% 31% • 9%
1	B	3089	57% 31% • 9%
1	C	3089	57% 32% • 9%
1	D	3089	50% 27% • 21%
1	E	3089	57% 31% • 9%
1	F	3089	56% 32% • 9%

2 Entry composition [i](#)

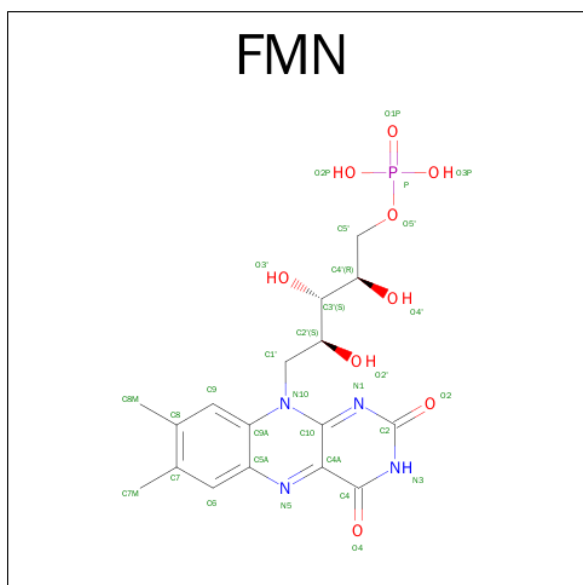
There are 2 unique types of molecules in this entry. The entry contains 123082 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 TYPE-I FATTY ACID SYNTHASE.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	D	2452	Total	C	N	O	S	0	0
			18171	11459	3176	3473	63		
1	E	2822	Total	C	N	O	S	0	0
			20945	13219	3662	3998	66		
1	F	2822	Total	C	N	O	S	0	0
			20945	13219	3662	3998	66		
1	A	2822	Total	C	N	O	S	0	0
			20945	13219	3662	3998	66		
1	B	2822	Total	C	N	O	S	0	0
			20945	13219	3662	3998	66		
1	C	2822	Total	C	N	O	S	0	0
			20945	13219	3662	3998	66		

- Molecule 2 is FLAVIN MONONUCLEOTIDE (three-letter code: FMN) (formula: C₁₇H₂₁N₄O₉P).



Mol	Chain	Residues	Atoms					AltConf
2	D	1	Total	C	N	O	P	0
			31	17	4	9	1	

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Mol	Chain	Residues	Atoms					AltConf
2	E	1	Total	C	N	O	P	0
			31	17	4	9	1	
2	F	1	Total	C	N	O	P	0
			31	17	4	9	1	
2	A	1	Total	C	N	O	P	0
			31	17	4	9	1	
2	B	1	Total	C	N	O	P	0
			31	17	4	9	1	
2	C	1	Total	C	N	O	P	0
			31	17	4	9	1	

L2495	L2408	D2282	I2165	L2067	ALA	ILE	LEU	ALA	K1706	G1612	I1503	V1408	K1291	L1185	L1091
A2409	A2409	D2282	A2166	L2070	VAL	THR	GLY	PRO	S1707	R1613	I1504	V1408	K1292	L1188	A1092
A2412	A2412	R2286	T2167	E2074	ALA	ARG	GLU	ALA	T1710	P1616	P1505	H1412	K1304	L1188	P1093
M2416	M2416	H2288	R2170	E2074	ALA	VAL	ASN	PRO	A1711	R1617	Q1506	D1414	D1307	R1191	L1095
S2417	S2417	L2291	D2173	Q2081	ARG	THR	LEU	GLY	A1712	L1618	Q1507	G1415	Q1308	F1192	T1096
G2418	G2418	L2291	D2174	M2082	ARG	THR	LEU	GLY	G1713	V1619	I1508	V1416	V1309	V1097	V1098
D2421	D2421	L2291	R2176	Q2084	ILE	THR	ALA	PRO	L1714	P1620	D1511	L1417	D1310	P1099	D1100
E2422	E2422	S2294	R2176	Q2084	ILE	THR	ALA	PRO	L1719	R1621	D1511	T1420	R1311	G1196	V1099
V2521	V2521	N2296	R2176	Q2084	SER	GLU	ILE	ARG	P1722	F1622	D1514	T1420	R1312	G1196	D1100
P2522	P2522	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
E2523	E2523	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
C2524	C2524	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
L2526	L2526	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
V2527	V2527	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
P2528	P2528	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
R2529	R2529	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
Y2530	Y2530	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
A2533	A2533	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
R2541	R2541	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
E2542	E2542	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
F2543	F2543	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
P2551	P2551	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
D2552	D2552	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
R2553	R2553	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
A2554	A2554	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
L2557	L2557	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
L2558	L2558	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
L2563	L2563	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
F2567	F2567	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
E2574	E2574	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
F2580	F2580	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
Q2582	Q2582	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
F2583	F2583	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
D2584	D2584	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
P2585	P2585	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
E2586	E2586	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
R2591	R2591	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
P2592	P2592	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
W2599	W2599	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
R2603	R2603	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
R2610	R2610	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
V2611	V2611	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
P2612	P2612	N2296	R2176	Q2084	VAL	LEU	ASP	PRO	P1723	F1623	D1514	T1420	R1312	G1196	D1100
L2468	L2468	D2236	I2235	L2118	ALA	GLY	LEU	ALA	Q2010	Q1672	R1560	V1467	P1346	A1274	T1162
A2412	A2412	D2236	I2235	L2118	VAL	THR	LEU	ALA	Q2011	F1673	R1561	Y1468	P1346	A1275	D1163
M2416	M2416	D2236	I2235	L2118	ARG	GLY	LEU	ALA	Q2012	E1687	R1562	E1469	P1346	A1275	D1163
S2417	S2417	D2236	I2235	L2118	GLY	THR	LEU	ALA	Q2013	L1688	R1563	Q1270	P1346	A1275	D1163
G2418	G2418	D2236	I2235	L2118	ILE	ASP	LEU	ALA	Q2014	F1687	R1564	L1470	P1346	A1275	D1163
Y2472	Y2472	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2015	E1690	R1564	E1471	P1346	A1275	D1163
R2478	R2478	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2016	E1690	R1564	E1471	P1346	A1275	D1163
P2482	P2482	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2017	E1690	R1564	E1471	P1346	A1275	D1163
V2483	V2483	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2018	E1690	R1564	E1471	P1346	A1275	D1163
L2487	L2487	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2019	E1690	R1564	E1471	P1346	A1275	D1163
V2611	V2611	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2020	E1690	R1564	E1471	P1346	A1275	D1163
P2612	P2612	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2021	E1690	R1564	E1471	P1346	A1275	D1163
L2408	L2408	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2022	E1690	R1564	E1471	P1346	A1275	D1163
A2412	A2412	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2023	E1690	R1564	E1471	P1346	A1275	D1163
M2416	M2416	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2024	E1690	R1564	E1471	P1346	A1275	D1163
S2417	S2417	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2025	E1690	R1564	E1471	P1346	A1275	D1163
G2418	G2418	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2026	E1690	R1564	E1471	P1346	A1275	D1163
Y2472	Y2472	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2027	E1690	R1564	E1471	P1346	A1275	D1163
R2478	R2478	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2028	E1690	R1564	E1471	P1346	A1275	D1163
P2482	P2482	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2029	E1690	R1564	E1471	P1346	A1275	D1163
V2483	V2483	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2030	E1690	R1564	E1471	P1346	A1275	D1163
L2487	L2487	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2031	E1690	R1564	E1471	P1346	A1275	D1163
V2611	V2611	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2032	E1690	R1564	E1471	P1346	A1275	D1163
P2612	P2612	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2033	E1690	R1564	E1471	P1346	A1275	D1163
L2408	L2408	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2034	E1690	R1564	E1471	P1346	A1275	D1163
A2412	A2412	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2035	E1690	R1564	E1471	P1346	A1275	D1163
M2416	M2416	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2036	E1690	R1564	E1471	P1346	A1275	D1163
S2417	S2417	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2037	E1690	R1564	E1471	P1346	A1275	D1163
G2418	G2418	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2038	E1690	R1564	E1471	P1346	A1275	D1163
Y2472	Y2472	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2039	E1690	R1564	E1471	P1346	A1275	D1163
R2478	R2478	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2040	E1690	R1564	E1471	P1346	A1275	D1163
P2482	P2482	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2041	E1690	R1564	E1471	P1346	A1275	D1163
V2483	V2483	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2042	E1690	R1564	E1471	P1346	A1275	D1163
L2487	L2487	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2043	E1690	R1564	E1471	P1346	A1275	D1163
V2611	V2611	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2044	E1690	R1564	E1471	P1346	A1275	D1163
P2612	P2612	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2045	E1690	R1564	E1471	P1346	A1275	D1163
L2408	L2408	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2046	E1690	R1564	E1471	P1346	A1275	D1163
A2412	A2412	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2047	E1690	R1564	E1471	P1346	A1275	D1163
M2416	M2416	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2048	E1690	R1564	E1471	P1346	A1275	D1163
S2417	S2417	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2049	E1690	R1564	E1471	P1346	A1275	D1163
G2418	G2418	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2050	E1690	R1564	E1471	P1346	A1275	D1163
Y2472	Y2472	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2051	E1690	R1564	E1471	P1346	A1275	D1163
R2478	R2478	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2052	E1690	R1564	E1471	P1346	A1275	D1163
P2482	P2482	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2053	E1690	R1564	E1471	P1346	A1275	D1163
V2483	V2483	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2054	E1690	R1564	E1471	P1346	A1275	D1163
L2487	L2487	D2236	I2235	L2118	ALA	ASP	LEU	ALA	Q2055	E1690	R15				

R2613	L2709	T2784	R2959	L3074	R3613
K2614	L2710	A2785	S2960	L3075	K2614
L2617	L2711	A2786	A2883	S3076	L2617
S2618	L2712	T2787	D2884	T3077	S2618
R2619	V2713	E2788	D2885	R3080	R2619
T2620	L2714	M2789	L2886	L3081	T2620
V2621	L2715	M2790	L2887	L3089	V2621
G2622	M2716	R2791	L2888		G2622
A2623	M2717	K2799	S2889		A2623
Q2624	V2718	F2800	K2891		Q2624
L2625	V2719	R2801	H2892		L2625
D2630	A2720	T2802	D2893		D2630
P2631	H2721	R2805	T2894		P2631
T2632	V2722	D2806	S2895		T2632
V2633	Q2724	R2807	T2896		V2633
D2645	V2727	R2808	L2983		D2645
R2646	G2728	L2809	F2987		R2646
V2647	G2729	G2810	P2988		V2647
A2648	Y2730	G2811	P2989		A2648
L2649	G2731	L2812	G2992		L2649
N2650		Q2815	L2993		N2650
N2651	H2735	L2820	L2994		N2651
L2652	P2736	L2821	T2995		L2652
V2653	V2737	L2822	T2996		V2653
S2662	C2740	A2823	L2983		S2662
P2666	T2742	R2824	F2987		P2666
T2667	A2743	L2827	P2988		T2667
M2672	S2746	A2828	G2992		M2672
S2676	E2748	L2829	L2993		S2676
A2679	E2749	M2831	L2994		A2679
S2680	G2750	G2832	T2995		S2680
T2681	V2751	L2833	L2996		T2681
M2686	K2753	P2834	L2997		M2686
T2690	L2754	V2835	L2998		T2690
S2691	A2759	Q2843	L2999		S2691
M2692	V2762	F2845	V2940		M2692
Q2693	L2763	A2846	F2941		Q2693
T2694	A2764	D2847	Q2942		T2694
M2695	G2765	G2848	M2943		M2695
Y2696	D2768	G2859	L2946		Y2696
H2697	D2769	A2860	L2947		H2697
G2698	L2770	L2861	Q2948		G2698
L2700	E2773	R2865	R2951		L2700
L2701	L2776	T2871	V2954		L2701
G2702	G2779	L2876	L2955		G2702
R2703		L2879	P2956		R2703
A2704		L2880	P2957		A2704
K2705			N2958		K2705
P2706					P2706

• Molecule 1: TYPE-I FATTY ACID SYNTHASE

Chain E:  57% 31% 9%

MET	E89	A182	V292	R381	F487	L590	G683	R793
THR	L90	Q183	V293	R384	M488	L593	M684	L794
ILE	R94	L184	E294	Q384	T489	L594	A685	R795
GLU	P95	R195	V295	Q385	L490	L595	S686	T796
HIS	A106	R196	L301	T389	Q500	V598	G687	Q797
ASP	L107	I198	I305	V390	V501		R688	T798
ARG	E111	G202	E306	V393	K504	R602	D684	F799
PRO	P112	D203	I307	F394	R505	R606	I695	E803
ALA	V113	R204	I308	E395	Q508		H696	A808
TRP	K117	P205	I309	H400	Q509		I697	I811
ASN	L118	P206	T314	V400	R511		G613	D811
ASP	Q119	V208	V315	P405	A515		G614	L816
GLY	V126	G209	G316	T406	P516		P618	E817
SER	P127	V210	L317	V407	I517		L709	L826
ASP	G128	T211	E327	K409	D518		A713	L827
ASN	V129	L222	S328	L410	V521		A716	H830
GLY	Q133	V232	L330	P411	V522		A719	D831
ASP	V137	L233	H336	D412	S523			A833
ASN	R138	V236	E339	L417	I526			E834
ALA	A141	L237	T341	P418	D534			R835
ALA	R142	S238	E342	T419				V836
ASP	Q143	T248	E343	L424	E538			H837
THR	G144	G250	H344	H427	N540			G838
A31	M145	T251	R345		E541			V839
H32	D146	L255	A348	T436	V542			N861
A33	T148	L256	R349	P437	G543			V862
V35	V149	R257	K350	T438	I544			L863
D36	A149	L258	I351	T439	S545			R864
R37	T150	L259	L352	V440	H546			V865
L38	P151	L260	D353	D441	F549			N866
G41	P152	A266	L354	T442	K550			R868
E42	V155	E267	G355	K443	P551			H872
P43	Q160	K268	P356	L444	S559			S873
Y44	L163	E269	D358	V445	V560			D874
A45	A164	E270	I359	H450	I563			L775
V46	A167	A271	L360	E456	H575			D776
A47	S53	R272	R361	Q462	E576			T777
	L56	R273	T364	F468	E577			T778
	G172	L277	A365	L475	R580			T779
	A173	R278	P366	E476	G583			R780
	K171	G279	V367	L479	H584			D781
	D175	A281	R369	L479	H585			F782
	E177	V282	I373	L479	H586			E784
	L178	V286	G374	R483	H587			L787
	L179	D287	I375	A484	H588			T895
	L181	P289	V376	Q486	H589			A896

R2319	D2205	T2098	VAL	PHE	GLY	VAL	R1736	W1682	Q1539	A1448	A1329	P1221	F1123	V1008	A899
S2331	L2209	Q2099	ALA	ALA	GLN	VAL	D1737	K1656	S1540	I1449	R1330	R1225	P1124	P1009	G900
L2332	V2210	A2100	GLY	LEU	THR	THR	L1741	P1657	Y1542	A1450	I1331	Q1541	R1125	L1010	I901
A2333	W2211	W2102	THR	ARG	LYS	ALA	L1745	K1658	A1543	V1455	M1336	D1227	I1126	G1011	V904
E2334	W2212	Q2104	GLY	ARG	LEU	LEU	THR	E1659	I1544	G1456	M1337	V1228	E1127	S1011	F915
W2339	G2214	G2105	ALA	GLY	ALA	SER	ASP	L1660	L1551	E1457	A1338	W1237	G1128	T1013	
Q2348	K1992	L2108	THR	SER	THR	ALA	ASP	C1661	E1552	T1458	A1339	R1253	L1129	W1014	I924
L2352	P1996	R2112	LYS	VAL	LYS	LYS	PRO	K1663	A1553	T1459	R1342	R1253	V1133	R1017	A928
W2353	L2228	R2113	GLY	VAL	THR	MET	GLU	L1461	L1554	A1460	L1343	G1268	V1133	R1018	A929
S2354	K2229	W2114	GLY	GLY	PHE	ASP	PRO	E1666	E1556	A1462	A1344	M1269	P1146	F1019	E930
E2358	L2000	H2115	ASP	GLY	GLN	ASP	GLU	E1667	E1557	C1463	A1345	W1270	K1147	T1020	E931
L2362	Q2010	A2123	LEU	ALA	ILE	SER	ALA	W1671	R1560	V1464	P1346	L1271	E1148	L1021	V931
W2363	L2011	G2118	LEU	LEU	GLU	GLU	ASP	F1672	R1561	V1467	Y1350	L1271	P1149	V1025	V932
L2367	G2012	R2119	GLY	GLY	LEU	ALA	GLU	F1673	E1468	Y1468	A1351	A1274	E1150	E1034	S935
F2238	L2013	L2103	ASP	LEU	ASP	THR	THR	A1674	R1562	E1469	F1352	Q1276	E1151	E1035	R936
	S2014	S2104	ALA	SER	ALA	ALA	ALA	W1679	I1564	E1471	P1353	H1277	T1162	D1036	R937
	L2015	A2125	ILE	THR	ILE	ASP	ASP		D1578	L1474	I1357	V1278	D1163	D1037	Q938
	W2016	W2125	GLY	ASN	GLU	ALA	ALA	D1684	V1579	L1474	Q1358	T1279	T1164	V1045	A939
	P2020	A2126	LEU	LEU	GLN	ALA	ALA	L1685	P1580	R1480	M1362	A1281	G1167	L1046	A940
	W2082	E2127	ASP	SER	THR	THR	GLU	L1686	F1581	R1483	V1376	T1282	R1168	R941	
	T2047	P2134	ALA	ALA	THR	GLY	ALA	F1687	S1583	P1484		D1283		L957	
	A2053		VAL	ASP	GLY	LEU	ALA	E1690	L1586	H1485	A1380	P1286	P1171	W1072	R961
	W2055		LYS	SER	PRO	ARG	ALA	G1694	V1590	D1486	F1390	V1287	V1174	V1077	M962
	P2056		VAL	ASP	GLY	ARG	ALA	L1695		I1487	P1400	P1288	R1177	T1084	V964
	R2059		ILE	VAL	LYS	ASN	ALA	R1699	E1598	R1490	A1405	A1290	N1178		V965
	W2060		ASP	GLY	ARG	GLN	PRO	F1700	K1605	D1491		K1291	A1179	F1087	P966
	L2067		ALA	VAL	THR	VAL	ALA	E1702	D1606		V1408	L1292	L1184	P1090	I970
	L2070		ALA	ALA	ILE	ALA	ALA	G1704	P1607	S1496		W1295	L1185	L1091	A971
	E2074		VAL	VAL	GLU	THR	PRO	V1705	I1611	H1412	K1304	K1304	L1188	A1092	T974
	Q2081		ARG	ARG	ALA	GLY	ALA	T1710	G1612	D1413	D1307	D1307	R1191	P1093	E975
	Z2082		GLY	THR	ILE	SER	ALA	A1711	R1613	G1415	Q1308	T1094	F1192	T1094	W976
	Q2083		ILE	ALA	ARG	GLU	ALA	V1712	Y1614	V1416	V1309	L1095	F1192	L1095	Q977
	Q2084		VAL	VAL	VAL	LEU	PRO	A1712	I1615	L1417	D1310	T1096	A1193	T1096	V978
	L2085		THR	THR	ASN	SER	SER	G1713	Q1507	I1508		F1311	I1194	V1097	R979
	S2086		LEU	ARG	LEU	GLY	GLY	L1714	H1617	T1420	F1311	R1312	R1195	V1098	E980
	Q2087		GLY	ILE	THR	ALA	PRO	L1719	V1618	D1511	Q1421	D1312	G1196	P1099	H989
	R2088		VAL	GLY	GLY	ASP	ASP	P1722	P1622	D1514	T1422	D1314	R1197	D1100	P990
	F2089		LEU	GLY	ALA	ASP	ASP	E1723	F1623	V1519	T1423	R1315	E1202	V1103	S991
	E2090		PRO	ALA	ALA	ILE	ASP	S1725	L1624	V1425	V1316	G1317	L1203	G1104	T992
	G2091		ALA	ALA	GLU	THR	PHE		L1625	V1430	W1318	D1319	T1204	R1105	I996
	T2092		ALA	ALA	THR	ALA	ASP	V1730	R1634	A1431	P1206		V1207	C1106	E997
	G2093		GLY	LYS	ASP	ASP	ALA	E1731	I1532	V1435	V1207		F1111	V1110	V998
	W2093		GLY	LEU	ASP	LEU	ASP	L1732	V1637		A1212				D1001
	H2094		VAL	THR	GLY	ALA	ALA	L1733	P1638	N1534				A1117	Q1002
	V2095		SER	THR	THR	VAL	ASP	W1734	N1536	F1538				T1218	H1003
	W2096		GLY	VAL	LEU	VAL	ALA	E1735	A1639					D1219	V1119
	A2097		GLY	GLY	GLU	GLU	THR		T1651	R1538				V1327	V1004
					LYS									E1120	V1005



E2128	V2032	SER	ARG	ASP	ALA	P1580	H4484	H1394	P1288	L1185	L1091	S991	D887	L787
E2129	T2047	ALA	THR	GLY	ALA	F1581	H1485	H1394	A1290	L1188	A1092	T992	I892	A790
Y2134		ASP	VAL	ALA	PRO	H582	D1486	N1399	K1291	L1188	P1093	I996	T895	E791
E2137	A2053	VAL	GLY	SER	ALA	L1586	V1488	P1400	L1292	R1191	T1094	L996	T895	A792
V2140	A2054	ASP	PRO	ARG	ALA	V1590	P1489	T1401	K1304	F1192	T1096	V998	A896	R793
V2141	F2056	LYS	GLY	ARG	ALA		R1490	A1405	D1307	A1193	V1097	D1001	A899	L794
T2163	T2059	ILE	LYS	ASN	ALA	E1598	D1491	A1405	Q1308	I1194	V1098	Q1002	G900	H795
V2164	W2060	ASP	ARG	LEU	ALA	K1605	S1496	V1408	V1309	R1195	P1099	H1003	I901	P796
T2165	L2067	ALA	ALA	LEU	VAL	G1605	S1496	V1408	D1310	R1197	D1100	V1004	V904	Q797
A2166		VAL	TYR	ASP	ALA	I1611	L1500	H1412	F1311		V1103	V1005		D798
T2167	L2070	ALA	ILE	LEU	ALA	G1612	L1500	P1413	R1312	E1202	G1104	F915		F799
R2170	E2074	ALA	THR	GLY	PRO	R1613	I1503	D1414	V1313	L1203	R1105	F1008		E803
D2173	Q2081	ARG	LYS	LEU	ALA	F1614	R1504	G1415	D1314	T1204	P1009	L924		A808
E2175	E2082	GLY	THR	GLY	ALA	V1615	R1504	V1416	R1315	D1205	S1011	G1012	A928	T811
L2176	Q2084	ILE	TRP	ALA	ALA	P1616	Q1507	L1417	V1316	P1206	F1110	T1013	E929	D811
K2180	L2085	ALA	GLY	LEU	ALA	L1617	I1508	T1420	G1317	V1207	V1111	W1014	P830	
R2188	Q2087	VAL	THR	ASN	SER	L1618	I1508	Q1421	I1318		A1117		V931	L816
F2189	R2088	LEU	LYS	LEU	GLY	V1619	D1511	F1422	D1319	A1212	A1118		E932	E817
T2192	F2089	PRO	THR	ALA	ALA	L1622	D1514	T1423	E1323	T1218	A1119		V933	L826
L2193	E2090	GLY	GLY	ALA	ALA	T1624	D1514	Q1424	V1324	D1219	T1119		E934	L827
L2194	G2091	ALA	ALA	THR	ALA	L1625	V1519	V1425	E1325	T1220	E1120		R934	
L2195	G2093	GLY	LYS	ASP	ALA		V1519	V1425	R1326	V1228	F1123		R935	
L2196	H2094	ALA	HIS	LEU	ALA		V1519	Q1441	V1327		F1124		R936	
L2197	H2095	ALA	VAL	GLY	ALA		V1519	Q1441	S1328		V1125		R937	
L2198	V2096	GLY	THR	LEU	ALA		V1519	V1445	V1328		T1126		R938	
L2199	A2097	GLY	LYS	LEU	ALA		V1519	V1445	R1330		E1127		R939	
L2200	T2098	VAL	PHE	GLY	VAL		V1519	V1445	I1331		G1128		R940	
D2205	Q2099	ASP	ALA	VAL	ALA		V1519	Q1441	V1336		L1129		R941	
L2209	W2101	S1983	GLY	THR	ILE		V1519	Q1441	M1337		L1130		A953	
E2210	W2103	L1986	THR	LYS	ILE		V1519	Q1441	A1337		S1131			
E2211	Q2104		ARG	LEU	ALA		V1519	Q1441	A1338		L1132		V956	
E2212	G2105	F1989	GLY	LEU	ALA		V1519	Q1441	A1339		I1032		L957	
G2214	L2108	K1992	SER	THR	LYS		V1519	Q1441	R1342		P1146		W958	
E2215	R2112	P1996	VAL	TYR	MET		V1519	Q1441	L1343		K1147		A959	
E2216	T2113		VAL	LYS	ARG		V1519	Q1441	A1344		P1148		G960	
K2229	W2114	L2000	GLY	PHE	ILE		V1519	Q1441	E1345		P1149		R961	
P2234	E2115	Q2010	ASP	GLY	ALA		V1519	Q1441	P1346		E1151		M962	
T2235	L2118	L2011	LEU	PRO	ILE		V1519	Q1441	Y1350		T1040		S963	
L2236	F2119	G2012	GLY	GLU	ALA		V1519	Q1441	A1351		W964		W964	
L2237	T2122	L2013	LEU	ASP	LEU		V1519	Q1441	F1352		A1041		W965	
F2238	T2123	S2014	HIS	ASP	LEU		V1519	Q1441	P1353		M1042		P966	
R2244	A2124	V2016	ALA	ILE	ILE		V1519	Q1441	A1274		A1044		P967	
V2245	G2125	P2020	GLY	ASN	GLY		V1519	Q1441	A1275		V1045		I970	
A2246	E2127		ALA	LEU	ALA		V1519	Q1441	Q1276		L1046		A971	
			ALA	LEU	THR		V1519	Q1441	H1277		V1068			
			ALA	LEU	THR		V1519	Q1441	W1278		T974			
			ALA	LEU	THR		V1519	Q1441	V1279		P1171			
			ALA	LEU	THR		V1519	Q1441	T1280		V1172			
			ALA	LEU	THR		V1519	Q1441	L1281		S1173			
			ALA	LEU	THR		V1519	Q1441	T1282		V1174			
			ALA	LEU	THR		V1519	Q1441	D1283		V1077			
			ALA	LEU	THR		V1519	Q1441	G1284		R1177			
			ALA	LEU	THR		V1519	Q1441	K1285		N1178			
			ALA	LEU	THR		V1519	Q1441	P1286		A1179			
			ALA	LEU	THR		V1519	Q1441	V1287		A1089			
			ALA	LEU	THR		V1519	Q1441	P1288		P1090			

P2089	LEU	PRO	ALA	ASP	E1723	P1622	D1514	F1422	D1314	E1202	V1103	L996	A886	F783	W674	G583
G2090	PRO	TRP	GLU	THR	Y1724	F1623	T1423	T1423	R1315	L1203	G1104	E997	D887	E784	W675	H584
T2092	ALA	ALA	ASP	PHE	S1725	L1625	V1519	V1425	G1317	T1204	C1106	V998	I892	L787	G676	S585
G2093	GLY	LYS	ASP	ASP	E1730	R1634	L1530	V1430	D1319	P1206	V1110	D1001	T895	A790	A680	W587
H2094	GLY	HIS	LEU	ALA	W1731		E1531	A1431	I1318	V1207	F1111	D1002	A896	E791	A681	E588
V2095	ALA	VAL	GLY	ALA	L1732		I1532	V1435	E1323	A1212	A1117	H1003	A996	E792	W682	D589
V2096	SER	THR	ALA	ASP	N1733	P1637	T1532	V1435	V1323	A1212	A1118	G1004	A899	R793	M882	L590
A2097	GLY	VAL	LEU	ALA	S1734	P1638	N1534	V1435	L1325	T1218	A1119	V1005	G900	L794	W684	L593
Q2098	GLY	PHE	LYS	THR	R1735	A1639	F1535	Q1441	E1326	T1218	T1119	G1005	A685	H795	A685	L594
Q2099	VAL	ALA	GLN	VAL	R1736		M1536	Q1441	V1327	T1219	E1120	V1008	P1009	E796	S686	L594
A2100	VAL	ALA	VAL	LEU	D1737		L1537	V1445	S1328	T1220		P1009	W904	Q797	G687	L595
W2101	ASP	GLY	THR	ILE	L1741		R1537	V1445	V1328	P1221	F1123	L1010	F915	D798	W688	Y598
W2102	THR	GLY	LYS	ALA	D1745		G1539	A1448	R1330	R1225	P1124	G1012	F915	E799	D694	R602
Q2104	ARG	ARG	LEU	LEU		P1656	S1540	I1449	I1331	R1226	V1125	G1013	L924	E803	I695	
G2105	GLY	GLY	ALA	SER	THR	K1657	Q1541	A1450	L1342	D1227	E1127	W1014	L924	E803	H696	
	GLY	ARG	ARG	ALA	ASP	E1659	Y1542		V1336	V1228	G1128			A808	E997	H606
L2108	SER	SER	THR	LYS	PRO	L1660	A1543	V1455	M1337	V1228	L1129	I1017	E929	D811	I698	G613
R2112	SER	VAL	VAL	ARG	PRO	R1662	I1544	G1456	A1338			R1018	P930	D811	W700	G614
W2114	GLY	ARG	PRO	ILE	GLY	K1663	L1551	Y1458	A1339	R1237	L1132	F1019	V931	L816	A701	P618
E2115	GLY	GLY	PHE	ASP	PRO		A1552	T1459	R1342	R1253	V1133	T1020	E932	E817		
L2000	GLY	GLY	GLY	GLN	GLY	I666	A1553	A1460	L1343		P1146	W1025	V933	L826	W709	S621
G2012	ASP	ASP	PRO	ILE	ALA	E1667	L1554	I1461	A1344	G1268			L934	L826	A713	Y624
L2013	LEU	LEU	VAL	GLU	ASP	L1668	E1555	A1462	A1345	M1269	K1147	V1035	R936	L827	A713	L625
S2014	GLY	GLY	LEU	ALA	GLY	W1671	E1556	C1463	P1346	W1270	E1149	E1034	R937	Y830	A716	W629
W2015	LEU	SER	LEU	LEU	PRO	Q1672	E1557	V1464	Y1350	L1271	P1149	V1035	Q938	Y830	A716	L625
V2016	LEU	ASP	LEU	ASP	THR	F1673	R1560	V1467	P1353	A1274	E1151	D1036	A939	P831	W719	
	HIS	ALA	ALA	SER	ALA	A1674	R1561	Y1468		A1281	R1168	D1037	R941	D832		
G2125	ALA	GLY	ASN	GLY	ALA		E1562	E1468	P1353	Q1276	F1152			A833		
A2126	ALA	ASP	LEU	SER	PRO	W1679	Q1563	E1468	I1357	H1277	T1162	V1045	R936	E834	W735	P636
V2032	LEU	LEU	GLN	ILE	ALA		I1564	E1471	Q1358	V1278	D1163	L1046	P954	T835	L637	L638
	ALA	ALA	LEU	THR	GLY	D1684				V1279	T1164			V836	Y137	
T2047	SER	ALA	ARG	ASP	ALA	L1685	D1578	L1474	M1362	T1280		V1068	L957	V837		
A2053	ALA	THR	GLY	GLY	ALA	L1686	V1579			A1281	G1167	T1069			T745	D641
V2054	ASP	ALA	VAL	LEU	PRO	F1687	P1580	R1480	V1376	T1282	R1168	D1071	R961	L853	W746	G642
V2055	VAL	GLY	LEU	SER	ALA		F1581			D1283	P1171	W1071	N962	G854	L747	I643
V2056	ASP	PRO	PRO	SER	ALA	E1690	H1582	K1483	A1380	G1284	P1171	W1072	S963	R855	W748	L644
E2057	LYS	ASP	ARG	ARG	ALA		L1586	H1485	D1381	K1285	S1173	V1077	N965	P856	W749	T647
D2058	VAL	VAL	GLY	ASN	ALA	L1695		D1486	F1390	V1287	V1174		P966	N858	R751	
D2059	ILE	LEU	LYS	GLN	PRO		V1590	I1487	S1391	P1288		T1084	V967	F859	L756	E654
W2060	ASP	ASP	ARG	LEU	ALA	F1699	E1598	V1488	P1400	A1290	R1177	F1087	I970	P861	L756	A655
V2163	GLY	PRO	PRO	LEU	VAL	R1700		P1489	P1400	K1291	N1178	F1087	I970	P861	L756	T656
T2164	ALA	ALA	VAL	VAL	VAL	V1701	E1598	R1490	P1400	K1291	A1179	G1088	A971	W862	S763	T657
A2165	VAL	VAL	TTR	ASP	ALA	E1702	K1605	D1491	A1405	L1292	A1089					S658
E2166	ALA	ALA	ILE	LEU	ALA	I1703					L1184	P1090	T974	R868	D766	V661
	VAL	VAL	THR	GLY	PRO	G1704	L1611	R1495	V1408	W1295	L1185	L1091	E975	W767	T767	K662
R2170	VAL	VAL	GLU	SER	ALA	V1705	G1612	S1496		K1304		A1092	Y976	R872	K768	G663
	ALA	ALA	ARG	GLU	ALA		R1613		H1412		L1188	P1093	Q977	S873	L775	Q663
D2173	ALA	VAL	VAL	LEU	PRO	K1706	V1614	I1503	P1413	D1307	R1191	L1095	R979	D874	L775	L664
E2082	ARG	THR	THR	ASN	SER	T1710	L1615	R1504	D1414	Q1308	R1191	L1095	R979	S875	D776	L665
Q2083	ARG	LYS	LEU	LEU	GLY	V1711	P1616	A1504	D1414	V1309	F1192	T1096	E980	W877	I777	V666
T2175	GLY	GLY	GLY	GLY	GLY	A1712	M1617	P1505	G1415	A1193	A1193	V1097	H989	W778	W778	G667
L2176	ILE	ILE	TRP	ALA	PRO	G1713	L1618	S1506	V1416	D1310	R1194	V1098	H989	W779	R780	T668
S2085	SER	GLU	GLU	ILE	ARG	L1714	V1619	I1508	L1417	F1311	R1195	P1099	P990	W780	K669	K669
K2180	VAL	SER	LEU	ILE	ASP						H880					G670
Q2087	VAL	PRO	LEU	GLY	PRO						D1100		S991	W781		T671
R2088	SER	GLY	GLY	GLY	ASP	P1722	R1621	D1511	Q1421	V1313	G1196	D1100	T992	W782		

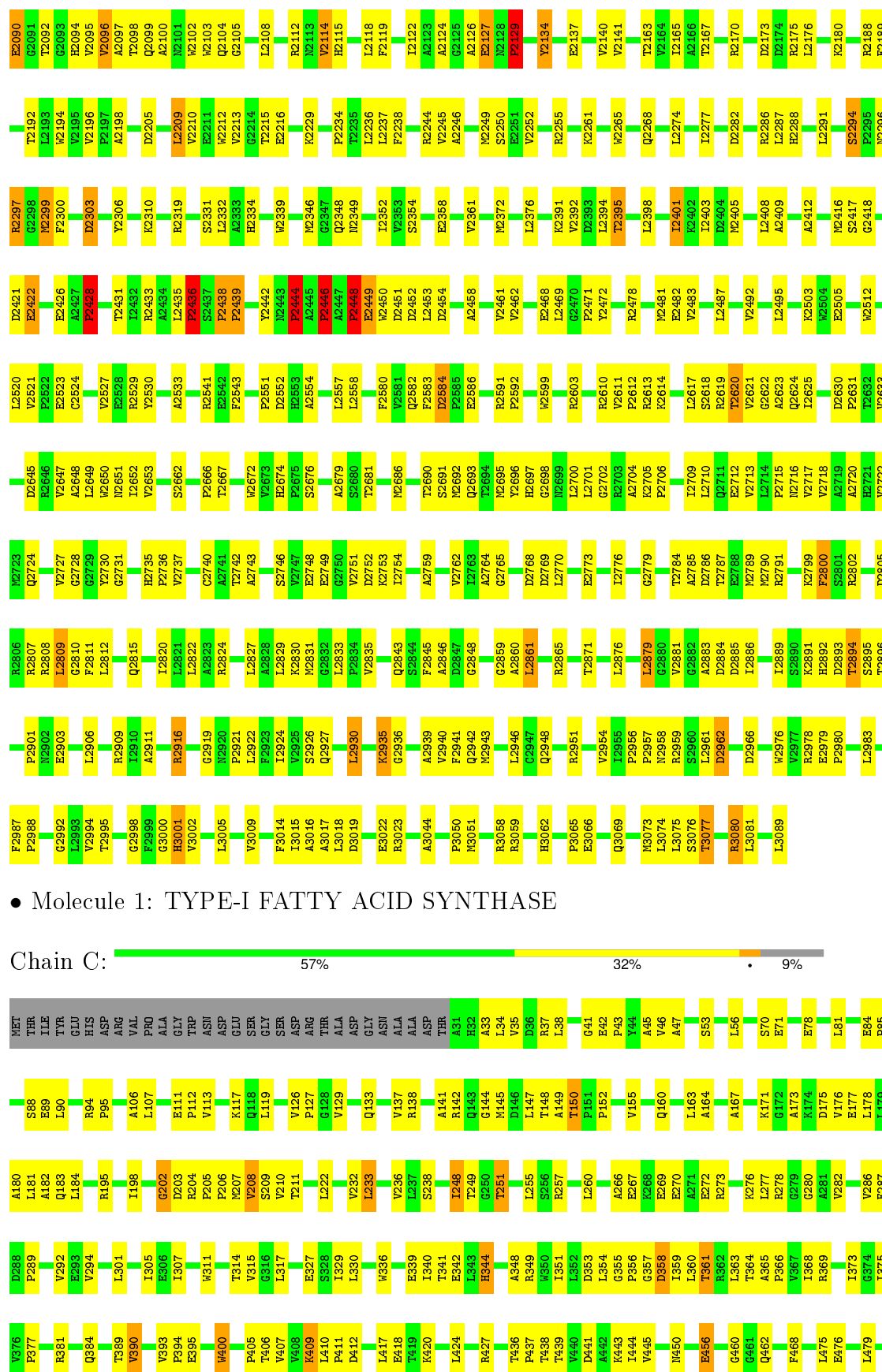
F2189	M2299	E2426	V2521	D2630	A2719	S2801	H2892	E2979
T2192	F2300	P2428	P2522	P2631	A2720	R2802	D2893	P2980
L2193	D2303	P2428	E2523	P2632	E2721	D2805	T2894	L2983
V2194	C2524	P2428	E2524	V2633	V2722	R2806	S2895	L2983
V2195	Y2306	T2431	E2525	D2645	M2723	R2807	T2896	F2987
V2196	K2310	L2432	E2526	E2646	Q2724	R2808	P2901	P2988
F2197	K2310	R2433	V2527	V2647	V2727	L2809	E2902	G2992
A2198	R2319	L2435	E2528	A2648	G2728	G2810	R2903	L2993
D2205	S2331	P2436	Y2530	L2649	G2729	F2811	V2994	V2994
L2209	S2331	S2437	A2533	M2650	G2730	L2812	T2995	T2995
V2210	L2332	P2438	E2533	L2652	G2731	Q2815	R2909	G2998
E2211	A2333	P2439	R2541	V2653	H2735	I2820	I2910	F2999
V2212	H2334	Y2442	E2542	S2662	P2736	L2821	A2911	G3000
V2213	V2339	R2443	F2543	P2666	V2737	L2822	R2916	H3001
G2214	M2346	P2444	P2551	T2667	C2740	A2823	G2919	V3002
T2215	G2347	L2445	D2552	T2667	A2741	R2824	V3019	G3003
E2216	Q2348	P2446	H2553	V2672	T2742	L2827	H2920	G3004
K2229	M2349	E2448	A2554	V2673	A2743	A2828	P2921	L3005
P2234	I2352	E2449	L2557	H2674	S2746	L2829	L2922	V3009
T2235	V2353	D2450	L2558	S2675	E2747	K2830	I2924	F3014
L2236	S2354	D2451	L2563	S2676	E2748	M2831	V2925	I3015
L2237	E2358	D2452	F2567	A2679	G2750	G2832	S2926	A3016
F2238	E2358	D2454	T2567	S2680	V2751	L2833	Q2927	A3017
R2244	V2361	A2458	F2580	T2681	D2752	V2835	L2930	L3018
V2245	M2372	V2461	V2581	M2686	I2754	L2836	K2935	D3019
A2246	L2376	V2462	Q2582	T2690	A2759	Q2843	G2936	E3022
V2252	L2376	L2469	F2583	S2691	V2762	S2844	R2939	R3023
R2255	K2391	L2469	D2584	M2692	I2763	F2845	V2940	A3044
K2261	V2392	P2470	E2586	Q2693	A2764	D2847	F2941	P3050
V2265	D2393	P2471	R2591	M2695	G2765	G2848	Q2942	M3051
Q2268	L2394	Y2472	P2592	L2696	D2768	G2859	L2946	R3058
L2274	T2395	R2478	M2599	H2697	D2769	A2860	C2947	R3059
I2277	L2401	M2481	R2603	G2698	L2770	L2861	Q2948	P3065
D2282	L2402	E2482	R2610	I2699	E2773	R2865	R2951	Q3069
L2286	L2403	V2483	V2611	L2700	I2776	T2871	V2954	M3073
H2288	M2405	L2487	R2612	G2702	G2779	L2876	I2955	L3074
L2291	A2408	K2503	R2613	P2706	T2784	G2880	P2956	L3075
S2294	A2409	E2505	K2614	I2709	A2785	V2881	N2958	S3076
P2295	A2412	E2505	L2617	L2710	D2786	G2882	S2959	T3077
N2296	M2416	E2512	S2618	E2712	T2787	D2883	S2960	R3080
R2297	Q2418	G2512	R2619	V2713	E2788	L2961	D2962	L3081
G2298	S2417	A2623	G2622	L2714	M2789	D2885	D2966	L3089
	Q2418	Q2624	G2622	P2715	R2791	I2886	D2966	
	D2421	D2514	A2623	P2716	K2799	I2889	W2976	
	E2422	L2520	L2625	P2717	F2800	S2890	V2977	
						K2891	R2978	

• Molecule 1: TYPE-I FATTY ACID SYNTHASE

Chain B:  57% 31% 9%

MET	S88	A180	D288	V376	I485
THR	E89	L181	P289	F377	Q486
TYR	L90	A182	V292	R381	F487
GLU	R94	Q183	E293	Q384	M488
ASP	P95	L194	V294		L490
ARG		R195			
VAL	A106	I198	L301	T389	Q500
PRO	L107	G202	I305	V390	V501
ALA	E111	D203	I307	V393	K504
TRP	P112	R204	I307	P394	R505
ASN	V113	P205	W311	E395	
ASP	V126	P206		W400	Q508
ARG	P127	M207	T314	P405	R511
THR	G128	V208	V315	T406	A515
ALA	L119	S209	G316	V407	P516
GLY	V126	V210	L317	V408	I517
ASN	P127	T211	E327	L409	D518
ASP	V129	L222	I329	L410	V521
THR	Q133	V232	L330	D412	V522
A31		L233		L417	S523
H32	Q143	V236	W336	E418	I526
A33	G144	L237	E339	T419	D534
V35	M145	S238	T341	K420	
D36	L147		E342	L424	E538
R37	T148		L343	R427	I539
L38	A149		H344	M540	E541
T150	P151		A348	T436	V542
G41	P152		R349	P437	G543
E42	V155		H350	T438	I544
P43	Q160		L351	T439	S545
Y44	L163		D352	V440	H546
A45	A164		L353	D441	F549
V46	A167		L354	K442	K550
A47	K171		G355	I443	P551
G50	G172		P356	T444	S559
S53	A174		E357	V445	V560
L56	K174		D358	Q462	I563
S70	G175		L360	F468	H575
E71	K174		R362	L475	E577
E78	D175		L363	E476	R580
E78	V176		T364	L479	G583
E84	E177		A365		H584
P85	L178		P366		H585
	F287		G279		S586
			G280		W587
			A281		
			V282		
			V286		
			F287		
			I375		

LEU	PRO	ALA	ASP	LEU723	TI624	L1530	Y1430	DI319	A1212	A1117	V1004	A899	E791	A681	E588
PRO	GLY	ALA	ILE	Y1724	L1625	E1591	A1431	E1323	TI218	A1118	V1005	G900	A792	M652	D699
ALA	ALA	ALA	PRE	S1725	R1634	V1532	Y1532	E1324	DI219	TI119	Y1008	1901	L794	G683	L590
LYS	ASP	ASP	ASP	E1730	V1637	M1534	V1435	L1325	TI220	F1123	P1009	V904	H795	A685	L593
HIS	LEU	LEU	ALA	V1731	V1637	M1535	Q1441	E1326	P1221	F1124	S1011	F915	P796	S686	L594
VAL	ALA	GLY	ALA	L1722	P1638	M1536	Q1441	V1327	TI221	F1125	G1012	1915	Q797	G687	L595
THR	ASP	ALA	ASP	M1733	A1639	L1537	V1445	S1328	R1225	V1126	G1013	1924	D799	R688	Y698
ALA	ALA	LEU	ALA	S1734	TI651	L1538	Y1445	A1329	R1226	TI126	W1013	1924	F799	D694	R602
LEU	THR	GLY	VAL	R1736	W1652	G1539	A1448	R1330	DI227	E1127	W1014	1924	E799	Y698	Y698
VAL	THR	GLY	VAL	DI737	W1652	G1540	A1448	TI331	V1228	G1128	W1014	1924	E799	Y698	Y698
ASP	ASP	GLY	ALA	L1741	K1656	Q1541	Y1449	V1336	P1233	L1129	I1017	1928	E803	D694	R602
S1983	ASP	THR	ILE	L1741	P1657	A1543	A1450	M1337	P1233	L1132	I1018	1930	E803	D694	R602
L1986	THR	LYS	ALA	DI745	K1658	TI544	Y1455	A1338	MI236	VI133	F1019	1932	D811	Y696	R606
F1989	THR	ALA	SER	ASP	E1659	TI551	Y1455	A1339	MI237	VI133	F1020	1933	D811	Y696	R606
SER	GLY	ALA	ALA	ASP	C1660	E1552	Y1455	R1342	RI253	P1146	I1018	1933	E808	Y696	R606
SER	THR	THR	LYS	PRO	R1662	E1553	Y1461	L1343	RI253	E1148	F1019	1933	E808	Y696	R606
SER	THR	THR	THR	GLU	K1663	L1554	A1462	A1344	GI268	F1149	E1034	1937	E826	Y696	R606
VAL	VAL	VAL	THR	PRO	E1555	E1555	A1463	A1345	MI269	A1150	V1035	1939	E827	Y696	R606
P1996	ARG	PRO	ILE	GLU	TI666	E1556	V1464	P1346	W1270	E1151	D1036	1940	D832	Y696	R606
GLY	ASP	PHE	ASP	PRO	E1667	E1557	V1464	PI271	L1271	F1152	D1037	1941	D832	Y696	R606
L2000	GLY	GLY	GLN	GLU	L1668	E1557	Y1467	Y1350	GI274	TI162	V1045	1941	E834	Y696	R606
ASP	ASP	PRO	ILE	ALA	Y1670	R1560	Y1468	A1351	MI274	TI162	V1045	1941	E834	Y696	R606
LEU	LEU	VAL	GLU	ASP	W1671	E1561	E1469	F1352	MI275	DI163	L1046	1954	E834	Y696	R606
G2012	GLY	LEU	GLU	ASP	F1672	R1562	E1470	P1353	Q1276	TI164	L1046	1954	E834	Y696	R606
L2013	GLY	LEU	ALA	PRO	F1673	E1563	E1471	PI353	Q1277	TI164	L1046	1954	E834	Y696	R606
S2014	GLY	SER	LEU	PRO	A1674	TI564	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
D2015	LEU	ASP	ASP	THR	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
V2016	ALA	ALA	SER	ALA	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
P2020	ALA	ASN	ILE	ASP	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
V2032	ALA	ASN	ILE	ASP	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
V2032	ALA	ASN	ILE	ASP	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
T2047	ALA	ASN	ILE	ASP	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
A2053	ALA	ASN	ILE	ASP	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
V2054	ASP	LEU	SER	ALA	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
V2055	VAL	GLY	SER	ALA	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
F2056	VAL	GLY	SER	ALA	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
R2059	VAL	GLY	SER	ALA	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
W2060	VAL	GLY	SER	ALA	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
L2067	ASP	ARG	ALA	ALA	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
L2070	GLY	ALA	ALA	ALA	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
E2074	VAL	ALA	ASN	ALA	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
Q2081	VAL	ALA	ASN	ALA	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
W2082	ALA	VAL	LEU	PRO	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
E2083	ARG	THR	ASN	SER	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
Q2084	ARG	LYS	LEU	GLY	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
L2085	GLY	THR	GLY	GLY	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
S2086	ILE	THR	ALA	PRO	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
Q2087	SER	GLU	ILE	ARG	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
R2088	VAL	LEU	PRO	PRO	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606
F2089	SER	GLY	GLY	ASP	W1679	Y1574	Y1474	Q1358	Q1277	TI164	L1046	1954	E834	Y696	R606









4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of images	Not provided	Depositor
Resolution determination method	Not provided	Depositor
CTF correction method	Not provided	Depositor
Microscope	OTHER	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	Not provided	Depositor
Minimum defocus (nm)	1800	Depositor
Maximum defocus (nm)	4500	Depositor
Magnification	Not provided	Depositor
Image detector	KODAK SO163 FILM	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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	0.39	27/21335 (0.1%)	0.51	13/29037 (0.0%)
1	B	0.39	27/21335 (0.1%)	0.51	13/29037 (0.0%)
1	C	0.39	27/21335 (0.1%)	0.51	13/29037 (0.0%)
1	D	0.41	26/18511 (0.1%)	0.50	13/25179 (0.1%)
1	E	0.39	26/21335 (0.1%)	0.51	13/29037 (0.0%)
1	F	0.39	27/21335 (0.1%)	0.51	13/29037 (0.0%)
All	All	0.40	160/125186 (0.1%)	0.51	78/170364 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	5
1	B	0	5
1	C	0	5
1	D	0	2
1	E	0	5
1	F	0	5
All	All	0	27

All (160) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	2442	TYR	CB-CG	-6.39	1.42	1.51
1	A	2442	TYR	CB-CG	-6.35	1.42	1.51
1	B	2442	TYR	CB-CG	-6.35	1.42	1.51
1	D	2442	TYR	CB-CG	-6.33	1.42	1.51
1	F	2442	TYR	CB-CG	-6.33	1.42	1.51
1	C	2442	TYR	CB-CG	-6.32	1.42	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	2134	TYR	CB-CG	-6.26	1.42	1.51
1	A	2134	TYR	CB-CG	-6.24	1.42	1.51
1	B	2134	TYR	CB-CG	-6.23	1.42	1.51
1	F	2134	TYR	CB-CG	-6.22	1.42	1.51
1	E	2134	TYR	CB-CG	-6.18	1.42	1.51
1	D	2134	TYR	CB-CG	-6.17	1.42	1.51
1	D	2119	PHE	CB-CG	-5.48	1.42	1.51
1	B	2119	PHE	CB-CG	-5.46	1.42	1.51
1	B	2089	PHE	CB-CG	-5.44	1.42	1.51
1	D	2089	PHE	CB-CG	-5.43	1.42	1.51
1	F	2089	PHE	CB-CG	-5.43	1.42	1.51
1	F	2119	PHE	CB-CG	-5.42	1.42	1.51
1	E	2089	PHE	CB-CG	-5.42	1.42	1.51
1	E	2119	PHE	CB-CG	-5.41	1.42	1.51
1	C	975	GLU	CB-CG	-5.40	1.41	1.52
1	C	2119	PHE	CB-CG	-5.39	1.42	1.51
1	C	2089	PHE	CB-CG	-5.38	1.42	1.51
1	F	975	GLU	CB-CG	-5.37	1.42	1.52
1	A	2119	PHE	CB-CG	-5.37	1.42	1.51
1	D	975	GLU	CB-CG	-5.36	1.42	1.52
1	B	975	GLU	CB-CG	-5.36	1.42	1.52
1	A	975	GLU	CB-CG	-5.36	1.42	1.52
1	F	2090	GLU	CB-CG	-5.36	1.42	1.52
1	C	2090	GLU	CB-CG	-5.35	1.42	1.52
1	A	2089	PHE	CB-CG	-5.35	1.42	1.51
1	A	2090	GLU	CB-CG	-5.33	1.42	1.52
1	A	2426	GLU	CB-CG	-5.33	1.42	1.52
1	D	2426	GLU	CB-CG	-5.33	1.42	1.52
1	D	2127	GLU	CB-CG	-5.32	1.42	1.52
1	D	2090	GLU	CB-CG	-5.32	1.42	1.52
1	B	2090	GLU	CB-CG	-5.32	1.42	1.52
1	E	2083	GLU	CB-CG	-5.32	1.42	1.52
1	E	975	GLU	CB-CG	-5.31	1.42	1.52
1	D	980	GLU	CB-CG	-5.31	1.42	1.52
1	E	1202	GLU	CB-CG	-5.31	1.42	1.52
1	A	2127	GLU	CB-CG	-5.30	1.42	1.52
1	B	2426	GLU	CB-CG	-5.30	1.42	1.52
1	C	932	GLU	CB-CG	-5.30	1.42	1.52
1	D	997	GLU	CB-CG	-5.29	1.42	1.52
1	B	2127	GLU	CB-CG	-5.29	1.42	1.52
1	D	1202	GLU	CB-CG	-5.29	1.42	1.52
1	C	2083	GLU	CB-CG	-5.29	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2083	GLU	CB-CG	-5.29	1.42	1.52
1	E	2090	GLU	CB-CG	-5.29	1.42	1.52
1	E	2426	GLU	CB-CG	-5.29	1.42	1.52
1	C	980	GLU	CB-CG	-5.28	1.42	1.52
1	B	2422	GLU	CB-CG	-5.28	1.42	1.52
1	F	1202	GLU	CB-CG	-5.28	1.42	1.52
1	E	932	GLU	CB-CG	-5.28	1.42	1.52
1	F	980	GLU	CB-CG	-5.28	1.42	1.52
1	F	2127	GLU	CB-CG	-5.28	1.42	1.52
1	B	997	GLU	CB-CG	-5.28	1.42	1.52
1	D	2449	GLU	CB-CG	-5.27	1.42	1.52
1	F	2426	GLU	CB-CG	-5.27	1.42	1.52
1	E	980	GLU	CB-CG	-5.27	1.42	1.52
1	E	2422	GLU	CB-CG	-5.27	1.42	1.52
1	B	932	GLU	CB-CG	-5.27	1.42	1.52
1	A	1202	GLU	CB-CG	-5.27	1.42	1.52
1	D	2083	GLU	CB-CG	-5.27	1.42	1.52
1	F	2083	GLU	CB-CG	-5.27	1.42	1.52
1	C	997	GLU	CB-CG	-5.26	1.42	1.52
1	F	932	GLU	CB-CG	-5.26	1.42	1.52
1	B	2449	GLU	CB-CG	-5.26	1.42	1.52
1	D	932	GLU	CB-CG	-5.26	1.42	1.52
1	A	2422	GLU	CB-CG	-5.26	1.42	1.52
1	A	980	GLU	CB-CG	-5.26	1.42	1.52
1	A	2449	GLU	CB-CG	-5.26	1.42	1.52
1	B	2083	GLU	CB-CG	-5.26	1.42	1.52
1	E	2127	GLU	CB-CG	-5.25	1.42	1.52
1	C	2426	GLU	CB-CG	-5.25	1.42	1.52
1	F	997	GLU	CB-CG	-5.25	1.42	1.52
1	F	2449	GLU	CB-CG	-5.25	1.42	1.52
1	B	980	GLU	CB-CG	-5.25	1.42	1.52
1	B	929	GLU	CB-CG	-5.25	1.42	1.52
1	B	1202	GLU	CB-CG	-5.24	1.42	1.52
1	E	929	GLU	CB-CG	-5.24	1.42	1.52
1	A	929	GLU	CB-CG	-5.24	1.42	1.52
1	E	997	GLU	CB-CG	-5.24	1.42	1.52
1	D	2422	GLU	CB-CG	-5.24	1.42	1.52
1	F	2422	GLU	CB-CG	-5.23	1.42	1.52
1	A	997	GLU	CB-CG	-5.23	1.42	1.52
1	C	1202	GLU	CB-CG	-5.23	1.42	1.52
1	C	2449	GLU	CB-CG	-5.23	1.42	1.52
1	E	2449	GLU	CB-CG	-5.23	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	932	GLU	CB-CG	-5.22	1.42	1.52
1	F	929	GLU	CB-CG	-5.22	1.42	1.52
1	E	998	VAL	CB-CG1	-5.21	1.41	1.52
1	C	2422	GLU	CB-CG	-5.21	1.42	1.52
1	C	2127	GLU	CB-CG	-5.21	1.42	1.52
1	C	929	GLU	CB-CG	-5.21	1.42	1.52
1	D	929	GLU	CB-CG	-5.20	1.42	1.52
1	F	998	VAL	CB-CG1	-5.20	1.42	1.52
1	A	998	VAL	CB-CG1	-5.19	1.42	1.52
1	C	998	VAL	CB-CG1	-5.17	1.42	1.52
1	D	998	VAL	CB-CG1	-5.15	1.42	1.52
1	E	933	VAL	CB-CG1	-5.15	1.42	1.52
1	B	933	VAL	CB-CG1	-5.14	1.42	1.52
1	D	1005	VAL	CB-CG1	-5.14	1.42	1.52
1	B	998	VAL	CB-CG1	-5.14	1.42	1.52
1	C	1005	VAL	CB-CG1	-5.13	1.42	1.52
1	D	933	VAL	CB-CG1	-5.13	1.42	1.52
1	F	933	VAL	CB-CG1	-5.12	1.42	1.52
1	B	2095	VAL	CB-CG1	-5.12	1.42	1.52
1	E	2095	VAL	CB-CG1	-5.12	1.42	1.52
1	D	2096	VAL	CB-CG1	-5.12	1.42	1.52
1	B	1005	VAL	CB-CG1	-5.12	1.42	1.52
1	A	1207	VAL	CB-CG1	-5.11	1.42	1.52
1	A	1005	VAL	CB-CG1	-5.11	1.42	1.52
1	C	2096	VAL	CB-CG1	-5.11	1.42	1.52
1	F	931	VAL	CB-CG1	-5.11	1.42	1.52
1	A	2096	VAL	CB-CG1	-5.11	1.42	1.52
1	B	2114	VAL	CB-CG1	-5.11	1.42	1.52
1	A	978	VAL	CB-CG1	-5.10	1.42	1.52
1	D	2114	VAL	CB-CG1	-5.10	1.42	1.52
1	E	1005	VAL	CB-CG1	-5.10	1.42	1.52
1	B	931	VAL	CB-CG1	-5.10	1.42	1.52
1	C	931	VAL	CB-CG1	-5.10	1.42	1.52
1	E	2096	VAL	CB-CG1	-5.10	1.42	1.52
1	A	2095	VAL	CB-CG1	-5.09	1.42	1.52
1	A	931	VAL	CB-CG1	-5.09	1.42	1.52
1	E	978	VAL	CB-CG1	-5.09	1.42	1.52
1	E	1207	VAL	CB-CG1	-5.09	1.42	1.52
1	F	2095	VAL	CB-CG1	-5.09	1.42	1.52
1	C	978	VAL	CB-CG1	-5.09	1.42	1.52
1	E	931	VAL	CB-CG1	-5.08	1.42	1.52
1	F	2096	VAL	CB-CG1	-5.08	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	978	VAL	CB-CG1	-5.08	1.42	1.52
1	B	2096	VAL	CB-CG1	-5.08	1.42	1.52
1	F	978	VAL	CB-CG1	-5.08	1.42	1.52
1	F	2114	VAL	CB-CG1	-5.08	1.42	1.52
1	C	1207	VAL	CB-CG1	-5.08	1.42	1.52
1	C	2095	VAL	CB-CG1	-5.08	1.42	1.52
1	F	1005	VAL	CB-CG1	-5.08	1.42	1.52
1	E	2114	VAL	CB-CG1	-5.07	1.42	1.52
1	B	1207	VAL	CB-CG1	-5.07	1.42	1.52
1	D	931	VAL	CB-CG1	-5.06	1.42	1.52
1	D	2095	VAL	CB-CG1	-5.06	1.42	1.52
1	C	2114	VAL	CB-CG1	-5.06	1.42	1.52
1	C	1008	VAL	CB-CG1	-5.06	1.42	1.52
1	D	978	VAL	CB-CG1	-5.06	1.42	1.52
1	C	1004	VAL	CB-CG1	-5.06	1.42	1.52
1	D	1004	VAL	CB-CG1	-5.05	1.42	1.52
1	D	1207	VAL	CB-CG1	-5.05	1.42	1.52
1	F	1207	VAL	CB-CG1	-5.05	1.42	1.52
1	C	933	VAL	CB-CG1	-5.05	1.42	1.52
1	B	1008	VAL	CB-CG1	-5.04	1.42	1.52
1	A	933	VAL	CB-CG1	-5.04	1.42	1.52
1	B	1004	VAL	CB-CG1	-5.04	1.42	1.52
1	A	1008	VAL	CB-CG1	-5.03	1.42	1.52
1	F	1004	VAL	CB-CG1	-5.03	1.42	1.52
1	A	2114	VAL	CB-CG1	-5.02	1.42	1.52
1	A	1004	VAL	CB-CG1	-5.02	1.42	1.52
1	E	1008	VAL	CB-CG1	-5.01	1.42	1.52
1	F	1008	VAL	CB-CG1	-5.01	1.42	1.52

All (78) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	930	PRO	N-CA-CB	6.99	111.69	103.30
1	C	930	PRO	N-CA-CB	6.98	111.68	103.30
1	F	930	PRO	N-CA-CB	6.97	111.66	103.30
1	A	930	PRO	N-CA-CB	6.96	111.66	103.30
1	D	930	PRO	N-CA-CB	6.96	111.65	103.30
1	B	930	PRO	N-CA-CB	6.96	111.65	103.30
1	F	1206	PRO	N-CA-CB	6.33	110.90	103.30
1	A	2438	PRO	N-CA-CB	6.30	110.86	103.30
1	C	1206	PRO	N-CA-CB	6.29	110.84	103.30
1	B	1206	PRO	N-CA-CB	6.29	110.84	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
1	E	1206	PRO	N-CA-CB	6.27	110.83	103.30
1	B	2438	PRO	N-CA-CB	6.26	110.82	103.30
1	D	1206	PRO	N-CA-CB	6.24	110.79	103.30
1	D	2438	PRO	N-CA-CB	6.23	110.78	103.30
1	E	2438	PRO	N-CA-CB	6.22	110.77	103.30
1	F	2438	PRO	N-CA-CB	6.21	110.75	103.30
1	A	1206	PRO	N-CA-CB	6.20	110.74	103.30
1	C	2438	PRO	N-CA-CB	6.19	110.72	103.30
1	D	2428	PRO	N-CA-CB	6.13	110.66	103.30
1	E	2444	PRO	N-CA-CB	6.12	110.65	103.30
1	A	2444	PRO	N-CA-CB	6.11	110.63	103.30
1	F	2444	PRO	N-CA-CB	6.11	110.63	103.30
1	C	2444	PRO	N-CA-CB	6.11	110.63	103.30
1	B	2444	PRO	N-CA-CB	6.10	110.62	103.30
1	B	2428	PRO	N-CA-CB	6.09	110.61	103.30
1	C	2428	PRO	N-CA-CB	6.08	110.60	103.30
1	A	2428	PRO	N-CA-CB	6.08	110.60	103.30
1	D	2444	PRO	N-CA-CB	6.08	110.59	103.30
1	E	2428	PRO	N-CA-CB	6.08	110.59	103.30
1	F	2428	PRO	N-CA-CB	6.04	110.55	103.30
1	D	2446	PRO	N-CA-CB	5.99	110.49	103.30
1	C	2439	PRO	N-CA-CB	5.99	110.49	103.30
1	B	2446	PRO	N-CA-CB	5.97	110.47	103.30
1	A	2446	PRO	N-CA-CB	5.96	110.46	103.30
1	F	2446	PRO	N-CA-CB	5.96	110.45	103.30
1	E	2446	PRO	N-CA-CB	5.95	110.44	103.30
1	D	2439	PRO	N-CA-CB	5.95	110.44	103.30
1	C	2446	PRO	N-CA-CB	5.95	110.44	103.30
1	A	2129	PRO	N-CA-CB	5.92	110.41	103.30
1	A	2439	PRO	N-CA-CB	5.91	110.39	103.30
1	C	2129	PRO	N-CA-CB	5.89	110.37	103.30
1	F	2439	PRO	N-CA-CB	5.89	110.36	103.30
1	E	2129	PRO	N-CA-CB	5.88	110.36	103.30
1	C	2448	PRO	N-CA-CB	5.88	110.36	103.30
1	E	2439	PRO	N-CA-CB	5.88	110.36	103.30
1	A	2448	PRO	N-CA-CB	5.88	110.36	103.30
1	F	2129	PRO	N-CA-CB	5.87	110.35	103.30
1	B	2439	PRO	N-CA-CB	5.87	110.35	103.30
1	D	2448	PRO	N-CA-CB	5.87	110.35	103.30
1	E	2448	PRO	N-CA-CB	5.87	110.35	103.30
1	D	2129	PRO	N-CA-CB	5.86	110.34	103.30
1	B	2129	PRO	N-CA-CB	5.86	110.33	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
1	F	2448	PRO	N-CA-CB	5.85	110.32	103.30
1	B	2448	PRO	N-CA-CB	5.85	110.32	103.30
1	A	1009	PRO	N-CA-CB	5.84	110.31	103.30
1	C	1009	PRO	N-CA-CB	5.79	110.24	103.30
1	B	990	PRO	N-CA-CB	5.78	110.24	103.30
1	E	1009	PRO	N-CA-CB	5.78	110.23	103.30
1	F	1009	PRO	N-CA-CB	5.74	110.19	103.30
1	B	1009	PRO	N-CA-CB	5.73	110.18	103.30
1	D	1009	PRO	N-CA-CB	5.73	110.17	103.30
1	D	990	PRO	N-CA-CB	5.71	110.15	103.30
1	F	990	PRO	N-CA-CB	5.70	110.14	103.30
1	A	990	PRO	N-CA-CB	5.70	110.14	103.30
1	C	990	PRO	N-CA-CB	5.70	110.14	103.30
1	E	990	PRO	N-CA-CB	5.68	110.11	103.30
1	C	1221	PRO	N-CA-CB	5.61	110.03	103.30
1	F	1221	PRO	N-CA-CB	5.61	110.03	103.30
1	D	1221	PRO	N-CA-CB	5.59	110.01	103.30
1	B	1221	PRO	N-CA-CB	5.59	110.01	103.30
1	E	1221	PRO	N-CA-CB	5.56	109.97	103.30
1	B	2436	PRO	N-CA-CB	5.55	109.95	103.30
1	E	2436	PRO	N-CA-CB	5.54	109.95	103.30
1	A	1221	PRO	N-CA-CB	5.53	109.94	103.30
1	F	2436	PRO	N-CA-CB	5.53	109.94	103.30
1	A	2436	PRO	N-CA-CB	5.51	109.92	103.30
1	D	2436	PRO	N-CA-CB	5.50	109.90	103.30
1	C	2436	PRO	N-CA-CB	5.50	109.90	103.30

There are no chirality outliers.

All (27) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1148	GLU	Peptide
1	A	150	THR	Peptide
1	A	202	GLY	Peptide
1	A	2584	ASP	Peptide
1	A	357	GLY	Peptide
1	B	1148	GLU	Peptide
1	B	150	THR	Peptide
1	B	202	GLY	Peptide
1	B	2584	ASP	Peptide
1	B	357	GLY	Peptide
1	C	1148	GLU	Peptide

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Mol	Chain	Res	Type	Group
1	C	150	THR	Peptide
1	C	202	GLY	Peptide
1	C	2584	ASP	Peptide
1	C	357	GLY	Peptide
1	D	1148	GLU	Peptide
1	D	2584	ASP	Peptide
1	E	1148	GLU	Peptide
1	E	150	THR	Peptide
1	E	202	GLY	Peptide
1	E	2584	ASP	Peptide
1	E	357	GLY	Peptide
1	F	1148	GLU	Peptide
1	F	150	THR	Peptide
1	F	202	GLY	Peptide
1	F	2584	ASP	Peptide
1	F	357	GLY	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	20945	0	20595	882	0
1	B	20945	0	20595	872	0
1	C	20945	0	20595	896	0
1	D	18171	0	17756	765	0
1	E	20945	0	20595	882	0
1	F	20945	0	20594	1028	0
2	A	31	0	19	4	0
2	B	31	0	19	4	0
2	C	31	0	19	4	0
2	D	31	0	19	4	0
2	E	31	0	19	4	0
2	F	31	0	19	4	0
All	All	123082	0	120844	4979	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 20.

All (4979) 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:F:1039:ALA:HB2	1:F:1125:VAL:CG1	1.35	1.53
1:F:958:TRP:CH2	1:F:1131:SER:OG	1.76	1.38
1:F:1385:ARG:NH1	1:F:2411:LYS:NZ	1.74	1.36
1:F:953:ALA:CB	1:F:1032:ILE:HD11	1.58	1.33
1:F:2407:GLU:O	1:F:2411:LYS:HG3	1.26	1.29
1:F:1385:ARG:HH11	1:F:2411:LYS:CE	1.46	1.28
1:F:1385:ARG:CD	1:F:2411:LYS:HZ1	1.45	1.28
1:F:953:ALA:CB	1:F:1032:ILE:CD1	2.18	1.21
1:F:513:SER:O	1:F:961:ARG:NH1	1.72	1.19
1:F:1401:THR:HG21	1:C:2286:ARG:NH2	1.57	1.19
1:F:1037:ASP:OD1	1:F:1043:ARG:HG2	1.37	1.18
1:F:1021:LEU:HD22	1:F:1034:GLU:HG3	1.27	1.16
1:F:1038:ALA:O	1:F:1125:VAL:HG12	0.99	1.16
1:F:1039:ALA:CB	1:F:1125:VAL:HG11	1.78	1.14
1:F:1038:ALA:O	1:F:1125:VAL:CG1	1.95	1.13
1:F:1394:HIS:CE1	1:C:2324:LYS:HD3	1.84	1.13
1:E:1013:THR:HG23	1:E:1014:TRP:H	1.15	1.11
1:F:1385:ARG:NH1	1:F:2411:LYS:CE	2.09	1.10
1:A:1013:THR:HG23	1:A:1014:TRP:H	1.15	1.10
1:F:1385:ARG:HD2	1:F:2411:LYS:NZ	1.66	1.09
1:F:1039:ALA:CB	1:F:1125:VAL:CG1	2.32	1.08
1:F:1385:ARG:HD2	1:F:2411:LYS:HZ1	1.18	1.07
1:F:1042:MET:O	1:F:1044:ALA:N	1.87	1.07
1:C:1013:THR:HG23	1:C:1014:TRP:H	1.15	1.07
1:D:1013:THR:HG23	1:D:1014:TRP:H	1.15	1.07
1:F:1039:ALA:HB2	1:F:1125:VAL:CB	1.83	1.07
1:A:2112:ARG:H	1:A:2115:HIS:CG	1.73	1.07
1:C:2094:HIS:CG	1:C:2096:VAL:HG12	1.90	1.06
1:F:1385:ARG:CZ	1:F:2411:LYS:NZ	2.18	1.06
1:F:953:ALA:HB3	1:F:1032:ILE:HD11	1.33	1.06
1:F:2112:ARG:H	1:F:2115:HIS:CG	1.73	1.06
1:A:2094:HIS:CG	1:A:2096:VAL:HG12	1.90	1.06
1:B:2094:HIS:CG	1:B:2096:VAL:HG12	1.90	1.06
1:B:2112:ARG:H	1:B:2115:HIS:CG	1.73	1.06
1:C:2112:ARG:H	1:C:2115:HIS:CG	1.73	1.06
1:E:2112:ARG:H	1:E:2115:HIS:CG	1.73	1.06
1:F:1013:THR:HG23	1:F:1014:TRP:H	1.15	1.05
1:D:2094:HIS:CG	1:D:2096:VAL:HG12	1.90	1.05
1:F:1037:ASP:CG	1:F:1043:ARG:HG2	1.76	1.05
1:E:2094:HIS:CG	1:E:2096:VAL:HG12	1.90	1.05
1:F:2094:HIS:CG	1:F:2096:VAL:HG12	1.90	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2112:ARG:H	1:D:2115:HIS:CG	1.73	1.04
1:F:1394:HIS:HE1	1:C:2324:LYS:CD	1.70	1.04
1:F:953:ALA:HB3	1:F:1032:ILE:CD1	1.85	1.03
1:B:1013:THR:HG23	1:B:1014:TRP:H	1.15	1.02
1:F:1035:VAL:HG12	1:F:1041:ALA:HB1	1.40	1.02
1:F:1385:ARG:HH11	1:F:2411:LYS:HE2	1.20	1.01
1:F:1394:HIS:HE1	1:C:2324:LYS:HD3	1.13	1.01
1:F:992:THR:CG2	1:F:996:LEU:CG	2.39	1.01
1:E:992:THR:CG2	1:E:996:LEU:CG	2.39	1.01
1:B:992:THR:CG2	1:B:996:LEU:CG	2.39	1.01
1:C:2433:ARG:HA	1:C:2524:CYS:HB3	1.44	1.00
1:F:1037:ASP:OD1	1:F:1043:ARG:CG	2.08	1.00
1:D:992:THR:CG2	1:D:996:LEU:CG	2.39	1.00
1:A:992:THR:CG2	1:A:996:LEU:CG	2.39	1.00
1:C:992:THR:CG2	1:C:996:LEU:CG	2.39	1.00
1:D:2433:ARG:HA	1:D:2524:CYS:HB3	1.44	1.00
1:A:2433:ARG:HA	1:A:2524:CYS:HB3	1.44	0.99
1:E:1220:THR:HG22	1:E:1221:PRO:N	1.78	0.99
1:E:2433:ARG:HA	1:E:2524:CYS:HB3	1.44	0.99
1:B:2433:ARG:HA	1:B:2524:CYS:HB3	1.44	0.99
1:F:1037:ASP:HA	1:F:1039:ALA:N	1.77	0.98
1:E:792:ALA:O	1:E:2433:ARG:CG	2.12	0.98
1:D:1220:THR:HG22	1:D:1221:PRO:N	1.78	0.98
1:F:792:ALA:O	1:F:2433:ARG:CG	2.12	0.98
1:F:2407:GLU:C	1:F:2411:LYS:HG3	1.84	0.98
1:C:792:ALA:O	1:C:2433:ARG:CG	2.12	0.98
1:D:792:ALA:O	1:D:2433:ARG:CG	2.12	0.97
1:F:1385:ARG:HH11	1:F:2411:LYS:NZ	1.42	0.97
1:A:792:ALA:O	1:A:2433:ARG:CG	2.12	0.97
1:F:2433:ARG:HA	1:F:2524:CYS:HB3	1.44	0.97
1:F:953:ALA:HB2	1:F:1032:ILE:HD11	1.46	0.97
1:F:1401:THR:HG21	1:C:2286:ARG:HH22	1.18	0.97
1:C:3080:ARG:HG3	1:C:3080:ARG:HH11	1.29	0.97
1:A:1220:THR:HG22	1:A:1221:PRO:N	1.78	0.97
1:F:1220:THR:HG22	1:F:1221:PRO:N	1.78	0.97
1:D:407:VAL:HB	1:D:933:VAL:HG11	1.47	0.97
1:F:3080:ARG:HH11	1:F:3080:ARG:HG3	1.29	0.97
1:C:1220:THR:HG22	1:C:1221:PRO:N	1.78	0.96
1:C:407:VAL:HB	1:C:933:VAL:HG11	1.47	0.96
1:F:1385:ARG:CD	1:F:2411:LYS:NZ	2.25	0.96
1:B:792:ALA:O	1:B:2433:ARG:CG	2.11	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1021:LEU:HD22	1:F:1034:GLU:CG	1.96	0.96
1:A:407:VAL:HB	1:A:933:VAL:HG11	1.47	0.96
1:F:1038:ALA:CB	1:F:1126:ILE:HA	1.95	0.95
1:A:3080:ARG:HG3	1:A:3080:ARG:HH11	1.29	0.95
1:F:1039:ALA:CB	1:F:1125:VAL:CB	2.45	0.95
1:E:992:THR:HG21	1:E:996:LEU:CG	1.97	0.95
1:E:3080:ARG:HG3	1:E:3080:ARG:HH11	1.29	0.95
1:D:3080:ARG:HH11	1:D:3080:ARG:HG3	1.29	0.95
1:C:992:THR:HG21	1:C:996:LEU:CG	1.97	0.94
1:B:3080:ARG:HH11	1:B:3080:ARG:HG3	1.29	0.94
1:F:1385:ARG:CZ	1:F:2411:LYS:HZ1	1.78	0.94
1:F:1385:ARG:NE	1:F:2411:LYS:HZ1	1.65	0.94
1:D:992:THR:HG21	1:D:996:LEU:CG	1.97	0.94
1:F:1401:THR:CG2	1:C:2286:ARG:HH22	1.81	0.94
1:F:1020:THR:H	1:F:1035:VAL:HG21	1.31	0.94
1:A:992:THR:HG21	1:A:996:LEU:CG	1.97	0.94
1:B:1220:THR:HG22	1:B:1221:PRO:N	1.77	0.94
1:E:407:VAL:HB	1:E:933:VAL:HG11	1.47	0.94
1:B:1003:HIS:CG	1:B:1004:VAL:H	1.86	0.94
1:F:992:THR:HG21	1:F:996:LEU:CG	1.97	0.93
1:F:793:ARG:O	1:F:2435:LEU:CG	2.17	0.93
1:D:793:ARG:O	1:D:2435:LEU:CG	2.17	0.93
1:B:2100:ALA:O	1:B:2103:TRP:CG	2.22	0.93
1:C:2100:ALA:O	1:C:2103:TRP:CG	2.22	0.93
1:A:2100:ALA:O	1:A:2103:TRP:CG	2.22	0.93
1:B:793:ARG:O	1:B:2435:LEU:CG	2.16	0.93
1:F:1385:ARG:HD2	1:F:2407:GLU:CD	1.89	0.93
1:B:1012:GLY:O	1:B:1013:THR:HG22	1.69	0.93
1:B:992:THR:HG21	1:B:996:LEU:CG	1.97	0.93
1:D:1012:GLY:O	1:D:1013:THR:HG22	1.69	0.93
1:D:1013:THR:HG23	1:D:1014:TRP:N	1.84	0.93
1:B:407:VAL:HB	1:B:933:VAL:HG11	1.47	0.93
1:A:793:ARG:O	1:A:2435:LEU:CG	2.16	0.93
1:E:2100:ALA:O	1:E:2103:TRP:CG	2.22	0.93
1:F:1037:ASP:OD2	1:F:1043:ARG:HB2	1.69	0.93
1:D:2100:ALA:O	1:D:2103:TRP:CG	2.22	0.93
1:C:1012:GLY:O	1:C:1013:THR:HG22	1.69	0.92
1:C:1013:THR:HG23	1:C:1014:TRP:N	1.84	0.92
1:F:2100:ALA:O	1:F:2103:TRP:CG	2.22	0.92
1:C:793:ARG:O	1:C:2435:LEU:CG	2.17	0.92
1:F:1012:GLY:O	1:F:1013:THR:HG22	1.69	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:407:VAL:HB	1:F:933:VAL:HG11	1.47	0.92
1:E:793:ARG:O	1:E:2435:LEU:CG	2.16	0.92
1:F:1385:ARG:NH1	1:F:2411:LYS:HZ3	1.56	0.92
1:D:1003:HIS:CG	1:D:1004:VAL:H	1.86	0.92
1:F:513:SER:O	1:F:961:ARG:CZ	2.18	0.92
1:C:1003:HIS:CG	1:C:1004:VAL:H	1.86	0.92
1:F:1003:HIS:CG	1:F:1004:VAL:H	1.86	0.91
1:A:1012:GLY:O	1:A:1013:THR:HG22	1.69	0.91
1:F:1013:THR:HG23	1:F:1014:TRP:N	1.84	0.91
1:F:1037:ASP:HB2	1:F:1041:ALA:HB3	1.50	0.91
1:F:1019:PHE:HE2	1:F:1034:GLU:HG2	1.35	0.91
1:F:1038:ALA:HB2	1:F:1126:ILE:HA	1.54	0.90
1:B:1013:THR:HG23	1:B:1014:TRP:N	1.84	0.90
1:E:1013:THR:HG23	1:E:1014:TRP:N	1.84	0.90
1:A:1013:THR:HG23	1:A:1014:TRP:N	1.84	0.90
1:F:1037:ASP:N	1:F:1038:ALA:HB3	1.85	0.90
1:F:959:ALA:HB1	1:F:1127:GLU:N	1.87	0.90
1:F:2407:GLU:O	1:F:2411:LYS:CG	2.19	0.89
1:E:1012:GLY:O	1:E:1013:THR:HG22	1.69	0.89
1:F:2407:GLU:HB3	1:F:2411:LYS:CE	2.02	0.89
1:F:2407:GLU:CB	1:F:2411:LYS:HE3	2.02	0.89
1:A:1003:HIS:CG	1:A:1004:VAL:H	1.86	0.89
1:F:2407:GLU:HB3	1:F:2411:LYS:HE3	1.52	0.89
1:E:1003:HIS:CG	1:E:1004:VAL:H	1.86	0.89
1:F:1039:ALA:CB	1:F:1125:VAL:HB	2.00	0.89
1:F:1039:ALA:HB2	1:F:1125:VAL:HG11	0.90	0.88
1:F:1385:ARG:HG3	1:F:2407:GLU:OE2	1.73	0.88
1:F:959:ALA:O	1:F:1126:ILE:HG12	1.75	0.87
1:C:931:VAL:HG13	1:C:934:LEU:H	1.40	0.87
1:F:1035:VAL:CG1	1:F:1041:ALA:HB1	2.04	0.86
1:A:931:VAL:HG13	1:A:934:LEU:H	1.40	0.86
1:E:931:VAL:HG13	1:E:934:LEU:H	1.40	0.86
1:B:931:VAL:HG11	1:B:933:VAL:CG1	2.06	0.86
1:F:931:VAL:HG13	1:F:934:LEU:H	1.40	0.86
1:C:2105:GLY:O	1:C:2108:LEU:CG	2.24	0.86
1:F:1385:ARG:CG	1:F:2407:GLU:OE2	2.24	0.85
1:C:931:VAL:HG11	1:C:933:VAL:CG1	2.06	0.85
1:A:2105:GLY:O	1:A:2108:LEU:CG	2.24	0.85
1:E:2865:ARG:HD3	1:B:3077:THR:HA	1.57	0.85
1:F:2105:GLY:O	1:F:2108:LEU:CG	2.25	0.85
1:D:2105:GLY:O	1:D:2108:LEU:CG	2.24	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2105:GLY:O	1:B:2108:LEU:CG	2.25	0.85
1:D:931:VAL:HG11	1:D:933:VAL:CG1	2.06	0.85
1:A:1218:THR:HG23	1:A:1441:GLN:OE1	1.77	0.85
1:C:1218:THR:HG23	1:C:1441:GLN:OE1	1.77	0.85
1:F:2865:ARG:HD3	1:A:3077:THR:HA	1.57	0.85
1:E:931:VAL:HG11	1:E:933:VAL:CG1	2.06	0.85
1:D:2865:ARG:HD3	1:C:3077:THR:HA	1.57	0.85
1:F:1037:ASP:HA	1:F:1039:ALA:H	1.42	0.85
1:F:513:SER:O	1:F:961:ARG:CD	2.25	0.85
1:A:931:VAL:HG11	1:A:933:VAL:CG1	2.06	0.85
1:E:2105:GLY:O	1:E:2108:LEU:CG	2.24	0.85
1:E:3077:THR:HA	1:B:2865:ARG:HD3	1.57	0.85
1:F:992:THR:HG22	1:F:996:LEU:CG	2.07	0.84
1:D:931:VAL:HG13	1:D:934:LEU:H	1.40	0.84
1:C:992:THR:HG22	1:C:996:LEU:CG	2.07	0.84
1:A:992:THR:HG22	1:A:996:LEU:CG	2.07	0.84
1:B:931:VAL:HG13	1:B:934:LEU:H	1.40	0.84
1:F:931:VAL:HG11	1:F:933:VAL:CG1	2.06	0.84
1:F:1039:ALA:HB3	1:F:1125:VAL:HB	1.57	0.84
1:D:1218:THR:HG23	1:D:1441:GLN:OE1	1.77	0.84
1:B:1218:THR:HG23	1:B:1441:GLN:OE1	1.77	0.84
1:B:992:THR:HG22	1:B:996:LEU:CG	2.07	0.84
1:F:1218:THR:HG23	1:F:1441:GLN:OE1	1.77	0.84
1:D:3077:THR:HA	1:C:2865:ARG:HD3	1.57	0.84
1:E:1218:THR:HG23	1:E:1441:GLN:OE1	1.77	0.84
1:F:3077:THR:HA	1:A:2865:ARG:HD3	1.57	0.83
1:A:43:PRO:HG2	1:A:348:ALA:HA	1.60	0.83
1:F:1385:ARG:CZ	1:F:2411:LYS:HZ3	1.86	0.83
1:F:953:ALA:CB	1:F:1032:ILE:HD12	2.09	0.83
1:D:992:THR:HG22	1:D:996:LEU:CG	2.07	0.83
1:F:1038:ALA:C	1:F:1125:VAL:HG12	1.98	0.83
1:E:992:THR:HG22	1:E:996:LEU:CG	2.07	0.83
1:F:953:ALA:HB1	1:F:1032:ILE:HD12	1.58	0.83
1:E:43:PRO:HG2	1:E:348:ALA:HA	1.60	0.83
1:F:1538:ARG:HH11	1:F:1722:PRO:HB3	1.43	0.83
1:B:43:PRO:HG2	1:B:348:ALA:HA	1.60	0.82
1:B:1538:ARG:HH11	1:B:1722:PRO:HB3	1.43	0.82
1:C:1538:ARG:HH11	1:C:1722:PRO:HB3	1.43	0.82
1:F:43:PRO:HG2	1:F:348:ALA:HA	1.60	0.82
1:B:2016:VAL:HG13	1:B:2020:PRO:HG3	1.62	0.82
1:E:2016:VAL:HG13	1:E:2020:PRO:HG3	1.62	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1538:ARG:HH11	1:A:1722:PRO:HB3	1.43	0.82
1:E:2730:TYR:OH	1:E:3059:ARG:NH1	2.14	0.81
1:A:2016:VAL:HG13	1:A:2020:PRO:HG3	1.62	0.81
1:A:2730:TYR:OH	1:A:3059:ARG:NH1	2.14	0.81
1:D:2016:VAL:HG13	1:D:2020:PRO:HG3	1.62	0.81
1:F:953:ALA:HB1	1:F:1032:ILE:CD1	2.10	0.81
1:B:46:VAL:HB	1:B:155:VAL:HG13	1.63	0.81
1:F:138:ARG:NH2	1:F:175:ASP:OD2	2.14	0.81
1:C:2016:VAL:HG13	1:C:2020:PRO:HG3	1.62	0.81
1:B:138:ARG:NH2	1:B:175:ASP:OD2	2.14	0.81
1:F:46:VAL:HB	1:F:155:VAL:HG13	1.63	0.81
1:C:43:PRO:HG2	1:C:348:ALA:HA	1.60	0.81
1:F:967:VAL:HA	1:F:970:ILE:HB	1.63	0.81
1:D:1538:ARG:HH11	1:D:1722:PRO:HB3	1.43	0.81
1:E:138:ARG:NH2	1:E:175:ASP:OD2	2.14	0.81
1:F:2016:VAL:HG13	1:F:2020:PRO:HG3	1.62	0.81
1:D:967:VAL:HA	1:D:970:ILE:HB	1.63	0.80
1:A:138:ARG:NH2	1:A:175:ASP:OD2	2.14	0.80
1:E:967:VAL:HA	1:E:970:ILE:HB	1.63	0.80
1:B:967:VAL:HA	1:B:970:ILE:HB	1.63	0.80
1:C:967:VAL:HA	1:C:970:ILE:HB	1.63	0.80
1:C:46:VAL:HB	1:C:155:VAL:HG13	1.63	0.80
1:D:2730:TYR:OH	1:D:3059:ARG:NH1	2.14	0.80
1:C:138:ARG:NH2	1:C:175:ASP:OD2	2.14	0.80
1:C:931:VAL:CG1	1:C:933:VAL:CG1	2.60	0.80
1:F:931:VAL:CG1	1:F:933:VAL:CG1	2.60	0.80
1:B:931:VAL:CG1	1:B:933:VAL:CG1	2.60	0.80
1:A:46:VAL:HB	1:A:155:VAL:HG13	1.63	0.80
1:F:2730:TYR:OH	1:F:3059:ARG:NH1	2.14	0.80
1:E:46:VAL:HB	1:E:155:VAL:HG13	1.63	0.80
1:A:931:VAL:CG1	1:A:933:VAL:CG1	2.60	0.80
1:E:1538:ARG:HH11	1:E:1722:PRO:HB3	1.43	0.80
1:D:931:VAL:CG1	1:D:933:VAL:CG1	2.60	0.80
1:C:2610:ARG:HH12	1:C:2700:LEU:HD11	1.47	0.80
1:E:931:VAL:CG1	1:E:933:VAL:CG1	2.60	0.80
1:C:2730:TYR:OH	1:C:3059:ARG:NH1	2.14	0.80
1:B:2730:TYR:OH	1:B:3059:ARG:NH1	2.14	0.80
1:F:273:ARG:HB2	1:F:282:VAL:H	1.47	0.80
1:B:2610:ARG:HH12	1:B:2700:LEU:HD11	1.47	0.79
1:A:967:VAL:HA	1:A:970:ILE:HB	1.63	0.79
1:E:931:VAL:HG11	1:E:933:VAL:HG13	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1220:THR:CG2	1:B:1221:PRO:N	2.46	0.79
1:F:1020:THR:H	1:F:1035:VAL:CG2	1.96	0.79
1:A:273:ARG:HB2	1:A:282:VAL:H	1.47	0.79
1:D:1220:THR:CG2	1:D:1221:PRO:N	2.46	0.79
1:A:1220:THR:CG2	1:A:1221:PRO:N	2.46	0.79
1:F:2450:TRP:CG	1:F:3016:ALA:HB1	2.18	0.79
1:A:2450:TRP:CG	1:A:3016:ALA:HB1	2.18	0.79
1:B:273:ARG:HB2	1:B:282:VAL:H	1.47	0.79
1:F:1019:PHE:CE1	1:F:1042:MET:SD	2.76	0.79
1:C:273:ARG:HB2	1:C:282:VAL:H	1.47	0.78
1:F:1220:THR:CG2	1:F:1221:PRO:N	2.46	0.78
1:E:2610:ARG:HH12	1:E:2700:LEU:HD11	1.47	0.78
1:F:2610:ARG:HH12	1:F:2700:LEU:HD11	1.47	0.78
1:E:2450:TRP:CG	1:E:3016:ALA:HB1	2.18	0.78
1:D:2610:ARG:HH12	1:D:2700:LEU:HD11	1.47	0.78
1:C:2450:TRP:CG	1:C:3016:ALA:HB1	2.18	0.78
1:E:1329:ALA:HB3	1:E:1337:MET:H	1.48	0.78
1:D:971:ALA:O	1:D:974:THR:HG22	1.84	0.78
1:B:971:ALA:O	1:B:974:THR:HG22	1.84	0.78
1:A:971:ALA:O	1:A:974:THR:HG22	1.84	0.78
1:B:2450:TRP:CG	1:B:3016:ALA:HB1	2.18	0.78
1:C:971:ALA:O	1:C:974:THR:HG22	1.84	0.78
1:F:971:ALA:O	1:F:974:THR:HG22	1.84	0.78
1:E:971:ALA:O	1:E:974:THR:HG22	1.84	0.77
1:A:2451:ASP:CG	1:A:2454:ASP:OD2	2.22	0.77
1:F:1037:ASP:OD2	1:F:1043:ARG:CB	2.32	0.77
1:F:931:VAL:HG11	1:F:933:VAL:HG13	1.65	0.77
1:D:2450:TRP:CG	1:D:3016:ALA:HB1	2.18	0.77
1:F:958:TRP:HH2	1:F:1131:SER:OG	1.61	0.77
1:D:931:VAL:HG11	1:D:933:VAL:HG13	1.65	0.77
1:A:931:VAL:CG1	1:A:933:VAL:HG13	2.15	0.77
1:B:1329:ALA:HB3	1:B:1337:MET:H	1.48	0.77
1:A:931:VAL:HG11	1:A:933:VAL:HG13	1.64	0.77
1:B:931:VAL:HG11	1:B:933:VAL:HG13	1.65	0.77
1:E:273:ARG:HB2	1:E:282:VAL:H	1.47	0.77
1:B:2451:ASP:CG	1:B:2454:ASP:OD2	2.22	0.77
1:E:1220:THR:CG2	1:E:1221:PRO:N	2.46	0.77
1:D:2451:ASP:CG	1:D:2454:ASP:OD2	2.22	0.77
1:C:2451:ASP:CG	1:C:2454:ASP:OD2	2.22	0.77
1:A:2610:ARG:HH12	1:A:2700:LEU:HD11	1.47	0.77
1:A:1329:ALA:HB3	1:A:1337:MET:H	1.48	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2112:ARG:O	1:C:2115:HIS:CG	2.38	0.77
1:C:931:VAL:CG1	1:C:933:VAL:HG13	2.15	0.77
1:C:1220:THR:CG2	1:C:1221:PRO:N	2.46	0.76
1:E:931:VAL:CG1	1:E:933:VAL:HG13	2.15	0.76
1:F:931:VAL:CG1	1:F:933:VAL:HG13	2.15	0.76
1:C:1329:ALA:HB3	1:C:1337:MET:H	1.49	0.76
1:D:1003:HIS:CG	1:D:1004:VAL:N	2.53	0.76
1:A:2645:ASP:OD2	1:A:2691:SER:N	2.19	0.76
1:D:2645:ASP:OD2	1:D:2691:SER:N	2.19	0.76
1:E:2451:ASP:CG	1:E:2454:ASP:OD2	2.22	0.76
1:F:2451:ASP:CG	1:F:2454:ASP:OD2	2.22	0.76
1:F:1329:ALA:HB3	1:F:1337:MET:H	1.49	0.76
1:B:1003:HIS:CG	1:B:1004:VAL:N	2.53	0.76
1:A:2557:LEU:O	1:A:2613:ARG:N	2.18	0.76
1:D:1695:LEU:HD23	1:E:257:ARG:HH12	1.50	0.76
1:A:257:ARG:HH12	1:C:1695:LEU:HD23	1.51	0.76
1:F:1394:HIS:CE1	1:C:2324:LYS:NZ	2.54	0.76
1:E:2112:ARG:O	1:E:2115:HIS:CG	2.38	0.76
1:F:934:LEU:O	1:F:937:ARG:CG	2.34	0.76
1:F:1019:PHE:HE1	1:F:1042:MET:SD	2.09	0.76
1:A:1695:LEU:HD23	1:B:257:ARG:HH12	1.51	0.76
1:D:2112:ARG:O	1:D:2115:HIS:CG	2.38	0.76
1:D:931:VAL:CG1	1:D:933:VAL:HG13	2.15	0.76
1:C:934:LEU:O	1:C:937:ARG:CG	2.34	0.76
1:B:1097:VAL:HB	1:B:1146:PRO:HB2	1.68	0.76
1:E:2557:LEU:O	1:E:2613:ARG:N	2.18	0.76
1:C:931:VAL:HG11	1:C:933:VAL:HG13	1.65	0.76
1:A:934:LEU:O	1:A:937:ARG:CG	2.34	0.76
1:D:1329:ALA:HB3	1:D:1337:MET:H	1.48	0.76
1:E:2645:ASP:OD2	1:E:2691:SER:N	2.19	0.76
1:B:2112:ARG:O	1:B:2115:HIS:CG	2.38	0.75
1:B:931:VAL:CG1	1:B:933:VAL:HG13	2.15	0.75
1:F:1035:VAL:CG1	1:F:1042:MET:HG2	2.16	0.75
1:A:2112:ARG:O	1:A:2115:HIS:CG	2.38	0.75
1:D:934:LEU:O	1:D:937:ARG:CG	2.34	0.75
1:B:934:LEU:O	1:B:937:ARG:CG	2.34	0.75
1:F:2112:ARG:O	1:F:2115:HIS:CG	2.38	0.75
1:F:1028:GLY:O	1:F:1031:PRO:HD3	1.87	0.75
1:E:1695:LEU:HD23	1:F:257:ARG:HH12	1.51	0.75
1:E:934:LEU:O	1:E:937:ARG:CG	2.34	0.75
1:C:2645:ASP:OD2	1:C:2691:SER:N	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1556:GLU:OE2	1:A:1560:ARG:NH2	2.20	0.75
1:D:1097:VAL:HB	1:D:1146:PRO:HB2	1.68	0.75
1:B:1695:LEU:HD23	1:C:257:ARG:HH12	1.50	0.75
1:A:1097:VAL:HB	1:A:1146:PRO:HB2	1.68	0.75
1:E:1097:VAL:HB	1:E:1146:PRO:HB2	1.68	0.74
1:C:1097:VAL:HB	1:C:1146:PRO:HB2	1.68	0.74
1:D:445:VAL:HG13	1:D:475:LEU:HD21	1.69	0.74
1:F:957:LEU:O	1:F:1034:GLU:HB3	1.87	0.74
1:F:1556:GLU:OE2	1:F:1560:ARG:NH2	2.20	0.74
1:C:3015:ILE:HG12	1:C:3023:ARG:HG3	1.69	0.74
1:B:2557:LEU:O	1:B:2613:ARG:N	2.18	0.74
1:E:33:ALA:HB2	1:E:390:VAL:HA	1.70	0.74
1:A:33:ALA:HB2	1:A:390:VAL:HA	1.70	0.74
1:D:3015:ILE:HG12	1:D:3023:ARG:HG3	1.69	0.74
1:E:3015:ILE:HG12	1:E:3023:ARG:HG3	1.69	0.74
1:F:445:VAL:HG13	1:F:475:LEU:HD21	1.69	0.74
1:B:1556:GLU:OE2	1:B:1560:ARG:NH2	2.20	0.74
1:C:33:ALA:HB2	1:C:390:VAL:HA	1.69	0.74
1:F:1097:VAL:HB	1:F:1146:PRO:HB2	1.68	0.74
1:F:513:SER:C	1:F:961:ARG:NH1	2.40	0.74
1:C:1556:GLU:OE2	1:C:1560:ARG:NH2	2.20	0.74
1:F:2645:ASP:OD2	1:F:2691:SER:N	2.19	0.74
1:D:2697:HIS:HD2	1:C:2700:LEU:HD22	1.53	0.74
1:D:1556:GLU:OE2	1:D:1560:ARG:NH2	2.20	0.74
1:E:445:VAL:HG13	1:E:475:LEU:HD21	1.69	0.74
1:F:960:GLY:HA2	1:F:1126:ILE:HD13	1.70	0.74
1:B:3015:ILE:HG12	1:B:3023:ARG:HG3	1.69	0.74
1:E:1556:GLU:OE2	1:E:1560:ARG:NH2	2.20	0.73
1:F:1037:ASP:CG	1:F:1043:ARG:CG	2.54	0.73
1:B:445:VAL:HG13	1:B:475:LEU:HD21	1.69	0.73
1:A:2096:VAL:O	1:A:2099:GLN:CG	2.37	0.73
1:F:2700:LEU:HD22	1:A:2697:HIS:HD2	1.53	0.73
1:D:2603:ARG:NH2	1:C:2612:PRO:O	2.22	0.73
1:F:2053:ALA:O	1:F:2807:ARG:NH2	2.21	0.73
1:C:2053:ALA:O	1:C:2807:ARG:NH2	2.21	0.73
1:D:2096:VAL:O	1:D:2099:GLN:CG	2.37	0.73
1:E:2612:PRO:O	1:B:2603:ARG:NH2	2.22	0.73
1:D:437:PRO:HG3	1:D:876:LEU:HB3	1.70	0.73
1:E:1168:ARG:N	1:E:1194:ILE:O	2.21	0.73
1:F:3015:ILE:HG12	1:F:3023:ARG:HG3	1.69	0.73
1:F:2697:HIS:HD2	1:A:2700:LEU:HD22	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:445:VAL:HG13	1:A:475:LEU:HD21	1.69	0.73
1:B:2096:VAL:O	1:B:2099:GLN:CG	2.36	0.73
1:B:2645:ASP:OD2	1:B:2691:SER:N	2.19	0.73
1:F:1037:ASP:CA	1:F:1038:ALA:HB3	2.18	0.73
1:B:2883:ALA:O	1:B:2916:ARG:NH1	2.22	0.73
1:F:2883:ALA:O	1:F:2916:ARG:NH1	2.22	0.73
1:F:2096:VAL:O	1:F:2099:GLN:CG	2.36	0.73
1:D:2612:PRO:O	1:C:2603:ARG:NH2	2.22	0.73
1:C:2557:LEU:O	1:C:2613:ARG:N	2.18	0.73
1:C:437:PRO:HG3	1:C:876:LEU:HB3	1.70	0.73
1:B:2053:ALA:O	1:B:2807:ARG:NH2	2.21	0.73
1:E:2096:VAL:O	1:E:2099:GLN:CG	2.37	0.73
1:D:2053:ALA:O	1:D:2807:ARG:NH2	2.21	0.73
1:F:2557:LEU:O	1:F:2613:ARG:N	2.18	0.73
1:F:2845:PHE:HD1	1:A:2731:GLY:HA2	1.54	0.73
1:E:2697:HIS:HD2	1:B:2700:LEU:HD22	1.53	0.72
1:E:2053:ALA:O	1:E:2807:ARG:NH2	2.21	0.72
1:B:936:ARG:HB3	1:B:941:ARG:HB3	1.71	0.72
1:A:3015:ILE:HG12	1:A:3023:ARG:HG3	1.69	0.72
1:A:437:PRO:HG3	1:A:876:LEU:HB3	1.70	0.72
1:D:2557:LEU:O	1:D:2613:ARG:N	2.18	0.72
1:C:2096:VAL:O	1:C:2099:GLN:CG	2.37	0.72
1:E:2883:ALA:O	1:E:2916:ARG:NH1	2.22	0.72
1:D:2731:GLY:HA2	1:C:2845:PHE:HD1	1.54	0.72
1:C:445:VAL:HG13	1:C:475:LEU:HD21	1.69	0.72
1:E:1003:HIS:CG	1:E:1004:VAL:N	2.53	0.72
1:F:33:ALA:HB2	1:F:390:VAL:HA	1.70	0.72
1:D:1400:PRO:HD2	1:D:1416:VAL:HG22	1.72	0.72
1:B:2998:GLY:N	1:B:3002:VAL:O	2.23	0.72
1:A:2883:ALA:O	1:A:2916:ARG:NH1	2.22	0.72
1:C:936:ARG:HB3	1:C:941:ARG:HB3	1.71	0.72
1:E:2603:ARG:NH2	1:B:2612:PRO:O	2.22	0.72
1:E:936:ARG:HB3	1:E:941:ARG:HB3	1.71	0.72
1:F:70:SER:OG	1:F:142:ARG:NH2	2.23	0.72
1:C:2883:ALA:O	1:C:2916:ARG:NH1	2.22	0.72
1:E:437:PRO:HG3	1:E:876:LEU:HB3	1.70	0.72
1:D:1168:ARG:N	1:D:1194:ILE:O	2.21	0.72
1:A:2053:ALA:O	1:A:2807:ARG:NH2	2.21	0.72
1:B:437:PRO:HG3	1:B:876:LEU:HB3	1.70	0.72
1:B:1168:ARG:N	1:B:1194:ILE:O	2.21	0.72
1:D:1237:ARG:NH1	1:E:95:PRO:HB2	2.05	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1253:ARG:HG3	1:E:1253:ARG:HH11	1.54	0.72
1:A:1253:ARG:HH11	1:A:1253:ARG:HG3	1.55	0.72
1:A:2998:GLY:N	1:A:3002:VAL:O	2.23	0.72
1:F:1020:THR:N	1:F:1035:VAL:HG21	2.03	0.72
1:F:1168:ARG:N	1:F:1194:ILE:O	2.21	0.72
1:F:2103:TRP:CG	1:F:2104:GLN:N	2.58	0.72
1:F:2731:GLY:HA2	1:A:2845:PHE:HD1	1.54	0.72
1:F:437:PRO:HG3	1:F:876:LEU:HB3	1.70	0.72
1:F:1394:HIS:CE1	1:C:2324:LYS:CD	2.56	0.72
1:F:2603:ARG:NH2	1:A:2612:PRO:O	2.22	0.72
1:D:2700:LEU:HD22	1:C:2697:HIS:HD2	1.53	0.72
1:F:2612:PRO:O	1:A:2603:ARG:NH2	2.22	0.72
1:C:1168:ARG:N	1:C:1194:ILE:O	2.21	0.72
1:F:936:ARG:HB3	1:F:941:ARG:HB3	1.71	0.72
1:B:33:ALA:HB2	1:B:390:VAL:HA	1.69	0.72
1:D:2998:GLY:N	1:D:3002:VAL:O	2.23	0.72
1:A:1168:ARG:N	1:A:1194:ILE:O	2.21	0.72
1:B:2103:TRP:CG	1:B:2104:GLN:N	2.58	0.72
1:B:1218:THR:CG2	1:B:1441:GLN:OE1	2.38	0.72
1:E:2731:GLY:HA2	1:B:2845:PHE:HD1	1.54	0.72
1:E:2845:PHE:HD1	1:B:2731:GLY:HA2	1.54	0.72
1:B:2268:GLN:OE1	1:B:2319:ARG:NH1	2.23	0.72
1:D:2103:TRP:CG	1:D:2104:GLN:N	2.58	0.71
1:D:2883:ALA:O	1:D:2916:ARG:NH1	2.22	0.71
1:A:936:ARG:HB3	1:A:941:ARG:HB3	1.71	0.71
1:B:1400:PRO:HD2	1:B:1416:VAL:HG22	1.72	0.71
1:E:2103:TRP:CG	1:E:2104:GLN:N	2.58	0.71
1:C:1218:THR:CG2	1:C:1441:GLN:OE1	2.38	0.71
1:D:1218:THR:CG2	1:D:1441:GLN:OE1	2.38	0.71
1:C:2998:GLY:N	1:C:3002:VAL:O	2.23	0.71
1:C:2268:GLN:OE1	1:C:2319:ARG:NH1	2.23	0.71
1:F:2268:GLN:OE1	1:F:2319:ARG:NH1	2.23	0.71
1:D:2282:ASP:HB3	1:B:1390:PHE:HA	1.72	0.71
1:C:2103:TRP:CG	1:C:2104:GLN:N	2.58	0.71
1:F:959:ALA:O	1:F:1126:ILE:CG1	2.38	0.71
1:E:2700:LEU:HD22	1:B:2697:HIS:HD2	1.53	0.71
1:A:95:PRO:HB2	1:C:1237:ARG:NH1	2.05	0.71
1:E:1237:ARG:NH1	1:F:95:PRO:HB2	2.05	0.71
1:A:1237:ARG:NH1	1:B:95:PRO:HB2	2.05	0.71
1:B:70:SER:OG	1:B:142:ARG:NH2	2.23	0.71
1:E:3075:LEU:HD23	1:B:2861:LEU:HD21	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:580:ARG:HD2	1:C:614:GLY:HA3	1.72	0.71
1:D:2861:LEU:HD21	1:C:3075:LEU:HD23	1.72	0.71
1:F:2861:LEU:HD21	1:A:3075:LEU:HD23	1.72	0.71
1:A:2268:GLN:OE1	1:A:2319:ARG:NH1	2.24	0.71
1:E:2268:GLN:OE1	1:E:2319:ARG:NH1	2.23	0.71
1:F:1218:THR:CG2	1:F:1441:GLN:OE1	2.38	0.71
1:F:2215:THR:HB	1:F:2229:LYS:HB2	1.73	0.71
1:F:2998:GLY:N	1:F:3002:VAL:O	2.23	0.71
1:D:2268:GLN:OE1	1:D:2319:ARG:NH1	2.23	0.71
1:D:3075:LEU:HD23	1:C:2861:LEU:HD21	1.72	0.71
1:D:1390:PHE:HA	1:B:2282:ASP:HB3	1.72	0.71
1:F:1385:ARG:HD2	1:F:2411:LYS:HZ2	1.56	0.71
1:F:1385:ARG:NH1	1:F:2411:LYS:HE2	1.93	0.71
1:A:2103:TRP:CG	1:A:2104:GLN:N	2.58	0.71
1:E:1218:THR:CG2	1:E:1441:GLN:OE1	2.38	0.71
1:E:2743:ALA:HB1	1:E:2940:VAL:HG23	1.73	0.71
1:C:70:SER:OG	1:C:142:ARG:NH2	2.23	0.71
1:E:580:ARG:HD2	1:E:614:GLY:HA3	1.73	0.71
1:F:2743:ALA:HB1	1:F:2940:VAL:HG23	1.73	0.71
1:F:1394:HIS:CE1	1:C:2324:LYS:HZ2	2.08	0.70
1:F:2558:LEU:HG	1:F:2612:PRO:HA	1.73	0.70
1:D:2845:PHE:HD1	1:C:2731:GLY:HA2	1.54	0.70
1:E:2998:GLY:N	1:E:3002:VAL:O	2.23	0.70
1:E:1507:GLN:O	1:E:1562:ARG:NH1	2.24	0.70
1:E:70:SER:OG	1:E:142:ARG:NH2	2.23	0.70
1:E:2282:ASP:HB3	1:A:1390:PHE:HA	1.72	0.70
1:D:1634:ARG:HH11	1:D:1639:ALA:H	1.39	0.70
1:D:1253:ARG:HH11	1:D:1253:ARG:HG3	1.55	0.70
1:A:1400:PRO:HD2	1:A:1416:VAL:HG22	1.72	0.70
1:F:1507:GLN:O	1:F:1562:ARG:NH1	2.24	0.70
1:B:1507:GLN:O	1:B:1562:ARG:NH1	2.24	0.70
1:D:580:ARG:HD2	1:D:614:GLY:HA3	1.73	0.70
1:B:2558:LEU:HG	1:B:2612:PRO:HA	1.74	0.70
1:F:3075:LEU:HD23	1:A:2861:LEU:HD21	1.72	0.70
1:B:1253:ARG:HH11	1:B:1253:ARG:HG3	1.55	0.70
1:A:1507:GLN:O	1:A:1562:ARG:NH1	2.24	0.70
1:E:1634:ARG:HH11	1:E:1639:ALA:H	1.39	0.70
1:A:580:ARG:HD2	1:A:614:GLY:HA3	1.73	0.70
1:F:1003:HIS:CG	1:F:1004:VAL:N	2.53	0.70
1:C:1400:PRO:HD2	1:C:1416:VAL:HG22	1.72	0.70
1:C:1507:GLN:O	1:C:1562:ARG:NH1	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1022:THR:O	1:F:1033:VAL:HB	1.91	0.70
1:F:1253:ARG:HG3	1:F:1253:ARG:HH11	1.54	0.70
1:A:974:THR:HG21	1:A:977:GLN:HB3	1.74	0.70
1:D:2860:ALA:HB3	1:D:2906:LEU:HD21	1.73	0.70
1:A:1634:ARG:HH11	1:A:1639:ALA:H	1.39	0.70
1:A:2743:ALA:HB1	1:A:2940:VAL:HG23	1.73	0.70
1:F:580:ARG:HD2	1:F:614:GLY:HA3	1.72	0.70
1:E:1400:PRO:HD2	1:E:1416:VAL:HG22	1.72	0.70
1:C:1253:ARG:HH11	1:C:1253:ARG:HG3	1.54	0.70
1:A:70:SER:OG	1:A:142:ARG:NH2	2.23	0.70
1:A:1218:THR:CG2	1:A:1441:GLN:OE1	2.38	0.70
1:D:1507:GLN:O	1:D:1562:ARG:NH1	2.24	0.70
1:B:1634:ARG:HH11	1:B:1639:ALA:H	1.39	0.70
1:C:1634:ARG:HH11	1:C:1639:ALA:H	1.39	0.70
1:F:2282:ASP:HB3	1:C:1390:PHE:HA	1.72	0.70
1:D:936:ARG:HB3	1:D:941:ARG:HB3	1.72	0.70
1:B:1237:ARG:NH1	1:C:95:PRO:HB2	2.05	0.70
1:F:1400:PRO:HD2	1:F:1416:VAL:HG22	1.72	0.70
1:F:137:VAL:HG22	1:F:354:LEU:HD13	1.74	0.70
1:D:1177:ARG:HB2	1:D:1184:LEU:HD23	1.74	0.70
1:B:2215:THR:HB	1:B:2229:LYS:HB2	1.74	0.70
1:E:1390:PHE:HA	1:A:2282:ASP:HB3	1.72	0.70
1:E:2558:LEU:HG	1:E:2612:PRO:HA	1.74	0.70
1:A:2860:ALA:HB3	1:A:2906:LEU:HD21	1.73	0.70
1:B:2743:ALA:HB1	1:B:2940:VAL:HG23	1.73	0.70
1:F:1035:VAL:HG12	1:F:1041:ALA:CB	2.18	0.70
1:E:1035:VAL:HG12	1:E:1037:ASP:H	1.57	0.70
1:B:137:VAL:HG22	1:B:354:LEU:HD13	1.74	0.70
1:E:974:THR:HG21	1:E:977:GLN:HB3	1.74	0.70
1:A:2558:LEU:HG	1:A:2612:PRO:HA	1.73	0.69
1:C:2860:ALA:HB3	1:C:2906:LEU:HD21	1.73	0.69
1:E:2861:LEU:HD21	1:B:3075:LEU:HD23	1.72	0.69
1:F:1177:ARG:HB2	1:F:1184:LEU:HD23	1.74	0.69
1:E:137:VAL:HG22	1:E:354:LEU:HD13	1.74	0.69
1:E:1724:TYR:OH	1:F:267:GLU:OE2	2.07	0.69
1:F:1012:GLY:O	1:F:1013:THR:CG2	2.41	0.69
1:E:2860:ALA:HB3	1:E:2906:LEU:HD21	1.73	0.69
1:D:2085:LEU:O	1:D:2088:ARG:CG	2.40	0.69
1:A:2215:THR:HB	1:A:2229:LYS:HB2	1.74	0.69
1:B:1177:ARG:HB2	1:B:1184:LEU:HD23	1.74	0.69
1:C:2215:THR:HB	1:C:2229:LYS:HB2	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1035:VAL:HG12	1:A:1037:ASP:H	1.57	0.69
1:D:2215:THR:HB	1:D:2229:LYS:HB2	1.73	0.69
1:F:1019:PHE:CE2	1:F:1034:GLU:HG2	2.24	0.69
1:C:137:VAL:HG22	1:C:354:LEU:HD13	1.74	0.69
1:B:1035:VAL:HG12	1:B:1037:ASP:H	1.57	0.69
1:D:1046:LEU:HD13	1:D:1129:LEU:HD22	1.75	0.69
1:E:2215:THR:HB	1:E:2229:LYS:HB2	1.73	0.69
1:C:1046:LEU:HD13	1:C:1129:LEU:HD22	1.75	0.69
1:C:2558:LEU:HG	1:C:2612:PRO:HA	1.73	0.69
1:B:2647:VAL:HG22	1:B:2769:ASP:HB2	1.75	0.69
1:F:2860:ALA:HB3	1:F:2906:LEU:HD21	1.73	0.69
1:A:137:VAL:HG22	1:A:354:LEU:HD13	1.74	0.69
1:D:1035:VAL:HG12	1:D:1037:ASP:H	1.57	0.69
1:C:2085:LEU:O	1:C:2088:ARG:CG	2.41	0.69
1:F:2946:LEU:HD11	1:F:2992:GLY:HA3	1.75	0.69
1:F:513:SER:O	1:F:961:ARG:HD2	1.90	0.69
1:A:1012:GLY:O	1:A:1013:THR:CG2	2.41	0.69
1:D:974:THR:HG21	1:D:977:GLN:HB3	1.74	0.69
1:F:3075:LEU:HD21	1:A:2909:ARG:HB3	1.75	0.69
1:C:1177:ARG:HB2	1:C:1184:LEU:HD23	1.74	0.69
1:F:974:THR:HG21	1:F:977:GLN:HB3	1.74	0.68
1:C:974:THR:HG21	1:C:977:GLN:HB3	1.74	0.68
1:D:2647:VAL:HG22	1:D:2769:ASP:HB2	1.75	0.68
1:F:2557:LEU:HG	1:A:2702:GLY:HA3	1.76	0.68
1:B:2860:ALA:HB3	1:B:2906:LEU:HD21	1.73	0.68
1:D:2946:LEU:HD11	1:D:2992:GLY:HA3	1.75	0.68
1:E:2085:LEU:O	1:E:2088:ARG:CG	2.41	0.68
1:B:2946:LEU:HD11	1:B:2992:GLY:HA3	1.75	0.68
1:F:1021:LEU:CD2	1:F:1034:GLU:HG3	2.14	0.68
1:C:2647:VAL:HG22	1:C:2769:ASP:HB2	1.75	0.68
1:F:2647:VAL:HG22	1:F:2769:ASP:HB2	1.75	0.68
1:A:1046:LEU:HD13	1:A:1129:LEU:HD22	1.75	0.68
1:E:340:ILE:HD13	1:E:364:THR:HG21	1.75	0.68
1:C:2743:ALA:HB1	1:C:2940:VAL:HG23	1.73	0.68
1:F:1385:ARG:NH1	1:F:2411:LYS:HZ1	1.64	0.68
1:E:1046:LEU:HD13	1:E:1129:LEU:HD22	1.75	0.68
1:D:2558:LEU:HG	1:D:2612:PRO:HA	1.74	0.68
1:E:2909:ARG:HB3	1:B:3075:LEU:HD21	1.75	0.68
1:A:1177:ARG:HB2	1:A:1184:LEU:HD23	1.74	0.68
1:B:580:ARG:HD2	1:B:614:GLY:HA3	1.73	0.68
1:F:2085:LEU:O	1:F:2088:ARG:CG	2.40	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1035:VAL:HG12	1:C:1037:ASP:H	1.57	0.68
1:C:2946:LEU:HD11	1:C:2992:GLY:HA3	1.75	0.68
1:B:511:ARG:HD3	1:B:543:GLY:HA3	1.76	0.68
1:B:1012:GLY:O	1:B:1013:THR:CG2	2.41	0.68
1:B:1002:GLN:O	1:B:1003:HIS:CG	2.47	0.68
1:B:269:GLU:HB3	1:B:282:VAL:HA	1.76	0.68
1:D:2743:ALA:HB1	1:D:2940:VAL:HG23	1.73	0.68
1:B:2085:LEU:O	1:B:2088:ARG:CG	2.41	0.68
1:C:269:GLU:HB3	1:C:282:VAL:HA	1.75	0.68
1:A:2647:VAL:HG22	1:A:2769:ASP:HB2	1.75	0.68
1:D:3075:LEU:HD21	1:C:2909:ARG:HB3	1.76	0.68
1:A:267:GLU:OE2	1:C:1724:TYR:OH	2.07	0.68
1:E:1177:ARG:HB2	1:E:1184:LEU:HD23	1.74	0.68
1:E:1008:VAL:HG12	1:E:1019:PHE:HB3	1.76	0.68
1:D:2557:LEU:HG	1:C:2702:GLY:HA3	1.76	0.68
1:A:340:ILE:HD13	1:A:364:THR:HG21	1.75	0.68
1:C:1008:VAL:HG12	1:C:1019:PHE:HB3	1.76	0.68
1:A:2085:LEU:O	1:A:2088:ARG:CG	2.41	0.68
1:D:1008:VAL:HG12	1:D:1019:PHE:HB3	1.76	0.68
1:D:2702:GLY:HA3	1:C:2557:LEU:HG	1.76	0.68
1:B:1164:THR:N	1:B:1167:GLY:O	2.25	0.68
1:A:2946:LEU:HD11	1:A:2992:GLY:HA3	1.75	0.68
1:D:1164:THR:N	1:D:1167:GLY:O	2.25	0.68
1:C:1488:VAL:HG21	1:C:1580:PRO:HD2	1.76	0.68
1:F:1401:THR:CG2	1:C:2286:ARG:NH2	2.42	0.68
1:D:2112:ARG:N	1:D:2115:HIS:CG	2.57	0.67
1:A:1003:HIS:CG	1:A:1004:VAL:N	2.53	0.67
1:B:340:ILE:HD13	1:B:364:THR:HG21	1.75	0.67
1:B:1046:LEU:HD13	1:B:1129:LEU:HD22	1.75	0.67
1:E:2946:LEU:HD11	1:E:2992:GLY:HA3	1.75	0.67
1:F:1634:ARG:HH11	1:F:1639:ALA:H	1.39	0.67
1:B:931:VAL:CG1	1:B:933:VAL:HG12	2.24	0.67
1:D:1002:GLN:O	1:D:1003:HIS:CG	2.47	0.67
1:F:1002:GLN:O	1:F:1003:HIS:CG	2.47	0.67
1:E:2702:GLY:HA3	1:B:2557:LEU:HG	1.76	0.67
1:A:2126:ALA:O	1:A:2129:PRO:CG	2.43	0.67
1:D:511:ARG:HD3	1:D:543:GLY:HA3	1.76	0.67
1:E:931:VAL:CG1	1:E:933:VAL:HG12	2.25	0.67
1:C:1002:GLN:O	1:C:1003:HIS:CG	2.47	0.67
1:E:269:GLU:HB3	1:E:282:VAL:HA	1.75	0.67
1:F:2081:GLN:O	1:F:2084:GLN:CG	2.43	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2748:GLU:HG2	1:B:2753:LYS:HZ2	1.60	0.67
1:F:1046:LEU:HD13	1:F:1129:LEU:HD22	1.75	0.67
1:D:1488:VAL:HG21	1:D:1580:PRO:HD2	1.76	0.67
1:C:1012:GLY:O	1:C:1013:THR:CG2	2.41	0.67
1:B:974:THR:HG21	1:B:977:GLN:HB3	1.74	0.67
1:A:792:ALA:HA	1:A:799:PHE:HE2	1.60	0.67
1:C:1003:HIS:CG	1:C:1004:VAL:N	2.53	0.67
1:D:1012:GLY:O	1:D:1013:THR:CG2	2.41	0.67
1:C:2081:GLN:O	1:C:2084:GLN:CG	2.43	0.67
1:C:340:ILE:HD13	1:C:364:THR:HG21	1.75	0.67
1:C:1164:THR:N	1:C:1167:GLY:O	2.25	0.67
1:C:931:VAL:CG1	1:C:933:VAL:HG12	2.25	0.67
1:B:2126:ALA:O	1:B:2129:PRO:CG	2.43	0.67
1:D:931:VAL:CG1	1:D:933:VAL:HG12	2.25	0.67
1:E:3075:LEU:HD21	1:B:2909:ARG:HB3	1.76	0.67
1:A:1008:VAL:HG12	1:A:1019:PHE:HB3	1.76	0.67
1:F:792:ALA:HA	1:F:799:PHE:HE2	1.60	0.67
1:A:269:GLU:HB3	1:A:282:VAL:HA	1.75	0.67
1:F:340:ILE:HD13	1:F:364:THR:HG21	1.75	0.67
1:F:511:ARG:HD3	1:F:543:GLY:HA3	1.76	0.67
1:E:1002:GLN:O	1:E:1003:HIS:CG	2.47	0.67
1:E:2647:VAL:HG22	1:E:2769:ASP:HB2	1.75	0.67
1:C:1168:ARG:HB2	1:C:1197:ARG:HB2	1.77	0.67
1:F:2094:HIS:CG	1:F:2096:VAL:CG1	2.75	0.66
1:D:3080:ARG:HH11	1:D:3080:ARG:CG	2.07	0.66
1:D:1488:VAL:HG12	1:D:1490:ARG:NH1	2.10	0.66
1:D:683:GLY:HA2	1:D:700:ASN:HB2	1.77	0.66
1:C:511:ARG:HD3	1:C:543:GLY:HA3	1.76	0.66
1:F:1008:VAL:HG12	1:F:1019:PHE:HB3	1.76	0.66
1:D:792:ALA:HA	1:D:799:PHE:HE2	1.60	0.66
1:F:269:GLU:HB3	1:F:282:VAL:HA	1.75	0.66
1:F:2909:ARG:HB3	1:A:3075:LEU:HD21	1.75	0.66
1:B:511:ARG:HB2	1:B:540:ASN:HB2	1.77	0.66
1:C:1167:GLY:HA3	1:C:1195:ARG:HA	1.77	0.66
1:C:1358:GLN:HG2	1:C:1423:THR:HG23	1.78	0.66
1:C:683:GLY:HA2	1:C:700:ASN:HB2	1.78	0.66
1:E:2081:GLN:O	1:E:2084:GLN:CG	2.43	0.66
1:B:2081:GLN:O	1:B:2084:GLN:CG	2.43	0.66
1:C:2094:HIS:CG	1:C:2096:VAL:CG1	2.75	0.66
1:C:792:ALA:HA	1:C:799:PHE:HE2	1.60	0.66
1:B:3080:ARG:CG	1:B:3080:ARG:HH11	2.07	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1002:GLN:O	1:A:1003:HIS:CG	2.47	0.66
1:D:1167:GLY:HA3	1:D:1195:ARG:HA	1.78	0.66
1:F:511:ARG:HB2	1:F:540:ASN:HB2	1.78	0.66
1:A:511:ARG:HB2	1:A:540:ASN:HB2	1.77	0.66
1:A:511:ARG:HD3	1:A:543:GLY:HA3	1.76	0.66
1:A:1167:GLY:HA3	1:A:1195:ARG:HA	1.78	0.66
1:C:2126:ALA:O	1:C:2129:PRO:CG	2.43	0.66
1:D:2126:ALA:O	1:D:2129:PRO:CG	2.43	0.66
1:F:666:VAL:HG21	1:F:904:VAL:HB	1.78	0.66
1:F:2112:ARG:N	1:F:2115:HIS:CG	2.57	0.66
1:E:2112:ARG:N	1:E:2115:HIS:CG	2.57	0.66
1:C:1488:VAL:HG12	1:C:1490:ARG:NH1	2.10	0.66
1:B:1488:VAL:HG12	1:B:1490:ARG:NH1	2.10	0.66
1:F:1488:VAL:HG12	1:F:1490:ARG:NH1	2.10	0.66
1:B:666:VAL:HG21	1:B:904:VAL:HB	1.78	0.66
1:D:2081:GLN:O	1:D:2084:GLN:CG	2.43	0.66
1:E:1167:GLY:HA3	1:E:1195:ARG:HA	1.78	0.66
1:F:1358:GLN:HG2	1:F:1423:THR:HG23	1.78	0.66
1:A:1132:LEU:HD11	1:A:1192:PHE:HB3	1.78	0.66
1:B:1008:VAL:HG12	1:B:1019:PHE:HB3	1.76	0.66
1:B:35:VAL:HG11	1:B:147:LEU:HB3	1.78	0.66
1:D:1168:ARG:HB2	1:D:1197:ARG:HB2	1.77	0.66
1:D:511:ARG:HB2	1:D:540:ASN:HB2	1.77	0.66
1:E:1164:THR:N	1:E:1167:GLY:O	2.25	0.66
1:A:1488:VAL:HG21	1:A:1580:PRO:HD2	1.76	0.66
1:E:511:ARG:HB2	1:E:540:ASN:HB2	1.78	0.66
1:E:2126:ALA:O	1:E:2129:PRO:CG	2.43	0.66
1:E:792:ALA:HA	1:E:799:PHE:HE2	1.60	0.66
1:E:1358:GLN:HG2	1:E:1423:THR:HG23	1.78	0.66
1:A:2081:GLN:O	1:A:2084:GLN:CG	2.43	0.66
1:A:1358:GLN:HG2	1:A:1423:THR:HG23	1.78	0.66
1:E:2679:ALA:HB3	1:E:2762:VAL:HG12	1.78	0.66
1:E:1132:LEU:HD11	1:E:1192:PHE:HB3	1.78	0.66
1:B:1412:HIS:ND1	1:B:1415:GLY:O	2.26	0.66
1:D:2909:ARG:HB3	1:C:3075:LEU:HD21	1.75	0.66
1:A:1412:HIS:ND1	1:A:1415:GLY:O	2.26	0.66
1:F:1412:HIS:HD2	1:F:1413:PRO:HD2	1.61	0.66
1:F:2126:ALA:O	1:F:2129:PRO:CG	2.43	0.66
1:D:2591:ARG:HH12	1:F:2012:GLY:C	1.99	0.66
1:A:2679:ALA:HB3	1:A:2762:VAL:HG12	1.78	0.66
1:F:2679:ALA:HB3	1:F:2762:VAL:HG12	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1012:GLY:O	1:E:1013:THR:CG2	2.41	0.66
1:E:2094:HIS:CG	1:E:2096:VAL:CG1	2.75	0.66
1:A:931:VAL:CG1	1:A:933:VAL:HG12	2.25	0.66
1:E:1412:HIS:HD2	1:E:1413:PRO:HD2	1.61	0.66
1:A:1084:THR:HG21	1:A:1274:ALA:HA	1.78	0.66
1:D:2012:GLY:C	1:E:2591:ARG:HH12	1.99	0.66
1:C:997:GLU:O	1:C:1009:PRO:N	2.29	0.66
1:E:2012:GLY:C	1:F:2591:ARG:HH12	1.99	0.66
1:F:1084:THR:HG21	1:F:1274:ALA:HA	1.78	0.66
1:A:2112:ARG:N	1:A:2115:HIS:CG	2.57	0.66
1:F:1132:LEU:HD11	1:F:1192:PHE:HB3	1.78	0.66
1:E:997:GLU:O	1:E:1009:PRO:N	2.29	0.66
1:F:931:VAL:CG1	1:F:933:VAL:HG12	2.25	0.66
1:F:2702:GLY:HA3	1:A:2557:LEU:HG	1.76	0.66
1:C:1412:HIS:HD2	1:C:1413:PRO:HD2	1.60	0.66
1:F:1488:VAL:HG21	1:F:1580:PRO:HD2	1.77	0.66
1:B:997:GLU:O	1:B:1009:PRO:N	2.29	0.66
1:D:997:GLU:O	1:D:1009:PRO:N	2.29	0.66
1:B:1132:LEU:HD11	1:B:1192:PHE:HB3	1.78	0.66
1:A:997:GLU:O	1:A:1009:PRO:N	2.29	0.66
1:B:1167:GLY:HA3	1:B:1195:ARG:HA	1.78	0.65
1:F:683:GLY:HA2	1:F:700:ASN:HB2	1.78	0.65
1:E:1084:THR:HG21	1:E:1274:ALA:HA	1.78	0.65
1:B:2112:ARG:N	1:B:2115:HIS:CG	2.57	0.65
1:C:3080:ARG:CG	1:C:3080:ARG:HH11	2.07	0.65
1:A:1168:ARG:HB2	1:A:1197:ARG:HB2	1.77	0.65
1:E:511:ARG:HD3	1:E:543:GLY:HA3	1.76	0.65
1:E:666:VAL:HG21	1:E:904:VAL:HB	1.78	0.65
1:B:2679:ALA:HB3	1:B:2762:VAL:HG12	1.78	0.65
1:B:1084:THR:HG21	1:B:1274:ALA:HA	1.78	0.65
1:C:1536:ASN:HA	1:C:1679:TRP:HB3	1.78	0.65
1:B:1168:ARG:HB2	1:B:1197:ARG:HB2	1.77	0.65
1:B:683:GLY:HA2	1:B:700:ASN:HB2	1.78	0.65
1:C:2706:PRO:HG2	1:C:2709:ILE:HG23	1.79	0.65
1:E:1488:VAL:HG12	1:E:1490:ARG:NH1	2.10	0.65
1:E:2876:LEU:HD11	1:E:2886:ILE:HD11	1.79	0.65
1:E:203:ASP:OD1	1:E:204:ARG:N	2.29	0.65
1:F:997:GLU:O	1:F:1009:PRO:N	2.29	0.65
1:D:450:ASN:HA	1:D:483:ARG:HH11	1.62	0.65
1:B:792:ALA:HA	1:B:799:PHE:HE2	1.60	0.65
1:E:2557:LEU:HG	1:B:2702:GLY:HA3	1.76	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:643:ILE:HD12	1:A:915:PHE:HZ	1.62	0.65
1:E:2706:PRO:HG2	1:E:2709:ILE:HG23	1.79	0.65
1:D:643:ILE:HD12	1:D:915:PHE:HZ	1.62	0.65
1:C:1534:ASN:HB2	1:C:1543:ALA:HB3	1.79	0.65
1:C:2876:LEU:HD11	1:C:2886:ILE:HD11	1.79	0.65
1:E:1534:ASN:HB2	1:E:1543:ALA:HB3	1.78	0.65
1:F:1534:ASN:HB2	1:F:1543:ALA:HB3	1.79	0.65
1:E:1168:ARG:HB2	1:E:1197:ARG:HB2	1.77	0.65
1:A:1536:ASN:HA	1:A:1679:TRP:HB3	1.79	0.65
1:C:203:ASP:OD1	1:C:204:ARG:N	2.30	0.65
1:A:203:ASP:OD1	1:A:204:ARG:N	2.29	0.65
1:A:2591:ARG:HH12	1:C:2012:GLY:C	1.99	0.65
1:E:1536:ASN:HA	1:E:1679:TRP:HB3	1.78	0.65
1:D:2876:LEU:HD11	1:D:2886:ILE:HD11	1.79	0.65
1:F:1168:ARG:HB2	1:F:1197:ARG:HB2	1.77	0.65
1:A:929:GLU:O	1:A:930:PRO:CG	2.45	0.65
1:A:1488:VAL:HG12	1:A:1490:ARG:NH1	2.10	0.65
1:B:203:ASP:OD1	1:B:204:ARG:N	2.30	0.65
1:B:1534:ASN:HB2	1:B:1543:ALA:HB3	1.78	0.65
1:E:683:GLY:HA2	1:E:700:ASN:HB2	1.78	0.65
1:D:1358:GLN:HG2	1:D:1423:THR:HG23	1.78	0.65
1:A:2876:LEU:HD11	1:A:2886:ILE:HD11	1.79	0.65
1:C:35:VAL:HG11	1:C:147:LEU:HB3	1.77	0.65
1:A:1534:ASN:HB2	1:A:1543:ALA:HB3	1.78	0.65
1:D:1132:LEU:HD11	1:D:1192:PHE:HB3	1.78	0.65
1:C:1084:THR:HG21	1:C:1274:ALA:HA	1.78	0.65
1:A:56:LEU:HD22	1:A:119:LEU:HD13	1.79	0.65
1:B:2012:GLY:C	1:C:2591:ARG:HH12	1.99	0.65
1:A:2652:ILE:HG12	1:A:2722:VAL:HG22	1.79	0.65
1:E:643:ILE:HD12	1:E:915:PHE:HZ	1.62	0.65
1:D:1534:ASN:HB2	1:D:1543:ALA:HB3	1.78	0.65
1:A:2094:HIS:CG	1:A:2096:VAL:CG1	2.75	0.65
1:F:929:GLU:O	1:F:930:PRO:CG	2.45	0.65
1:C:511:ARG:HB2	1:C:540:ASN:HB2	1.77	0.65
1:B:643:ILE:HD12	1:B:915:PHE:HZ	1.62	0.65
1:F:450:ASN:HA	1:F:483:ARG:HH11	1.62	0.65
1:D:1084:THR:HG21	1:D:1274:ALA:HA	1.78	0.65
1:A:2706:PRO:HG2	1:A:2709:ILE:HG23	1.78	0.65
1:F:1167:GLY:HA3	1:F:1195:ARG:HA	1.77	0.65
1:A:2252:VAL:HA	1:A:2255:ARG:HE	1.62	0.65
1:D:929:GLU:O	1:D:930:PRO:CG	2.45	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:450:ASN:HA	1:E:483:ARG:HH11	1.62	0.65
1:D:2706:PRO:HG2	1:D:2709:ILE:HG23	1.78	0.65
1:A:35:VAL:HG11	1:A:147:LEU:HB3	1.78	0.65
1:B:1358:GLN:HG2	1:B:1423:THR:HG23	1.78	0.65
1:A:1164:THR:N	1:A:1167:GLY:O	2.25	0.65
1:B:450:ASN:HA	1:B:483:ARG:HH11	1.62	0.65
1:F:56:LEU:HD22	1:F:119:LEU:HD13	1.79	0.65
1:C:2652:ILE:HG12	1:C:2722:VAL:HG22	1.79	0.65
1:E:35:VAL:HG11	1:E:147:LEU:HB3	1.78	0.65
1:B:793:ARG:HD3	1:B:2435:LEU:CG	2.27	0.64
1:A:1412:HIS:HD2	1:A:1413:PRO:HD2	1.61	0.64
1:B:1488:VAL:HG21	1:B:1580:PRO:HD2	1.77	0.64
1:A:2012:GLY:C	1:B:2591:ARG:HH12	1.99	0.64
1:F:35:VAL:HG11	1:F:147:LEU:HB3	1.78	0.64
1:A:683:GLY:HA2	1:A:700:ASN:HB2	1.77	0.64
1:A:450:ASN:HA	1:A:483:ARG:HH11	1.62	0.64
1:F:793:ARG:HD3	1:F:2435:LEU:CG	2.27	0.64
1:B:929:GLU:O	1:B:930:PRO:CG	2.45	0.64
1:F:42:GLU:HB3	1:F:349:ARG:HG3	1.79	0.64
1:E:1488:VAL:HG21	1:E:1580:PRO:HD2	1.77	0.64
1:F:2876:LEU:HD11	1:F:2886:ILE:HD11	1.79	0.64
1:D:2652:ILE:HG12	1:D:2722:VAL:HG22	1.79	0.64
1:D:2679:ALA:HB3	1:D:2762:VAL:HG12	1.78	0.64
1:B:42:GLU:HB3	1:B:349:ARG:HG3	1.79	0.64
1:A:793:ARG:HD3	1:A:2435:LEU:CG	2.27	0.64
1:C:793:ARG:HD3	1:C:2435:LEU:CG	2.27	0.64
1:C:1412:HIS:ND1	1:C:1415:GLY:O	2.26	0.64
1:F:1164:THR:N	1:F:1167:GLY:O	2.25	0.64
1:A:666:VAL:HG21	1:A:904:VAL:HB	1.78	0.64
1:C:666:VAL:HG21	1:C:904:VAL:HB	1.78	0.64
1:B:56:LEU:HD22	1:B:119:LEU:HD13	1.79	0.64
1:F:203:ASP:OD1	1:F:204:ARG:N	2.29	0.64
1:D:666:VAL:HG21	1:D:904:VAL:HB	1.78	0.64
1:E:2252:VAL:HA	1:E:2255:ARG:HE	1.62	0.64
1:E:2652:ILE:HG12	1:E:2722:VAL:HG22	1.79	0.64
1:E:1417:LEU:O	1:E:1423:THR:OG1	2.14	0.64
1:C:450:ASN:HA	1:C:483:ARG:HH11	1.62	0.64
1:D:2094:HIS:CG	1:D:2096:VAL:CG1	2.75	0.64
1:C:929:GLU:O	1:C:930:PRO:CG	2.45	0.64
1:E:929:GLU:O	1:E:930:PRO:CG	2.45	0.64
1:D:793:ARG:HD3	1:D:2435:LEU:CG	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1412:HIS:HD2	1:B:1413:PRO:HD2	1.61	0.64
1:D:1412:HIS:HD2	1:D:1413:PRO:HD2	1.61	0.64
1:F:643:ILE:HD12	1:F:915:PHE:HZ	1.62	0.64
1:C:1132:LEU:HD11	1:C:1192:PHE:HB3	1.78	0.64
1:C:2252:VAL:HA	1:C:2255:ARG:HE	1.62	0.64
1:D:2252:VAL:HA	1:D:2255:ARG:HE	1.62	0.64
1:E:34:LEU:O	1:E:38:LEU:N	2.25	0.64
1:C:643:ILE:HD12	1:C:915:PHE:HZ	1.62	0.64
1:C:2679:ALA:HB3	1:C:2762:VAL:HG12	1.78	0.64
1:B:2176:LEU:HG	1:B:2180:LYS:HE3	1.80	0.64
1:F:2176:LEU:HG	1:F:2180:LYS:HE3	1.80	0.64
1:C:56:LEU:HD22	1:C:119:LEU:HD13	1.79	0.64
1:C:42:GLU:HB3	1:C:349:ARG:HG3	1.79	0.64
1:D:500:GLN:O	1:D:504:LYS:N	2.24	0.64
1:A:42:GLU:HB3	1:A:349:ARG:HG3	1.79	0.64
1:E:803:GLU:OE1	1:E:2431:THR:HG22	1.98	0.64
1:B:2252:VAL:HA	1:B:2255:ARG:HE	1.62	0.64
1:A:803:GLU:OE1	1:A:2431:THR:HG22	1.98	0.64
1:E:3073:MET:O	1:B:2865:ARG:NH2	2.32	0.63
1:E:56:LEU:HD22	1:E:119:LEU:HD13	1.78	0.63
1:C:360:LEU:HD12	1:C:363:LEU:HD23	1.80	0.63
1:F:1536:ASN:HA	1:F:1679:TRP:HB3	1.78	0.63
1:B:2094:HIS:CG	1:B:2096:VAL:CG1	2.75	0.63
1:F:3073:MET:O	1:A:2865:ARG:NH2	2.32	0.63
1:E:892:ILE:HG22	2:E:4000:FMN:HM82	1.80	0.63
1:F:2706:PRO:HG2	1:F:2709:ILE:HG23	1.79	0.63
1:D:1536:ASN:HA	1:D:1679:TRP:HB3	1.79	0.63
1:F:2865:ARG:NH2	1:A:3073:MET:O	2.32	0.63
1:B:1072:TRP:NE1	1:B:1077:VAL:HG22	2.14	0.63
1:B:1417:LEU:O	1:B:1423:THR:OG1	2.14	0.63
1:A:1622:PRO:HD3	1:A:1685:LEU:HD11	1.81	0.63
1:B:1536:ASN:HA	1:B:1679:TRP:HB3	1.79	0.63
1:B:2706:PRO:HG2	1:B:2709:ILE:HG23	1.79	0.63
1:C:2173:ASP:OD2	1:C:2799:LYS:NZ	2.32	0.63
1:B:2876:LEU:HD11	1:B:2886:ILE:HD11	1.79	0.63
1:F:957:LEU:O	1:F:1034:GLU:CB	2.46	0.63
1:C:2112:ARG:N	1:C:2115:HIS:CG	2.57	0.63
1:A:2297:ARG:HD3	1:A:2297:ARG:H	1.64	0.63
1:E:1622:PRO:HD3	1:E:1685:LEU:HD11	1.81	0.63
1:E:500:GLN:O	1:E:504:LYS:N	2.24	0.63
1:A:939:ALA:O	1:A:940:ARG:CG	2.47	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2652:ILE:HG12	1:F:2722:VAL:HG22	1.79	0.63
1:B:939:ALA:O	1:B:940:ARG:CG	2.47	0.63
1:B:2554:ALA:HB1	1:B:2614:LYS:HZ2	1.62	0.63
1:E:1315:ARG:HH21	1:E:1323:GLU:HG2	1.64	0.63
1:E:974:THR:CG2	1:E:977:GLN:HB3	2.29	0.63
1:A:974:THR:CG2	1:A:977:GLN:HB3	2.29	0.63
1:C:974:THR:CG2	1:C:977:GLN:HB3	2.29	0.63
1:C:803:GLU:OE1	1:C:2431:THR:HG22	1.98	0.63
1:E:585:HIS:CD2	1:E:586:SER:H	2.17	0.63
1:B:750:LEU:HD12	1:B:827:LEU:HD11	1.81	0.63
1:F:2297:ARG:HD3	1:F:2297:ARG:H	1.64	0.63
1:E:2948:GLN:HG2	1:E:2951:ARG:HH21	1.64	0.63
1:B:2092:THR:HA	1:B:2189:PHE:HB2	1.81	0.63
1:F:1042:MET:O	1:F:1043:ARG:C	2.37	0.63
1:F:974:THR:CG2	1:F:977:GLN:HB3	2.29	0.63
1:D:974:THR:CG2	1:D:977:GLN:HB3	2.29	0.63
1:E:3080:ARG:CG	1:E:3080:ARG:HH11	2.07	0.63
1:E:2865:ARG:NH2	1:B:3073:MET:O	2.32	0.63
1:D:3073:MET:O	1:C:2865:ARG:NH2	2.32	0.63
1:E:1072:TRP:NE1	1:E:1077:VAL:HG22	2.14	0.63
1:F:2752:ASP:HB3	1:A:2752:ASP:HB3	1.81	0.63
1:F:1376:VAL:HA	1:F:1470:LEU:HD13	1.81	0.63
1:D:803:GLU:OE1	1:D:2431:THR:HG22	1.98	0.63
1:F:2092:THR:HA	1:F:2189:PHE:HB2	1.81	0.63
1:B:585:HIS:CD2	1:B:586:SER:H	2.17	0.63
1:C:939:ALA:O	1:C:940:ARG:CG	2.47	0.63
1:E:2297:ARG:H	1:E:2297:ARG:HD3	1.64	0.63
1:D:939:ALA:O	1:D:940:ARG:CG	2.47	0.63
1:B:1315:ARG:HH21	1:B:1323:GLU:HG2	1.64	0.63
1:D:2096:VAL:HG13	1:D:2097:ALA:N	2.14	0.63
1:E:793:ARG:HD3	1:E:2435:LEU:CG	2.27	0.63
1:D:1072:TRP:NE1	1:D:1077:VAL:HG22	2.14	0.63
1:A:2086:SER:O	1:A:2089:PHE:CG	2.52	0.63
1:E:939:ALA:O	1:E:940:ARG:CG	2.47	0.63
1:B:2047:THR:OG1	1:B:2205:ASP:OD2	2.17	0.63
1:B:1095:LEU:HD12	1:B:1096:THR:H	1.64	0.63
1:F:803:GLU:OE1	1:F:2431:THR:HG22	1.98	0.63
1:F:1622:PRO:HD3	1:F:1685:LEU:HD11	1.81	0.63
1:A:2092:THR:HA	1:A:2189:PHE:HB2	1.81	0.63
1:E:1376:VAL:HA	1:E:1470:LEU:HD13	1.81	0.63
1:F:2047:THR:OG1	1:F:2205:ASP:OD2	2.17	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2096:VAL:HG13	1:E:2097:ALA:N	2.14	0.63
1:F:1412:HIS:ND1	1:F:1415:GLY:O	2.26	0.63
1:A:2092:THR:O	1:A:2092:THR:HG23	1.99	0.63
1:F:2252:VAL:HA	1:F:2255:ARG:HE	1.62	0.63
1:E:2176:LEU:HG	1:E:2180:LYS:HE3	1.80	0.63
1:E:1702:GLU:OE2	1:E:1711:VAL:HG13	1.99	0.63
1:D:1376:VAL:HA	1:D:1470:LEU:HD13	1.81	0.63
1:B:664:LEU:HD13	1:B:701:ALA:HB1	1.81	0.63
1:F:750:LEU:HD12	1:F:827:LEU:HD11	1.81	0.63
1:B:974:THR:CG2	1:B:977:GLN:HB3	2.29	0.62
1:A:3080:ARG:HH11	1:A:3080:ARG:CG	2.07	0.62
1:D:2865:ARG:NH2	1:C:3073:MET:O	2.32	0.62
1:F:1072:TRP:NE1	1:F:1077:VAL:HG22	2.14	0.62
1:E:932:GLU:O	1:E:936:ARG:CG	2.48	0.62
1:E:360:LEU:HD12	1:E:363:LEU:HD23	1.80	0.62
1:F:2086:SER:O	1:F:2089:PHE:CG	2.52	0.62
1:B:2086:SER:O	1:B:2089:PHE:CG	2.52	0.62
1:F:585:HIS:CD2	1:F:586:SER:H	2.17	0.62
1:B:1376:VAL:HA	1:B:1470:LEU:HD13	1.81	0.62
1:B:2297:ARG:H	1:B:2297:ARG:HD3	1.64	0.62
1:A:1315:ARG:HH21	1:A:1323:GLU:HG2	1.64	0.62
1:B:2173:ASP:OD2	1:B:2799:LYS:NZ	2.32	0.62
1:A:892:ILE:HG22	2:A:4000:FMN:HM82	1.80	0.62
1:B:2652:ILE:HG12	1:B:2722:VAL:HG22	1.79	0.62
1:E:42:GLU:HB3	1:E:349:ARG:HG3	1.79	0.62
1:C:1072:TRP:NE1	1:C:1077:VAL:HG22	2.14	0.62
1:E:2092:THR:HA	1:E:2189:PHE:HB2	1.81	0.62
1:C:1315:ARG:HH21	1:C:1323:GLU:HG2	1.64	0.62
1:D:2173:ASP:OD2	1:D:2799:LYS:NZ	2.32	0.62
1:A:585:HIS:CD2	1:A:586:SER:H	2.17	0.62
1:D:2047:THR:OG1	1:D:2205:ASP:OD2	2.17	0.62
1:A:2096:VAL:HG13	1:A:2097:ALA:N	2.14	0.62
1:A:1072:TRP:NE1	1:A:1077:VAL:HG22	2.14	0.62
1:B:803:GLU:OE1	1:B:2431:THR:HG22	1.98	0.62
1:B:2948:GLN:HG2	1:B:2951:ARG:HH21	1.64	0.62
1:A:2173:ASP:OD2	1:A:2799:LYS:NZ	2.32	0.62
1:E:1095:LEU:HD12	1:E:1096:THR:H	1.64	0.62
1:C:1376:VAL:HA	1:C:1470:LEU:HD13	1.81	0.62
1:F:892:ILE:HG22	2:F:4000:FMN:HM82	1.80	0.62
1:F:34:LEU:O	1:F:38:LEU:N	2.25	0.62
1:E:238:SER:OG	1:E:249:THR:OG1	2.16	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3080:ARG:NH1	1:B:3080:ARG:HG3	2.09	0.62
1:E:2092:THR:HG23	1:E:2092:THR:O	1.99	0.62
1:D:585:HIS:CD2	1:D:586:SER:H	2.17	0.62
1:D:892:ILE:HG22	2:D:4000:FMN:HM82	1.80	0.62
1:F:2096:VAL:HG13	1:F:2097:ALA:N	2.14	0.62
1:B:932:GLU:O	1:B:936:ARG:CG	2.47	0.62
1:F:932:GLU:O	1:F:936:ARG:CG	2.48	0.62
1:F:2765:GLY:HA2	1:F:2940:VAL:HG21	1.82	0.62
1:A:360:LEU:HD12	1:A:363:LEU:HD23	1.80	0.62
1:C:1417:LEU:O	1:C:1423:THR:OG1	2.14	0.62
1:B:1431:ALA:HB3	1:B:1459:THR:HG21	1.82	0.62
1:C:892:ILE:HG22	2:C:4000:FMN:HM82	1.80	0.62
1:B:1702:GLU:OE2	1:B:1711:VAL:HG13	1.99	0.62
1:D:2092:THR:HA	1:D:2189:PHE:HB2	1.81	0.62
1:C:1095:LEU:HD12	1:C:1096:THR:H	1.64	0.62
1:D:1095:LEU:HD12	1:D:1096:THR:H	1.64	0.62
1:D:2948:GLN:HG2	1:D:2951:ARG:HH21	1.64	0.62
1:D:750:LEU:HD12	1:D:827:LEU:HD11	1.81	0.62
1:C:932:GLU:O	1:C:936:ARG:CG	2.48	0.62
1:A:1417:LEU:O	1:A:1423:THR:OG1	2.14	0.62
1:D:2176:LEU:HG	1:D:2180:LYS:HE3	1.80	0.62
1:D:2297:ARG:HD3	1:D:2297:ARG:H	1.64	0.62
1:D:1315:ARG:HH21	1:D:1323:GLU:HG2	1.64	0.62
1:C:2237:LEU:HB2	1:C:2287:LEU:HD11	1.82	0.62
1:C:238:SER:OG	1:C:249:THR:OG1	2.15	0.62
1:B:360:LEU:HD12	1:B:363:LEU:HD23	1.80	0.62
1:F:2407:GLU:CG	1:F:2411:LYS:HE3	2.29	0.62
1:E:2610:ARG:HB2	1:B:2558:LEU:HD21	1.82	0.62
1:D:932:GLU:O	1:D:936:ARG:CG	2.48	0.62
1:B:2765:GLY:HA2	1:B:2940:VAL:HG21	1.82	0.62
1:D:2086:SER:O	1:D:2089:PHE:CG	2.52	0.62
1:D:1417:LEU:O	1:D:1423:THR:OG1	2.14	0.62
1:B:2092:THR:O	1:B:2092:THR:HG23	1.99	0.62
1:E:2173:ASP:OD2	1:E:2799:LYS:NZ	2.32	0.62
1:A:2176:LEU:HG	1:A:2180:LYS:HE3	1.80	0.62
1:B:892:ILE:HG22	2:B:4000:FMN:HM82	1.80	0.62
1:F:971:ALA:O	1:F:974:THR:CG2	2.48	0.62
1:F:2948:GLN:HG2	1:F:2951:ARG:HH21	1.64	0.62
1:B:1622:PRO:HD3	1:B:1685:LEU:HD11	1.81	0.62
1:C:2092:THR:O	1:C:2092:THR:HG23	1.99	0.62
1:F:939:ALA:O	1:F:940:ARG:CG	2.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1353:PRO:HG3	1:A:1702:GLU:OE2	2.00	0.62
1:D:971:ALA:O	1:D:974:THR:CG2	2.48	0.62
1:A:971:ALA:O	1:A:974:THR:CG2	2.48	0.62
1:E:1695:LEU:CD2	1:F:257:ARG:HH12	2.13	0.62
1:C:2086:SER:O	1:C:2089:PHE:CG	2.52	0.62
1:D:2092:THR:O	1:D:2092:THR:HG23	1.99	0.62
1:A:1702:GLU:OE2	1:A:1711:VAL:HG13	1.99	0.62
1:E:664:LEU:HD13	1:E:701:ALA:HB1	1.81	0.62
1:B:1725:SER:HB3	1:C:260:LEU:HD13	1.82	0.62
1:C:2176:LEU:HG	1:C:2180:LYS:HE3	1.80	0.62
1:F:2173:ASP:OD2	1:F:2799:LYS:NZ	2.32	0.62
1:D:2237:LEU:HB2	1:D:2287:LEU:HD11	1.82	0.62
1:C:971:ALA:O	1:C:974:THR:CG2	2.48	0.62
1:A:1431:ALA:HB3	1:A:1459:THR:HG21	1.82	0.62
1:C:2047:THR:OG1	1:C:2205:ASP:OD2	2.17	0.62
1:C:924:LEU:O	1:C:929:GLU:N	2.30	0.61
1:F:2092:THR:O	1:F:2092:THR:HG23	1.99	0.61
1:A:260:LEU:HD13	1:C:1725:SER:HB3	1.82	0.61
1:D:1622:PRO:HD3	1:D:1685:LEU:HD11	1.81	0.61
1:A:1725:SER:HB3	1:B:260:LEU:HD13	1.82	0.61
1:D:2752:ASP:HB3	1:C:2752:ASP:HB3	1.81	0.61
1:B:2237:LEU:HB2	1:B:2287:LEU:HD11	1.82	0.61
1:E:1431:ALA:HB3	1:E:1459:THR:HG21	1.82	0.61
1:E:750:LEU:HD12	1:E:827:LEU:HD11	1.81	0.61
1:B:971:ALA:O	1:B:974:THR:CG2	2.48	0.61
1:D:409:LYS:HD2	1:D:933:VAL:HA	1.82	0.61
1:A:1695:LEU:CD2	1:B:257:ARG:HH12	2.13	0.61
1:A:932:GLU:O	1:A:936:ARG:CG	2.48	0.61
1:F:360:LEU:HD12	1:F:363:LEU:HD23	1.80	0.61
1:A:2047:THR:OG1	1:A:2205:ASP:OD2	2.17	0.61
1:C:1702:GLU:OE2	1:C:1711:VAL:HG13	1.99	0.61
1:A:34:LEU:H	1:A:393:VAL:HG21	1.65	0.61
1:C:2469:LEU:HD11	1:C:2653:VAL:HB	1.82	0.61
1:C:3058:ARG:HB2	1:C:3089:LEU:HB2	1.82	0.61
1:C:585:HIS:CD2	1:C:586:SER:H	2.17	0.61
1:C:1622:PRO:HD3	1:C:1685:LEU:HD11	1.81	0.61
1:B:2096:VAL:HG13	1:B:2097:ALA:N	2.14	0.61
1:C:409:LYS:HD2	1:C:933:VAL:HA	1.82	0.61
1:F:924:LEU:O	1:F:929:GLU:N	2.30	0.61
1:B:1695:LEU:CD2	1:C:257:ARG:HH12	2.13	0.61
1:E:2086:SER:O	1:E:2089:PHE:CG	2.53	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2765:GLY:HA2	1:D:2940:VAL:HG21	1.82	0.61
1:C:511:ARG:HH11	1:C:543:GLY:HA3	1.65	0.61
1:C:1353:PRO:HG3	1:C:1702:GLU:OE2	2.00	0.61
1:D:1725:SER:HB3	1:E:260:LEU:HD13	1.82	0.61
1:D:3058:ARG:HB2	1:D:3089:LEU:HB2	1.82	0.61
1:C:106:ALA:HB1	1:C:112:PRO:HB2	1.82	0.61
1:F:1353:PRO:HG3	1:F:1702:GLU:OE2	2.00	0.61
1:B:680:ALA:HA	1:B:685:ALA:HB2	1.83	0.61
1:D:664:LEU:HD13	1:D:701:ALA:HB1	1.81	0.61
1:E:2558:LEU:HD21	1:B:2610:ARG:HB2	1.82	0.61
1:A:257:ARG:HH12	1:C:1695:LEU:CD2	2.13	0.61
1:C:2765:GLY:HA2	1:C:2940:VAL:HG21	1.82	0.61
1:E:203:ASP:O	1:E:205:PRO:HD3	2.01	0.61
1:C:203:ASP:O	1:C:205:PRO:HD3	2.01	0.61
1:F:1315:ARG:HH21	1:F:1323:GLU:HG2	1.64	0.61
1:D:680:ALA:HA	1:D:685:ALA:HB2	1.83	0.61
1:A:1095:LEU:HD12	1:A:1096:THR:H	1.64	0.61
1:B:3058:ARG:HB2	1:B:3089:LEU:HB2	1.82	0.61
1:C:2948:GLN:HG2	1:C:2951:ARG:HH21	1.64	0.61
1:C:750:LEU:HD12	1:C:827:LEU:HD11	1.81	0.61
1:F:664:LEU:HD13	1:F:701:ALA:HB1	1.81	0.61
1:C:680:ALA:HA	1:C:685:ALA:HB2	1.83	0.61
1:F:3058:ARG:HB2	1:F:3089:LEU:HB2	1.82	0.61
1:F:2558:LEU:HD21	1:A:2610:ARG:HB2	1.82	0.61
1:B:203:ASP:O	1:B:205:PRO:HD3	2.01	0.61
1:A:2948:GLN:HG2	1:A:2951:ARG:HH21	1.64	0.61
1:F:2237:LEU:HB2	1:F:2287:LEU:HD11	1.82	0.61
1:E:1725:SER:HB3	1:F:260:LEU:HD13	1.82	0.61
1:E:2047:THR:OG1	1:E:2205:ASP:OD2	2.17	0.61
1:C:2297:ARG:HD3	1:C:2297:ARG:H	1.64	0.61
1:C:2096:VAL:HG13	1:C:2097:ALA:N	2.14	0.61
1:E:2752:ASP:HB3	1:B:2752:ASP:HB3	1.81	0.61
1:F:34:LEU:H	1:F:393:VAL:HG21	1.65	0.61
1:C:2092:THR:HA	1:C:2189:PHE:HB2	1.81	0.61
1:E:2237:LEU:HB2	1:E:2287:LEU:HD11	1.82	0.61
1:D:1353:PRO:HG3	1:D:1702:GLU:OE2	2.00	0.61
1:A:438:THR:HA	1:A:880:HIS:HE1	1.66	0.61
1:F:164:ALA:HA	1:F:178:LEU:HD13	1.82	0.61
1:E:924:LEU:O	1:E:929:GLU:N	2.30	0.61
1:F:409:LYS:HD2	1:F:933:VAL:HA	1.82	0.61
1:E:2765:GLY:HA2	1:E:2940:VAL:HG21	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2212:TRP:HA	1:C:2229:LYS:HD3	1.83	0.61
1:D:2212:TRP:HA	1:D:2229:LYS:HD3	1.83	0.61
1:F:203:ASP:O	1:F:205:PRO:HD3	2.00	0.61
1:E:1353:PRO:HG3	1:E:1702:GLU:OE2	2.00	0.61
1:B:2334:HIS:HD2	1:B:2391:LYS:HG3	1.66	0.61
1:A:2962:ASP:OD1	1:A:2962:ASP:N	2.34	0.61
1:F:1702:GLU:OE2	1:F:1711:VAL:HG13	1.99	0.61
1:B:438:THR:HA	1:B:880:HIS:HE1	1.66	0.61
1:B:34:LEU:H	1:B:393:VAL:HG21	1.65	0.61
1:B:34:LEU:O	1:B:38:LEU:N	2.25	0.61
1:C:664:LEU:HD13	1:C:701:ALA:HB1	1.81	0.61
1:C:488:ASN:HA	1:C:521:VAL:HB	1.83	0.61
1:A:664:LEU:HD13	1:A:701:ALA:HB1	1.81	0.61
1:F:680:ALA:HA	1:F:685:ALA:HB2	1.83	0.61
1:A:2469:LEU:HD11	1:A:2653:VAL:HB	1.83	0.61
1:F:961:ARG:HE	1:F:1196:GLY:N	1.97	0.61
1:E:2212:TRP:HA	1:E:2229:LYS:HD3	1.83	0.61
1:A:511:ARG:HH11	1:A:543:GLY:HA3	1.65	0.61
1:B:1353:PRO:HG3	1:B:1702:GLU:OE2	2.00	0.61
1:C:438:THR:HA	1:C:880:HIS:HE1	1.66	0.61
1:C:980:GLU:HB2	1:C:989:HIS:HB2	1.83	0.61
1:B:126:VAL:HG12	1:B:182:ALA:HB1	1.83	0.61
1:E:575:HIS:HD2	1:E:644:LEU:HD22	1.66	0.61
1:D:2558:LEU:HD21	1:C:2610:ARG:HB2	1.82	0.61
1:A:2212:TRP:HA	1:A:2229:LYS:HD3	1.83	0.61
1:A:750:LEU:HD12	1:A:827:LEU:HD11	1.81	0.61
1:A:575:HIS:HD2	1:A:644:LEU:HD22	1.66	0.61
1:D:2469:LEU:HD11	1:D:2653:VAL:HB	1.82	0.61
1:C:2372:MET:HB3	1:C:2394:LEU:HD22	1.83	0.61
1:C:1431:ALA:HB3	1:C:1459:THR:HG21	1.82	0.61
1:E:971:ALA:O	1:E:974:THR:CG2	2.48	0.61
1:F:2610:ARG:HB2	1:A:2558:LEU:HD21	1.82	0.61
1:F:2647:VAL:HA	1:F:2650:TRP:HD1	1.66	0.61
1:D:1412:HIS:ND1	1:D:1415:GLY:O	2.26	0.61
1:B:511:ARG:HH11	1:B:543:GLY:HA3	1.65	0.61
1:A:203:ASP:O	1:A:205:PRO:HD3	2.01	0.61
1:D:1702:GLU:OE2	1:D:1711:VAL:HG13	1.99	0.61
1:E:488:ASN:HA	1:E:521:VAL:HB	1.83	0.61
1:A:3058:ARG:HB2	1:A:3089:LEU:HB2	1.82	0.61
1:A:1376:VAL:HA	1:A:1470:LEU:HD13	1.81	0.61
1:E:438:THR:HA	1:E:880:HIS:HE1	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:488:ASN:HA	1:A:521:VAL:HB	1.83	0.61
1:D:438:THR:HA	1:D:880:HIS:HE1	1.66	0.61
1:E:164:ALA:HA	1:E:178:LEU:HD13	1.82	0.61
1:B:106:ALA:HB1	1:B:112:PRO:HB2	1.82	0.61
1:F:1532:ILE:HA	1:F:1544:ILE:HG12	1.83	0.61
1:D:488:ASN:HA	1:D:521:VAL:HB	1.83	0.61
1:A:2112:ARG:CG	1:A:2114:VAL:HG12	2.31	0.60
1:B:980:GLU:HB2	1:B:989:HIS:HB2	1.83	0.60
1:C:2712:GLU:HA	1:C:2717:VAL:HG11	1.83	0.60
1:B:575:HIS:HD2	1:B:644:LEU:HD22	1.66	0.60
1:D:980:GLU:HB2	1:D:989:HIS:HB2	1.83	0.60
1:E:3058:ARG:HB2	1:E:3089:LEU:HB2	1.82	0.60
1:A:1989:PHE:HD1	1:A:1992:LYS:HZ3	1.49	0.60
1:F:126:VAL:HG12	1:F:182:ALA:HB1	1.83	0.60
1:A:164:ALA:HA	1:A:178:LEU:HD13	1.83	0.60
1:D:924:LEU:O	1:D:929:GLU:N	2.30	0.60
1:A:924:LEU:O	1:A:929:GLU:N	2.30	0.60
1:D:2610:ARG:HB2	1:C:2558:LEU:HD21	1.82	0.60
1:A:2765:GLY:HA2	1:A:2940:VAL:HG21	1.82	0.60
1:D:511:ARG:HH11	1:D:543:GLY:HA3	1.66	0.60
1:F:1417:LEU:O	1:F:1423:THR:OG1	2.14	0.60
1:F:1095:LEU:HD12	1:F:1096:THR:H	1.64	0.60
1:E:687:GLY:O	1:E:695:ILE:N	2.34	0.60
1:F:980:GLU:HB2	1:F:989:HIS:HB2	1.83	0.60
1:D:575:HIS:HD2	1:D:644:LEU:HD22	1.66	0.60
1:E:980:GLU:HB2	1:E:989:HIS:HB2	1.83	0.60
1:F:3080:ARG:HH11	1:F:3080:ARG:CG	2.07	0.60
1:E:580:ARG:HG2	1:E:590:LEU:HD21	1.83	0.60
1:C:1098:VAL:HG12	1:C:1100:ASP:H	1.66	0.60
1:D:1098:VAL:HG12	1:D:1100:ASP:H	1.66	0.60
1:F:575:HIS:HD2	1:F:644:LEU:HD22	1.66	0.60
1:C:164:ALA:HA	1:C:178:LEU:HD13	1.82	0.60
1:D:2749:GLU:OE2	1:C:2749:GLU:HB3	2.02	0.60
1:F:1431:ALA:HB3	1:F:1459:THR:HG21	1.81	0.60
1:A:2372:MET:HB3	1:A:2394:LEU:HD22	1.83	0.60
1:A:580:ARG:HG2	1:A:590:LEU:HD21	1.83	0.60
1:F:580:ARG:HG2	1:F:590:LEU:HD21	1.83	0.60
1:C:2431:THR:HG23	1:C:2431:THR:O	2.01	0.60
1:F:2334:HIS:HD2	1:F:2391:LYS:HG3	1.66	0.60
1:F:2431:THR:HG23	1:F:2431:THR:O	2.01	0.60
1:A:1724:TYR:OH	1:B:267:GLU:OE2	2.07	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1532:ILE:HA	1:C:1544:ILE:HG12	1.83	0.60
1:E:2372:MET:HB3	1:E:2394:LEU:HD22	1.83	0.60
1:D:2686:MET:HE1	1:D:2935:LYS:HG3	1.83	0.60
1:C:687:GLY:O	1:C:695:ILE:N	2.34	0.60
1:D:2112:ARG:CG	1:D:2114:VAL:HG12	2.31	0.60
1:E:409:LYS:HD2	1:E:933:VAL:HA	1.82	0.60
1:D:1695:LEU:CD2	1:E:257:ARG:HH12	2.13	0.60
1:C:2647:VAL:HA	1:C:2650:TRP:HD1	1.66	0.60
1:E:1412:HIS:ND1	1:E:1415:GLY:O	2.26	0.60
1:F:511:ARG:HH11	1:F:543:GLY:HA3	1.66	0.60
1:E:1537:LEU:HB2	1:E:1541:GLN:H	1.67	0.60
1:A:2056:PHE:HZ	1:A:2180:LYS:HE2	1.67	0.60
1:D:688:ARG:O	1:D:872:ARG:NE	2.34	0.60
1:A:2712:GLU:HA	1:A:2717:VAL:HG11	1.83	0.60
1:B:500:GLN:O	1:B:504:LYS:N	2.24	0.60
1:F:2372:MET:HB3	1:F:2394:LEU:HD22	1.83	0.60
1:F:1020:THR:N	1:F:1035:VAL:CG2	2.59	0.60
1:A:409:LYS:HD2	1:A:933:VAL:HA	1.82	0.60
1:B:409:LYS:HD2	1:B:933:VAL:HA	1.82	0.60
1:E:2431:THR:O	1:E:2431:THR:HG23	2.01	0.60
1:E:2334:HIS:HD2	1:E:2391:LYS:HG3	1.66	0.60
1:E:2056:PHE:HZ	1:E:2180:LYS:HE2	1.67	0.60
1:B:2431:THR:O	1:B:2431:THR:HG23	2.01	0.60
1:B:1532:ILE:HA	1:B:1544:ILE:HG12	1.83	0.60
1:F:2800:PHE:HE1	1:F:2812:LEU:HD22	1.67	0.60
1:F:106:ALA:HB1	1:F:112:PRO:HB2	1.82	0.60
1:A:2237:LEU:HB2	1:A:2287:LEU:HD11	1.82	0.60
1:E:2820:ILE:HD13	1:E:2943:MET:HG2	1.84	0.60
1:D:2334:HIS:HD2	1:D:2391:LYS:HG3	1.66	0.60
1:A:1537:LEU:HB2	1:A:1541:GLN:H	1.67	0.60
1:C:2800:PHE:HE1	1:C:2812:LEU:HD22	1.67	0.60
1:E:2749:GLU:OE2	1:B:2749:GLU:HB3	2.02	0.60
1:B:2372:MET:HB3	1:B:2394:LEU:HD22	1.83	0.60
1:E:2712:GLU:HA	1:E:2717:VAL:HG11	1.83	0.60
1:D:1431:ALA:HB3	1:D:1459:THR:HG21	1.82	0.60
1:A:980:GLU:HB2	1:A:989:HIS:HB2	1.83	0.60
1:A:1309:VAL:HG22	1:A:1331:ILE:HG12	1.84	0.60
1:E:2647:VAL:HA	1:E:2650:TRP:HD1	1.66	0.60
1:F:2056:PHE:HZ	1:F:2180:LYS:HE2	1.67	0.60
1:D:2431:THR:HG23	1:D:2431:THR:O	2.01	0.60
1:C:1537:LEU:HB2	1:C:1541:GLN:H	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:106:ALA:HB1	1:E:112:PRO:HB2	1.82	0.60
1:B:164:ALA:HA	1:B:178:LEU:HD13	1.82	0.60
1:D:1532:ILE:HA	1:D:1544:ILE:HG12	1.83	0.60
1:A:106:ALA:HB1	1:A:112:PRO:HB2	1.82	0.60
1:E:2686:MET:HE1	1:E:2935:LYS:HG3	1.84	0.60
1:C:34:LEU:H	1:C:393:VAL:HG21	1.65	0.60
1:B:670:GLY:O	1:B:682:ASN:ND2	2.35	0.60
1:B:2800:PHE:HE1	1:B:2812:LEU:HD22	1.67	0.60
1:D:670:GLY:O	1:D:682:ASN:ND2	2.35	0.60
1:A:1532:ILE:HA	1:A:1544:ILE:HG12	1.83	0.60
1:C:2112:ARG:CG	1:C:2114:VAL:HG12	2.31	0.60
1:F:2693:GLN:O	1:F:2697:HIS:ND1	2.33	0.60
1:B:1098:VAL:HG12	1:B:1100:ASP:H	1.66	0.60
1:E:670:GLY:O	1:E:682:ASN:ND2	2.35	0.60
1:E:2469:LEU:HD11	1:E:2653:VAL:HB	1.82	0.60
1:B:688:ARG:O	1:B:872:ARG:NE	2.34	0.60
1:C:1435:VAL:HG11	1:C:1463:CYS:HB3	1.84	0.60
1:F:2469:LEU:HD11	1:F:2653:VAL:HB	1.82	0.60
1:B:2469:LEU:HD11	1:B:2653:VAL:HB	1.83	0.60
1:C:1989:PHE:HD1	1:C:1992:LYS:HZ3	1.50	0.60
1:C:1701:VAL:HG22	1:C:1732:LEU:HB2	1.84	0.60
1:A:680:ALA:HA	1:A:685:ALA:HB2	1.83	0.60
1:D:1701:VAL:HG22	1:D:1732:LEU:HB2	1.84	0.60
1:A:687:GLY:O	1:A:695:ILE:N	2.34	0.60
1:C:688:ARG:O	1:C:872:ARG:NE	2.34	0.60
1:B:2112:ARG:CG	1:B:2114:VAL:HG12	2.31	0.59
1:A:795:HIS:HB3	1:A:799:PHE:CZ	2.37	0.59
1:E:1309:VAL:HG22	1:E:1331:ILE:HG12	1.84	0.59
1:B:580:ARG:HG2	1:B:590:LEU:HD21	1.83	0.59
1:E:34:LEU:H	1:E:393:VAL:HG21	1.65	0.59
1:C:410:LEU:HB3	1:C:1025:VAL:HG21	1.84	0.59
1:B:2651:ASN:HD22	1:B:2718:VAL:HG12	1.67	0.59
1:D:2800:PHE:HE1	1:D:2812:LEU:HD22	1.67	0.59
1:F:410:LEU:HB3	1:F:1025:VAL:HG21	1.84	0.59
1:A:238:SER:OG	1:A:249:THR:OG1	2.15	0.59
1:F:2651:ASN:HD22	1:F:2718:VAL:HG12	1.67	0.59
1:D:1435:VAL:HG11	1:D:1463:CYS:HB3	1.84	0.59
1:F:1701:VAL:HG22	1:F:1732:LEU:HB2	1.84	0.59
1:C:126:VAL:HG12	1:C:182:ALA:HB1	1.83	0.59
1:A:2461:VAL:HG11	1:A:2751:VAL:HG22	1.84	0.59
1:C:795:HIS:HB3	1:C:799:PHE:CZ	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:795:HIS:HB3	1:E:799:PHE:CZ	2.37	0.59
1:A:2647:VAL:HA	1:A:2650:TRP:HD1	1.66	0.59
1:D:580:ARG:HG2	1:D:590:LEU:HD21	1.83	0.59
1:D:2056:PHE:HZ	1:D:2180:LYS:HE2	1.67	0.59
1:C:2056:PHE:HZ	1:C:2180:LYS:HE2	1.67	0.59
1:C:34:LEU:O	1:C:38:LEU:N	2.25	0.59
1:C:2651:ASN:HD22	1:C:2718:VAL:HG12	1.67	0.59
1:B:836:VAL:HG12	1:B:837:VAL:H	1.67	0.59
1:C:2686:MET:HE1	1:C:2935:LYS:HG3	1.84	0.59
1:F:2712:GLU:HA	1:F:2717:VAL:HG11	1.83	0.59
1:B:410:LEU:HB3	1:B:1025:VAL:HG21	1.84	0.59
1:B:2212:TRP:HA	1:B:2229:LYS:HD3	1.83	0.59
1:B:2962:ASP:N	1:B:2962:ASP:OD1	2.34	0.59
1:A:2431:THR:HG23	1:A:2431:THR:O	2.01	0.59
1:F:2667:THR:HG21	1:F:3058:ARG:NH1	2.17	0.59
1:F:1098:VAL:HG12	1:F:1100:ASP:H	1.67	0.59
1:D:2651:ASN:HD22	1:D:2718:VAL:HG12	1.67	0.59
1:F:488:ASN:HA	1:F:521:VAL:HB	1.83	0.59
1:E:680:ALA:HA	1:E:685:ALA:HB2	1.83	0.59
1:C:836:VAL:HG12	1:C:837:VAL:H	1.67	0.59
1:F:670:GLY:O	1:F:682:ASN:ND2	2.35	0.59
1:F:438:THR:HA	1:F:880:HIS:HE1	1.66	0.59
1:F:2112:ARG:CG	1:F:2114:VAL:HG12	2.31	0.59
1:E:2112:ARG:CG	1:E:2114:VAL:HG12	2.31	0.59
1:D:2753:LYS:NZ	1:C:2752:ASP:OD2	2.36	0.59
1:F:836:VAL:HG12	1:F:837:VAL:H	1.67	0.59
1:F:2403:ILE:HG23	1:F:2408:LEU:HD12	1.85	0.59
1:B:1724:TYR:OH	1:C:267:GLU:OE2	2.07	0.59
1:B:1435:VAL:HG11	1:B:1463:CYS:HB3	1.84	0.59
1:C:580:ARG:HG2	1:C:590:LEU:HD21	1.83	0.59
1:E:2753:LYS:NZ	1:B:2752:ASP:OD2	2.36	0.59
1:F:2820:ILE:HD13	1:F:2943:MET:HG2	1.84	0.59
1:B:2056:PHE:HZ	1:B:2180:LYS:HE2	1.67	0.59
1:B:1095:LEU:HD22	1:B:1289:PRO:HA	1.85	0.59
1:D:2749:GLU:HB3	1:C:2749:GLU:OE2	2.02	0.59
1:E:2749:GLU:HB3	1:B:2749:GLU:OE2	2.02	0.59
1:D:687:GLY:O	1:D:695:ILE:N	2.34	0.59
1:A:462:GLN:HG3	1:A:468:PHE:HD1	1.68	0.59
1:A:688:ARG:O	1:A:872:ARG:NE	2.34	0.59
1:F:688:ARG:O	1:F:872:ARG:NE	2.34	0.59
1:E:1701:VAL:HG22	1:E:1732:LEU:HB2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:687:GLY:O	1:B:695:ILE:N	2.34	0.59
1:E:3080:ARG:HG3	1:E:3080:ARG:NH1	2.09	0.59
1:E:511:ARG:HH11	1:E:543:GLY:HA3	1.65	0.59
1:E:1098:VAL:HG12	1:E:1100:ASP:H	1.66	0.59
1:A:1098:VAL:HG12	1:A:1100:ASP:H	1.66	0.59
1:F:1095:LEU:HD22	1:F:1289:PRO:HA	1.85	0.59
1:E:410:LEU:HB3	1:E:1025:VAL:HG21	1.84	0.59
1:A:126:VAL:HG12	1:A:182:ALA:HB1	1.83	0.59
1:B:2403:ILE:HG23	1:B:2408:LEU:HD12	1.85	0.59
1:B:2889:ILE:HG12	1:B:2922:LEU:HB3	1.84	0.59
1:A:2800:PHE:HE1	1:A:2812:LEU:HD22	1.67	0.59
1:D:1656:LYS:HG2	1:D:1660:LEU:HG	1.85	0.59
1:C:670:GLY:O	1:C:682:ASN:ND2	2.35	0.59
1:B:2712:GLU:HA	1:B:2717:VAL:HG11	1.84	0.59
1:A:1701:VAL:HG22	1:A:1732:LEU:HB2	1.84	0.59
1:E:836:VAL:HG12	1:E:837:VAL:H	1.67	0.59
1:F:1385:ARG:NE	1:F:2411:LYS:NZ	2.35	0.59
1:B:1309:VAL:HG22	1:B:1331:ILE:HG12	1.84	0.59
1:C:1336:VAL:HG12	1:C:1337:MET:HG3	1.85	0.59
1:D:2647:VAL:HA	1:D:2650:TRP:HD1	1.66	0.59
1:B:2647:VAL:HA	1:B:2650:TRP:HD1	1.66	0.59
1:C:2334:HIS:HD2	1:C:2391:LYS:HG3	1.66	0.59
1:D:2461:VAL:HG11	1:D:2751:VAL:HG22	1.84	0.59
1:B:2686:MET:HE1	1:B:2935:LYS:HG3	1.84	0.59
1:D:2372:MET:HB3	1:D:2394:LEU:HD22	1.83	0.59
1:F:2521:VAL:HG13	1:F:2529:ARG:HH11	1.68	0.59
1:B:1656:LYS:HG2	1:B:1660:LEU:HG	1.84	0.59
1:C:462:GLN:HG3	1:C:468:PHE:HD1	1.68	0.59
1:D:1309:VAL:HG22	1:D:1331:ILE:HG12	1.84	0.59
1:F:2212:TRP:HA	1:F:2229:LYS:HD3	1.83	0.59
1:D:1008:VAL:HG13	1:D:1008:VAL:O	2.03	0.59
1:F:2752:ASP:OD2	1:A:2753:LYS:NZ	2.36	0.59
1:B:1537:LEU:HB2	1:B:1541:GLN:H	1.67	0.59
1:D:2752:ASP:OD2	1:C:2753:LYS:NZ	2.36	0.59
1:A:656:THR:OG1	1:A:880:HIS:ND1	2.35	0.59
1:C:150:THR:O	1:C:152:PRO:HD3	2.03	0.59
1:A:670:GLY:O	1:A:682:ASN:ND2	2.35	0.59
1:F:2889:ILE:HG12	1:F:2922:LEU:HB3	1.84	0.59
1:D:836:VAL:HG12	1:D:837:VAL:H	1.67	0.59
1:C:2521:VAL:HG13	1:C:2529:ARG:HH11	1.68	0.59
1:D:795:HIS:HB3	1:D:799:PHE:CZ	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2889:ILE:HG12	1:E:2922:LEU:HB3	1.84	0.59
1:A:836:VAL:HG12	1:A:837:VAL:H	1.67	0.59
1:A:2521:VAL:HG13	1:A:2529:ARG:HH11	1.68	0.59
1:C:1656:LYS:HG2	1:C:1660:LEU:HG	1.84	0.59
1:E:1532:ILE:HA	1:E:1544:ILE:HG12	1.83	0.59
1:F:1989:PHE:HD1	1:F:1992:LYS:HZ3	1.50	0.59
1:C:575:HIS:HD2	1:C:644:LEU:HD22	1.66	0.59
1:A:2889:ILE:HG12	1:A:2922:LEU:HB3	1.84	0.59
1:F:1008:VAL:CG1	1:F:1019:PHE:HB3	2.33	0.59
1:D:1013:THR:CG2	1:D:1014:TRP:N	2.58	0.59
1:B:795:HIS:HB3	1:B:799:PHE:CZ	2.37	0.59
1:A:1008:VAL:CG1	1:A:1019:PHE:HB3	2.33	0.59
1:B:2820:ILE:HD13	1:B:2943:MET:HG2	1.84	0.59
1:A:34:LEU:O	1:A:38:LEU:N	2.25	0.59
1:A:2667:THR:HG21	1:A:3058:ARG:NH1	2.17	0.59
1:F:1435:VAL:HG11	1:F:1463:CYS:HB3	1.84	0.59
1:D:2521:VAL:HG13	1:D:2529:ARG:HH11	1.68	0.59
1:B:488:ASN:HA	1:B:521:VAL:HB	1.83	0.59
1:B:462:GLN:HG3	1:B:468:PHE:HD1	1.68	0.59
1:A:1616:PRO:HG3	1:A:1668:LEU:HD13	1.85	0.59
1:B:735:LYS:HD2	1:B:860:VAL:HG23	1.85	0.59
1:E:126:VAL:HG12	1:E:182:ALA:HB1	1.83	0.59
1:E:462:GLN:HG3	1:E:468:PHE:HD1	1.68	0.59
1:F:2686:MET:HE1	1:F:2935:LYS:HG3	1.83	0.59
1:F:2461:VAL:HG11	1:F:2751:VAL:HG22	1.84	0.59
1:C:2693:GLN:O	1:C:2697:HIS:ND1	2.33	0.58
1:F:1537:LEU:HB2	1:F:1541:GLN:H	1.67	0.58
1:B:656:THR:OG1	1:B:880:HIS:ND1	2.35	0.58
1:E:1616:PRO:HG3	1:E:1668:LEU:HD13	1.85	0.58
1:C:2889:ILE:HG12	1:C:2922:LEU:HB3	1.84	0.58
1:D:2712:GLU:HA	1:D:2717:VAL:HG11	1.84	0.58
1:E:1989:PHE:HD1	1:E:1992:LYS:HZ3	1.50	0.58
1:D:1616:PRO:HG3	1:D:1668:LEU:HD13	1.85	0.58
1:C:2124:ALA:O	1:C:2127:GLU:CG	2.51	0.58
1:F:784:GLU:OE2	1:F:787:LEU:HD12	2.03	0.58
1:D:2084:GLN:O	1:D:2087:GLN:CG	2.51	0.58
1:A:2820:ILE:HD13	1:A:2943:MET:HG2	1.84	0.58
1:D:2820:ILE:HD13	1:D:2943:MET:HG2	1.84	0.58
1:E:1087:PHE:HB3	1:F:117:LYS:NZ	2.18	0.58
1:C:2667:THR:HG21	1:C:3058:ARG:NH1	2.18	0.58
1:D:2667:THR:HG21	1:D:3058:ARG:NH1	2.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2686:MET:HE1	1:A:2935:LYS:HG3	1.84	0.58
1:B:1616:PRO:HG3	1:B:1668:LEU:HD13	1.85	0.58
1:E:735:LYS:HD2	1:E:860:VAL:HG23	1.85	0.58
1:E:688:ARG:O	1:E:872:ARG:NE	2.34	0.58
1:A:410:LEU:HB3	1:A:1025:VAL:HG21	1.84	0.58
1:F:1616:PRO:HG3	1:F:1668:LEU:HD13	1.85	0.58
1:A:1435:VAL:HG11	1:A:1463:CYS:HB3	1.84	0.58
1:C:1309:VAL:HG22	1:C:1331:ILE:HG12	1.84	0.58
1:A:33:ALA:O	1:A:37:ARG:N	2.35	0.58
1:C:1253:ARG:HG3	1:C:1253:ARG:NH1	2.18	0.58
1:F:2876:LEU:HB3	1:F:2881:VAL:HG12	1.86	0.58
1:C:2820:ILE:HD13	1:C:2943:MET:HG2	1.84	0.58
1:F:735:LYS:HD2	1:F:860:VAL:HG23	1.85	0.58
1:A:784:GLU:OE2	1:A:787:LEU:HD12	2.04	0.58
1:C:129:VAL:HG13	1:C:356:PRO:HG2	1.85	0.58
1:F:2749:GLU:HB3	1:A:2749:GLU:OE2	2.02	0.58
1:F:1008:VAL:HG13	1:F:1008:VAL:O	2.03	0.58
1:B:1336:VAL:HG12	1:B:1337:MET:HG3	1.85	0.58
1:F:1336:VAL:HG12	1:F:1337:MET:HG3	1.85	0.58
1:C:1008:VAL:CG1	1:C:1019:PHE:HB3	2.33	0.58
1:A:1087:PHE:HB3	1:B:117:LYS:NZ	2.18	0.58
1:E:2667:THR:HG21	1:E:3058:ARG:NH1	2.17	0.58
1:F:462:GLN:HG3	1:F:468:PHE:HD1	1.68	0.58
1:F:2124:ALA:O	1:F:2127:GLU:CG	2.51	0.58
1:E:784:GLU:OE2	1:E:787:LEU:HD12	2.03	0.58
1:F:687:GLY:O	1:F:695:ILE:N	2.34	0.58
1:A:2651:ASN:HD22	1:A:2718:VAL:HG12	1.67	0.58
1:B:1327:VAL:HB	1:B:1339:ALA:HB3	1.86	0.58
1:E:2461:VAL:HG11	1:E:2751:VAL:HG22	1.84	0.58
1:F:513:SER:O	1:F:961:ARG:NE	2.36	0.58
1:C:1008:VAL:O	1:C:1008:VAL:HG13	2.03	0.58
1:F:2084:GLN:O	1:F:2087:GLN:CG	2.52	0.58
1:E:2084:GLN:O	1:E:2087:GLN:CG	2.52	0.58
1:F:621:SER:OG	1:F:643:ILE:HD13	2.04	0.58
1:C:621:SER:OG	1:C:643:ILE:HD13	2.04	0.58
1:A:2334:HIS:HD2	1:A:2391:LYS:HG3	1.66	0.58
1:B:1989:PHE:HD1	1:B:1992:LYS:HZ3	1.49	0.58
1:F:238:SER:OG	1:F:249:THR:OG1	2.15	0.58
1:D:2487:LEU:HD11	1:D:2495:LEU:HD12	1.86	0.58
1:E:2124:ALA:O	1:E:2127:GLU:CG	2.51	0.58
1:A:1656:LYS:HG2	1:A:1660:LEU:HG	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1013:THR:CG2	1:B:1014:TRP:N	2.58	0.58
1:F:795:HIS:HB3	1:F:799:PHE:CZ	2.37	0.58
1:D:476:GLU:HA	1:D:479:LEU:HB2	1.86	0.58
1:F:476:GLU:HA	1:F:479:LEU:HB2	1.86	0.58
1:B:33:ALA:O	1:B:37:ARG:N	2.35	0.58
1:B:1008:VAL:CG1	1:B:1019:PHE:HB3	2.33	0.58
1:B:2667:THR:HG21	1:B:3058:ARG:NH1	2.17	0.58
1:B:2461:VAL:HG11	1:B:2751:VAL:HG22	1.84	0.58
1:A:735:LYS:HD2	1:A:860:VAL:HG23	1.85	0.58
1:E:2521:VAL:HG13	1:E:2529:ARG:HH11	1.68	0.58
1:F:129:VAL:HG13	1:F:356:PRO:HG2	1.85	0.58
1:E:1656:LYS:HG2	1:E:1660:LEU:HG	1.85	0.58
1:D:2124:ALA:O	1:D:2127:GLU:CG	2.51	0.58
1:B:150:THR:O	1:B:152:PRO:HD3	2.03	0.58
1:C:476:GLU:HA	1:C:479:LEU:HB2	1.86	0.58
1:C:2084:GLN:O	1:C:2087:GLN:CG	2.52	0.58
1:B:2084:GLN:O	1:B:2087:GLN:CG	2.52	0.58
1:D:2876:LEU:HB3	1:D:2881:VAL:HG12	1.86	0.58
1:F:2749:GLU:OE2	1:A:2749:GLU:HB3	2.02	0.58
1:E:2800:PHE:HE1	1:E:2812:LEU:HD22	1.67	0.58
1:E:150:THR:O	1:E:152:PRO:HD3	2.03	0.58
1:F:150:THR:O	1:F:152:PRO:HD3	2.03	0.58
1:C:2487:LEU:HD11	1:C:2495:LEU:HD12	1.86	0.58
1:E:127:PRO:HG3	1:E:183:GLN:HA	1.86	0.58
1:C:784:GLU:OE2	1:C:787:LEU:HD12	2.03	0.58
1:B:924:LEU:O	1:B:929:GLU:N	2.30	0.58
1:B:2693:GLN:O	1:B:2697:HIS:ND1	2.33	0.58
1:B:511:ARG:HD2	1:B:517:ILE:O	2.04	0.58
1:A:621:SER:OG	1:A:643:ILE:HD13	2.04	0.58
1:C:2876:LEU:HB3	1:C:2881:VAL:HG12	1.86	0.58
1:B:2876:LEU:HB3	1:B:2881:VAL:HG12	1.86	0.58
1:E:2787:THR:HA	1:E:2790:MET:HG3	1.86	0.58
1:C:500:GLN:O	1:C:504:LYS:N	2.24	0.58
1:D:2554:ALA:HB1	1:D:2614:LYS:HZ2	1.69	0.58
1:D:784:GLU:OE2	1:D:787:LEU:HD12	2.04	0.58
1:A:127:PRO:HG3	1:A:183:GLN:HA	1.86	0.58
1:C:2461:VAL:HG11	1:C:2751:VAL:HG22	1.84	0.58
1:B:2124:ALA:O	1:B:2127:GLU:CG	2.51	0.58
1:C:776:ASP:O	1:C:779:TRP:N	2.31	0.58
1:A:3080:ARG:HG3	1:A:3080:ARG:NH1	2.09	0.58
1:E:1336:VAL:HG12	1:E:1337:MET:HG3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:476:GLU:HA	1:B:479:LEU:HB2	1.86	0.58
1:D:1253:ARG:NH1	1:D:1253:ARG:HG3	2.18	0.58
1:E:1008:VAL:CG1	1:E:1019:PHE:HB3	2.33	0.58
1:E:2748:GLU:HG2	1:B:2753:LYS:NZ	2.19	0.58
1:D:1087:PHE:HB3	1:E:117:LYS:NZ	2.18	0.58
1:B:1087:PHE:HB3	1:C:117:LYS:NZ	2.19	0.58
1:B:2554:ALA:HB1	1:B:2614:LYS:NZ	2.19	0.58
1:E:1095:LEU:HD22	1:E:1289:PRO:HA	1.85	0.58
1:D:1537:LEU:HB2	1:D:1541:GLN:H	1.67	0.58
1:B:2787:THR:HA	1:B:2790:MET:HG3	1.86	0.58
1:F:1656:LYS:HG2	1:F:1660:LEU:HG	1.84	0.58
1:D:410:LEU:HB3	1:D:1025:VAL:HG21	1.84	0.58
1:E:1435:VAL:HG11	1:E:1463:CYS:HB3	1.84	0.58
1:E:776:ASP:O	1:E:779:TRP:N	2.31	0.58
1:C:441:ASP:OD2	1:C:443:LYS:HB3	2.04	0.58
1:E:2554:ALA:HB1	1:E:2614:LYS:NZ	2.19	0.58
1:C:2339:TRP:HB2	1:C:2398:LEU:HD11	1.86	0.58
1:D:462:GLN:HG3	1:D:468:PHE:HD1	1.68	0.58
1:F:511:ARG:HD2	1:F:517:ILE:O	2.04	0.58
1:D:1095:LEU:HD22	1:D:1289:PRO:HA	1.85	0.58
1:A:2787:THR:HA	1:A:2790:MET:HG3	1.86	0.58
1:B:1701:VAL:HG22	1:B:1732:LEU:HB2	1.84	0.58
1:F:1405:ALA:HB3	1:F:1408:VAL:HG23	1.86	0.58
1:E:2487:LEU:HD11	1:E:2495:LEU:HD12	1.86	0.58
1:E:1091:LEU:HD13	1:E:1281:ALA:HB3	1.86	0.58
1:F:958:TRP:CZ2	1:F:1131:SER:OG	2.52	0.57
1:D:924:LEU:HA	1:D:928:ALA:HB3	1.87	0.57
1:D:1538:ARG:NH1	1:D:1722:PRO:HB3	2.18	0.57
1:D:3001:HIS:NE2	1:C:2724:GLN:HG2	2.19	0.57
1:C:511:ARG:NH1	1:C:543:GLY:HA3	2.19	0.57
1:A:511:ARG:NH1	1:A:543:GLY:HA3	2.19	0.57
1:F:2787:THR:HA	1:F:2790:MET:HG3	1.86	0.57
1:C:2403:ILE:HG23	1:C:2408:LEU:HD12	1.85	0.57
1:F:2352:ILE:HG12	1:F:2412:ALA:HB1	1.86	0.57
1:A:2124:ALA:O	1:A:2127:GLU:CG	2.51	0.57
1:B:1405:ALA:HB3	1:B:1408:VAL:HG23	1.86	0.57
1:B:784:GLU:OE2	1:B:787:LEU:HD12	2.03	0.57
1:A:1336:VAL:HG12	1:A:1337:MET:HG3	1.85	0.57
1:B:1253:ARG:HG3	1:B:1253:ARG:NH1	2.18	0.57
1:A:117:LYS:NZ	1:C:1087:PHE:HB3	2.19	0.57
1:A:2876:LEU:HB3	1:A:2881:VAL:HG12	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:621:SER:OG	1:E:643:ILE:HD13	2.04	0.57
1:C:1537:LEU:HD11	1:C:1714:LEU:HB3	1.87	0.57
1:A:1095:LEU:HD22	1:A:1289:PRO:HA	1.85	0.57
1:A:1091:LEU:HD13	1:A:1281:ALA:HB3	1.86	0.57
1:F:2614:LYS:HZ1	1:A:2583:PHE:HD1	1.52	0.57
1:F:776:ASP:O	1:F:779:TRP:N	2.31	0.57
1:C:2554:ALA:HB1	1:C:2614:LYS:HZ2	1.67	0.57
1:B:776:ASP:O	1:B:779:TRP:N	2.31	0.57
1:A:2403:ILE:HG23	1:A:2408:LEU:HD12	1.85	0.57
1:D:2339:TRP:HB2	1:D:2398:LEU:HD11	1.86	0.57
1:A:150:THR:O	1:A:152:PRO:HD3	2.03	0.57
1:F:1309:VAL:HG22	1:F:1331:ILE:HG12	1.84	0.57
1:D:1336:VAL:HG12	1:D:1337:MET:HG3	1.85	0.57
1:A:1253:ARG:HG3	1:A:1253:ARG:NH1	2.18	0.57
1:F:511:ARG:NH1	1:F:543:GLY:HA3	2.20	0.57
1:E:511:ARG:HD2	1:E:517:ILE:O	2.04	0.57
1:F:2748:GLU:HG2	1:A:2753:LYS:NZ	2.19	0.57
1:D:1537:LEU:HD11	1:D:1714:LEU:HB3	1.87	0.57
1:C:1327:VAL:HB	1:C:1339:ALA:HB3	1.86	0.57
1:D:1445:VAL:HG23	1:D:1448:ALA:HB2	1.87	0.57
1:A:2487:LEU:HD11	1:A:2495:LEU:HD12	1.86	0.57
1:E:2961:LEU:HD23	1:E:2978:ARG:HB3	1.87	0.57
1:B:441:ASP:OD2	1:B:443:LYS:HB3	2.04	0.57
1:F:2983:LEU:HB3	1:F:2987:PHE:O	2.05	0.57
1:F:127:PRO:HG3	1:F:183:GLN:HA	1.86	0.57
1:B:2521:VAL:HG13	1:B:2529:ARG:HH11	1.68	0.57
1:F:441:ASP:OD2	1:F:443:LYS:HB3	2.04	0.57
1:C:924:LEU:HA	1:C:928:ALA:HB3	1.87	0.57
1:F:924:LEU:HA	1:F:928:ALA:HB3	1.86	0.57
1:C:1538:ARG:NH1	1:C:1722:PRO:HB3	2.18	0.57
1:D:2846:ALA:HA	1:D:3001:HIS:O	2.05	0.57
1:C:1095:LEU:HD22	1:C:1289:PRO:HA	1.85	0.57
1:A:2339:TRP:HB2	1:A:2398:LEU:HD11	1.86	0.57
1:E:1017:ILE:HG23	1:E:1045:VAL:HG21	1.87	0.57
1:D:1017:ILE:HG23	1:D:1045:VAL:HG21	1.87	0.57
1:E:2865:ARG:NH1	1:B:3077:THR:O	2.38	0.57
1:E:476:GLU:HA	1:E:479:LEU:HB2	1.86	0.57
1:D:2724:GLN:HG2	1:C:3001:HIS:NE2	2.19	0.57
1:E:2724:GLN:HG2	1:B:3001:HIS:NE2	2.20	0.57
1:E:2731:GLY:HA2	1:B:2845:PHE:CD1	2.38	0.57
1:E:2846:ALA:HA	1:E:3001:HIS:O	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1008:VAL:CG1	1:D:1019:PHE:HB3	2.33	0.57
1:B:1008:VAL:HG13	1:B:1008:VAL:O	2.03	0.57
1:A:2084:GLN:O	1:A:2087:GLN:CG	2.52	0.57
1:C:2709:ILE:O	1:C:2713:VAL:HG13	2.05	0.57
1:D:2748:GLU:HG2	1:C:2753:LYS:NZ	2.19	0.57
1:C:2622:GLY:HA2	1:C:2812:LEU:HD11	1.87	0.57
1:D:2403:ILE:HG23	1:D:2408:LEU:HD12	1.85	0.57
1:D:735:LYS:HD2	1:D:860:VAL:HG23	1.85	0.57
1:E:2651:ASN:HD22	1:E:2718:VAL:HG12	1.67	0.57
1:C:1405:ALA:HB3	1:C:1408:VAL:HG23	1.86	0.57
1:C:1017:ILE:HG23	1:C:1045:VAL:HG21	1.87	0.57
1:F:3077:THR:O	1:A:2865:ARG:NH1	2.38	0.57
1:F:3001:HIS:NE2	1:A:2724:GLN:HG2	2.19	0.57
1:A:2846:ALA:HA	1:A:3001:HIS:O	2.05	0.57
1:B:2846:ALA:HA	1:B:3001:HIS:O	2.05	0.57
1:F:1253:ARG:HG3	1:F:1253:ARG:NH1	2.18	0.57
1:D:511:ARG:HD2	1:D:517:ILE:O	2.04	0.57
1:E:2752:ASP:OD2	1:B:2753:LYS:NZ	2.36	0.57
1:A:1008:VAL:O	1:A:1008:VAL:HG13	2.03	0.57
1:E:2876:LEU:HB3	1:E:2881:VAL:HG12	1.86	0.57
1:E:2709:ILE:O	1:E:2713:VAL:HG13	2.05	0.57
1:B:621:SER:OG	1:B:643:ILE:HD13	2.04	0.57
1:A:441:ASP:OD2	1:A:443:LYS:HB3	2.04	0.57
1:C:1616:PRO:HG3	1:C:1668:LEU:HD13	1.85	0.57
1:D:2889:ILE:HG12	1:D:2922:LEU:HB3	1.85	0.57
1:F:1445:VAL:HG23	1:F:1448:ALA:HB2	1.87	0.57
1:C:735:LYS:HD2	1:C:860:VAL:HG23	1.85	0.57
1:E:2693:GLN:O	1:E:2697:HIS:ND1	2.33	0.57
1:A:511:ARG:HD2	1:A:517:ILE:O	2.04	0.57
1:E:511:ARG:NH1	1:E:543:GLY:HA3	2.19	0.57
1:F:1537:LEU:HD11	1:F:1714:LEU:HB3	1.87	0.57
1:D:2622:GLY:HA2	1:D:2812:LEU:HD11	1.87	0.57
1:A:2961:LEU:HD23	1:A:2978:ARG:HB3	1.87	0.57
1:C:2983:LEU:HB3	1:C:2987:PHE:O	2.05	0.57
1:E:2403:ILE:HG23	1:E:2408:LEU:HD12	1.85	0.57
1:F:2865:ARG:NH1	1:A:3077:THR:O	2.38	0.57
1:E:2753:LYS:NZ	1:B:2748:GLU:HG2	2.19	0.57
1:C:511:ARG:HD2	1:C:517:ILE:O	2.04	0.57
1:A:2709:ILE:O	1:A:2713:VAL:HG13	2.05	0.57
1:B:2521:VAL:HG13	1:B:2529:ARG:NH1	2.20	0.57
1:D:1405:ALA:HB3	1:D:1408:VAL:HG23	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1405:ALA:HB3	1:E:1408:VAL:HG23	1.86	0.57
1:D:2961:LEU:HD23	1:D:2978:ARG:HB3	1.87	0.57
1:A:1001:ASP:O	1:A:1002:GLN:CG	2.53	0.57
1:E:3077:THR:O	1:B:2865:ARG:NH1	2.38	0.57
1:E:1126:ILE:O	1:E:1197:ARG:CG	2.53	0.57
1:A:475:LEU:O	1:A:479:LEU:N	2.38	0.57
1:B:1126:ILE:O	1:B:1197:ARG:CG	2.53	0.57
1:E:1008:VAL:O	1:E:1008:VAL:HG13	2.03	0.57
1:D:621:SER:OG	1:D:643:ILE:HD13	2.04	0.57
1:B:2709:ILE:O	1:B:2713:VAL:HG13	2.05	0.57
1:F:2753:LYS:NZ	1:A:2748:GLU:HG2	2.19	0.57
1:D:868:ARG:HB3	1:D:872:ARG:HH11	1.70	0.57
1:B:2622:GLY:HA2	1:B:2812:LEU:HD11	1.86	0.57
1:F:2554:ALA:HB1	1:F:2614:LYS:NZ	2.19	0.57
1:C:1445:VAL:HG23	1:C:1448:ALA:HB2	1.87	0.57
1:E:1327:VAL:HB	1:E:1339:ALA:HB3	1.86	0.57
1:A:1405:ALA:HB3	1:A:1408:VAL:HG23	1.86	0.57
1:C:2961:LEU:HD23	1:C:2978:ARG:HB3	1.87	0.57
1:E:129:VAL:HG13	1:E:356:PRO:HG2	1.85	0.57
1:B:127:PRO:HG3	1:B:183:GLN:HA	1.86	0.57
1:C:2846:ALA:HA	1:C:3001:HIS:O	2.05	0.57
1:D:1126:ILE:O	1:D:1197:ARG:CG	2.53	0.57
1:D:2753:LYS:NZ	1:C:2748:GLU:HG2	2.19	0.57
1:C:127:PRO:HG3	1:C:183:GLN:HA	1.86	0.57
1:D:2865:ARG:NH1	1:C:3077:THR:O	2.38	0.56
1:D:511:ARG:NH1	1:D:543:GLY:HA3	2.19	0.56
1:B:1537:LEU:HD11	1:B:1714:LEU:HB3	1.87	0.56
1:D:2653:VAL:HA	1:D:3051:MET:HE3	1.87	0.56
1:F:2622:GLY:HA2	1:F:2812:LEU:HD11	1.87	0.56
1:C:2554:ALA:HB1	1:C:2614:LYS:NZ	2.19	0.56
1:F:2487:LEU:HD11	1:F:2495:LEU:HD12	1.86	0.56
1:E:1637:VAL:HG21	1:E:1671:TRP:CG	2.40	0.56
1:E:441:ASP:OD2	1:E:443:LYS:HB3	2.04	0.56
1:D:441:ASP:OD2	1:D:443:LYS:HB3	2.04	0.56
1:F:958:TRP:O	1:F:959:ALA:HB3	2.05	0.56
1:C:1013:THR:CG2	1:C:1014:TRP:N	2.58	0.56
1:B:924:LEU:HA	1:B:928:ALA:HB3	1.86	0.56
1:F:1001:ASP:O	1:F:1002:GLN:CG	2.53	0.56
1:F:2753:LYS:NZ	1:A:2752:ASP:OD2	2.36	0.56
1:E:2521:VAL:HG13	1:E:2529:ARG:NH1	2.20	0.56
1:D:1637:VAL:HG21	1:D:1671:TRP:CG	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1420:THR:OG1	1:C:1485:HIS:NE2	2.38	0.56
1:B:1445:VAL:HG23	1:B:1448:ALA:HB2	1.87	0.56
1:D:1327:VAL:HB	1:D:1339:ALA:HB3	1.86	0.56
1:D:1989:PHE:HD1	1:D:1992:LYS:HZ3	1.50	0.56
1:F:500:GLN:O	1:F:504:LYS:N	2.24	0.56
1:A:1327:VAL:HB	1:A:1339:ALA:HB3	1.86	0.56
1:F:2407:GLU:CD	1:F:2411:LYS:HZ2	2.08	0.56
1:E:924:LEU:HA	1:E:928:ALA:HB3	1.87	0.56
1:D:1001:ASP:O	1:D:1002:GLN:CG	2.54	0.56
1:B:1538:ARG:NH1	1:B:1722:PRO:HB3	2.18	0.56
1:F:2846:ALA:HA	1:F:3001:HIS:O	2.05	0.56
1:C:475:LEU:O	1:C:479:LEU:N	2.37	0.56
1:C:1637:VAL:HG21	1:C:1671:TRP:CG	2.40	0.56
1:B:511:ARG:NH1	1:B:543:GLY:HA3	2.19	0.56
1:A:540:ASN:HD21	1:A:544:ILE:HG13	1.71	0.56
1:E:1537:LEU:HD11	1:E:1714:LEU:HB3	1.87	0.56
1:A:1537:LEU:HD11	1:A:1714:LEU:HB3	1.87	0.56
1:E:656:THR:OG1	1:E:880:HIS:ND1	2.35	0.56
1:B:868:ARG:HB3	1:B:872:ARG:HH11	1.70	0.56
1:D:2787:THR:HA	1:D:2790:MET:HG3	1.86	0.56
1:A:868:ARG:HB3	1:A:872:ARG:HH11	1.70	0.56
1:B:2339:TRP:HB2	1:B:2398:LEU:HD11	1.86	0.56
1:D:2521:VAL:HG13	1:D:2529:ARG:NH1	2.20	0.56
1:E:868:ARG:HB3	1:E:872:ARG:HH11	1.70	0.56
1:D:2614:LYS:HZ1	1:C:2583:PHE:HD1	1.51	0.56
1:E:2957:PRO:HD3	1:E:2980:PRO:HB3	1.88	0.56
1:A:129:VAL:HG13	1:A:356:PRO:HG2	1.85	0.56
1:A:1420:THR:OG1	1:A:1485:HIS:NE2	2.39	0.56
1:B:129:VAL:HG13	1:B:356:PRO:HG2	1.85	0.56
1:A:2554:ALA:HB1	1:A:2614:LYS:NZ	2.19	0.56
1:F:1327:VAL:HB	1:F:1339:ALA:HB3	1.86	0.56
1:B:1091:LEU:HD13	1:B:1281:ALA:HB3	1.86	0.56
1:F:177:GLU:HB3	1:F:317:LEU:HD13	1.87	0.56
1:F:1511:ASP:H	1:F:1514:ASP:HB2	1.71	0.56
1:C:177:GLU:HB3	1:C:317:LEU:HD13	1.87	0.56
1:B:1017:ILE:HG23	1:B:1045:VAL:HG21	1.87	0.56
1:D:3077:THR:O	1:C:2865:ARG:NH1	2.38	0.56
1:A:476:GLU:HA	1:A:479:LEU:HB2	1.86	0.56
1:F:2724:GLN:HG2	1:A:3001:HIS:NE2	2.19	0.56
1:C:2787:THR:HA	1:C:2790:MET:HG3	1.86	0.56
1:E:2622:GLY:HA2	1:E:2812:LEU:HD11	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2957:PRO:HD3	1:D:2980:PRO:HB3	1.88	0.56
1:C:1511:ASP:H	1:C:1514:ASP:HB2	1.71	0.56
1:C:1091:LEU:HD13	1:C:1281:ALA:HB3	1.86	0.56
1:E:1511:ASP:H	1:E:1514:ASP:HB2	1.71	0.56
1:B:2983:LEU:HB3	1:B:2987:PHE:O	2.05	0.56
1:C:37:ARG:O	1:C:41:GLY:N	2.39	0.56
1:C:1126:ILE:O	1:C:1197:ARG:CG	2.53	0.56
1:A:1126:ILE:O	1:A:1197:ARG:CG	2.53	0.56
1:D:2709:ILE:O	1:D:2713:VAL:HG13	2.05	0.56
1:F:490:LEU:HD23	1:F:523:SER:HB2	1.87	0.56
1:F:2339:TRP:HB2	1:F:2398:LEU:HD11	1.86	0.56
1:A:2957:PRO:HD3	1:A:2980:PRO:HB3	1.88	0.56
1:E:2983:LEU:HB3	1:E:2987:PHE:O	2.05	0.56
1:B:177:GLU:HB3	1:B:317:LEU:HD13	1.87	0.56
1:F:1385:ARG:NH1	1:F:2411:LYS:CD	2.69	0.56
1:F:1013:THR:CG2	1:F:1014:TRP:N	2.58	0.56
1:F:1538:ARG:NH1	1:F:1722:PRO:HB3	2.18	0.56
1:B:37:ARG:O	1:B:41:GLY:N	2.39	0.56
1:C:868:ARG:HB3	1:C:872:ARG:HH11	1.70	0.56
1:A:2622:GLY:HA2	1:A:2812:LEU:HD11	1.87	0.56
1:C:2521:VAL:HG13	1:C:2529:ARG:NH1	2.20	0.56
1:B:490:LEU:HD23	1:B:523:SER:HB2	1.87	0.56
1:A:1445:VAL:HG23	1:A:1448:ALA:HB2	1.87	0.56
1:F:1091:LEU:HD13	1:F:1281:ALA:HB3	1.86	0.56
1:D:776:ASP:O	1:D:779:TRP:N	2.31	0.56
1:B:1637:VAL:HG21	1:B:1671:TRP:CG	2.40	0.56
1:D:2481:MET:O	1:D:2959:ARG:NH2	2.39	0.56
1:A:500:GLN:O	1:A:504:LYS:N	2.24	0.56
1:E:2481:MET:O	1:E:2959:ARG:NH2	2.39	0.56
1:E:1010:LEU:O	1:E:1017:ILE:N	2.29	0.56
1:A:2693:GLN:O	1:A:2697:HIS:ND1	2.33	0.56
1:B:540:ASN:HD21	1:B:544:ILE:HG13	1.71	0.56
1:F:1637:VAL:HG21	1:F:1671:TRP:CG	2.40	0.56
1:D:2983:LEU:HB3	1:D:2987:PHE:O	2.05	0.56
1:E:1496:SER:HB3	1:E:1578:ASP:HB3	1.88	0.56
1:A:1637:VAL:HG21	1:A:1671:TRP:CG	2.40	0.56
1:A:2481:MET:O	1:A:2959:ARG:NH2	2.39	0.56
1:B:2487:LEU:HD11	1:B:2495:LEU:HD12	1.86	0.56
1:A:2303:ASP:N	1:A:2303:ASP:OD1	2.39	0.56
1:E:2478:ARG:NH1	1:E:2482:GLU:OE1	2.39	0.56
1:F:1126:ILE:O	1:F:1197:ARG:CG	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:924:LEU:HA	1:A:928:ALA:HB3	1.86	0.56
1:D:475:LEU:O	1:D:479:LEU:N	2.37	0.56
1:E:37:ARG:O	1:E:41:GLY:N	2.39	0.56
1:D:540:ASN:HD21	1:D:544:ILE:HG13	1.71	0.56
1:C:2881:VAL:HG13	1:C:2885:ASP:HB2	1.88	0.56
1:A:2881:VAL:HG13	1:A:2885:ASP:HB2	1.88	0.56
1:F:2709:ILE:O	1:F:2713:VAL:HG13	2.05	0.56
1:F:2521:VAL:HG13	1:F:2529:ARG:NH1	2.20	0.56
1:C:2957:PRO:HD3	1:C:2980:PRO:HB3	1.88	0.56
1:E:1618:LEU:HG	1:E:1619:VAL:HG23	1.88	0.56
1:C:2303:ASP:N	1:C:2303:ASP:OD1	2.39	0.56
1:D:1091:LEU:HD13	1:D:1281:ALA:HB3	1.86	0.56
1:C:1001:ASP:O	1:C:1002:GLN:CG	2.53	0.56
1:F:37:ARG:O	1:F:41:GLY:N	2.39	0.56
1:A:2521:VAL:HG13	1:A:2529:ARG:NH1	2.20	0.56
1:F:144:GLY:O	1:F:148:THR:N	2.34	0.56
1:B:1001:ASP:O	1:B:1002:GLN:CG	2.53	0.56
1:E:3001:HIS:NE2	1:B:2724:GLN:HG2	2.19	0.56
1:E:2881:VAL:HG13	1:E:2885:ASP:HB2	1.88	0.56
1:D:2881:VAL:HG13	1:D:2885:ASP:HB2	1.88	0.56
1:D:2554:ALA:HB1	1:D:2614:LYS:NZ	2.19	0.56
1:B:1496:SER:HB3	1:B:1578:ASP:HB3	1.88	0.56
1:F:2481:MET:O	1:F:2959:ARG:NH2	2.39	0.56
1:C:2478:ARG:NH1	1:C:2482:GLU:OE1	2.39	0.56
1:A:1511:ASP:H	1:A:1514:ASP:HB2	1.71	0.56
1:F:1037:ASP:OD2	1:F:1043:ARG:N	2.40	0.55
1:A:1017:ILE:HG23	1:A:1045:VAL:HG21	1.87	0.55
1:E:2743:ALA:HB3	1:E:2939:ALA:HB3	1.89	0.55
1:E:2339:TRP:HB2	1:E:2398:LEU:HD11	1.86	0.55
1:F:2478:ARG:NH1	1:F:2482:GLU:OE1	2.39	0.55
1:F:2961:LEU:HD23	1:F:2978:ARG:HB3	1.87	0.55
1:C:2481:MET:O	1:C:2959:ARG:NH2	2.39	0.55
1:E:1001:ASP:O	1:E:1002:GLN:CG	2.53	0.55
1:F:2845:PHE:CD1	1:A:2731:GLY:HA2	2.39	0.55
1:E:2753:LYS:HZ2	1:B:2748:GLU:HG2	1.71	0.55
1:D:2962:ASP:N	1:D:2962:ASP:OD1	2.34	0.55
1:F:868:ARG:HB3	1:F:872:ARG:HH11	1.70	0.55
1:D:975:GLU:CG	1:D:976:TRP:N	2.70	0.55
1:D:2478:ARG:NH1	1:D:2482:GLU:OE1	2.39	0.55
1:B:2481:MET:O	1:B:2959:ARG:NH2	2.39	0.55
1:B:745:THR:OG1	1:B:834:GLU:O	2.19	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2983:LEU:HB3	1:A:2987:PHE:O	2.05	0.55
1:B:1511:ASP:H	1:B:1514:ASP:HB2	1.70	0.55
1:B:475:LEU:O	1:B:479:LEU:N	2.37	0.55
1:A:2743:ALA:HB3	1:A:2939:ALA:HB3	1.88	0.55
1:D:2704:ALA:O	1:D:2705:LYS:HD3	2.07	0.55
1:A:1496:SER:HB3	1:A:1578:ASP:HB3	1.89	0.55
1:A:144:GLY:O	1:A:148:THR:N	2.34	0.55
1:F:513:SER:C	1:F:961:ARG:HH11	2.02	0.55
1:C:33:ALA:O	1:C:37:ARG:N	2.35	0.55
1:F:2743:ALA:HB3	1:F:2939:ALA:HB3	1.88	0.55
1:E:540:ASN:HD21	1:E:544:ILE:HG13	1.71	0.55
1:E:1087:PHE:HB3	1:F:117:LYS:HZ1	1.70	0.55
1:F:1496:SER:HB3	1:F:1578:ASP:HB3	1.89	0.55
1:D:1511:ASP:H	1:D:1514:ASP:HB2	1.71	0.55
1:B:2478:ARG:NH1	1:B:2482:GLU:OE1	2.39	0.55
1:D:2303:ASP:N	1:D:2303:ASP:OD1	2.39	0.55
1:B:238:SER:OG	1:B:249:THR:OG1	2.15	0.55
1:E:1445:VAL:HG23	1:E:1448:ALA:HB2	1.87	0.55
1:A:2810:GLY:HA2	1:A:2896:THR:HA	1.89	0.55
1:E:1734:SER:HA	1:E:1741:LEU:HD11	1.89	0.55
1:F:958:TRP:N	1:F:958:TRP:CD1	2.73	0.55
1:A:37:ARG:O	1:A:41:GLY:N	2.38	0.55
1:E:475:LEU:O	1:E:479:LEU:N	2.37	0.55
1:C:540:ASN:HD21	1:C:544:ILE:HG13	1.71	0.55
1:E:2810:GLY:HA2	1:E:2896:THR:HA	1.89	0.55
1:C:551:PRO:HG3	1:C:560:VAL:HG21	1.89	0.55
1:D:551:PRO:HG3	1:D:560:VAL:HG21	1.89	0.55
1:A:975:GLU:CG	1:A:976:TRP:N	2.70	0.55
1:C:2704:ALA:O	1:C:2705:LYS:HD3	2.07	0.55
1:E:490:LEU:HD23	1:E:523:SER:HB2	1.87	0.55
1:F:2957:PRO:HD3	1:F:2980:PRO:HB3	1.88	0.55
1:E:2704:ALA:O	1:E:2705:LYS:HD3	2.07	0.55
1:B:1420:THR:OG1	1:B:1485:HIS:NE2	2.38	0.55
1:F:975:GLU:CG	1:F:976:TRP:N	2.70	0.55
1:F:2704:ALA:O	1:F:2705:LYS:HD3	2.07	0.55
1:C:1618:LEU:HG	1:C:1619:VAL:HG23	1.88	0.55
1:F:176:VAL:O	1:F:180:ALA:N	2.36	0.55
1:E:2303:ASP:OD1	1:E:2303:ASP:N	2.39	0.55
1:A:177:GLU:HB3	1:A:317:LEU:HD13	1.87	0.55
1:B:975:GLU:CG	1:B:976:TRP:N	2.70	0.55
1:A:117:LYS:HZ3	1:C:1087:PHE:HB3	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:490:LEU:HD23	1:C:523:SER:HB2	1.87	0.55
1:A:2478:ARG:NH1	1:A:2482:GLU:OE1	2.39	0.55
1:E:177:GLU:HB3	1:E:317:LEU:HD13	1.87	0.55
1:B:2704:ALA:O	1:B:2705:LYS:HD3	2.07	0.55
1:F:1038:ALA:CA	1:F:1126:ILE:HA	2.37	0.55
1:B:2743:ALA:HB3	1:B:2939:ALA:HB3	1.88	0.55
1:F:2881:VAL:HG13	1:F:2885:ASP:HB2	1.88	0.55
1:D:490:LEU:HD23	1:D:523:SER:HB2	1.87	0.55
1:C:975:GLU:CG	1:C:976:TRP:N	2.70	0.55
1:B:2961:LEU:HD23	1:B:2978:ARG:HB3	1.87	0.55
1:D:737:TYR:HE1	1:D:862:VAL:HA	1.72	0.55
1:D:1724:TYR:OH	1:E:267:GLU:OE2	2.07	0.55
1:E:2458:ALA:HA	1:E:2824:ARG:HD2	1.89	0.55
1:C:1690:GLU:O	1:C:1694:GLY:N	2.40	0.55
1:C:931:VAL:HG13	1:C:933:VAL:CG1	2.37	0.55
1:A:580:ARG:HH11	1:A:614:GLY:HA3	1.72	0.55
1:B:1087:PHE:HB3	1:C:117:LYS:HZ3	1.71	0.55
1:A:490:LEU:HD23	1:A:523:SER:HB2	1.87	0.55
1:A:1357:ILE:HG13	1:A:1710:THR:HG21	1.89	0.55
1:A:1734:SER:HA	1:A:1741:LEU:HD11	1.89	0.55
1:E:737:TYR:HE1	1:E:862:VAL:HA	1.72	0.55
1:E:975:GLU:CG	1:E:976:TRP:N	2.70	0.55
1:A:1690:GLU:O	1:A:1694:GLY:N	2.40	0.55
1:E:1357:ILE:HG13	1:E:1710:THR:HG21	1.89	0.55
1:A:2458:ALA:HA	1:A:2824:ARG:HD2	1.89	0.55
1:B:2458:ALA:HA	1:B:2824:ARG:HD2	1.89	0.55
1:E:1253:ARG:NH1	1:E:1253:ARG:HG3	2.18	0.55
1:B:2881:VAL:HG13	1:B:2885:ASP:HB2	1.88	0.55
1:C:2810:GLY:HA2	1:C:2896:THR:HA	1.88	0.55
1:F:1020:THR:O	1:F:1035:VAL:N	2.40	0.54
1:A:1010:LEU:O	1:A:1017:ILE:N	2.29	0.54
1:E:2845:PHE:CD1	1:B:2731:GLY:HA2	2.39	0.54
1:F:540:ASN:HD21	1:F:544:ILE:HG13	1.71	0.54
1:D:1690:GLU:O	1:D:1694:GLY:N	2.40	0.54
1:D:2810:GLY:HA2	1:D:2896:THR:HA	1.89	0.54
1:B:737:TYR:HE1	1:B:862:VAL:HA	1.72	0.54
1:F:1357:ILE:HG13	1:F:1710:THR:HG21	1.89	0.54
1:B:1690:GLU:O	1:B:1694:GLY:N	2.40	0.54
1:A:1618:LEU:HG	1:A:1619:VAL:HG23	1.88	0.54
1:D:931:VAL:HG13	1:D:933:VAL:CG1	2.37	0.54
1:D:2845:PHE:CD1	1:C:2731:GLY:HA2	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:668:THR:OG1	1:D:698:ILE:HD11	2.08	0.54
1:B:2957:PRO:HD3	1:B:2980:PRO:HB3	1.88	0.54
1:D:2417:SER:O	1:D:2421:ASP:N	2.40	0.54
1:A:2704:ALA:O	1:A:2705:LYS:HD3	2.07	0.54
1:D:1618:LEU:HG	1:D:1619:VAL:HG23	1.88	0.54
1:A:551:PRO:HG3	1:A:560:VAL:HG21	1.89	0.54
1:E:1690:GLU:O	1:E:1694:GLY:N	2.40	0.54
1:F:1690:GLU:O	1:F:1694:GLY:N	2.40	0.54
1:F:2303:ASP:OD1	1:F:2303:ASP:N	2.39	0.54
1:F:2458:ALA:HA	1:F:2824:ARG:HD2	1.89	0.54
1:F:931:VAL:HG13	1:F:933:VAL:CG1	2.37	0.54
1:F:475:LEU:O	1:F:479:LEU:N	2.37	0.54
1:C:580:ARG:HH11	1:C:614:GLY:HA3	1.73	0.54
1:E:580:ARG:HH11	1:E:614:GLY:HA3	1.73	0.54
1:E:2012:GLY:C	1:F:2591:ARG:NH1	2.61	0.54
1:E:668:THR:OG1	1:E:698:ILE:HD11	2.08	0.54
1:A:2653:VAL:HA	1:A:3051:MET:HE3	1.88	0.54
1:C:2458:ALA:HA	1:C:2824:ARG:HD2	1.89	0.54
1:C:763:SER:O	1:C:766:ASP:N	2.41	0.54
1:F:1618:LEU:HG	1:F:1619:VAL:HG23	1.88	0.54
1:F:1734:SER:HA	1:F:1741:LEU:HD11	1.89	0.54
1:D:1420:THR:OG1	1:D:1485:HIS:NE2	2.38	0.54
1:B:551:PRO:HG3	1:B:560:VAL:HG21	1.89	0.54
1:D:763:SER:O	1:D:766:ASP:N	2.41	0.54
1:B:273:ARG:HD2	1:B:282:VAL:HG12	1.90	0.54
1:D:2743:ALA:HB3	1:D:2939:ALA:HB3	1.88	0.54
1:D:2012:GLY:C	1:E:2591:ARG:NH1	2.61	0.54
1:B:2551:PRO:O	1:B:2617:LEU:HB2	2.08	0.54
1:E:2417:SER:O	1:E:2421:ASP:N	2.40	0.54
1:C:716:ALA:HA	1:C:719:VAL:HG23	1.90	0.54
1:C:1151:GLU:HB2	1:C:1179:ALA:HB3	1.90	0.54
1:B:1226:ARG:HB3	1:B:1282:THR:HG21	1.90	0.54
1:E:551:PRO:HG3	1:E:560:VAL:HG21	1.89	0.54
1:B:3018:LEU:O	1:B:3022:GLU:HB2	2.08	0.54
1:F:1037:ASP:HB3	1:F:1042:MET:HG3	1.89	0.54
1:B:931:VAL:HG13	1:B:933:VAL:CG1	2.37	0.54
1:C:273:ARG:HD2	1:C:282:VAL:HG12	1.90	0.54
1:D:2731:GLY:HA2	1:C:2845:PHE:CD1	2.39	0.54
1:B:2860:ALA:HB1	1:B:3005:LEU:HD13	1.90	0.54
1:D:580:ARG:HH11	1:D:614:GLY:HA3	1.72	0.54
1:F:668:THR:OG1	1:F:698:ILE:HD11	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2012:GLY:C	1:C:2591:ARG:NH1	2.61	0.54
1:F:551:PRO:HG3	1:F:560:VAL:HG21	1.89	0.54
1:A:737:TYR:HE1	1:A:862:VAL:HA	1.72	0.54
1:C:2631:PRO:HG3	1:C:2649:LEU:HD13	1.90	0.54
1:B:2768:ASP:OD2	1:B:2936:GLY:N	2.41	0.54
1:F:737:TYR:HE1	1:F:862:VAL:HA	1.72	0.54
1:A:763:SER:O	1:A:766:ASP:N	2.41	0.54
1:C:1734:SER:HA	1:C:1741:LEU:HD11	1.89	0.54
1:D:624:TYR:HA	1:D:629:TRP:CD1	2.43	0.54
1:E:368:ILE:HG21	1:E:373:ILE:HG13	1.90	0.54
1:C:737:TYR:HE1	1:C:862:VAL:HA	1.72	0.54
1:A:2551:PRO:O	1:A:2617:LEU:HB2	2.08	0.54
1:F:2860:ALA:HB1	1:F:3005:LEU:HD13	1.90	0.54
1:F:2731:GLY:HA2	1:A:2845:PHE:CD1	2.38	0.54
1:A:668:THR:OG1	1:A:698:ILE:HD11	2.08	0.54
1:D:2551:PRO:O	1:D:2617:LEU:HB2	2.08	0.54
1:D:716:ALA:HA	1:D:719:VAL:HG23	1.90	0.54
1:C:1496:SER:HB3	1:C:1578:ASP:HB3	1.89	0.54
1:D:1734:SER:HA	1:D:1741:LEU:HD11	1.89	0.54
1:E:2551:PRO:O	1:E:2617:LEU:HB2	2.08	0.54
1:F:792:ALA:HA	1:F:799:PHE:CE2	2.43	0.54
1:E:33:ALA:O	1:E:37:ARG:N	2.35	0.54
1:E:33:ALA:O	1:E:37:ARG:HG2	2.08	0.54
1:F:580:ARG:HH11	1:F:614:GLY:HA3	1.73	0.54
1:E:1151:GLU:HB2	1:E:1179:ALA:HB3	1.90	0.54
1:F:526:ILE:HD12	1:F:549:PHE:HB3	1.90	0.54
1:F:1010:LEU:O	1:F:1017:ILE:N	2.30	0.54
1:A:2860:ALA:HB1	1:A:3005:LEU:HD13	1.90	0.54
1:C:2743:ALA:HB3	1:C:2939:ALA:HB3	1.89	0.54
1:C:668:THR:OG1	1:C:698:ILE:HD11	2.08	0.54
1:F:1089:ALA:O	1:F:1091:LEU:N	2.42	0.54
1:A:624:TYR:HA	1:A:629:TRP:CD1	2.43	0.54
1:B:456:GLU:HG2	1:B:486:GLN:HE21	1.73	0.54
1:A:2768:ASP:OD2	1:A:2936:GLY:N	2.41	0.54
1:F:3018:LEU:O	1:F:3022:GLU:HB2	2.08	0.54
1:B:2810:GLY:HA2	1:B:2896:THR:HA	1.89	0.54
1:C:2860:ALA:HB1	1:C:3005:LEU:HD13	1.90	0.53
1:E:2860:ALA:HB1	1:E:3005:LEU:HD13	1.90	0.53
1:D:2591:ARG:NH1	1:F:2012:GLY:C	2.61	0.53
1:B:668:THR:OG1	1:B:698:ILE:HD11	2.08	0.53
1:B:526:ILE:HD12	1:B:549:PHE:HB3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1226:ARG:HB3	1:A:1282:THR:HG21	1.90	0.53
1:C:2768:ASP:OD2	1:C:2936:GLY:N	2.41	0.53
1:A:368:ILE:HG21	1:A:373:ILE:HG13	1.90	0.53
1:C:2551:PRO:O	1:C:2617:LEU:HB2	2.08	0.53
1:F:763:SER:O	1:F:766:ASP:N	2.41	0.53
1:E:2768:ASP:OD2	1:E:2936:GLY:N	2.41	0.53
1:D:1496:SER:HB3	1:D:1578:ASP:HB3	1.89	0.53
1:F:2768:ASP:OD2	1:F:2936:GLY:N	2.41	0.53
1:D:2860:ALA:HB1	1:D:3005:LEU:HD13	1.90	0.53
1:C:1488:VAL:HG12	1:C:1490:ARG:HH11	1.73	0.53
1:A:2012:GLY:C	1:B:2591:ARG:NH1	2.61	0.53
1:E:2246:ALA:C	1:E:2255:ARG:HH12	2.11	0.53
1:D:2246:ALA:C	1:D:2255:ARG:HH12	2.11	0.53
1:E:1323:GLU:N	1:E:1343:LEU:O	2.41	0.53
1:D:1089:ALA:O	1:D:1091:LEU:N	2.42	0.53
1:A:1174:VAL:HB	1:A:1188:LEU:HB3	1.91	0.53
1:C:624:TYR:HA	1:C:629:TRP:CD1	2.43	0.53
1:F:2810:GLY:HA2	1:F:2896:THR:HA	1.89	0.53
1:A:2492:VAL:HG21	1:A:2527:VAL:HG22	1.90	0.53
1:C:2492:VAL:HG21	1:C:2527:VAL:HG22	1.90	0.53
1:E:624:TYR:HA	1:E:629:TRP:CD1	2.43	0.53
1:F:1385:ARG:HD2	1:F:2407:GLU:OE1	2.08	0.53
1:B:580:ARG:HH11	1:B:614:GLY:HA3	1.72	0.53
1:A:2591:ARG:NH1	1:C:2012:GLY:C	2.61	0.53
1:F:2246:ALA:C	1:F:2255:ARG:HH12	2.12	0.53
1:C:2653:VAL:HA	1:C:3051:MET:HE3	1.90	0.53
1:B:1618:LEU:HG	1:B:1619:VAL:HG23	1.88	0.53
1:B:745:THR:HG23	1:B:834:GLU:HA	1.90	0.53
1:B:1151:GLU:HB2	1:B:1179:ALA:HB3	1.90	0.53
1:B:2492:VAL:HG21	1:B:2527:VAL:HG22	1.90	0.53
1:A:716:ALA:HA	1:A:719:VAL:HG23	1.90	0.53
1:B:2103:TRP:CG	1:B:2919:GLY:O	2.62	0.53
1:C:1089:ALA:O	1:C:1091:LEU:N	2.42	0.53
1:A:745:THR:HG23	1:A:834:GLU:HA	1.90	0.53
1:E:1226:ARG:HB3	1:E:1282:THR:HG21	1.90	0.53
1:D:1425:VAL:HG13	1:D:1474:LEU:HD13	1.91	0.53
1:B:1734:SER:HA	1:B:1741:LEU:HD11	1.89	0.53
1:E:1420:THR:OG1	1:E:1485:HIS:NE2	2.38	0.53
1:B:2303:ASP:N	1:B:2303:ASP:OD1	2.39	0.53
1:C:1425:VAL:HG13	1:C:1474:LEU:HD13	1.91	0.53
1:C:368:ILE:HG21	1:C:373:ILE:HG13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1148:GLU:O	1:A:1150:ALA:N	2.42	0.53
1:D:2103:TRP:CG	1:D:2919:GLY:O	2.62	0.53
1:F:2103:TRP:CG	1:F:2919:GLY:O	2.62	0.53
1:F:273:ARG:HD2	1:F:282:VAL:HG12	1.90	0.53
1:A:71:GLU:HG2	1:A:142:ARG:NH2	2.24	0.53
1:E:763:SER:O	1:E:766:ASP:N	2.41	0.53
1:B:1357:ILE:HG13	1:B:1710:THR:HG21	1.89	0.53
1:B:624:TYR:HA	1:B:629:TRP:CD1	2.43	0.53
1:E:526:ILE:HD12	1:E:549:PHE:HB3	1.90	0.53
1:E:2492:VAL:HG21	1:E:2527:VAL:HG22	1.90	0.53
1:C:1530:LEU:HD21	1:C:1554:LEU:HD22	1.91	0.53
1:D:3018:LEU:O	1:D:3022:GLU:HB2	2.08	0.53
1:B:763:SER:O	1:B:766:ASP:N	2.41	0.53
1:E:3018:LEU:O	1:E:3022:GLU:HB2	2.08	0.53
1:D:745:THR:HG23	1:D:834:GLU:HA	1.90	0.53
1:F:624:TYR:HA	1:F:629:TRP:CD1	2.43	0.53
1:F:1151:GLU:HB2	1:F:1179:ALA:HB3	1.90	0.53
1:B:1010:LEU:O	1:B:1017:ILE:N	2.29	0.53
1:E:931:VAL:HG13	1:E:933:VAL:CG1	2.37	0.53
1:C:2087:GLN:HA	1:C:2090:GLU:CG	2.39	0.53
1:A:2246:ALA:C	1:A:2255:ARG:HH12	2.12	0.53
1:A:1323:GLU:N	1:A:1343:LEU:O	2.42	0.53
1:D:2583:PHE:HD1	1:C:2614:LYS:HZ1	1.51	0.53
1:B:2631:PRO:HG3	1:B:2649:LEU:HD13	1.90	0.53
1:A:588:GLU:HB3	1:A:593:LEU:HD11	1.91	0.53
1:D:1357:ILE:HG13	1:D:1710:THR:HG21	1.89	0.53
1:F:1174:VAL:HB	1:F:1188:LEU:HB3	1.91	0.53
1:D:2418:GLY:O	1:D:2422:GLU:N	2.40	0.53
1:E:2631:PRO:HG3	1:E:2649:LEU:HD13	1.90	0.53
1:A:273:ARG:HD2	1:A:282:VAL:HG12	1.90	0.53
1:C:71:GLU:HG2	1:C:142:ARG:NH2	2.24	0.53
1:F:2087:GLN:HA	1:F:2090:GLU:CG	2.39	0.53
1:D:2753:LYS:HZ2	1:C:2748:GLU:HG2	1.73	0.53
1:A:1089:ALA:O	1:A:1091:LEU:N	2.42	0.53
1:D:1530:LEU:HD21	1:D:1554:LEU:HD22	1.91	0.53
1:E:1174:VAL:HB	1:E:1188:LEU:HB3	1.91	0.53
1:E:745:THR:HG23	1:E:834:GLU:HA	1.90	0.53
1:E:1425:VAL:HG13	1:E:1474:LEU:HD13	1.91	0.53
1:F:1020:THR:HB	1:F:1035:VAL:HG22	1.90	0.53
1:F:958:TRP:H	1:F:958:TRP:HD1	1.56	0.53
1:E:2103:TRP:CG	1:E:2919:GLY:O	2.62	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2693:GLN:O	1:D:2697:HIS:ND1	2.33	0.53
1:E:273:ARG:HD2	1:E:282:VAL:HG12	1.90	0.53
1:A:1634:ARG:HD2	1:A:1638:PRO:HA	1.91	0.53
1:E:2215:THR:HG22	1:E:2216:GLU:HG3	1.91	0.53
1:A:2089:PHE:HA	1:A:2188:ARG:HH11	1.74	0.53
1:A:2087:GLN:HA	1:A:2090:GLU:CG	2.39	0.53
1:B:2246:ALA:C	1:B:2255:ARG:HH12	2.11	0.53
1:E:588:GLU:HB3	1:E:593:LEU:HD11	1.91	0.53
1:A:1425:VAL:HG13	1:A:1474:LEU:HD13	1.91	0.53
1:F:2492:VAL:HG21	1:F:2527:VAL:HG22	1.90	0.53
1:F:716:ALA:HA	1:F:719:VAL:HG23	1.90	0.53
1:A:2103:TRP:CG	1:A:2919:GLY:O	2.62	0.53
1:D:2087:GLN:HA	1:D:2090:GLU:CG	2.39	0.53
1:B:368:ILE:HG21	1:B:373:ILE:HG13	1.90	0.53
1:F:745:THR:HG23	1:F:834:GLU:HA	1.90	0.53
1:C:1357:ILE:HG13	1:C:1710:THR:HG21	1.89	0.53
1:A:456:GLU:HG2	1:A:486:GLN:HE21	1.73	0.53
1:B:2417:SER:O	1:B:2421:ASP:N	2.40	0.53
1:D:526:ILE:HD12	1:D:549:PHE:HB3	1.90	0.53
1:F:2551:PRO:O	1:F:2617:LEU:HB2	2.08	0.53
1:C:456:GLU:HG2	1:C:486:GLN:HE21	1.73	0.53
1:B:1148:GLU:O	1:B:1150:ALA:N	2.42	0.53
1:F:1042:MET:O	1:F:1045:VAL:N	2.34	0.53
1:F:1385:ARG:CD	1:F:2407:GLU:OE2	2.56	0.53
1:C:1010:LEU:O	1:C:1017:ILE:N	2.29	0.53
1:E:1634:ARG:HD2	1:E:1638:PRO:HA	1.91	0.53
1:E:2087:GLN:HA	1:E:2090:GLU:CG	2.39	0.53
1:D:1226:ARG:HB3	1:D:1282:THR:HG21	1.90	0.53
1:A:1225:ARG:CG	1:A:1283:ASP:OD1	2.57	0.53
1:C:526:ILE:HD12	1:C:549:PHE:HB3	1.90	0.53
1:F:2631:PRO:HG3	1:F:2649:LEU:HD13	1.90	0.53
1:A:1538:ARG:NH1	1:A:1722:PRO:HB3	2.18	0.52
1:B:2653:VAL:HA	1:B:3051:MET:HE3	1.90	0.52
1:B:411:PRO:HD2	1:B:1025:VAL:HG11	1.91	0.52
1:E:411:PRO:HD2	1:E:1025:VAL:HG11	1.91	0.52
1:E:1089:ALA:O	1:E:1091:LEU:N	2.42	0.52
1:E:456:GLU:HG2	1:E:486:GLN:HE21	1.73	0.52
1:D:2768:ASP:OD2	1:D:2936:GLY:N	2.41	0.52
1:B:716:ALA:HA	1:B:719:VAL:HG23	1.90	0.52
1:C:3018:LEU:O	1:C:3022:GLU:HB2	2.08	0.52
1:F:2417:SER:O	1:F:2421:ASP:N	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:776:ASP:O	1:A:779:TRP:N	2.31	0.52
1:D:2631:PRO:HG3	1:D:2649:LEU:HD13	1.90	0.52
1:D:2492:VAL:HG21	1:D:2527:VAL:HG22	1.90	0.52
1:C:745:THR:HG23	1:C:834:GLU:HA	1.90	0.52
1:D:1151:GLU:HB2	1:D:1179:ALA:HB3	1.90	0.52
1:D:456:GLU:HG2	1:D:486:GLN:HE21	1.73	0.52
1:A:931:VAL:HG13	1:A:933:VAL:CG1	2.37	0.52
1:C:33:ALA:O	1:C:37:ARG:HG2	2.08	0.52
1:C:1323:GLU:N	1:C:1343:LEU:O	2.41	0.52
1:D:1323:GLU:N	1:D:1343:LEU:O	2.41	0.52
1:A:411:PRO:HD2	1:A:1025:VAL:HG11	1.91	0.52
1:F:1225:ARG:CG	1:F:1283:ASP:OD1	2.57	0.52
1:D:961:ARG:NH2	1:D:1196:GLY:O	2.42	0.52
1:D:2458:ALA:HA	1:D:2824:ARG:HD2	1.89	0.52
1:D:1148:GLU:O	1:D:1150:ALA:N	2.42	0.52
1:A:176:VAL:O	1:A:180:ALA:N	2.36	0.52
1:A:208:VAL:HG12	1:A:248:ILE:HG12	1.91	0.52
1:E:716:ALA:HA	1:E:719:VAL:HG23	1.90	0.52
1:F:368:ILE:HG21	1:F:373:ILE:HG13	1.90	0.52
1:F:208:VAL:HG12	1:F:248:ILE:HG12	1.92	0.52
1:D:2740:CYS:HB2	1:D:2998:GLY:HA2	1.92	0.52
1:E:2089:PHE:HA	1:E:2188:ARG:HH11	1.74	0.52
1:D:1488:VAL:HG12	1:D:1490:ARG:HH11	1.73	0.52
1:C:2246:ALA:C	1:C:2255:ARG:HH12	2.11	0.52
1:D:2737:VAL:HG21	1:C:2715:PRO:HB2	1.92	0.52
1:C:144:GLY:O	1:C:148:THR:N	2.33	0.52
1:E:1119:THR:O	1:E:1123:PHE:HB2	2.10	0.52
1:C:1733:ASN:HD22	1:C:1736:ARG:HD2	1.74	0.52
1:B:1733:ASN:HD22	1:B:1736:ARG:HD2	1.74	0.52
1:A:1110:VAL:HG13	1:A:1172:VAL:HG11	1.92	0.52
1:F:1148:GLU:O	1:F:1150:ALA:N	2.42	0.52
1:B:2808:ARG:HB2	1:B:2895:SER:O	2.10	0.52
1:A:1151:GLU:HB2	1:A:1179:ALA:HB3	1.90	0.52
1:C:1225:ARG:CG	1:C:1283:ASP:OD1	2.57	0.52
1:F:1037:ASP:CB	1:F:1042:MET:H	2.23	0.52
1:F:958:TRP:NE1	1:F:961:ARG:HB2	2.25	0.52
1:D:792:ALA:HA	1:D:799:PHE:CE2	2.43	0.52
1:A:33:ALA:O	1:A:37:ARG:HG2	2.08	0.52
1:F:33:ALA:O	1:F:37:ARG:HG2	2.09	0.52
1:F:71:GLU:HG2	1:F:142:ARG:NH2	2.24	0.52
1:B:33:ALA:O	1:B:37:ARG:HG2	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1634:ARG:HD2	1:D:1638:PRO:HA	1.91	0.52
1:A:2215:THR:HG22	1:A:2216:GLU:HG3	1.91	0.52
1:F:1634:ARG:HD2	1:F:1638:PRO:HA	1.91	0.52
1:B:1488:VAL:HG12	1:B:1490:ARG:HH11	1.74	0.52
1:E:2962:ASP:OD1	1:E:2962:ASP:N	2.34	0.52
1:D:411:PRO:HD2	1:D:1025:VAL:HG11	1.91	0.52
1:D:1225:ARG:CG	1:D:1283:ASP:OD1	2.57	0.52
1:C:1148:GLU:O	1:C:1150:ALA:N	2.42	0.52
1:D:2715:PRO:HB2	1:C:2737:VAL:HG21	1.92	0.52
1:F:2418:GLY:O	1:F:2422:GLU:N	2.40	0.52
1:B:1225:ARG:CG	1:B:1283:ASP:OD1	2.57	0.52
1:E:1093:PRO:HB3	1:E:1277:HIS:HE1	1.75	0.52
1:F:2737:VAL:HG21	1:A:2715:PRO:HB2	1.91	0.52
1:F:1021:LEU:CD2	1:F:1034:GLU:CG	2.81	0.52
1:F:1037:ASP:HA	1:F:1038:ALA:C	2.26	0.52
1:A:930:PRO:O	1:A:930:PRO:CG	2.57	0.52
1:C:2103:TRP:CG	1:C:2919:GLY:O	2.62	0.52
1:C:1634:ARG:HD2	1:C:1638:PRO:HA	1.91	0.52
1:C:2089:PHE:HA	1:C:2188:ARG:HH11	1.74	0.52
1:B:1323:GLU:N	1:B:1343:LEU:O	2.42	0.52
1:A:542:VAL:HG11	1:A:964:VAL:HB	1.92	0.52
1:A:1733:ASN:HD22	1:A:1736:ARG:HD2	1.74	0.52
1:F:1420:THR:OG1	1:F:1485:HIS:NE2	2.39	0.52
1:C:400:TRP:CZ3	1:C:636:PRO:HB2	2.45	0.52
1:E:1148:GLU:O	1:E:1150:ALA:N	2.42	0.52
1:E:208:VAL:HG12	1:E:248:ILE:HG12	1.92	0.52
1:B:1174:VAL:HB	1:B:1188:LEU:HB3	1.91	0.52
1:A:3018:LEU:O	1:A:3022:GLU:HB2	2.08	0.52
1:A:526:ILE:HD12	1:A:549:PHE:HB3	1.90	0.52
1:F:456:GLU:HG2	1:F:486:GLN:HE21	1.73	0.52
1:F:960:GLY:CA	1:F:1126:ILE:HD13	2.39	0.52
1:F:1385:ARG:CD	1:F:2407:GLU:CD	2.73	0.52
1:F:931:VAL:HG13	1:F:933:VAL:HG13	1.92	0.52
1:E:71:GLU:HG2	1:E:142:ARG:NH2	2.24	0.52
1:C:2962:ASP:OD1	1:C:2962:ASP:N	2.34	0.52
1:E:106:ALA:O	1:E:112:PRO:HD2	2.10	0.52
1:B:1089:ALA:O	1:B:1091:LEU:N	2.41	0.52
1:B:2698:GLY:HA3	1:B:2705:LYS:HG3	1.92	0.52
1:A:208:VAL:HB	1:A:255:LEU:HD13	1.92	0.52
1:E:208:VAL:HB	1:E:255:LEU:HD13	1.92	0.52
1:C:2808:ARG:HB2	1:C:2895:SER:O	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2418:GLY:O	1:E:2422:GLU:N	2.40	0.52
1:A:400:TRP:CZ3	1:A:636:PRO:HB2	2.45	0.52
1:F:2552:ASP:OD1	1:F:2552:ASP:N	2.43	0.52
1:E:400:TRP:CZ3	1:E:636:PRO:HB2	2.45	0.52
1:E:542:VAL:HG11	1:E:964:VAL:HB	1.92	0.52
1:F:1110:VAL:HG13	1:F:1172:VAL:HG11	1.92	0.52
1:C:1226:ARG:HB3	1:C:1282:THR:HG21	1.90	0.52
1:F:1733:ASN:HD22	1:F:1736:ARG:HD2	1.74	0.52
1:B:1695:LEU:HD23	1:C:257:ARG:NH1	2.23	0.52
1:A:2740:CYS:HB2	1:A:2998:GLY:HA2	1.92	0.52
1:D:1622:PRO:HD3	1:D:1685:LEU:HD21	1.92	0.52
1:E:1110:VAL:HG13	1:E:1172:VAL:HG11	1.92	0.52
1:B:1530:LEU:HD21	1:B:1554:LEU:HD22	1.91	0.52
1:B:2552:ASP:OD1	1:B:2552:ASP:N	2.43	0.52
1:D:1093:PRO:HB3	1:D:1277:HIS:HE1	1.75	0.52
1:F:2715:PRO:HB2	1:A:2737:VAL:HG21	1.92	0.52
1:C:588:GLU:HB3	1:C:593:LEU:HD11	1.91	0.52
1:E:1287:VAL:O	1:E:1291:LYS:HG3	2.10	0.52
1:D:588:GLU:HB3	1:D:593:LEU:HD11	1.91	0.52
1:E:930:PRO:CG	1:E:930:PRO:O	2.57	0.52
1:E:1538:ARG:NH1	1:E:1722:PRO:HB3	2.18	0.52
1:F:33:ALA:O	1:F:37:ARG:N	2.35	0.52
1:D:2215:THR:HG22	1:D:2216:GLU:HG3	1.91	0.52
1:B:2089:PHE:HA	1:B:2188:ARG:HH11	1.74	0.52
1:A:1164:THR:HA	1:A:1204:THR:O	2.10	0.52
1:A:577:GLU:OE2	2:A:4000:FMN:O3'	2.28	0.52
1:C:411:PRO:HD2	1:C:1025:VAL:HG11	1.91	0.52
1:F:2698:GLY:HA3	1:F:2705:LYS:HG3	1.92	0.52
1:F:206:PRO:HG2	1:F:294:VAL:HA	1.92	0.52
1:C:1174:VAL:HB	1:C:1188:LEU:HB3	1.91	0.52
1:B:1287:VAL:O	1:B:1291:LYS:HG3	2.10	0.52
1:B:961:ARG:NH2	1:B:1196:GLY:O	2.42	0.52
1:F:400:TRP:CZ3	1:F:636:PRO:HB2	2.45	0.52
1:B:206:PRO:HG2	1:B:294:VAL:HA	1.92	0.52
1:B:208:VAL:HG12	1:B:248:ILE:HG12	1.92	0.52
1:B:1119:THR:O	1:B:1123:PHE:HB2	2.10	0.52
1:B:588:GLU:HB3	1:B:593:LEU:HD11	1.91	0.52
1:B:400:TRP:CZ3	1:B:636:PRO:HB2	2.45	0.52
1:E:1225:ARG:CG	1:E:1283:ASP:OD1	2.57	0.52
1:A:2631:PRO:HG3	1:A:2649:LEU:HD13	1.90	0.52
1:F:1394:HIS:CE1	1:C:2324:LYS:CE	2.93	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:931:VAL:HG13	1:D:933:VAL:HG13	1.92	0.52
1:B:2215:THR:HG22	1:B:2216:GLU:HG3	1.91	0.52
1:F:2180:LYS:HZ1	1:F:2962:ASP:HB3	1.75	0.52
1:A:1622:PRO:HD3	1:A:1685:LEU:HD21	1.92	0.52
1:C:1622:PRO:HD3	1:C:1685:LEU:HD21	1.92	0.52
1:F:411:PRO:HD2	1:F:1025:VAL:HG11	1.91	0.52
1:E:961:ARG:NH2	1:E:1196:GLY:O	2.42	0.52
1:F:588:GLU:HB3	1:F:593:LEU:HD11	1.91	0.52
1:D:1110:VAL:HG13	1:D:1172:VAL:HG11	1.92	0.52
1:E:931:VAL:HG13	1:E:933:VAL:HG13	1.92	0.52
1:D:2089:PHE:HA	1:D:2188:ARG:HH11	1.74	0.52
1:F:336:TRP:CE2	1:F:360:LEU:HD11	2.46	0.52
1:F:1622:PRO:HD3	1:F:1685:LEU:HD21	1.92	0.52
1:C:106:ALA:O	1:C:112:PRO:HD2	2.10	0.52
1:F:1323:GLU:N	1:F:1343:LEU:O	2.41	0.52
1:E:2715:PRO:HB2	1:B:2737:VAL:HG21	1.92	0.52
1:D:3000:GLY:HA3	1:C:2720:ALA:HB1	1.92	0.52
1:A:420:LYS:HB3	1:A:641:ASP:OD2	2.10	0.52
1:B:542:VAL:HG11	1:B:964:VAL:HB	1.92	0.52
1:B:1110:VAL:HG13	1:B:1172:VAL:HG11	1.92	0.52
1:B:405:PRO:HG3	1:B:625:LEU:HG	1.92	0.52
1:C:961:ARG:NH2	1:C:1196:GLY:O	2.42	0.52
1:A:1530:LEU:HD21	1:A:1554:LEU:HD22	1.91	0.52
1:B:792:ALA:HA	1:B:799:PHE:CE2	2.43	0.51
1:E:3074:LEU:HB2	1:B:2861:LEU:HD13	1.92	0.51
1:F:2089:PHE:HA	1:F:2188:ARG:HH11	1.74	0.51
1:F:1634:ARG:HH11	1:F:1639:ALA:N	2.08	0.51
1:B:2087:GLN:HA	1:B:2090:GLU:CG	2.39	0.51
1:A:508:GLN:HA	1:A:540:ASN:HB3	1.92	0.51
1:A:2790:MET:HG2	1:A:2809:LEU:HD11	1.93	0.51
1:A:2554:ALA:HB1	1:A:2614:LYS:HZ2	1.73	0.51
1:D:2720:ALA:HB1	1:C:3000:GLY:HA3	1.92	0.51
1:A:1287:VAL:O	1:A:1291:LYS:HG3	2.10	0.51
1:B:1425:VAL:HG13	1:B:1474:LEU:HD13	1.91	0.51
1:C:1598:GLU:HG2	1:C:1666:ILE:HD13	1.93	0.51
1:D:1598:GLU:HG2	1:D:1666:ILE:HD13	1.93	0.51
1:A:1695:LEU:HD23	1:B:257:ARG:NH1	2.23	0.51
1:F:2215:THR:HG22	1:F:2216:GLU:HG3	1.91	0.51
1:E:70:SER:HG	1:E:142:ARG:HH22	1.54	0.51
1:F:3074:LEU:HB2	1:A:2861:LEU:HD13	1.92	0.51
1:B:1164:THR:HA	1:B:1204:THR:O	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:577:GLU:OE2	2:C:4000:FMN:O3'	2.28	0.51
1:E:2401:ILE:HG23	1:E:2403:ILE:H	1.75	0.51
1:B:2236:LEU:HD23	1:B:2288:HIS:HB2	1.92	0.51
1:F:1226:ARG:HB3	1:F:1282:THR:HG21	1.90	0.51
1:C:420:LYS:HB3	1:C:641:ASP:OD2	2.10	0.51
1:D:1174:VAL:HB	1:D:1188:LEU:HB3	1.91	0.51
1:C:208:VAL:HB	1:C:255:LEU:HD13	1.92	0.51
1:F:3000:GLY:HA3	1:A:2720:ALA:HB1	1.92	0.51
1:E:1733:ASN:HD22	1:E:1736:ARG:HD2	1.74	0.51
1:E:2690:THR:O	1:E:2693:GLN:HG2	2.11	0.51
1:E:2740:CYS:HB2	1:E:2998:GLY:HA2	1.91	0.51
1:C:2215:THR:HG22	1:C:2216:GLU:HG3	1.91	0.51
1:F:577:GLU:OE2	2:F:4000:FMN:O3'	2.28	0.51
1:A:2401:ILE:HG23	1:A:2403:ILE:H	1.75	0.51
1:B:208:VAL:HB	1:B:255:LEU:HD13	1.92	0.51
1:E:2236:LEU:HD23	1:E:2288:HIS:HB2	1.92	0.51
1:C:1287:VAL:O	1:C:1291:LYS:HG3	2.10	0.51
1:C:2236:LEU:HD23	1:C:2288:HIS:HB2	1.92	0.51
1:A:206:PRO:HG2	1:A:294:VAL:HA	1.92	0.51
1:B:420:LYS:HB3	1:B:641:ASP:OD2	2.10	0.51
1:F:420:LYS:HB3	1:F:641:ASP:OD2	2.10	0.51
1:E:1530:LEU:HD21	1:E:1554:LEU:HD22	1.91	0.51
1:D:746:TYR:HA	1:D:749:TRP:HD1	1.76	0.51
1:F:1093:PRO:HB3	1:F:1277:HIS:HE1	1.75	0.51
1:D:1119:THR:O	1:D:1123:PHE:HB2	2.10	0.51
1:E:792:ALA:HA	1:E:799:PHE:CE2	2.43	0.51
1:A:931:VAL:HG13	1:A:933:VAL:HG13	1.91	0.51
1:A:2690:THR:O	1:A:2693:GLN:HG2	2.11	0.51
1:F:2861:LEU:HD13	1:A:3074:LEU:HB2	1.92	0.51
1:F:2740:CYS:HB2	1:F:2998:GLY:HA2	1.92	0.51
1:D:2846:ALA:N	1:C:2731:GLY:O	2.44	0.51
1:E:508:GLN:HA	1:E:540:ASN:HB3	1.92	0.51
1:E:2583:PHE:HD1	1:B:2614:LYS:HZ1	1.53	0.51
1:B:336:TRP:CE2	1:B:360:LEU:HD11	2.45	0.51
1:B:106:ALA:O	1:B:112:PRO:HD2	2.10	0.51
1:D:1287:VAL:O	1:D:1291:LYS:HG3	2.10	0.51
1:E:2808:ARG:HB2	1:E:2895:SER:O	2.10	0.51
1:C:2552:ASP:N	1:C:2552:ASP:OD1	2.43	0.51
1:A:1317:GLY:H	1:A:1324:VAL:HG12	1.76	0.51
1:A:961:ARG:NH2	1:A:1196:GLY:O	2.42	0.51
1:F:2690:THR:O	1:F:2693:GLN:HG2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2731:GLY:O	1:B:2846:ALA:N	2.44	0.51
1:E:1164:THR:HA	1:E:1204:THR:O	2.10	0.51
1:A:1488:VAL:HG12	1:A:1490:ARG:HH11	1.73	0.51
1:A:106:ALA:O	1:A:112:PRO:HD2	2.10	0.51
1:E:2790:MET:HG2	1:E:2809:LEU:HD11	1.93	0.51
1:F:1119:THR:O	1:F:1123:PHE:HB2	2.10	0.51
1:B:1093:PRO:HB3	1:B:1277:HIS:HE1	1.74	0.51
1:A:1119:THR:O	1:A:1123:PHE:HB2	2.10	0.51
1:E:420:LYS:HB3	1:E:641:ASP:OD2	2.10	0.51
1:E:2754:ILE:HA	1:E:2759:ALA:O	2.11	0.51
1:F:1287:VAL:O	1:F:1291:LYS:HG3	2.10	0.51
1:E:272:GLU:HB3	1:E:280:GLY:O	2.11	0.51
1:E:746:TYR:HA	1:E:749:TRP:HD1	1.76	0.51
1:F:3080:ARG:NH1	1:F:3080:ARG:HG3	2.09	0.51
1:C:42:GLU:H	1:C:42:GLU:CD	2.14	0.51
1:B:71:GLU:HG2	1:B:142:ARG:NH2	2.24	0.51
1:E:1488:VAL:HG12	1:E:1490:ARG:HH11	1.73	0.51
1:E:577:GLU:OE2	2:E:4000:FMN:O3'	2.28	0.51
1:E:1622:PRO:HD3	1:E:1685:LEU:HD21	1.92	0.51
1:D:577:GLU:OE2	2:D:4000:FMN:O3'	2.28	0.51
1:C:2698:GLY:HA3	1:C:2705:LYS:HG3	1.92	0.51
1:D:1317:GLY:H	1:D:1324:VAL:HG12	1.76	0.51
1:D:542:VAL:HG11	1:D:964:VAL:HB	1.92	0.51
1:A:746:TYR:HA	1:A:749:TRP:HD1	1.76	0.51
1:E:2720:ALA:HB1	1:B:3000:GLY:HA3	1.92	0.51
1:C:1093:PRO:HB3	1:C:1277:HIS:HE1	1.75	0.51
1:C:746:TYR:HA	1:C:749:TRP:HD1	1.76	0.51
1:F:272:GLU:HB3	1:F:280:GLY:O	2.11	0.51
1:D:1010:LEU:O	1:D:1017:ILE:N	2.29	0.51
1:C:2690:THR:O	1:C:2693:GLN:HG2	2.11	0.51
1:B:2740:CYS:HB2	1:B:2998:GLY:HA2	1.91	0.51
1:C:2740:CYS:HB2	1:C:2998:GLY:HA2	1.91	0.51
1:A:336:TRP:CE2	1:A:360:LEU:HD11	2.46	0.51
1:C:1164:THR:HA	1:C:1204:THR:O	2.10	0.51
1:B:577:GLU:OE2	2:B:4000:FMN:O3'	2.28	0.51
1:E:780:ARG:HD2	1:E:816:LEU:HB3	1.93	0.51
1:C:780:ARG:HD2	1:C:816:LEU:HB3	1.93	0.51
1:F:1530:LEU:HD21	1:F:1554:LEU:HD22	1.91	0.51
1:C:1110:VAL:HG13	1:C:1172:VAL:HG11	1.92	0.51
1:C:542:VAL:HG11	1:C:964:VAL:HB	1.92	0.51
1:C:792:ALA:HA	1:C:799:PHE:CE2	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:931:VAL:HG13	1:B:933:VAL:HG13	1.92	0.51
1:F:2731:GLY:O	1:A:2846:ALA:N	2.44	0.51
1:D:2861:LEU:HD13	1:C:3074:LEU:HB2	1.92	0.51
1:B:1634:ARG:HD2	1:B:1638:PRO:HA	1.91	0.51
1:D:508:GLN:HA	1:D:540:ASN:HB3	1.92	0.51
1:C:2401:ILE:HG23	1:C:2403:ILE:H	1.76	0.51
1:F:208:VAL:HB	1:F:255:LEU:HD13	1.92	0.51
1:C:405:PRO:HG3	1:C:625:LEU:HG	1.93	0.51
1:F:1425:VAL:HG13	1:F:1474:LEU:HD13	1.91	0.51
1:A:1093:PRO:HB3	1:A:1277:HIS:HE1	1.75	0.51
1:F:2808:ARG:HB2	1:F:2895:SER:O	2.10	0.51
1:F:405:PRO:HG3	1:F:625:LEU:HG	1.92	0.51
1:F:542:VAL:HG11	1:F:964:VAL:HB	1.92	0.51
1:F:1164:THR:HA	1:F:1204:THR:O	2.10	0.51
1:B:42:GLU:H	1:B:42:GLU:CD	2.14	0.51
1:A:2667:THR:HG21	1:A:3058:ARG:HH11	1.76	0.51
1:D:780:ARG:HD2	1:D:816:LEU:HB3	1.93	0.51
1:D:2401:ILE:HG23	1:D:2403:ILE:H	1.76	0.51
1:D:2698:GLY:HA3	1:D:2705:LYS:HG3	1.92	0.51
1:A:2417:SER:O	1:A:2421:ASP:N	2.40	0.51
1:A:2808:ARG:HB2	1:A:2895:SER:O	2.10	0.51
1:E:2737:VAL:HG21	1:B:2715:PRO:HB2	1.91	0.51
1:F:3080:ARG:NH1	1:F:3080:ARG:CG	2.72	0.51
1:F:1488:VAL:HG12	1:F:1490:ARG:HH11	1.73	0.51
1:A:42:GLU:H	1:A:42:GLU:CD	2.14	0.51
1:B:2667:THR:HG21	1:B:3058:ARG:HH11	1.76	0.51
1:E:2554:ALA:HB1	1:E:2614:LYS:HZ2	1.75	0.51
1:D:2361:VAL:HG11	1:D:2398:LEU:HD23	1.93	0.51
1:D:2808:ARG:HB2	1:D:2895:SER:O	2.10	0.51
1:B:2754:ILE:HA	1:B:2759:ALA:O	2.11	0.51
1:A:2418:GLY:O	1:A:2422:GLU:N	2.40	0.51
1:F:1317:GLY:H	1:F:1324:VAL:HG12	1.76	0.51
1:B:2140:VAL:HG22	1:B:2165:ILE:HD12	1.93	0.51
1:B:1598:GLU:HG2	1:B:1666:ILE:HD13	1.93	0.51
1:C:1119:THR:O	1:C:1123:PHE:HB2	2.10	0.51
1:F:2846:ALA:N	1:A:2731:GLY:O	2.44	0.50
1:E:336:TRP:CE2	1:E:360:LEU:HD11	2.45	0.50
1:A:1986:LEU:HA	1:A:1989:PHE:HD2	1.77	0.50
1:B:2790:MET:HG2	1:B:2809:LEU:HD11	1.93	0.50
1:F:2401:ILE:HG23	1:F:2403:ILE:H	1.76	0.50
1:F:2236:LEU:HD23	1:F:2288:HIS:HB2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1317:GLY:H	1:E:1324:VAL:HG12	1.76	0.50
1:D:420:LYS:HB3	1:D:641:ASP:OD2	2.10	0.50
1:E:3000:GLY:HA3	1:B:2720:ALA:HB1	1.92	0.50
1:A:2552:ASP:OD1	1:A:2552:ASP:N	2.43	0.50
1:B:2829:LEU:HD21	1:B:3014:PHE:HE2	1.76	0.50
1:C:1317:GLY:H	1:C:1324:VAL:HG12	1.76	0.50
1:F:1037:ASP:OD1	1:F:1043:ARG:HG3	2.06	0.50
1:D:930:PRO:CG	1:D:930:PRO:O	2.57	0.50
1:F:42:GLU:H	1:F:42:GLU:CD	2.14	0.50
1:B:1331:ILE:HG13	1:B:1336:VAL:HG21	1.94	0.50
1:B:1634:ARG:HH11	1:B:1639:ALA:N	2.08	0.50
1:E:2861:LEU:HD13	1:B:3074:LEU:HB2	1.92	0.50
1:D:1164:THR:HA	1:D:1204:THR:O	2.10	0.50
1:D:2245:VAL:HG13	1:D:2255:ARG:CZ	2.41	0.50
1:C:336:TRP:CE2	1:C:360:LEU:HD11	2.45	0.50
1:F:2753:LYS:HZ2	1:A:2748:GLU:HG2	1.77	0.50
1:E:2056:PHE:CZ	1:E:2180:LYS:HE2	2.47	0.50
1:E:2667:THR:HG21	1:E:3058:ARG:HH11	1.76	0.50
1:F:106:ALA:O	1:F:112:PRO:HD2	2.10	0.50
1:C:2790:MET:HG2	1:C:2809:LEU:HD11	1.93	0.50
1:C:1986:LEU:HA	1:C:1989:PHE:HD2	1.77	0.50
1:D:1986:LEU:HA	1:D:1989:PHE:HD2	1.76	0.50
1:B:1590:VAL:HG11	1:B:1671:TRP:CD2	2.47	0.50
1:A:2698:GLY:HA3	1:A:2705:LYS:HG3	1.92	0.50
1:F:746:TYR:HA	1:F:749:TRP:HD1	1.76	0.50
1:B:272:GLU:HB3	1:B:280:GLY:O	2.11	0.50
1:D:2754:ILE:HA	1:D:2759:ALA:O	2.11	0.50
1:A:2140:VAL:HG22	1:A:2165:ILE:HD12	1.93	0.50
1:E:2662:SER:HB2	1:E:2833:LEU:HD22	1.93	0.50
1:F:1037:ASP:HA	1:F:1038:ALA:HB3	1.93	0.50
1:F:959:ALA:HB1	1:F:1127:GLU:H	1.72	0.50
1:A:1087:PHE:HB3	1:B:117:LYS:HZ3	1.77	0.50
1:F:2245:VAL:HG13	1:F:2255:ARG:CZ	2.42	0.50
1:B:1622:PRO:HD3	1:B:1685:LEU:HD21	1.92	0.50
1:B:656:THR:HG1	1:B:880:HIS:CE1	2.29	0.50
1:F:2653:VAL:HA	1:F:3051:MET:HE3	1.91	0.50
1:E:1986:LEU:HA	1:E:1989:PHE:HD2	1.76	0.50
1:A:780:ARG:HD2	1:A:816:LEU:HB3	1.93	0.50
1:E:2614:LYS:HZ1	1:B:2583:PHE:HD1	1.51	0.50
1:E:2698:GLY:HA3	1:E:2705:LYS:HG3	1.92	0.50
1:B:1380:ALA:HB1	1:B:1474:LEU:HD12	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:208:VAL:HG12	1:C:248:ILE:HG12	1.91	0.50
1:A:1598:GLU:HG2	1:A:1666:ILE:HD13	1.93	0.50
1:F:2720:ALA:HB1	1:A:3000:GLY:HA3	1.92	0.50
1:D:1733:ASN:HD22	1:D:1736:ARG:HD2	1.74	0.50
1:F:2754:ILE:HA	1:F:2759:ALA:O	2.11	0.50
1:D:2236:LEU:HD23	1:D:2288:HIS:HB2	1.92	0.50
1:B:1012:GLY:C	1:B:1013:THR:HG22	2.32	0.50
1:E:1634:ARG:HH11	1:E:1639:ALA:N	2.08	0.50
1:F:508:GLN:HA	1:F:540:ASN:HB3	1.93	0.50
1:C:508:GLN:HA	1:C:540:ASN:HB3	1.92	0.50
1:F:2667:THR:HG21	1:F:3058:ARG:HH11	1.76	0.50
1:F:2790:MET:HG2	1:F:2809:LEU:HD11	1.93	0.50
1:B:2401:ILE:HG23	1:B:2403:ILE:H	1.76	0.50
1:C:2361:VAL:HG11	1:C:2398:LEU:HD23	1.93	0.50
1:B:2662:SER:HB2	1:B:2833:LEU:HD22	1.94	0.50
1:E:2140:VAL:HG22	1:E:2165:ILE:HD12	1.94	0.50
1:C:2754:ILE:HA	1:C:2759:ALA:O	2.11	0.50
1:F:2662:SER:HB2	1:F:2833:LEU:HD22	1.93	0.50
1:D:2690:THR:O	1:D:2693:GLN:HG2	2.11	0.50
1:D:1695:LEU:HD23	1:E:257:ARG:NH1	2.23	0.50
1:A:257:ARG:NH1	1:C:1695:LEU:HD23	2.23	0.50
1:F:2748:GLU:HG2	1:A:2753:LYS:HZ2	1.74	0.50
1:C:2180:LYS:HZ1	1:C:2962:ASP:HB3	1.76	0.50
1:E:1598:GLU:HG2	1:E:1666:ILE:HD13	1.93	0.50
1:D:2829:LEU:HD21	1:D:3014:PHE:HE2	1.77	0.50
1:C:272:GLU:HB3	1:C:280:GLY:O	2.11	0.50
1:F:2140:VAL:HG22	1:F:2165:ILE:HD12	1.94	0.50
1:E:1207:VAL:HG13	1:E:1207:VAL:O	2.12	0.50
1:B:2261:LYS:HA	1:B:2265:TRP:HB2	1.93	0.50
1:C:1012:GLY:C	1:C:1013:THR:HG22	2.32	0.50
1:F:930:PRO:O	1:F:930:PRO:CG	2.57	0.50
1:B:2690:THR:O	1:B:2693:GLN:HG2	2.11	0.50
1:D:2731:GLY:O	1:C:2846:ALA:N	2.44	0.50
1:B:2245:VAL:HG13	1:B:2255:ARG:CZ	2.41	0.50
1:A:2180:LYS:HZ1	1:A:2962:ASP:HB3	1.76	0.50
1:E:1380:ALA:HB1	1:E:1474:LEU:HD12	1.94	0.50
1:A:1380:ALA:HB1	1:A:1474:LEU:HD12	1.94	0.50
1:A:2754:ILE:HA	1:A:2759:ALA:O	2.11	0.50
1:A:272:GLU:HB3	1:A:280:GLY:O	2.11	0.50
1:F:1598:GLU:HG2	1:F:1666:ILE:HD13	1.93	0.50
1:D:2552:ASP:N	1:D:2552:ASP:OD1	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1012:GLY:C	1:E:1013:THR:HG22	2.32	0.50
1:D:1010:LEU:CG	1:D:1017:ILE:HB	2.42	0.50
1:C:3080:ARG:HG3	1:C:3080:ARG:NH1	2.09	0.50
1:B:930:PRO:O	1:B:930:PRO:CG	2.57	0.50
1:A:2557:LEU:HD22	1:A:2613:ARG:HB2	1.94	0.50
1:A:1331:ILE:HG13	1:A:1336:VAL:HG21	1.94	0.50
1:C:1590:VAL:HG11	1:C:1671:TRP:CD2	2.47	0.50
1:B:940:ARG:O	1:B:940:ARG:CG	2.60	0.50
1:F:780:ARG:HD2	1:F:816:LEU:HB3	1.93	0.50
1:F:207:MET:HA	1:F:249:THR:HG22	1.94	0.50
1:D:2554:ALA:HB2	1:C:2582:GLN:HB3	1.94	0.50
1:B:780:ARG:HD2	1:B:816:LEU:HB3	1.93	0.50
1:D:1590:VAL:HG11	1:D:1671:TRP:CD2	2.47	0.50
1:C:1380:ALA:HB1	1:C:1474:LEU:HD12	1.94	0.50
1:F:1380:ALA:HB1	1:F:1474:LEU:HD12	1.93	0.50
1:E:176:VAL:O	1:E:180:ALA:N	2.36	0.50
1:C:2662:SER:HB2	1:C:2833:LEU:HD22	1.93	0.50
1:C:2140:VAL:HG22	1:C:2165:ILE:HD12	1.93	0.50
1:B:1317:GLY:H	1:B:1324:VAL:HG12	1.76	0.50
1:E:206:PRO:HG2	1:E:294:VAL:HA	1.93	0.50
1:E:2582:GLN:HB3	1:B:2554:ALA:HB2	1.94	0.50
1:A:2623:ALA:HB2	1:A:2812:LEU:HD21	1.94	0.50
1:A:2361:VAL:HG11	1:A:2398:LEU:HD23	1.93	0.50
1:E:2261:LYS:HA	1:E:2265:TRP:HB2	1.94	0.50
1:F:133:GLN:HG2	1:F:355:GLY:HA2	1.94	0.50
1:A:2236:LEU:HD23	1:A:2288:HIS:HB2	1.92	0.50
1:A:2811:PHE:HB3	1:A:2894:THR:HG22	1.94	0.50
1:B:1010:LEU:CG	1:B:1017:ILE:HB	2.42	0.50
1:A:1010:LEU:CG	1:A:1017:ILE:HB	2.42	0.50
1:C:931:VAL:HG13	1:C:933:VAL:HG13	1.92	0.50
1:D:1331:ILE:HG13	1:D:1336:VAL:HG21	1.94	0.50
1:B:1580:PRO:O	1:B:1583:SER:OG	2.22	0.50
1:B:2334:HIS:HB3	1:B:2391:LYS:HA	1.94	0.50
1:B:1711:VAL:HA	1:B:1714:LEU:HG	1.94	0.50
1:C:207:MET:HA	1:C:249:THR:HG22	1.94	0.50
1:A:1711:VAL:HA	1:A:1714:LEU:HG	1.94	0.50
1:F:2554:ALA:HB2	1:A:2582:GLN:HB3	1.94	0.50
1:D:2582:GLN:HB3	1:C:2554:ALA:HB2	1.94	0.50
1:F:1119:THR:HA	1:F:1123:PHE:CD1	2.47	0.50
1:C:2274:LEU:HD23	1:C:2277:ILE:HD12	1.94	0.50
1:E:2811:PHE:HB3	1:E:2894:THR:HG22	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1207:VAL:O	1:B:1207:VAL:HG13	2.12	0.50
1:D:1207:VAL:O	1:D:1207:VAL:HG13	2.12	0.50
1:F:1385:ARG:HD2	1:F:2407:GLU:OE2	2.11	0.49
1:E:1331:ILE:HG13	1:E:1336:VAL:HG21	1.94	0.49
1:D:3074:LEU:HB2	1:C:2861:LEU:HD13	1.92	0.49
1:C:2245:VAL:HG13	1:C:2255:ARG:CZ	2.41	0.49
1:F:2334:HIS:HB3	1:F:2391:LYS:HA	1.94	0.49
1:E:1711:VAL:HA	1:E:1714:LEU:HG	1.94	0.49
1:C:2667:THR:HG21	1:C:3058:ARG:HH11	1.76	0.49
1:D:2667:THR:HG21	1:D:3058:ARG:HH11	1.76	0.49
1:B:2361:VAL:HG11	1:B:2398:LEU:HD23	1.93	0.49
1:D:1380:ALA:HB1	1:D:1474:LEU:HD12	1.94	0.49
1:D:1133:VAL:O	1:D:1193:ALA:N	2.42	0.49
1:B:133:GLN:HG2	1:B:355:GLY:HA2	1.94	0.49
1:E:405:PRO:HG3	1:E:625:LEU:HG	1.92	0.49
1:C:1207:VAL:HG13	1:C:1207:VAL:O	2.12	0.49
1:C:206:PRO:HG2	1:C:294:VAL:HA	1.92	0.49
1:C:2811:PHE:HB3	1:C:2894:THR:HG22	1.94	0.49
1:F:1042:MET:C	1:F:1044:ALA:N	2.62	0.49
1:F:1010:LEU:CG	1:F:1017:ILE:HB	2.42	0.49
1:B:508:GLN:HA	1:B:540:ASN:HB3	1.92	0.49
1:F:1590:VAL:HG11	1:F:1671:TRP:CD2	2.47	0.49
1:A:2245:VAL:HG13	1:A:2255:ARG:CZ	2.42	0.49
1:F:2056:PHE:CZ	1:F:2180:LYS:HE2	2.46	0.49
1:F:2962:ASP:N	1:F:2962:ASP:OD1	2.34	0.49
1:A:2334:HIS:HB3	1:A:2391:LYS:HA	1.94	0.49
1:D:2056:PHE:CZ	1:D:2180:LYS:HE2	2.47	0.49
1:F:2361:VAL:HG11	1:F:2398:LEU:HD23	1.93	0.49
1:F:2583:PHE:HD1	1:A:2614:LYS:HZ1	1.51	0.49
1:B:207:MET:HA	1:B:249:THR:HG22	1.94	0.49
1:D:405:PRO:HG3	1:D:625:LEU:HG	1.92	0.49
1:D:2662:SER:HB2	1:D:2833:LEU:HD22	1.93	0.49
1:B:746:TYR:HA	1:B:749:TRP:HD1	1.76	0.49
1:C:2137:GLU:O	1:C:2163:THR:N	2.30	0.49
1:E:2118:LEU:O	1:E:2122:ILE:CG1	2.60	0.49
1:C:930:PRO:O	1:C:930:PRO:CG	2.57	0.49
1:E:42:GLU:H	1:E:42:GLU:CD	2.14	0.49
1:E:2557:LEU:HD22	1:E:2613:ARG:HB2	1.94	0.49
1:C:1331:ILE:HG13	1:C:1336:VAL:HG21	1.94	0.49
1:B:1986:LEU:HA	1:B:1989:PHE:HD2	1.76	0.49
1:E:1119:THR:HA	1:E:1123:PHE:CD1	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1119:THR:HA	1:B:1123:PHE:CD1	2.47	0.49
1:F:2829:LEU:HD21	1:F:3014:PHE:HE2	1.76	0.49
1:F:1207:VAL:HG13	1:F:1207:VAL:O	2.12	0.49
1:A:405:PRO:HG3	1:A:625:LEU:HG	1.93	0.49
1:D:1178:ASN:HB2	1:D:1185:LEU:HD11	1.94	0.49
1:F:1035:VAL:HG12	1:F:1042:MET:HG2	1.94	0.49
1:B:2118:LEU:O	1:B:2122:ILE:CG1	2.60	0.49
1:C:1010:LEU:CG	1:C:1017:ILE:HB	2.42	0.49
1:E:2846:ALA:N	1:B:2731:GLY:O	2.44	0.49
1:E:1580:PRO:O	1:E:1583:SER:OG	2.22	0.49
1:F:1986:LEU:HA	1:F:1989:PHE:HD2	1.76	0.49
1:E:1590:VAL:HG11	1:E:1671:TRP:CD2	2.47	0.49
1:A:1590:VAL:HG11	1:A:1671:TRP:CD2	2.47	0.49
1:B:1291:LYS:HA	1:B:1344:ALA:HB3	1.95	0.49
1:C:1119:THR:HA	1:C:1123:PHE:CD1	2.48	0.49
1:D:2811:PHE:HB3	1:D:2894:THR:HG22	1.94	0.49
1:B:2503:LYS:HE3	1:B:2505:GLU:OE2	2.13	0.49
1:A:1207:VAL:HG13	1:A:1207:VAL:O	2.12	0.49
1:F:1362:MET:HG3	1:F:1430:VAL:HG21	1.95	0.49
1:F:961:ARG:NE	1:F:1196:GLY:CA	2.75	0.49
1:A:133:GLN:HG2	1:A:355:GLY:HA2	1.94	0.49
1:D:1533:VAL:HG13	1:D:1582:HIS:HB2	1.95	0.49
1:D:940:ARG:O	1:D:940:ARG:CG	2.60	0.49
1:D:1119:THR:HA	1:D:1123:PHE:CD1	2.47	0.49
1:B:1212:ALA:O	1:B:1342:ARG:NH2	2.45	0.49
1:A:2662:SER:HB2	1:A:2833:LEU:HD22	1.94	0.49
1:C:2829:LEU:HD21	1:C:3014:PHE:HE2	1.76	0.49
1:B:1178:ASN:HB2	1:B:1185:LEU:HD11	1.94	0.49
1:C:2291:LEU:HD21	1:C:2332:LEU:HD22	1.95	0.49
1:C:1362:MET:HG3	1:C:1430:VAL:HG21	1.95	0.49
1:D:1362:MET:HG3	1:D:1430:VAL:HG21	1.95	0.49
1:D:2291:LEU:HD21	1:D:2332:LEU:HD22	1.95	0.49
1:D:2274:LEU:HD23	1:D:2277:ILE:HD12	1.94	0.49
1:F:2261:LYS:HA	1:F:2265:TRP:HB2	1.93	0.49
1:B:144:GLY:O	1:B:148:THR:N	2.34	0.49
1:E:1010:LEU:CG	1:E:1017:ILE:HB	2.42	0.49
1:A:1634:ARG:HH11	1:A:1639:ALA:N	2.08	0.49
1:C:1637:VAL:HG21	1:C:1671:TRP:CD2	2.48	0.49
1:E:2334:HIS:HB3	1:E:2391:LYS:HA	1.94	0.49
1:C:2056:PHE:CZ	1:C:2180:LYS:HE2	2.47	0.49
1:D:2790:MET:HG2	1:D:2809:LEU:HD11	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2274:LEU:HD23	1:F:2277:ILE:HD12	1.94	0.49
1:A:1362:MET:HG3	1:A:1430:VAL:HG21	1.95	0.49
1:D:2261:LYS:HA	1:D:2265:TRP:HB2	1.94	0.49
1:F:2503:LYS:HE3	1:F:2505:GLU:OE2	2.13	0.49
1:C:176:VAL:O	1:C:180:ALA:N	2.36	0.49
1:C:2118:LEU:O	1:C:2122:ILE:CG1	2.61	0.49
1:D:3080:ARG:NH1	1:D:3080:ARG:HG3	2.09	0.49
1:D:505:ARG:HA	1:D:508:GLN:HB2	1.94	0.49
1:C:505:ARG:HA	1:C:508:GLN:HB2	1.94	0.49
1:F:2820:ILE:HD12	1:F:2822:LEU:HD21	1.95	0.49
1:F:1533:VAL:HG13	1:F:1582:HIS:HB2	1.95	0.49
1:C:2820:ILE:HD12	1:C:2822:LEU:HD21	1.95	0.49
1:D:1711:VAL:HA	1:D:1714:LEU:HG	1.94	0.49
1:A:1119:THR:HA	1:A:1123:PHE:CD1	2.47	0.49
1:E:2503:LYS:HE3	1:E:2505:GLU:OE2	2.13	0.49
1:A:790:ALA:HB3	1:A:826:LEU:HD21	1.95	0.49
1:E:1212:ALA:O	1:E:1342:ARG:NH2	2.45	0.49
1:F:1637:VAL:HG21	1:F:1671:TRP:CD2	2.48	0.49
1:B:2820:ILE:HD12	1:B:2822:LEU:HD21	1.95	0.49
1:C:1533:VAL:HG13	1:C:1582:HIS:HB2	1.95	0.49
1:A:940:ARG:O	1:A:940:ARG:CG	2.60	0.49
1:E:2623:ALA:HB2	1:E:2812:LEU:HD21	1.94	0.49
1:D:745:THR:OG1	1:D:834:GLU:O	2.19	0.49
1:E:184:LEU:HB3	1:E:311:TRP:HE3	1.78	0.49
1:E:133:GLN:HG2	1:E:355:GLY:HA2	1.94	0.49
1:F:2811:PHE:HB3	1:F:2894:THR:HG22	1.94	0.49
1:A:2261:LYS:HA	1:A:2265:TRP:HB2	1.94	0.49
1:C:2417:SER:O	1:C:2421:ASP:N	2.40	0.49
1:F:1331:ILE:HG13	1:F:1336:VAL:HG21	1.94	0.49
1:E:1111:PHE:HE1	1:E:1129:LEU:HD11	1.78	0.49
1:E:207:MET:HA	1:E:249:THR:HG22	1.94	0.49
1:B:2623:ALA:HB2	1:B:2812:LEU:HD21	1.94	0.49
1:E:2361:VAL:HG11	1:E:2398:LEU:HD23	1.93	0.49
1:B:790:ALA:HB3	1:B:826:LEU:HD21	1.95	0.49
1:D:2927:GLN:HE22	1:D:2941:PHE:C	2.17	0.49
1:F:790:ALA:HB3	1:F:826:LEU:HD21	1.95	0.49
1:F:1035:VAL:HG11	1:F:1042:MET:HG2	1.95	0.49
1:F:2557:LEU:HD22	1:F:2613:ARG:HB2	1.94	0.49
1:A:1111:PHE:HE1	1:A:1129:LEU:HD11	1.78	0.49
1:E:2245:VAL:HG13	1:E:2255:ARG:CZ	2.42	0.49
1:C:940:ARG:CG	1:C:940:ARG:O	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:940:ARG:CG	1:F:940:ARG:O	2.60	0.49
1:C:1711:VAL:HA	1:C:1714:LEU:HG	1.94	0.49
1:C:2623:ALA:HB2	1:C:2812:LEU:HD21	1.94	0.49
1:C:1435:VAL:HG22	1:C:1703:ILE:HD12	1.95	0.49
1:D:2623:ALA:HB2	1:D:2812:LEU:HD21	1.94	0.49
1:B:1435:VAL:HG22	1:B:1703:ILE:HD12	1.95	0.49
1:F:1212:ALA:O	1:F:1342:ARG:NH2	2.45	0.49
1:A:2058:ASP:OD1	1:A:2058:ASP:N	2.46	0.49
1:B:2811:PHE:HB3	1:B:2894:THR:HG22	1.94	0.49
1:A:2118:LEU:O	1:A:2122:ILE:CG1	2.60	0.48
1:D:2557:LEU:HD22	1:D:2613:ARG:HB2	1.94	0.48
1:C:2848:GLY:H	1:C:3001:HIS:CD2	2.31	0.48
1:A:2848:GLY:H	1:A:3001:HIS:CD2	2.31	0.48
1:A:207:MET:HA	1:A:249:THR:HG22	1.94	0.48
1:E:2554:ALA:HB1	1:E:2614:LYS:HD2	1.95	0.48
1:E:1637:VAL:HG21	1:E:1671:TRP:CD2	2.48	0.48
1:B:1637:VAL:HG21	1:B:1671:TRP:CD2	2.48	0.48
1:F:2926:SER:HB3	1:F:2976:TRP:HH2	1.78	0.48
1:D:2140:VAL:HG22	1:D:2165:ILE:HD12	1.93	0.48
1:C:2736:PRO:HG2	1:C:2746:SER:HA	1.96	0.48
1:C:361:THR:HG21	1:C:377:PRO:HG3	1.95	0.48
1:E:144:GLY:O	1:E:148:THR:N	2.34	0.48
1:D:2503:LYS:HE3	1:D:2505:GLU:OE2	2.13	0.48
1:F:1036:ASP:C	1:F:1038:ALA:HB3	2.32	0.48
1:E:2094:HIS:O	1:E:2098:THR:HG22	2.14	0.48
1:F:2845:PHE:CE1	1:A:2676:SER:HB2	2.49	0.48
1:B:2848:GLY:H	1:B:3001:HIS:CD2	2.31	0.48
1:E:2088:ARG:O	1:E:2188:ARG:NH1	2.47	0.48
1:D:2820:ILE:HD12	1:D:2822:LEU:HD21	1.95	0.48
1:B:2554:ALA:HB1	1:B:2614:LYS:HD2	1.95	0.48
1:F:1711:VAL:HA	1:F:1714:LEU:HG	1.94	0.48
1:A:868:ARG:HB3	1:A:872:ARG:NH1	2.28	0.48
1:A:1625:LEU:HD11	1:A:1660:LEU:HB3	1.96	0.48
1:F:1651:THR:HB	1:F:1656:LYS:HD2	1.95	0.48
1:D:1637:VAL:HG21	1:D:1671:TRP:CD2	2.48	0.48
1:C:184:LEU:HB3	1:C:311:TRP:HE3	1.78	0.48
1:D:444:ILE:HD12	1:D:655:ALA:HA	1.95	0.48
1:D:1212:ALA:O	1:D:1342:ARG:NH2	2.45	0.48
1:C:444:ILE:HD12	1:C:655:ALA:HA	1.95	0.48
1:A:2137:GLU:O	1:A:2163:THR:N	2.30	0.48
1:B:2274:LEU:HD23	1:B:2277:ILE:HD12	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2503:LYS:HE3	1:A:2505:GLU:OE2	2.13	0.48
1:F:2167:THR:HB	1:F:2198:ALA:HB3	1.95	0.48
1:E:2274:LEU:HD23	1:E:2277:ILE:HD12	1.94	0.48
1:F:1996:PRO:O	1:F:2000:LEU:N	2.41	0.48
1:F:2118:LEU:O	1:F:2122:ILE:CG1	2.60	0.48
1:E:2098:THR:O	1:E:2102:TRP:CG	2.67	0.48
1:E:2676:SER:HB2	1:B:2845:PHE:CE1	2.49	0.48
1:F:1111:PHE:HE1	1:F:1129:LEU:HD11	1.78	0.48
1:A:505:ARG:HA	1:A:508:GLN:HB2	1.94	0.48
1:B:2056:PHE:CZ	1:B:2180:LYS:HE2	2.47	0.48
1:D:868:ARG:HB3	1:D:872:ARG:NH1	2.28	0.48
1:F:2623:ALA:HB2	1:F:2812:LEU:HD21	1.94	0.48
1:C:1625:LEU:HD11	1:C:1660:LEU:HB3	1.96	0.48
1:C:1651:THR:HB	1:C:1656:LYS:HD2	1.95	0.48
1:A:2554:ALA:HB1	1:A:2614:LYS:HD2	1.95	0.48
1:F:2582:GLN:HB3	1:A:2554:ALA:HB2	1.94	0.48
1:F:184:LEU:HB3	1:F:311:TRP:HE3	1.78	0.48
1:C:2261:LYS:HA	1:C:2265:TRP:HB2	1.94	0.48
1:B:2167:THR:HB	1:B:2198:ALA:HB3	1.95	0.48
1:B:1533:VAL:HG13	1:B:1582:HIS:HB2	1.95	0.48
1:D:2170:ARG:HB2	1:D:2175:ARG:HG3	1.95	0.48
1:C:3065:PRO:O	1:C:3069:GLN:N	2.42	0.48
1:D:2736:PRO:HG2	1:D:2746:SER:HA	1.96	0.48
1:E:2666:PRO:CB	1:E:2727:VAL:HA	2.44	0.48
1:E:1362:MET:HG3	1:E:1430:VAL:HG21	1.95	0.48
1:E:790:ALA:HB3	1:E:826:LEU:HD21	1.95	0.48
1:E:2829:LEU:HD21	1:E:3014:PHE:HE2	1.76	0.48
1:A:2829:LEU:HD21	1:A:3014:PHE:HE2	1.77	0.48
1:C:1212:ALA:O	1:C:1342:ARG:NH2	2.45	0.48
1:D:2118:LEU:O	1:D:2122:ILE:CG1	2.60	0.48
1:E:2645:ASP:OD1	1:E:2647:VAL:HG23	2.14	0.48
1:D:2845:PHE:CE1	1:C:2676:SER:HB2	2.49	0.48
1:D:2088:ARG:O	1:D:2188:ARG:NH1	2.47	0.48
1:B:505:ARG:HA	1:B:508:GLN:HB2	1.94	0.48
1:B:2088:ARG:O	1:B:2188:ARG:NH1	2.47	0.48
1:F:505:ARG:HA	1:F:508:GLN:HB2	1.94	0.48
1:E:505:ARG:HA	1:E:508:GLN:HB2	1.94	0.48
1:F:2762:VAL:HG22	1:F:2822:LEU:HB2	1.96	0.48
1:E:1533:VAL:HG13	1:E:1582:HIS:HB2	1.95	0.48
1:B:868:ARG:HB3	1:B:872:ARG:NH1	2.28	0.48
1:C:868:ARG:HB3	1:C:872:ARG:NH1	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1651:THR:HB	1:D:1656:LYS:HD2	1.95	0.48
1:F:1625:LEU:HD11	1:F:1660:LEU:HB3	1.95	0.48
1:F:2554:ALA:HB1	1:F:2614:LYS:HD2	1.95	0.48
1:E:2926:SER:HB3	1:E:2976:TRP:HH2	1.79	0.48
1:B:444:ILE:HD12	1:B:655:ALA:HA	1.95	0.48
1:C:2503:LYS:HE3	1:C:2505:GLU:OE2	2.13	0.48
1:E:1178:ASN:HB2	1:E:1185:LEU:HD11	1.94	0.48
1:F:444:ILE:HD12	1:F:655:ALA:HA	1.95	0.48
1:B:2170:ARG:HB2	1:B:2175:ARG:HG3	1.95	0.48
1:E:2592:PRO:HA	1:E:2599:TRP:CD1	2.49	0.48
1:F:2170:ARG:HB2	1:F:2175:ARG:HG3	1.95	0.48
1:A:2094:HIS:O	1:A:2098:THR:HG22	2.13	0.48
1:F:1012:GLY:C	1:F:1013:THR:HG22	2.32	0.48
1:D:1435:VAL:HG22	1:D:1703:ILE:HD12	1.95	0.48
1:D:1625:LEU:HD11	1:D:1660:LEU:HB3	1.96	0.48
1:F:1435:VAL:HG22	1:F:1703:ILE:HD12	1.95	0.48
1:E:1625:LEU:HD11	1:E:1660:LEU:HB3	1.96	0.48
1:A:1637:VAL:HG21	1:A:1671:TRP:CD2	2.48	0.48
1:F:2666:PRO:CB	1:F:2727:VAL:HA	2.44	0.48
1:E:2291:LEU:HD21	1:E:2332:LEU:HD22	1.95	0.48
1:E:1103:VAL:HG21	1:E:1269:MET:SD	2.54	0.48
1:D:1012:GLY:C	1:D:1013:THR:HG22	2.32	0.48
1:D:2645:ASP:OD1	1:D:2647:VAL:HG23	2.14	0.48
1:E:803:GLU:OE1	1:E:2431:THR:CG2	2.62	0.48
1:C:2334:HIS:HB3	1:C:2391:LYS:HA	1.94	0.48
1:A:2667:THR:HB	1:A:3081:LEU:HD11	1.96	0.48
1:F:868:ARG:HB3	1:F:872:ARG:NH1	2.28	0.48
1:A:2648:ALA:HA	1:A:2718:VAL:HG13	1.96	0.48
1:E:2554:ALA:HB2	1:B:2582:GLN:HB3	1.94	0.48
1:A:2926:SER:HB3	1:A:2976:TRP:HH2	1.79	0.48
1:A:184:LEU:HB3	1:A:311:TRP:HE3	1.78	0.48
1:D:1291:LYS:HA	1:D:1344:ALA:HB3	1.95	0.48
1:C:184:LEU:HD13	1:C:311:TRP:HB3	1.96	0.48
1:C:2170:ARG:HB2	1:C:2175:ARG:HG3	1.95	0.48
1:A:1178:ASN:HB2	1:A:1185:LEU:HD11	1.94	0.48
1:D:790:ALA:HB3	1:D:826:LEU:HD21	1.95	0.48
1:B:2137:GLU:O	1:B:2163:THR:N	2.30	0.48
1:B:1103:VAL:HG21	1:B:1269:MET:SD	2.54	0.48
1:F:2848:GLY:H	1:F:3001:HIS:CD2	2.31	0.48
1:D:2676:SER:HB2	1:C:2845:PHE:CE1	2.49	0.48
1:E:2848:GLY:H	1:E:3001:HIS:CD2	2.32	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2180:LYS:NZ	1:D:2962:ASP:HB3	2.29	0.48
1:D:2334:HIS:HB3	1:D:2391:LYS:HA	1.94	0.48
1:E:2667:THR:HB	1:E:3081:LEU:HD11	1.96	0.48
1:E:868:ARG:HB3	1:E:872:ARG:NH1	2.28	0.48
1:E:2614:LYS:NZ	1:B:2583:PHE:HB2	2.29	0.48
1:D:2583:PHE:HB2	1:C:2614:LYS:NZ	2.29	0.48
1:E:2648:ALA:HA	1:E:2718:VAL:HG13	1.96	0.48
1:E:1291:LYS:HA	1:E:1344:ALA:HB3	1.95	0.48
1:F:2592:PRO:HA	1:F:2599:TRP:CD1	2.49	0.48
1:F:1178:ASN:HB2	1:F:1185:LEU:HD11	1.94	0.48
1:B:2666:PRO:CB	1:B:2727:VAL:HA	2.44	0.48
1:F:1019:PHE:CE2	1:F:1035:VAL:HG23	2.49	0.48
1:F:1401:THR:CB	1:C:2286:ARG:HH22	2.27	0.48
1:C:2094:HIS:O	1:C:2098:THR:HG22	2.13	0.48
1:A:792:ALA:HA	1:A:799:PHE:CE2	2.43	0.48
1:B:936:ARG:O	1:B:941:ARG:N	2.44	0.48
1:E:2845:PHE:CE1	1:B:2676:SER:HB2	2.49	0.48
1:C:1634:ARG:HH11	1:C:1639:ALA:N	2.08	0.48
1:C:2088:ARG:O	1:C:2188:ARG:NH1	2.47	0.48
1:E:2762:VAL:HG22	1:E:2822:LEU:HB2	1.96	0.48
1:B:2762:VAL:HG22	1:B:2822:LEU:HB2	1.96	0.48
1:E:2583:PHE:HB2	1:B:2614:LYS:NZ	2.29	0.48
1:C:2667:THR:HB	1:C:3081:LEU:HD11	1.95	0.48
1:B:1651:THR:HB	1:B:1656:LYS:HD2	1.95	0.48
1:C:2926:SER:HB3	1:C:2976:TRP:HH2	1.79	0.48
1:F:501:VAL:HA	1:F:504:LYS:HE2	1.96	0.48
1:D:2167:THR:HB	1:D:2198:ALA:HB3	1.96	0.48
1:D:2666:PRO:CB	1:D:2727:VAL:HA	2.44	0.48
1:F:305:ILE:HD13	1:F:327:GLU:HG2	1.95	0.48
1:C:1178:ASN:HB2	1:C:1185:LEU:HD11	1.94	0.48
1:C:2927:GLN:HE22	1:C:2941:PHE:C	2.17	0.48
1:E:2927:GLN:HE22	1:E:2941:PHE:C	2.17	0.48
1:B:305:ILE:HD13	1:B:327:GLU:HG2	1.95	0.48
1:D:3065:PRO:O	1:D:3069:GLN:N	2.42	0.48
1:F:2736:PRO:HG2	1:F:2746:SER:HA	1.95	0.48
1:A:301:LEU:HD13	1:A:330:LEU:HD22	1.96	0.48
1:C:301:LEU:HD13	1:C:330:LEU:HD22	1.96	0.48
1:F:961:ARG:CZ	1:F:1196:GLY:HA2	2.44	0.48
1:C:2098:THR:O	1:C:2102:TRP:CG	2.66	0.48
1:B:2094:HIS:O	1:B:2098:THR:HG22	2.13	0.48
1:C:2557:LEU:HD22	1:C:2613:ARG:HB2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2843:GLN:HG2	1:A:2845:PHE:CZ	2.49	0.48
1:E:2843:GLN:HG2	1:E:2845:PHE:CZ	2.49	0.48
1:D:2848:GLY:H	1:D:3001:HIS:CD2	2.31	0.48
1:B:1508:ILE:HB	1:B:1562:ARG:HD3	1.96	0.48
1:F:2088:ARG:O	1:F:2188:ARG:NH1	2.47	0.48
1:A:2088:ARG:O	1:A:2188:ARG:NH1	2.47	0.48
1:A:2762:VAL:HG22	1:A:2822:LEU:HB2	1.96	0.48
1:E:940:ARG:CG	1:E:940:ARG:O	2.60	0.48
1:B:501:VAL:HA	1:B:504:LYS:HE2	1.96	0.48
1:A:836:VAL:HG12	1:A:837:VAL:N	2.29	0.48
1:B:2926:SER:HB3	1:B:2976:TRP:HH2	1.79	0.48
1:C:1291:LYS:HA	1:C:1344:ALA:HB3	1.95	0.48
1:E:2060:TRP:HZ2	1:E:2966:ASP:HA	1.79	0.48
1:C:1103:VAL:HG21	1:C:1269:MET:SD	2.54	0.48
1:B:2249:MET:O	1:B:2250:SER:OG	2.28	0.48
1:A:305:ILE:HD13	1:A:327:GLU:HG2	1.95	0.48
1:A:2274:LEU:HD23	1:A:2277:ILE:HD12	1.94	0.48
1:F:1103:VAL:HG21	1:F:1269:MET:SD	2.54	0.48
1:F:808:ALA:HB3	1:F:811:ASP:HB2	1.96	0.48
1:C:1133:VAL:O	1:C:1193:ALA:N	2.42	0.48
1:B:2098:THR:O	1:B:2102:TRP:CG	2.67	0.48
1:B:2645:ASP:OD1	1:B:2647:VAL:HG23	2.14	0.48
1:A:683:GLY:CA	1:A:700:ASN:HB2	2.44	0.48
1:E:656:THR:HG1	1:E:880:HIS:CE1	2.31	0.48
1:C:832:ASP:O	1:C:836:VAL:HG23	2.14	0.48
1:A:184:LEU:HD13	1:A:311:TRP:HB3	1.96	0.48
1:F:361:THR:HG21	1:F:377:PRO:HG3	1.95	0.48
1:F:1276:GLN:HE21	1:F:1292:LEU:HD13	1.79	0.48
1:A:365:ALA:HB3	1:A:366:PRO:HD3	1.96	0.48
1:B:176:VAL:O	1:B:180:ALA:N	2.36	0.48
1:D:1467:VAL:HA	1:D:1605:LYS:HD2	1.96	0.48
1:C:2666:PRO:CB	1:C:2727:VAL:HA	2.44	0.48
1:A:1212:ALA:O	1:A:1342:ARG:NH2	2.45	0.48
1:A:2170:ARG:HB2	1:A:2175:ARG:HG3	1.96	0.48
1:F:2291:LEU:HD21	1:F:2332:LEU:HD22	1.95	0.48
1:F:171:LYS:HE3	1:F:173:ALA:HB3	1.96	0.48
1:D:1103:VAL:HG21	1:D:1269:MET:SD	2.54	0.48
1:E:1996:PRO:O	1:E:2000:LEU:N	2.41	0.48
1:F:1038:ALA:HA	1:F:1126:ILE:CA	2.44	0.47
1:D:2098:THR:O	1:D:2102:TRP:CG	2.67	0.47
1:F:2094:HIS:O	1:F:2098:THR:HG22	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2645:ASP:OD1	1:C:2647:VAL:HG23	2.14	0.47
1:B:2557:LEU:HD22	1:B:2613:ARG:HB2	1.94	0.47
1:D:2843:GLN:HG2	1:D:2845:PHE:CZ	2.49	0.47
1:D:1111:PHE:HE1	1:D:1129:LEU:HD11	1.78	0.47
1:B:1111:PHE:HE1	1:B:1129:LEU:HD11	1.78	0.47
1:E:2820:ILE:HD12	1:E:2822:LEU:HD21	1.95	0.47
1:F:2180:LYS:NZ	1:F:2962:ASP:HB3	2.29	0.47
1:F:832:ASP:O	1:F:836:VAL:HG23	2.14	0.47
1:B:1590:VAL:HG11	1:B:1671:TRP:CE2	2.50	0.47
1:F:745:THR:OG1	1:F:834:GLU:O	2.19	0.47
1:B:641:ASP:OD1	1:B:641:ASP:N	2.47	0.47
1:E:184:LEU:HD13	1:E:311:TRP:HB3	1.96	0.47
1:C:1996:PRO:O	1:C:2000:LEU:N	2.41	0.47
1:E:674:TRP:CD1	1:E:895:THR:HG21	2.49	0.47
1:F:2060:TRP:HZ2	1:F:2966:ASP:HA	1.79	0.47
1:C:2167:THR:HB	1:C:2198:ALA:HB3	1.96	0.47
1:B:1276:GLN:HE21	1:B:1292:LEU:HD13	1.79	0.47
1:B:2592:PRO:HA	1:B:2599:TRP:CD1	2.49	0.47
1:B:2418:GLY:O	1:B:2422:GLU:N	2.40	0.47
1:F:1467:VAL:HA	1:F:1605:LYS:HD2	1.96	0.47
1:E:171:LYS:HE3	1:E:173:ALA:HB3	1.96	0.47
1:C:2418:GLY:O	1:C:2422:GLU:N	2.40	0.47
1:F:1040:THR:O	1:F:1041:ALA:HB2	2.13	0.47
1:A:1012:GLY:C	1:A:1013:THR:HG22	2.32	0.47
1:A:2098:THR:O	1:A:2102:TRP:CG	2.67	0.47
1:D:2094:HIS:O	1:D:2098:THR:HG22	2.13	0.47
1:B:2884:ASP:HA	1:B:2916:ARG:NH1	2.30	0.47
1:C:2884:ASP:HA	1:C:2916:ARG:NH1	2.29	0.47
1:F:2676:SER:HB2	1:A:2845:PHE:CE1	2.49	0.47
1:D:1634:ARG:HH11	1:D:1639:ALA:N	2.08	0.47
1:C:133:GLN:HG2	1:C:355:GLY:HA2	1.94	0.47
1:F:1590:VAL:HG11	1:F:1671:TRP:CE2	2.50	0.47
1:A:2820:ILE:HD12	1:A:2822:LEU:HD21	1.95	0.47
1:D:997:GLU:HB3	1:D:1009:PRO:CG	2.45	0.47
1:D:501:VAL:HA	1:D:504:LYS:HE2	1.96	0.47
1:C:803:GLU:OE1	1:C:2431:THR:CG2	2.62	0.47
1:B:836:VAL:HG12	1:B:837:VAL:N	2.29	0.47
1:E:832:ASP:O	1:E:836:VAL:HG23	2.14	0.47
1:D:2461:VAL:HG21	1:D:2751:VAL:HG13	1.96	0.47
1:C:501:VAL:HA	1:C:504:LYS:HE2	1.96	0.47
1:F:2614:LYS:NZ	1:A:2583:PHE:HB2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:501:VAL:HA	1:A:504:LYS:HE2	1.96	0.47
1:A:1291:LYS:HA	1:A:1344:ALA:HB3	1.94	0.47
1:D:2210:VAL:HB	1:D:2277:ILE:HD11	1.96	0.47
1:F:2000:LEU:HD12	1:C:2000:LEU:HD12	1.96	0.47
1:A:1996:PRO:O	1:A:2000:LEU:N	2.41	0.47
1:A:171:LYS:HE3	1:A:173:ALA:HB3	1.96	0.47
1:A:2666:PRO:CB	1:A:2727:VAL:HA	2.44	0.47
1:A:444:ILE:HD12	1:A:655:ALA:HA	1.95	0.47
1:C:171:LYS:HE3	1:C:173:ALA:HB3	1.96	0.47
1:E:301:LEU:HD13	1:E:330:LEU:HD22	1.96	0.47
1:E:606:ASN:H	1:E:606:ASN:HD22	1.63	0.47
1:C:1467:VAL:HA	1:C:1605:LYS:HD2	1.96	0.47
1:A:2167:THR:HB	1:A:2198:ALA:HB3	1.96	0.47
1:D:2060:TRP:HZ2	1:D:2966:ASP:HA	1.79	0.47
1:A:2927:GLN:HE22	1:A:2941:PHE:C	2.17	0.47
1:D:2252:VAL:HG22	1:D:2255:ARG:NH2	2.30	0.47
1:E:2180:LYS:NZ	1:E:2962:ASP:HB3	2.29	0.47
1:F:2583:PHE:HB2	1:A:2614:LYS:NZ	2.29	0.47
1:F:1291:LYS:HA	1:F:1344:ALA:HB3	1.95	0.47
1:D:641:ASP:N	1:D:641:ASP:OD1	2.47	0.47
1:C:2210:VAL:HB	1:C:2277:ILE:HD11	1.97	0.47
1:E:2137:GLU:O	1:E:2163:THR:N	2.30	0.47
1:B:674:TRP:CD1	1:B:895:THR:HG21	2.49	0.47
1:C:305:ILE:HD13	1:C:327:GLU:HG2	1.95	0.47
1:E:782:ARG:HD3	1:E:853:LEU:HD22	1.96	0.47
1:B:2736:PRO:HG2	1:B:2746:SER:HA	1.96	0.47
1:B:1362:MET:HG3	1:B:1430:VAL:HG21	1.95	0.47
1:E:2170:ARG:HB2	1:E:2175:ARG:HG3	1.95	0.47
1:B:1996:PRO:O	1:B:2000:LEU:N	2.41	0.47
1:A:782:ARG:HD3	1:A:853:LEU:HD22	1.97	0.47
1:A:2348:GLN:O	1:A:2416:MET:HG3	2.15	0.47
1:F:674:TRP:CD1	1:F:895:THR:HG21	2.50	0.47
1:C:2060:TRP:HZ2	1:C:2966:ASP:HA	1.79	0.47
1:B:301:LEU:HD13	1:B:330:LEU:HD22	1.95	0.47
1:A:2291:LEU:HD21	1:A:2332:LEU:HD22	1.95	0.47
1:D:2592:PRO:HA	1:D:2599:TRP:CD1	2.49	0.47
1:E:1276:GLN:HE21	1:E:1292:LEU:HD13	1.79	0.47
1:A:2645:ASP:OD1	1:A:2647:VAL:HG23	2.13	0.47
1:C:2843:GLN:HG2	1:C:2845:PHE:CZ	2.49	0.47
1:D:2848:GLY:HA2	1:C:2728:GLY:HA2	1.97	0.47
1:C:1111:PHE:HE1	1:C:1129:LEU:HD11	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:647:THR:HG22	1:E:901:ILE:HD11	1.96	0.47
1:C:2180:LYS:NZ	1:C:2962:ASP:HB3	2.29	0.47
1:C:836:VAL:HG12	1:C:837:VAL:N	2.29	0.47
1:C:670:GLY:HA3	1:C:899:ALA:HB2	1.96	0.47
1:A:1435:VAL:HG22	1:A:1703:ILE:HD12	1.95	0.47
1:D:2614:LYS:HG3	1:C:2583:PHE:HB2	1.97	0.47
1:D:2583:PHE:HB2	1:C:2614:LYS:HG3	1.97	0.47
1:A:1533:VAL:HG13	1:A:1582:HIS:HB2	1.95	0.47
1:A:2592:PRO:HA	1:A:2599:TRP:CD1	2.49	0.47
1:A:1276:GLN:HE21	1:A:1292:LEU:HD13	1.79	0.47
1:A:606:ASN:HD22	1:A:606:ASN:H	1.62	0.47
1:E:444:ILE:HD12	1:E:655:ALA:HA	1.95	0.47
1:B:184:LEU:HB3	1:B:311:TRP:HE3	1.78	0.47
1:B:1467:VAL:HA	1:B:1605:LYS:HD2	1.96	0.47
1:F:2681:THR:O	1:F:2764:ALA:HA	2.15	0.47
1:F:966:PRO:O	1:F:970:ILE:N	2.48	0.47
1:F:997:GLU:HB3	1:F:1009:PRO:CG	2.44	0.47
1:A:803:GLU:OE1	1:A:2431:THR:CG2	2.62	0.47
1:B:803:GLU:OE1	1:B:2431:THR:CG2	2.62	0.47
1:A:2056:PHE:CZ	1:A:2180:LYS:HE2	2.47	0.47
1:F:670:GLY:HA3	1:F:899:ALA:HB2	1.96	0.47
1:E:1435:VAL:HG22	1:E:1703:ILE:HD12	1.95	0.47
1:F:976:TRP:CG	1:F:976:TRP:O	2.68	0.47
1:A:641:ASP:N	1:A:641:ASP:OD1	2.48	0.47
1:F:1699:ARG:HG3	1:F:1730:GLU:HB3	1.97	0.47
1:B:2291:LEU:HD21	1:B:2332:LEU:HD22	1.95	0.47
1:C:674:TRP:CD1	1:C:895:THR:HG21	2.49	0.47
1:B:171:LYS:HE3	1:B:173:ALA:HB3	1.96	0.47
1:A:361:THR:HG21	1:A:377:PRO:HG3	1.95	0.47
1:B:361:THR:HG21	1:B:377:PRO:HG3	1.95	0.47
1:E:2167:THR:HB	1:E:2198:ALA:HB3	1.96	0.47
1:C:2592:PRO:HA	1:C:2599:TRP:CD1	2.49	0.47
1:D:2376:LEU:HD22	1:D:2392:VAL:HG21	1.97	0.47
1:D:1276:GLN:HE21	1:D:1292:LEU:HD13	1.79	0.47
1:C:1455:VAL:HB	1:C:1480:ARG:HH12	1.80	0.47
1:E:808:ALA:HB3	1:E:811:ASP:HB2	1.96	0.47
1:A:141:ALA:O	1:A:145:MET:HB2	2.14	0.47
1:E:365:ALA:HB3	1:E:366:PRO:HD3	1.97	0.47
1:E:2681:THR:O	1:E:2764:ALA:HA	2.15	0.47
1:E:361:THR:HG21	1:E:377:PRO:HG3	1.95	0.47
1:B:2352:ILE:HG12	1:B:2412:ALA:HB1	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2098:THR:O	1:F:2102:TRP:CG	2.67	0.47
1:D:2610:ARG:NH1	1:D:2700:LEU:HD11	2.25	0.47
1:E:2848:GLY:HA2	1:B:2728:GLY:HA2	1.97	0.47
1:E:997:GLU:HB3	1:E:1009:PRO:CG	2.45	0.47
1:E:683:GLY:CA	1:E:700:ASN:HB2	2.44	0.47
1:F:2252:VAL:HG22	1:F:2255:ARG:NH2	2.30	0.47
1:A:647:THR:HG22	1:A:901:ILE:HD11	1.96	0.47
1:D:2667:THR:HB	1:D:3081:LEU:HD11	1.96	0.47
1:D:670:GLY:HA3	1:D:899:ALA:HB2	1.96	0.47
1:A:713:ALA:O	1:A:868:ARG:NH2	2.48	0.47
1:D:832:ASP:O	1:D:836:VAL:HG23	2.14	0.47
1:D:2926:SER:HB3	1:D:2976:TRP:HH2	1.79	0.47
1:A:365:ALA:O	1:A:369:ARG:N	2.42	0.47
1:D:2000:LEU:HD12	1:B:2000:LEU:HD12	1.97	0.47
1:E:2348:GLN:O	1:E:2416:MET:HG3	2.15	0.47
1:D:2348:GLN:O	1:D:2416:MET:HG3	2.15	0.47
1:E:305:ILE:HD13	1:E:327:GLU:HG2	1.95	0.47
1:E:141:ALA:O	1:E:145:MET:HB2	2.14	0.47
1:C:790:ALA:HB3	1:C:826:LEU:HD21	1.95	0.47
1:F:2927:GLN:HE22	1:F:2941:PHE:C	2.17	0.47
1:F:961:ARG:NE	1:F:1196:GLY:HA2	2.29	0.47
1:F:2407:GLU:HG2	1:F:2411:LYS:HE3	1.96	0.47
1:F:2700:LEU:HD22	1:A:2697:HIS:CD2	2.43	0.47
1:D:1072:TRP:HE1	1:D:1077:VAL:HG22	1.80	0.47
1:C:997:GLU:HB3	1:C:1009:PRO:CG	2.45	0.47
1:E:2252:VAL:HG22	1:E:2255:ARG:NH2	2.30	0.47
1:B:2180:LYS:NZ	1:B:2962:ASP:HB3	2.29	0.47
1:B:2252:VAL:HG22	1:B:2255:ARG:NH2	2.30	0.47
1:A:2180:LYS:NZ	1:A:2962:ASP:HB3	2.29	0.47
1:B:647:THR:HG22	1:B:901:ILE:HD11	1.96	0.47
1:F:2667:THR:HB	1:F:3081:LEU:HD11	1.96	0.47
1:D:713:ALA:O	1:D:868:ARG:NH2	2.48	0.47
1:F:2800:PHE:CE1	1:F:2812:LEU:HD22	2.50	0.47
1:E:670:GLY:HA3	1:E:899:ALA:HB2	1.96	0.47
1:C:713:ALA:O	1:C:868:ARG:NH2	2.48	0.47
1:A:2461:VAL:HG21	1:A:2751:VAL:HG13	1.96	0.47
1:B:832:ASP:O	1:B:836:VAL:HG23	2.14	0.47
1:F:836:VAL:HG12	1:F:837:VAL:N	2.29	0.47
1:A:1651:THR:HB	1:A:1656:LYS:HD2	1.95	0.47
1:E:1651:THR:HB	1:E:1656:LYS:HD2	1.95	0.47
1:D:2614:LYS:NZ	1:C:2583:PHE:HB2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:976:TRP:O	1:C:976:TRP:CG	2.68	0.47
1:C:641:ASP:OD1	1:C:641:ASP:N	2.47	0.47
1:A:1103:VAL:HG21	1:A:1269:MET:SD	2.54	0.47
1:F:3065:PRO:O	1:F:3069:GLN:N	2.42	0.47
1:A:808:ALA:HB3	1:A:811:ASP:HB2	1.96	0.47
1:D:782:ARG:HD3	1:D:853:LEU:HD22	1.97	0.47
1:F:2348:GLN:O	1:F:2416:MET:HG3	2.15	0.47
1:A:2681:THR:O	1:A:2764:ALA:HA	2.15	0.47
1:A:1467:VAL:HA	1:A:1605:LYS:HD2	1.96	0.47
1:C:141:ALA:O	1:C:145:MET:HB2	2.15	0.47
1:C:2376:LEU:HD22	1:C:2392:VAL:HG21	1.97	0.47
1:C:808:ALA:HB3	1:C:811:ASP:HB2	1.96	0.47
1:F:301:LEU:HD13	1:F:330:LEU:HD22	1.96	0.47
1:F:210:VAL:HG22	1:F:287:PHE:CD1	2.50	0.47
1:A:674:TRP:CD1	1:A:895:THR:HG21	2.50	0.47
1:D:808:ALA:HB3	1:D:811:ASP:HB2	1.96	0.47
1:B:782:ARG:HD3	1:B:853:LEU:HD22	1.97	0.47
1:B:778:THR:HG21	1:B:854:GLY:HA3	1.97	0.47
1:D:2773:GLU:HA	1:D:2776:ILE:HG22	1.97	0.47
1:F:2843:GLN:HG2	1:F:2845:PHE:CZ	2.49	0.47
1:D:2728:GLY:HA2	1:C:2848:GLY:HA2	1.97	0.47
1:F:683:GLY:CA	1:F:700:ASN:HB2	2.44	0.47
1:D:2762:VAL:HG22	1:D:2822:LEU:HB2	1.96	0.47
1:D:803:GLU:OE1	1:D:2431:THR:CG2	2.62	0.47
1:B:2667:THR:HB	1:B:3081:LEU:HD11	1.96	0.47
1:B:713:ALA:O	1:B:868:ARG:NH2	2.48	0.47
1:C:2461:VAL:HG21	1:C:2751:VAL:HG13	1.96	0.47
1:E:1590:VAL:HG11	1:E:1671:TRP:CE2	2.50	0.47
1:C:745:THR:HG22	1:C:747:LEU:H	1.80	0.47
1:F:602:ARG:NH2	1:F:641:ASP:OD1	2.27	0.47
1:F:2210:VAL:HB	1:F:2277:ILE:HD11	1.97	0.47
1:F:1381:ASP:OD1	1:F:1391:SER:OG	2.22	0.47
1:A:778:THR:HG21	1:A:854:GLY:HA3	1.97	0.47
1:D:674:TRP:CD1	1:D:895:THR:HG21	2.49	0.47
1:C:2773:GLU:HA	1:C:2776:ILE:HG22	1.97	0.47
1:F:2630:ASP:HB3	1:F:2633:VAL:HG23	1.97	0.47
1:E:1699:ARG:HG3	1:E:1730:GLU:HB3	1.97	0.47
1:B:141:ALA:O	1:B:145:MET:HB2	2.15	0.47
1:F:1037:ASP:HB2	1:F:1042:MET:H	1.80	0.47
1:F:959:ALA:HA	1:F:1038:ALA:HB2	1.97	0.47
1:C:1072:TRP:HE1	1:C:1077:VAL:HG22	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2645:ASP:OD1	1:F:2647:VAL:HG23	2.13	0.47
1:F:2770:LEU:HB3	1:F:2815:GLN:HB3	1.97	0.47
1:F:518:ASP:HA	1:F:543:GLY:O	2.15	0.47
1:B:997:GLU:HB3	1:B:1009:PRO:CG	2.44	0.47
1:E:501:VAL:HA	1:E:504:LYS:HE2	1.96	0.47
1:F:647:THR:HG22	1:F:901:ILE:HD11	1.96	0.47
1:D:647:THR:HG22	1:D:901:ILE:HD11	1.96	0.47
1:F:2785:ALA:HB1	1:F:2809:LEU:HG	1.97	0.47
1:B:2648:ALA:HA	1:B:2718:VAL:HG13	1.96	0.47
1:E:836:VAL:HG12	1:E:837:VAL:N	2.29	0.47
1:B:1625:LEU:HD11	1:B:1660:LEU:HB3	1.96	0.47
1:A:832:ASP:O	1:A:836:VAL:HG23	2.14	0.47
1:E:2461:VAL:HG21	1:E:2751:VAL:HG13	1.96	0.47
1:B:2461:VAL:HG21	1:B:2751:VAL:HG13	1.96	0.47
1:D:1590:VAL:HG11	1:D:1671:TRP:CE2	2.50	0.47
1:A:1699:ARG:HG3	1:A:1730:GLU:HB3	1.97	0.47
1:D:1996:PRO:O	1:D:2000:LEU:N	2.41	0.47
1:B:2376:LEU:HD22	1:B:2392:VAL:HG21	1.97	0.47
1:F:141:ALA:O	1:F:145:MET:HB2	2.15	0.47
1:B:2927:GLN:HE22	1:B:2941:PHE:C	2.17	0.47
1:E:210:VAL:HG22	1:E:287:PHE:CD1	2.50	0.47
1:C:1276:GLN:HE21	1:C:1292:LEU:HD13	1.79	0.47
1:E:2736:PRO:HG2	1:E:2746:SER:HA	1.96	0.47
1:C:2348:GLN:O	1:C:2416:MET:HG3	2.15	0.47
1:C:210:VAL:HG22	1:C:287:PHE:CD1	2.50	0.47
1:E:966:PRO:O	1:E:970:ILE:N	2.48	0.47
1:B:966:PRO:O	1:B:970:ILE:N	2.48	0.47
1:D:996:LEU:HA	1:D:1010:LEU:HA	1.97	0.47
1:B:1072:TRP:HE1	1:B:1077:VAL:HG22	1.80	0.47
1:F:2884:ASP:HA	1:F:2916:ARG:NH1	2.29	0.47
1:A:2884:ASP:HA	1:A:2916:ARG:NH1	2.29	0.47
1:B:2843:GLN:HG2	1:B:2845:PHE:CZ	2.49	0.47
1:F:1508:ILE:HB	1:F:1562:ARG:HD3	1.96	0.47
1:A:198:ILE:HG12	1:C:1087:PHE:CE1	2.50	0.47
1:C:2252:VAL:HG22	1:C:2255:ARG:NH2	2.30	0.47
1:E:2583:PHE:HB2	1:B:2614:LYS:HG3	1.97	0.47
1:E:1723:GLU:C	1:E:1725:SER:H	2.18	0.47
1:D:2648:ALA:HA	1:D:2718:VAL:HG13	1.96	0.47
1:F:713:ALA:O	1:F:868:ARG:NH2	2.48	0.47
1:F:184:LEU:HD13	1:F:311:TRP:HB3	1.96	0.47
1:A:745:THR:HG22	1:A:747:LEU:H	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:778:THR:HG21	1:E:854:GLY:HA3	1.97	0.47
1:B:365:ALA:O	1:B:369:ARG:N	2.42	0.47
1:A:1455:VAL:HB	1:A:1480:ARG:HH12	1.80	0.47
1:D:1450:ALA:N	1:D:1613:ARG:O	2.48	0.47
1:E:1467:VAL:HA	1:E:1605:LYS:HD2	1.96	0.47
1:B:210:VAL:HG22	1:B:287:PHE:CD1	2.50	0.47
1:A:2630:ASP:HB3	1:A:2633:VAL:HG23	1.97	0.47
1:B:2348:GLN:O	1:B:2416:MET:HG3	2.15	0.47
1:C:1699:ARG:HG3	1:C:1730:GLU:HB3	1.97	0.47
1:F:959:ALA:CB	1:F:1126:ILE:HG23	2.34	0.46
1:C:996:LEU:HA	1:C:1010:LEU:HA	1.97	0.46
1:C:1508:ILE:HB	1:C:1562:ARG:HD3	1.97	0.46
1:D:1508:ILE:HB	1:D:1562:ARG:HD3	1.97	0.46
1:A:997:GLU:HB3	1:A:1009:PRO:CG	2.45	0.46
1:D:1087:PHE:CE1	1:E:198:ILE:HG12	2.50	0.46
1:C:2252:VAL:HG13	1:C:2255:ARG:HH21	1.80	0.46
1:B:2252:VAL:HG13	1:B:2255:ARG:HH21	1.81	0.46
1:F:585:HIS:HD2	1:F:586:SER:H	1.62	0.46
1:C:1723:GLU:C	1:C:1725:SER:H	2.18	0.46
1:D:1723:GLU:C	1:D:1725:SER:H	2.18	0.46
1:B:2785:ALA:HB1	1:B:2809:LEU:HG	1.97	0.46
1:A:670:GLY:HA3	1:A:899:ALA:HB2	1.96	0.46
1:C:575:HIS:CD2	1:C:644:LEU:HD22	2.49	0.46
1:D:2554:ALA:HB1	1:D:2614:LYS:HD2	1.95	0.46
1:C:2554:ALA:HB1	1:C:2614:LYS:HD2	1.95	0.46
1:E:2961:LEU:HD22	1:E:2976:TRP:CD1	2.51	0.46
1:A:2482:GLU:HG2	1:A:2956:PRO:HB3	1.97	0.46
1:B:184:LEU:HD13	1:B:311:TRP:HB3	1.96	0.46
1:F:782:ARG:HD3	1:F:853:LEU:HD22	1.97	0.46
1:B:2681:THR:O	1:B:2764:ALA:HA	2.15	0.46
1:E:2543:PHE:HA	1:E:2624:GLN:HE22	1.81	0.46
1:C:365:ALA:HB3	1:C:366:PRO:HD3	1.96	0.46
1:B:2060:TRP:HZ2	1:B:2966:ASP:HA	1.79	0.46
1:F:2376:LEU:HD22	1:F:2392:VAL:HG21	1.97	0.46
1:D:2681:THR:O	1:D:2764:ALA:HA	2.15	0.46
1:A:2736:PRO:HG2	1:A:2746:SER:HA	1.96	0.46
1:B:1455:VAL:HB	1:B:1480:ARG:HH12	1.80	0.46
1:F:2407:GLU:HB3	1:F:2411:LYS:CD	2.44	0.46
1:E:1634:ARG:NH1	1:E:1639:ALA:H	2.11	0.46
1:F:540:ASN:ND2	1:F:544:ILE:HG13	2.30	0.46
1:B:1087:PHE:CE1	1:C:198:ILE:HG12	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2648:ALA:HA	1:F:2718:VAL:HG13	1.96	0.46
1:E:713:ALA:O	1:E:868:ARG:NH2	2.48	0.46
1:C:2961:LEU:HD22	1:C:2976:TRP:CD1	2.50	0.46
1:D:976:TRP:O	1:D:976:TRP:CG	2.68	0.46
1:B:2482:GLU:HG2	1:B:2956:PRO:HB3	1.97	0.46
1:E:976:TRP:CG	1:E:976:TRP:O	2.68	0.46
1:F:641:ASP:OD1	1:F:641:ASP:N	2.47	0.46
1:B:2210:VAL:HB	1:B:2277:ILE:HD11	1.97	0.46
1:E:684:MET:HG3	1:E:895:THR:HA	1.98	0.46
1:C:2543:PHE:HA	1:C:2624:GLN:HE22	1.81	0.46
1:B:1450:ALA:N	1:B:1613:ARG:O	2.48	0.46
1:A:2376:LEU:HD22	1:A:2392:VAL:HG21	1.97	0.46
1:C:2630:ASP:HB3	1:C:2633:VAL:HG23	1.97	0.46
1:A:210:VAL:HG22	1:A:287:PHE:CD1	2.50	0.46
1:A:2060:TRP:HZ2	1:A:2966:ASP:HA	1.79	0.46
1:B:84:GLU:HB2	1:B:85:PRO:HD3	1.97	0.46
1:B:1346:PRO:HG2	1:B:1699:ARG:HD3	1.98	0.46
1:A:1450:ALA:N	1:A:1613:ARG:O	2.48	0.46
1:D:2352:ILE:HG12	1:D:2412:ALA:HB1	1.96	0.46
1:F:1037:ASP:CA	1:F:1038:ALA:CB	2.87	0.46
1:E:2096:VAL:HG13	1:E:2097:ALA:H	1.80	0.46
1:E:996:LEU:HA	1:E:1010:LEU:HA	1.98	0.46
1:D:966:PRO:O	1:D:970:ILE:N	2.48	0.46
1:F:2848:GLY:HA2	1:A:2728:GLY:HA2	1.97	0.46
1:E:2884:ASP:HA	1:E:2916:ARG:NH1	2.30	0.46
1:C:936:ARG:O	1:C:941:ARG:N	2.44	0.46
1:C:518:ASP:HA	1:C:543:GLY:O	2.15	0.46
1:A:518:ASP:HA	1:A:543:GLY:O	2.15	0.46
1:E:2252:VAL:HG13	1:E:2255:ARG:HH21	1.81	0.46
1:C:647:THR:HG22	1:C:901:ILE:HD11	1.96	0.46
1:E:575:HIS:CD2	1:E:644:LEU:HD22	2.49	0.46
1:F:2482:GLU:HG2	1:F:2956:PRO:HB3	1.97	0.46
1:B:2961:LEU:HD22	1:B:2976:TRP:CD1	2.50	0.46
1:C:602:ARG:NH2	1:C:641:ASP:OD1	2.27	0.46
1:E:1455:VAL:HB	1:E:1480:ARG:HH12	1.80	0.46
1:D:1699:ARG:HG3	1:D:1730:GLU:HB3	1.97	0.46
1:C:2352:ILE:HG12	1:C:2412:ALA:HB1	1.96	0.46
1:D:534:ASP:O	1:D:538:GLU:HG3	2.16	0.46
1:D:2612:PRO:HD2	1:C:2603:ARG:HH12	1.81	0.46
1:B:2770:LEU:HB3	1:B:2815:GLN:HB3	1.97	0.46
1:D:1237:ARG:CZ	1:E:95:PRO:HB2	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2884:ASP:HA	1:D:2916:ARG:NH1	2.29	0.46
1:A:1237:ARG:CZ	1:B:95:PRO:HB2	2.46	0.46
1:C:1590:VAL:HG11	1:C:1671:TRP:CE2	2.50	0.46
1:B:518:ASP:HA	1:B:543:GLY:O	2.15	0.46
1:D:518:ASP:HA	1:D:543:GLY:O	2.15	0.46
1:B:1723:GLU:C	1:B:1725:SER:H	2.18	0.46
1:D:656:THR:HG1	1:D:880:HIS:CE1	2.29	0.46
1:C:2361:VAL:HG21	1:C:2401:ILE:HD11	1.98	0.46
1:A:1590:VAL:HG11	1:A:1671:TRP:CE2	2.50	0.46
1:A:976:TRP:O	1:A:976:TRP:CG	2.68	0.46
1:B:976:TRP:CG	1:B:976:TRP:O	2.68	0.46
1:C:684:MET:HG3	1:C:895:THR:HA	1.98	0.46
1:A:1094:THR:O	1:A:1288:PRO:HG2	2.16	0.46
1:B:808:ALA:HB3	1:B:811:ASP:HB2	1.96	0.46
1:E:2352:ILE:HG12	1:E:2412:ALA:HB1	1.96	0.46
1:E:406:THR:OG1	1:E:418:GLU:OE1	2.34	0.46
1:A:2352:ILE:HG12	1:A:2412:ALA:HB1	1.96	0.46
1:F:2543:PHE:HA	1:F:2624:GLN:HE22	1.81	0.46
1:B:2630:ASP:HB3	1:B:2633:VAL:HG23	1.97	0.46
1:B:799:PHE:CZ	1:B:2433:ARG:CG	2.99	0.46
1:E:1072:TRP:CD1	1:E:1097:VAL:HG22	2.51	0.46
1:F:3001:HIS:CE1	1:A:2724:GLN:HG2	2.51	0.46
1:E:3001:HIS:CE1	1:B:2724:GLN:HG2	2.51	0.46
1:E:1325:LEU:HD11	1:E:1343:LEU:HD22	1.98	0.46
1:F:803:GLU:OE1	1:F:2431:THR:CG2	2.62	0.46
1:F:1325:LEU:HD11	1:F:1343:LEU:HD22	1.98	0.46
1:F:167:ALA:HB3	1:F:178:LEU:HD21	1.98	0.46
1:F:2461:VAL:HG21	1:F:2751:VAL:HG13	1.97	0.46
1:D:2361:VAL:HG21	1:D:2401:ILE:HD11	1.98	0.46
1:F:2961:LEU:HD22	1:F:2976:TRP:CD1	2.51	0.46
1:A:602:ARG:NH2	1:A:641:ASP:OD1	2.27	0.46
1:D:1319:ASP:HB2	1:D:1342:ARG:NH1	2.31	0.46
1:F:768:LYS:HA	1:F:775:LEU:HD11	1.97	0.46
1:E:2630:ASP:HB3	1:E:2633:VAL:HG23	1.97	0.46
1:A:768:LYS:HA	1:A:775:LEU:HD11	1.98	0.46
1:C:606:ASN:HD22	1:C:606:ASN:H	1.63	0.46
1:D:1094:THR:O	1:D:1288:PRO:HG2	2.15	0.46
1:B:768:LYS:HA	1:B:775:LEU:HD11	1.98	0.46
1:C:768:LYS:HA	1:C:775:LEU:HD11	1.97	0.46
1:F:406:THR:OG1	1:F:418:GLU:OE1	2.34	0.46
1:F:1020:THR:CB	1:F:1035:VAL:HG22	2.43	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:966:PRO:O	1:A:970:ILE:N	2.48	0.46
1:D:2603:ARG:HH12	1:C:2612:PRO:HD2	1.81	0.46
1:B:1072:TRP:CD1	1:B:1097:VAL:HG22	2.51	0.46
1:E:2769:ASP:OD1	1:E:2770:LEU:N	2.49	0.46
1:C:1072:TRP:CD1	1:C:1097:VAL:HG22	2.51	0.46
1:B:94:ARG:HG3	1:B:95:PRO:HD3	1.98	0.46
1:D:2946:LEU:HD22	1:D:2994:VAL:HG23	1.98	0.46
1:E:518:ASP:HA	1:E:543:GLY:O	2.15	0.46
1:E:540:ASN:ND2	1:E:544:ILE:HG13	2.30	0.46
1:D:1087:PHE:HB3	1:E:117:LYS:HZ1	1.80	0.46
1:F:205:PRO:CD	1:F:289:PRO:HB3	2.46	0.46
1:D:2252:VAL:HG13	1:D:2255:ARG:HH21	1.80	0.46
1:D:2790:MET:SD	1:D:2800:PHE:HB2	2.56	0.46
1:E:2790:MET:SD	1:E:2800:PHE:HB2	2.56	0.46
1:F:2978:ARG:NH1	1:F:2979:GLU:OE2	2.49	0.46
1:B:745:THR:HG22	1:B:747:LEU:H	1.80	0.46
1:C:1346:PRO:HG2	1:C:1699:ARG:HD3	1.97	0.46
1:F:2773:GLU:HA	1:F:2776:ILE:HG22	1.97	0.46
1:D:2070:LEU:O	1:D:2074:GLU:HG3	2.16	0.46
1:D:606:ASN:HD22	1:D:606:ASN:H	1.62	0.46
1:F:516:PRO:HA	1:F:962:MET:SD	2.56	0.46
1:C:778:THR:HG21	1:C:854:GLY:HA3	1.97	0.46
1:D:768:LYS:HA	1:D:775:LEU:HD11	1.98	0.46
1:F:1037:ASP:CB	1:F:1042:MET:N	2.79	0.46
1:F:961:ARG:NE	1:F:1196:GLY:N	2.61	0.46
1:C:3080:ARG:CG	1:C:3080:ARG:NH1	2.72	0.46
1:C:2610:ARG:NH1	1:C:2700:LEU:HD21	2.31	0.46
1:A:2610:ARG:NH1	1:A:2700:LEU:HD21	2.31	0.46
1:B:540:ASN:ND2	1:B:544:ILE:HG13	2.30	0.46
1:D:511:ARG:CB	1:D:540:ASN:HB2	2.46	0.46
1:B:205:PRO:CD	1:B:289:PRO:HB3	2.46	0.46
1:C:111:GLU:HB2	1:C:112:PRO:HD3	1.98	0.46
1:B:670:GLY:HA3	1:B:899:ALA:HB2	1.96	0.46
1:E:2653:VAL:HA	1:E:3051:MET:HE3	1.97	0.46
1:C:2648:ALA:HA	1:C:2718:VAL:HG13	1.96	0.46
1:E:2785:ALA:HB1	1:E:2809:LEU:HG	1.97	0.46
1:E:2361:VAL:HG21	1:E:2401:ILE:HD11	1.98	0.46
1:D:2961:LEU:HD22	1:D:2976:TRP:CD1	2.51	0.46
1:C:2482:GLU:HG2	1:C:2956:PRO:HB3	1.97	0.46
1:A:1619:VAL:HA	1:A:1620:PRO:HD2	1.80	0.46
1:F:745:THR:HG22	1:F:747:LEU:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1346:PRO:HG2	1:A:1699:ARG:HD3	1.98	0.46
1:C:222:LEU:HD21	1:C:236:VAL:HA	1.97	0.46
1:E:641:ASP:OD1	1:E:641:ASP:N	2.47	0.46
1:E:2210:VAL:HB	1:E:2277:ILE:HD11	1.96	0.46
1:A:534:ASP:O	1:A:538:GLU:HG3	2.16	0.46
1:D:778:THR:HG21	1:D:854:GLY:HA3	1.97	0.46
1:D:406:THR:OG1	1:D:418:GLU:OE1	2.34	0.46
1:E:3065:PRO:O	1:E:3069:GLN:N	2.43	0.46
1:C:782:ARG:HD3	1:C:853:LEU:HD22	1.97	0.46
1:F:799:PHE:CZ	1:F:2433:ARG:CG	2.99	0.46
1:B:931:VAL:HG13	1:B:934:LEU:N	2.21	0.46
1:B:2610:ARG:NH1	1:B:2700:LEU:HD21	2.31	0.46
1:E:2612:PRO:HD2	1:B:2603:ARG:HH12	1.81	0.46
1:E:2603:ARG:HH12	1:B:2612:PRO:HD2	1.81	0.46
1:A:2610:ARG:NH1	1:A:2700:LEU:HD11	2.25	0.46
1:E:1695:LEU:HD23	1:F:257:ARG:NH1	2.23	0.46
1:D:1072:TRP:CD1	1:D:1097:VAL:HG22	2.51	0.46
1:F:2557:LEU:CG	1:A:2702:GLY:HA3	2.45	0.46
1:C:2845:PHE:HD2	1:C:2860:ALA:HA	1.81	0.46
1:D:3001:HIS:CE1	1:C:2724:GLN:HG2	2.51	0.46
1:A:1508:ILE:HB	1:A:1562:ARG:HD3	1.97	0.46
1:A:2212:TRP:HA	1:A:2229:LYS:HB3	1.98	0.46
1:C:2946:LEU:HD22	1:C:2994:VAL:HG23	1.98	0.46
1:D:540:ASN:ND2	1:D:544:ILE:HG13	2.30	0.46
1:E:205:PRO:CD	1:E:289:PRO:HB3	2.46	0.46
1:A:2252:VAL:HG13	1:A:2255:ARG:HH21	1.80	0.46
1:C:2762:VAL:HG22	1:C:2822:LEU:HB2	1.96	0.46
1:A:1325:LEU:HD11	1:A:1343:LEU:HD22	1.98	0.46
1:C:207:MET:HG3	1:C:292:VAL:HB	1.98	0.46
1:F:2790:MET:SD	1:F:2800:PHE:HB2	2.56	0.46
1:C:2800:PHE:CE1	1:C:2812:LEU:HD22	2.50	0.46
1:A:2790:MET:SD	1:A:2800:PHE:HB2	2.56	0.46
1:A:2978:ARG:NH1	1:A:2979:GLU:OE2	2.49	0.46
1:B:207:MET:HG3	1:B:292:VAL:HB	1.98	0.46
1:C:1619:VAL:HA	1:C:1620:PRO:HD2	1.80	0.46
1:B:2978:ARG:NH1	1:B:2979:GLU:OE2	2.49	0.46
1:F:1346:PRO:HG2	1:F:1699:ARG:HD3	1.98	0.46
1:B:1319:ASP:HB2	1:B:1342:ARG:NH1	2.31	0.46
1:F:606:ASN:HD22	1:F:606:ASN:H	1.62	0.46
1:A:84:GLU:HB2	1:A:85:PRO:HD3	1.98	0.46
1:C:1462:ALA:HB2	1:C:1468:TYR:HE1	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:277:LEU:HD22	1:C:676:GLY:O	2.16	0.46
1:F:365:ALA:HB3	1:F:366:PRO:HD3	1.96	0.46
1:F:365:ALA:O	1:F:369:ARG:N	2.42	0.46
1:C:966:PRO:O	1:C:970:ILE:N	2.48	0.46
1:E:1237:ARG:CZ	1:F:95:PRO:HB2	2.46	0.46
1:C:540:ASN:ND2	1:C:544:ILE:HG13	2.30	0.46
1:A:1087:PHE:CE1	1:B:198:ILE:HG12	2.51	0.46
1:A:2252:VAL:HG22	1:A:2255:ARG:NH2	2.30	0.46
1:F:2252:VAL:HG13	1:F:2255:ARG:HH21	1.80	0.46
1:C:1702:GLU:OE1	1:C:1712:ALA:N	2.49	0.46
1:C:2785:ALA:HB1	1:C:2809:LEU:HG	1.97	0.46
1:A:111:GLU:HB2	1:A:112:PRO:HD3	1.98	0.46
1:B:868:ARG:HD3	1:B:872:ARG:HH12	1.81	0.46
1:A:2891:LYS:HG3	1:A:2924:ILE:HD13	1.98	0.46
1:F:2614:LYS:HG3	1:A:2583:PHE:HB2	1.97	0.46
1:E:2482:GLU:HG2	1:E:2956:PRO:HB3	1.97	0.46
1:D:745:THR:HG22	1:D:747:LEU:H	1.80	0.46
1:E:2737:VAL:HG12	1:B:2716:ASN:OD1	2.16	0.46
1:B:365:ALA:HB3	1:B:366:PRO:HD3	1.96	0.46
1:C:406:THR:OG1	1:C:418:GLU:OE1	2.34	0.46
1:D:2630:ASP:HB3	1:D:2633:VAL:HG23	1.97	0.46
1:B:1094:THR:O	1:B:1288:PRO:HG2	2.16	0.46
1:B:606:ASN:H	1:B:606:ASN:HD22	1.63	0.46
1:A:2619:ARG:HH12	1:A:2779:GLY:HA2	1.81	0.46
1:B:277:LEU:HD22	1:B:676:GLY:O	2.16	0.46
1:E:1094:THR:O	1:E:1288:PRO:HG2	2.15	0.46
1:D:1455:VAL:HB	1:D:1480:ARG:HH12	1.80	0.46
1:E:2773:GLU:HA	1:E:2776:ILE:HG22	1.97	0.46
1:F:2096:VAL:HG13	1:F:2097:ALA:H	1.80	0.46
1:E:936:ARG:O	1:E:941:ARG:N	2.45	0.46
1:E:2728:GLY:HA2	1:B:2848:GLY:HA2	1.97	0.46
1:B:2845:PHE:HD2	1:B:2860:ALA:HA	1.81	0.46
1:E:1508:ILE:HB	1:E:1562:ARG:HD3	1.96	0.46
1:A:205:PRO:CD	1:A:289:PRO:HB3	2.46	0.46
1:A:2297:ARG:HH22	1:A:2391:LYS:HZ3	1.64	0.46
1:A:1723:GLU:C	1:A:1725:SER:H	2.18	0.46
1:A:656:THR:HG1	1:A:880:HIS:CE1	2.31	0.46
1:D:575:HIS:CD2	1:D:644:LEU:HD22	2.49	0.46
1:C:2790:MET:SD	1:C:2800:PHE:HB2	2.56	0.46
1:B:167:ALA:HB3	1:B:178:LEU:HD21	1.98	0.46
1:B:2790:MET:SD	1:B:2800:PHE:HB2	2.56	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2785:ALA:HB1	1:D:2809:LEU:HG	1.97	0.46
1:B:2891:LYS:HG3	1:B:2924:ILE:HD13	1.98	0.46
1:C:784:GLU:OE2	1:C:816:LEU:HD21	2.16	0.46
1:E:2957:PRO:HB3	1:E:2979:GLU:C	2.36	0.46
1:A:2961:LEU:HD22	1:A:2976:TRP:CD1	2.51	0.46
1:A:2957:PRO:HB3	1:A:2979:GLU:C	2.36	0.46
1:D:1346:PRO:HG2	1:D:1699:ARG:HD3	1.98	0.46
1:B:2672:TRP:CD1	1:B:2831:MET:HG2	2.51	0.46
1:D:3080:ARG:NH1	1:D:3080:ARG:CG	2.72	0.45
1:F:2612:PRO:HD2	1:A:2603:ARG:HH12	1.81	0.45
1:A:2769:ASP:OD1	1:A:2770:LEU:N	2.49	0.45
1:F:2728:GLY:HA2	1:A:2848:GLY:HA2	1.97	0.45
1:E:2724:GLN:HG2	1:B:3001:HIS:CE1	2.51	0.45
1:A:95:PRO:HB2	1:C:1237:ARG:CZ	2.45	0.45
1:F:2946:LEU:HD22	1:F:2994:VAL:HG23	1.98	0.45
1:B:2946:LEU:HD22	1:B:2994:VAL:HG23	1.98	0.45
1:F:2086:SER:HA	1:F:2089:PHE:CG	2.51	0.45
1:D:544:ILE:O	1:D:546:HIS:N	2.41	0.45
1:F:544:ILE:O	1:F:546:HIS:N	2.40	0.45
1:B:683:GLY:CA	1:B:700:ASN:HB2	2.44	0.45
1:B:585:HIS:HD2	1:B:586:SER:H	1.62	0.45
1:B:1325:LEU:HD11	1:B:1343:LEU:HD22	1.98	0.45
1:F:2234:PRO:HB2	1:F:2287:LEU:HD13	1.98	0.45
1:C:167:ALA:HB3	1:C:178:LEU:HD21	1.98	0.45
1:F:2891:LYS:HG3	1:F:2924:ILE:HD13	1.99	0.45
1:E:2891:LYS:HG3	1:E:2924:ILE:HD13	1.99	0.45
1:E:868:ARG:HD3	1:E:872:ARG:HH12	1.81	0.45
1:A:2361:VAL:HG21	1:A:2401:ILE:HD11	1.98	0.45
1:E:2978:ARG:NH1	1:E:2979:GLU:OE2	2.49	0.45
1:D:2978:ARG:NH1	1:D:2979:GLU:OE2	2.49	0.45
1:C:2957:PRO:HB3	1:C:2979:GLU:C	2.36	0.45
1:C:2978:ARG:NH1	1:C:2979:GLU:OE2	2.49	0.45
1:F:2583:PHE:HB2	1:A:2614:LYS:HG3	1.97	0.45
1:E:2000:LEU:HD12	1:A:2000:LEU:HD12	1.96	0.45
1:F:1094:THR:O	1:F:1288:PRO:HG2	2.15	0.45
1:D:2543:PHE:HA	1:D:2624:GLN:HE22	1.81	0.45
1:E:2376:LEU:HD22	1:E:2392:VAL:HG21	1.97	0.45
1:E:84:GLU:HB2	1:E:85:PRO:HD3	1.98	0.45
1:F:277:LEU:HD22	1:F:676:GLY:O	2.16	0.45
1:F:778:THR:HG21	1:F:854:GLY:HA3	1.97	0.45
1:A:1483:LYS:O	1:A:1487:ILE:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2681:THR:O	1:C:2764:ALA:HA	2.15	0.45
1:A:406:THR:OG1	1:A:418:GLU:OE1	2.34	0.45
1:C:1304:LYS:O	1:C:1307:ASP:HB2	2.16	0.45
1:B:406:THR:OG1	1:B:418:GLU:OE1	2.34	0.45
1:A:1612:GLY:N	1:A:1623:PHE:O	2.48	0.45
1:E:799:PHE:CZ	1:E:2433:ARG:CG	2.99	0.45
1:F:94:ARG:HG3	1:F:95:PRO:HD3	1.98	0.45
1:B:2086:SER:HA	1:B:2089:PHE:CG	2.52	0.45
1:A:2086:SER:HA	1:A:2089:PHE:CG	2.51	0.45
1:C:683:GLY:CA	1:C:700:ASN:HB2	2.45	0.45
1:C:205:PRO:CD	1:C:289:PRO:HB3	2.46	0.45
1:D:2246:ALA:N	1:D:2255:ARG:NH1	2.64	0.45
1:A:1702:GLU:OE1	1:A:1712:ALA:N	2.49	0.45
1:D:2234:PRO:HB2	1:D:2287:LEU:HD13	1.98	0.45
1:E:167:ALA:HB3	1:E:178:LEU:HD21	1.98	0.45
1:B:2889:ILE:HD11	1:B:2922:LEU:HD22	1.98	0.45
1:D:2957:PRO:HB3	1:D:2979:GLU:C	2.36	0.45
1:E:222:LEU:HD21	1:E:236:VAL:HA	1.97	0.45
1:E:2716:ASN:OD1	1:B:2737:VAL:HG12	2.16	0.45
1:C:746:TYR:HB2	1:C:833:ALA:HB1	1.99	0.45
1:F:684:MET:HG3	1:F:895:THR:HA	1.98	0.45
1:B:1699:ARG:HG3	1:B:1730:GLU:HB3	1.97	0.45
1:E:534:ASP:O	1:E:538:GLU:HG3	2.16	0.45
1:D:2619:ARG:NH1	1:D:2779:GLY:HA2	2.31	0.45
1:F:534:ASP:O	1:F:538:GLU:HG3	2.16	0.45
1:C:1171:PRO:HA	1:C:1191:ARG:HG2	1.99	0.45
1:C:2619:ARG:NH1	1:C:2779:GLY:HA2	2.31	0.45
1:F:1021:LEU:HA	1:F:1034:GLU:HA	1.98	0.45
1:F:1038:ALA:HA	1:F:1126:ILE:HA	1.98	0.45
1:D:2096:VAL:HG13	1:D:2097:ALA:H	1.80	0.45
1:B:2610:ARG:NH1	1:B:2700:LEU:HD11	2.25	0.45
1:E:94:ARG:HG3	1:E:95:PRO:HD3	1.97	0.45
1:E:2845:PHE:HD2	1:E:2860:ALA:HA	1.82	0.45
1:D:1634:ARG:NH1	1:D:1639:ALA:H	2.11	0.45
1:C:2234:PRO:HB2	1:C:2287:LEU:HD13	1.98	0.45
1:B:2234:PRO:HB2	1:B:2287:LEU:HD13	1.98	0.45
1:C:1352:PHE:HA	1:C:1353:PRO:HD3	1.72	0.45
1:B:111:GLU:HB2	1:B:112:PRO:HD3	1.98	0.45
1:F:868:ARG:HD3	1:F:872:ARG:HH12	1.81	0.45
1:B:1519:VAL:HG13	1:B:1530:LEU:HD23	1.99	0.45
1:A:1319:ASP:HB2	1:A:1342:ARG:NH1	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:684:MET:HG3	1:A:895:THR:HA	1.98	0.45
1:F:1553:ALA:O	1:F:1557:GLU:HG2	2.17	0.45
1:A:2773:GLU:HA	1:A:2776:ILE:HG22	1.97	0.45
1:A:381:ARG:O	1:A:384:GLN:HG2	2.17	0.45
1:C:534:ASP:O	1:C:538:GLU:HG3	2.16	0.45
1:F:2070:LEU:O	1:F:2074:GLU:HG3	2.16	0.45
1:A:277:LEU:HD22	1:A:676:GLY:O	2.16	0.45
1:B:1304:LYS:O	1:B:1307:ASP:HB2	2.16	0.45
1:B:2543:PHE:HA	1:B:2624:GLN:HE22	1.81	0.45
1:C:84:GLU:HB2	1:C:85:PRO:HD3	1.98	0.45
1:D:799:PHE:CZ	1:D:2433:ARG:CG	2.99	0.45
1:D:2769:ASP:OD1	1:D:2770:LEU:N	2.49	0.45
1:F:1072:TRP:CD1	1:F:1097:VAL:HG22	2.51	0.45
1:F:2845:PHE:HD2	1:F:2860:ALA:HA	1.81	0.45
1:C:94:ARG:HG3	1:C:95:PRO:HD3	1.98	0.45
1:C:1488:VAL:HB	1:C:1579:VAL:HG22	1.99	0.45
1:C:195:ARG:NH1	1:C:198:ILE:HD12	2.31	0.45
1:E:1087:PHE:CE1	1:F:198:ILE:HG12	2.50	0.45
1:C:2246:ALA:N	1:C:2255:ARG:NH1	2.64	0.45
1:F:2246:ALA:N	1:F:2255:ARG:NH1	2.64	0.45
1:A:1284:GLY:HA2	1:A:1343:LEU:HD11	1.99	0.45
1:F:1702:GLU:OE1	1:F:1712:ALA:N	2.49	0.45
1:B:2361:VAL:HG21	1:B:2401:ILE:HD11	1.98	0.45
1:F:2889:ILE:HD11	1:F:2922:LEU:HD22	1.98	0.45
1:D:836:VAL:HG12	1:D:837:VAL:N	2.29	0.45
1:E:784:GLU:OE2	1:E:816:LEU:HD21	2.16	0.45
1:E:2800:PHE:CE1	1:E:2812:LEU:HD22	2.50	0.45
1:D:784:GLU:OE2	1:D:816:LEU:HD21	2.16	0.45
1:E:222:LEU:HD13	1:E:248:ILE:HD12	1.99	0.45
1:B:222:LEU:HD21	1:B:236:VAL:HA	1.97	0.45
1:F:1519:VAL:HG13	1:F:1530:LEU:HD23	1.98	0.45
1:E:1346:PRO:HG2	1:E:1699:ARG:HD3	1.98	0.45
1:B:1553:ALA:O	1:B:1557:GLU:HG2	2.17	0.45
1:B:47:ALA:O	1:B:353:ASP:HA	2.17	0.45
1:F:2619:ARG:HH12	1:F:2779:GLY:HA2	1.81	0.45
1:F:2452:ASP:HA	1:F:3017:ALA:HA	1.99	0.45
1:F:1450:ALA:N	1:F:1613:ARG:O	2.47	0.45
1:F:1723:GLU:C	1:F:1725:SER:H	2.18	0.45
1:B:2452:ASP:HA	1:B:3017:ALA:HA	1.99	0.45
1:C:2096:VAL:HG13	1:C:2097:ALA:H	1.80	0.45
1:A:996:LEU:HA	1:A:1010:LEU:HA	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2770:LEU:HB3	1:D:2815:GLN:HB3	1.97	0.45
1:E:2770:LEU:HB3	1:E:2815:GLN:HB3	1.97	0.45
1:D:2557:LEU:CG	1:C:2702:GLY:HA3	2.45	0.45
1:A:94:ARG:HG3	1:A:95:PRO:HD3	1.98	0.45
1:E:1634:ARG:NH1	1:E:1639:ALA:N	2.65	0.45
1:E:2086:SER:HA	1:E:2089:PHE:CG	2.52	0.45
1:A:2946:LEU:HD22	1:A:2994:VAL:HG23	1.98	0.45
1:C:351:ILE:HB	1:C:375:ILE:HG12	1.99	0.45
1:B:195:ARG:NH1	1:B:198:ILE:HD12	2.31	0.45
1:B:2246:ALA:N	1:B:2255:ARG:NH1	2.64	0.45
1:D:1702:GLU:OE1	1:D:1712:ALA:N	2.49	0.45
1:F:784:GLU:OE2	1:F:816:LEU:HD21	2.16	0.45
1:E:2614:LYS:HG3	1:B:2583:PHE:HB2	1.97	0.45
1:F:2614:LYS:HZ2	1:A:2583:PHE:HB2	1.80	0.45
1:C:763:SER:HB3	1:C:766:ASP:HB2	1.99	0.45
1:D:747:LEU:HD22	1:D:751:ARG:CZ	2.47	0.45
1:E:745:THR:HG22	1:E:747:LEU:H	1.80	0.45
1:D:2716:ASN:OD1	1:C:2737:VAL:HG12	2.16	0.45
1:C:222:LEU:HD13	1:C:248:ILE:HD12	1.99	0.45
1:F:1319:ASP:HB2	1:F:1342:ARG:NH1	2.31	0.45
1:C:1319:ASP:HB2	1:C:1342:ARG:NH1	2.31	0.45
1:B:684:MET:HG3	1:B:895:THR:HA	1.98	0.45
1:D:684:MET:HG3	1:D:895:THR:HA	1.98	0.45
1:C:2619:ARG:HH12	1:C:2779:GLY:HA2	1.81	0.45
1:E:277:LEU:HD22	1:E:676:GLY:O	2.16	0.45
1:A:1553:ALA:O	1:A:1557:GLU:HG2	2.17	0.45
1:B:2472:TYR:CZ	1:B:2930:LEU:HD22	2.52	0.45
1:F:1304:LYS:O	1:F:1307:ASP:HB2	2.16	0.45
1:B:1285:LYS:HB3	1:B:1286:PRO:HD2	1.98	0.45
1:F:84:GLU:HB2	1:F:85:PRO:HD3	1.98	0.45
1:B:381:ARG:O	1:B:384:GLN:HG2	2.17	0.45
1:D:1612:GLY:N	1:D:1623:PHE:O	2.48	0.45
1:D:2472:TYR:CZ	1:D:2930:LEU:HD22	2.52	0.45
1:C:2058:ASP:OD1	1:C:2058:ASP:N	2.46	0.45
1:C:2989:LEU:HA	1:C:2989:LEU:HD12	1.77	0.45
1:B:2619:ARG:HH12	1:B:2779:GLY:HA2	1.81	0.45
1:E:1553:ALA:O	1:E:1557:GLU:HG2	2.17	0.45
1:A:1304:LYS:O	1:A:1307:ASP:HB2	2.16	0.45
1:C:799:PHE:CZ	1:C:2433:ARG:CG	2.99	0.45
1:A:3080:ARG:NH1	1:A:3080:ARG:CG	2.72	0.45
1:A:1072:TRP:CD1	1:A:1097:VAL:HG22	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2212:TRP:HA	1:F:2229:LYS:HB3	1.98	0.45
1:D:2845:PHE:HD2	1:D:2860:ALA:HA	1.82	0.45
1:E:2946:LEU:HD22	1:E:2994:VAL:HG23	1.98	0.45
1:C:511:ARG:CB	1:C:540:ASN:HB2	2.46	0.45
1:E:1284:GLY:HA2	1:E:1343:LEU:HD11	1.99	0.45
1:B:2092:THR:CG2	1:B:2092:THR:O	2.64	0.45
1:D:585:HIS:CB	1:D:694:ASP:HB2	2.47	0.45
1:D:550:LYS:HD3	1:D:577:GLU:OE2	2.17	0.45
1:D:1284:GLY:HA2	1:D:1343:LEU:HD11	1.99	0.45
1:B:550:LYS:HD3	1:B:577:GLU:OE2	2.17	0.45
1:C:585:HIS:CB	1:C:694:ASP:HB2	2.47	0.45
1:A:167:ALA:HB3	1:A:178:LEU:HD21	1.98	0.45
1:C:393:VAL:HG12	1:C:394:PRO:N	2.32	0.45
1:C:868:ARG:HD3	1:C:872:ARG:HH12	1.81	0.45
1:D:2800:PHE:CE1	1:D:2812:LEU:HD22	2.50	0.45
1:E:2889:ILE:HD11	1:E:2922:LEU:HD22	1.98	0.45
1:F:207:MET:HG3	1:F:292:VAL:HB	1.98	0.45
1:F:2957:PRO:HB3	1:F:2979:GLU:C	2.36	0.45
1:F:2716:ASN:OD1	1:A:2737:VAL:HG12	2.16	0.45
1:F:1226:ARG:CG	1:F:1313:VAL:HG12	2.47	0.45
1:E:1319:ASP:HB2	1:E:1342:ARG:NH1	2.31	0.45
1:A:2210:VAL:HB	1:A:2277:ILE:HD11	1.96	0.45
1:D:1304:LYS:O	1:D:1307:ASP:HB2	2.16	0.45
1:A:47:ALA:O	1:A:353:ASP:HA	2.17	0.45
1:A:2879:LEU:HD13	1:A:3009:VAL:HG11	1.98	0.45
1:B:2773:GLU:HA	1:B:2776:ILE:HG22	1.97	0.45
1:A:2070:LEU:O	1:A:2074:GLU:HG3	2.16	0.45
1:D:1553:ALA:O	1:D:1557:GLU:HG2	2.17	0.45
1:D:1462:ALA:HB2	1:D:1468:TYR:HE1	1.81	0.45
1:D:2137:GLU:O	1:D:2163:THR:N	2.30	0.45
1:F:996:LEU:HA	1:F:1010:LEU:HA	1.97	0.45
1:A:799:PHE:CZ	1:A:2433:ARG:CG	2.99	0.45
1:E:3080:ARG:CG	1:E:3080:ARG:NH1	2.72	0.45
1:E:2610:ARG:NH1	1:E:2700:LEU:HD21	2.31	0.45
1:F:2603:ARG:HH12	1:A:2612:PRO:HD2	1.81	0.45
1:E:2702:GLY:HA3	1:B:2557:LEU:CG	2.46	0.45
1:F:2845:PHE:CD2	1:F:2860:ALA:HA	2.52	0.45
1:C:2845:PHE:CD2	1:C:2860:ALA:HA	2.52	0.45
1:B:1237:ARG:CZ	1:C:95:PRO:HB2	2.46	0.45
1:E:2212:TRP:HA	1:E:2229:LYS:HB3	1.98	0.45
1:A:2246:ALA:N	1:A:2255:ARG:NH1	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1284:GLY:HA2	1:C:1343:LEU:HD11	1.99	0.45
1:A:585:HIS:CB	1:A:694:ASP:HB2	2.47	0.45
1:D:1325:LEU:HD11	1:D:1343:LEU:HD22	1.98	0.45
1:D:868:ARG:HD3	1:D:872:ARG:HH12	1.81	0.45
1:F:2300:PHE:CZ	1:F:2398:LEU:HB3	2.52	0.45
1:A:2785:ALA:HB1	1:A:2809:LEU:HG	1.97	0.45
1:A:2889:ILE:HD11	1:A:2922:LEU:HD22	1.98	0.45
1:D:1226:ARG:CG	1:D:1313:VAL:HG12	2.47	0.45
1:A:2619:ARG:NH1	1:A:2779:GLY:HA2	2.31	0.45
1:E:2619:ARG:NH1	1:E:2779:GLY:HA2	2.31	0.45
1:B:1462:ALA:HB2	1:B:1468:TYR:HE1	1.81	0.45
1:A:2543:PHE:HA	1:A:2624:GLN:HE22	1.81	0.45
1:E:1171:PRO:HA	1:E:1191:ARG:HG2	1.99	0.45
1:C:2672:TRP:CD1	1:C:2831:MET:HG2	2.52	0.45
1:C:2070:LEU:O	1:C:2074:GLU:HG3	2.16	0.45
1:F:966:PRO:HB3	1:F:1258:LEU:HD13	1.99	0.45
1:D:2610:ARG:NH1	1:D:2700:LEU:HD21	2.31	0.45
1:D:2724:GLN:HG2	1:C:3001:HIS:CE1	2.51	0.45
1:A:2845:PHE:HD2	1:A:2860:ALA:HA	1.81	0.45
1:D:2845:PHE:CD2	1:D:2860:ALA:HA	2.52	0.45
1:B:1634:ARG:NH1	1:B:1639:ALA:N	2.65	0.45
1:B:2212:TRP:HA	1:B:2229:LYS:HB3	1.98	0.45
1:F:1634:ARG:NH1	1:F:1639:ALA:N	2.65	0.45
1:E:195:ARG:NH1	1:E:198:ILE:HD12	2.31	0.45
1:F:195:ARG:NH1	1:F:198:ILE:HD12	2.31	0.45
1:E:2297:ARG:HH22	1:E:2391:LYS:HZ3	1.65	0.45
1:F:585:HIS:CB	1:F:694:ASP:HB2	2.47	0.45
1:B:1702:GLU:OE1	1:B:1712:ALA:N	2.49	0.45
1:F:2891:LYS:HZ2	1:F:2903:GLU:HG2	1.82	0.45
1:B:784:GLU:OE2	1:B:816:LEU:HD21	2.16	0.45
1:D:2482:GLU:HG2	1:D:2956:PRO:HB3	1.97	0.45
1:B:1226:ARG:CG	1:B:1313:VAL:HG12	2.47	0.45
1:A:222:LEU:HD21	1:A:236:VAL:HA	1.97	0.45
1:F:222:LEU:HD21	1:F:236:VAL:HA	1.97	0.45
1:F:2619:ARG:NH1	1:F:2779:GLY:HA2	2.31	0.45
1:E:2619:ARG:HH12	1:E:2779:GLY:HA2	1.81	0.45
1:E:1450:ALA:N	1:E:1613:ARG:O	2.48	0.45
1:A:2296:ASN:HB3	1:A:2299:MET:SD	2.57	0.45
1:B:1483:LYS:O	1:B:1487:ILE:HG23	2.17	0.45
1:A:1462:ALA:HB2	1:A:1468:TYR:HE1	1.81	0.45
1:E:2989:LEU:HD12	1:E:2989:LEU:HA	1.77	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1268:GLY:HA2	1:D:1271:LEU:HD12	1.99	0.45
1:C:381:ARG:O	1:C:384:GLN:HG2	2.17	0.45
1:E:2672:TRP:CD1	1:E:2831:MET:HG2	2.52	0.45
1:B:2879:LEU:HD13	1:B:3009:VAL:HG11	1.98	0.45
1:B:2769:ASP:OD1	1:B:2770:LEU:N	2.49	0.45
1:D:936:ARG:O	1:D:941:ARG:N	2.45	0.45
1:F:1488:VAL:HB	1:F:1579:VAL:HG22	1.99	0.45
1:F:550:LYS:HD3	1:F:577:GLU:OE2	2.17	0.45
1:E:664:LEU:HB3	1:E:701:ALA:HB1	1.99	0.45
1:B:393:VAL:HG12	1:B:394:PRO:N	2.32	0.45
1:C:664:LEU:HB3	1:C:701:ALA:HB1	1.99	0.45
1:F:111:GLU:HB2	1:F:112:PRO:HD3	1.98	0.45
1:C:2300:PHE:CZ	1:C:2398:LEU:HB3	2.52	0.45
1:F:747:LEU:HD22	1:F:751:ARG:CZ	2.47	0.45
1:C:747:LEU:HD22	1:C:751:ARG:CZ	2.47	0.45
1:D:2737:VAL:HG12	1:C:2716:ASN:OD1	2.16	0.45
1:D:746:TYR:HB2	1:D:833:ALA:HB1	1.99	0.45
1:B:1093:PRO:HB3	1:B:1277:HIS:CE1	2.52	0.45
1:E:1605:LYS:H	1:E:1658:LYS:HE2	1.82	0.45
1:D:2619:ARG:HH12	1:D:2779:GLY:HA2	1.81	0.45
1:B:2619:ARG:NH1	1:B:2779:GLY:HA2	2.31	0.45
1:F:1483:LYS:O	1:F:1487:ILE:HG23	2.17	0.45
1:A:3065:PRO:O	1:A:3069:GLN:N	2.42	0.45
1:E:2070:LEU:O	1:E:2074:GLU:HG3	2.16	0.45
1:C:1612:GLY:N	1:C:1623:PHE:O	2.48	0.45
1:C:47:ALA:O	1:C:353:ASP:HA	2.17	0.45
1:E:515:ALA:HA	1:E:516:PRO:HD3	1.84	0.45
1:A:1133:VAL:O	1:A:1193:ALA:N	2.42	0.45
1:F:47:ALA:O	1:F:353:ASP:HA	2.17	0.45
1:C:1094:THR:O	1:C:1288:PRO:HG2	2.15	0.45
1:C:2769:ASP:OD1	1:C:2770:LEU:N	2.49	0.45
1:A:475:LEU:HA	1:A:475:LEU:HD23	1.79	0.45
1:C:1634:ARG:NH1	1:C:1639:ALA:N	2.65	0.45
1:C:2086:SER:HA	1:C:2089:PHE:CG	2.51	0.45
1:E:336:TRP:CH2	1:E:360:LEU:HD21	2.52	0.45
1:E:2246:ALA:N	1:E:2255:ARG:NH1	2.64	0.45
1:E:585:HIS:CB	1:E:694:ASP:HB2	2.47	0.45
1:E:1702:GLU:OE1	1:E:1712:ALA:N	2.49	0.45
1:E:207:MET:HG3	1:E:292:VAL:HB	1.98	0.45
1:D:1684:ASP:HA	1:D:1687:PHE:HD2	1.82	0.45
1:B:2800:PHE:CE1	1:B:2812:LEU:HD22	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:207:MET:HG3	1:A:292:VAL:HB	1.98	0.45
1:D:2889:ILE:HD11	1:D:2922:LEU:HD22	1.98	0.45
1:E:1226:ARG:CG	1:E:1313:VAL:HG12	2.47	0.45
1:C:745:THR:OG1	1:C:834:GLU:O	2.19	0.45
1:B:746:TYR:HB2	1:B:833:ALA:HB1	1.99	0.45
1:F:1133:VAL:O	1:F:1193:ALA:N	2.42	0.45
1:E:1483:LYS:O	1:E:1487:ILE:HG23	2.17	0.45
1:F:2879:LEU:HD13	1:F:3009:VAL:HG11	1.98	0.45
1:B:1612:GLY:N	1:B:1623:PHE:O	2.48	0.45
1:C:1247:ASN:HA	1:C:1248:PRO:HD3	1.83	0.45
1:A:1171:PRO:HA	1:A:1191:ARG:HG2	1.99	0.45
1:C:1268:GLY:HA2	1:C:1271:LEU:HD12	1.99	0.45
1:D:2672:TRP:CD1	1:D:2831:MET:HG2	2.52	0.45
1:A:1581:PHE:HB2	1:A:1586:LEU:HD22	1.99	0.45
1:E:2296:ASN:HB3	1:E:2299:MET:SD	2.57	0.45
1:F:2672:TRP:CD1	1:F:2831:MET:HG2	2.52	0.45
1:A:2770:LEU:HB3	1:A:2815:GLN:HB3	1.97	0.44
1:F:2724:GLN:HG2	1:A:3001:HIS:CE1	2.51	0.44
1:A:336:TRP:CH2	1:A:360:LEU:HD21	2.52	0.44
1:F:2246:ALA:N	1:F:2255:ARG:HH12	2.16	0.44
1:C:1325:LEU:HD11	1:C:1343:LEU:HD22	1.98	0.44
1:D:2092:THR:O	1:D:2092:THR:CG2	2.64	0.44
1:C:1684:ASP:HA	1:C:1687:PHE:HD2	1.82	0.44
1:E:111:GLU:HB2	1:E:112:PRO:HD3	1.98	0.44
1:D:2300:PHE:CZ	1:D:2398:LEU:HB3	2.52	0.44
1:B:2957:PRO:HB3	1:B:2979:GLU:C	2.37	0.44
1:B:2958:ASN:HD22	1:B:2976:TRP:HE1	1.65	0.44
1:C:1226:ARG:CG	1:C:1313:VAL:HG12	2.47	0.44
1:E:1581:PHE:HB2	1:E:1586:LEU:HD22	1.99	0.44
1:B:534:ASP:O	1:B:538:GLU:HG3	2.16	0.44
1:C:2555:SER:HA	1:C:2556:PRO:HD2	1.85	0.44
1:C:2472:TYR:CZ	1:C:2930:LEU:HD22	2.52	0.44
1:C:1553:ALA:O	1:C:1557:GLU:HG2	2.17	0.44
1:B:2096:VAL:HG13	1:B:2097:ALA:H	1.80	0.44
1:F:2610:ARG:NH1	1:F:2700:LEU:HD21	2.31	0.44
1:F:1268:GLY:HA2	1:F:1271:LEU:HD12	1.99	0.44
1:C:2770:LEU:HB3	1:C:2815:GLN:HB3	1.97	0.44
1:A:1634:ARG:NH1	1:A:1639:ALA:H	2.11	0.44
1:D:2086:SER:HA	1:D:2089:PHE:CG	2.52	0.44
1:D:1488:VAL:HB	1:D:1579:VAL:HG22	1.99	0.44
1:A:540:ASN:ND2	1:A:544:ILE:HG13	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:195:ARG:NH1	1:A:198:ILE:HD12	2.31	0.44
1:A:2246:ALA:N	1:A:2255:ARG:HH12	2.15	0.44
1:E:393:VAL:HG12	1:E:394:PRO:N	2.32	0.44
1:B:1284:GLY:HA2	1:B:1343:LEU:HD11	1.99	0.44
1:B:2209:LEU:O	1:B:2213:VAL:HG23	2.18	0.44
1:E:2092:THR:O	1:E:2092:THR:CG2	2.64	0.44
1:F:1284:GLY:HA2	1:F:1343:LEU:HD11	1.99	0.44
1:E:2234:PRO:HB2	1:E:2287:LEU:HD13	1.98	0.44
1:A:664:LEU:HB3	1:A:701:ALA:HB1	1.99	0.44
1:B:2300:PHE:CZ	1:B:2398:LEU:HB3	2.52	0.44
1:D:2891:LYS:HZ2	1:D:2903:GLU:HG2	1.83	0.44
1:D:763:SER:HB3	1:D:766:ASP:HB2	1.99	0.44
1:B:763:SER:HB3	1:B:766:ASP:HB2	1.99	0.44
1:D:1519:VAL:HG13	1:D:1530:LEU:HD23	1.98	0.44
1:E:1093:PRO:HB3	1:E:1277:HIS:CE1	2.52	0.44
1:F:2737:VAL:HG12	1:A:2716:ASN:OD1	2.16	0.44
1:F:746:TYR:HB2	1:F:833:ALA:HB1	1.99	0.44
1:E:2831:MET:HE2	1:E:2831:MET:HB3	1.87	0.44
1:F:1171:PRO:HA	1:F:1191:ARG:HG2	1.99	0.44
1:E:768:LYS:HA	1:E:775:LEU:HD11	1.98	0.44
1:E:1304:LYS:O	1:E:1307:ASP:HB2	2.16	0.44
1:F:1581:PHE:HB2	1:F:1586:LEU:HD22	1.99	0.44
1:D:2058:ASP:N	1:D:2058:ASP:OD1	2.46	0.44
1:B:2070:LEU:O	1:B:2074:GLU:HG3	2.16	0.44
1:B:1133:VAL:O	1:B:1193:ALA:N	2.42	0.44
1:D:2879:LEU:HD13	1:D:3009:VAL:HG11	1.98	0.44
1:F:2472:TYR:CZ	1:F:2930:LEU:HD22	2.52	0.44
1:F:2296:ASN:HB3	1:F:2299:MET:SD	2.57	0.44
1:D:1581:PHE:HB2	1:D:1586:LEU:HD22	1.99	0.44
1:B:996:LEU:HA	1:B:1010:LEU:HA	1.98	0.44
1:F:2769:ASP:OD1	1:F:2770:LEU:N	2.49	0.44
1:D:2702:GLY:HA3	1:C:2557:LEU:CG	2.46	0.44
1:C:2212:TRP:HA	1:C:2229:LYS:HB3	1.98	0.44
1:D:2212:TRP:HA	1:D:2229:LYS:HB3	1.98	0.44
1:C:1580:PRO:O	1:C:1583:SER:OG	2.22	0.44
1:F:511:ARG:CB	1:F:540:ASN:HB2	2.46	0.44
1:B:1488:VAL:HB	1:B:1579:VAL:HG22	1.99	0.44
1:B:1684:ASP:HA	1:B:1687:PHE:HD2	1.82	0.44
1:A:2234:PRO:HB2	1:A:2287:LEU:HD13	1.98	0.44
1:A:2903:GLU:OE2	1:A:2995:THR:OG1	2.36	0.44
1:B:1619:VAL:HA	1:B:1620:PRO:HD2	1.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1226:ARG:CG	1:A:1313:VAL:HG12	2.47	0.44
1:F:763:SER:HB3	1:F:766:ASP:HB2	1.99	0.44
1:A:745:THR:OG1	1:A:834:GLU:O	2.19	0.44
1:C:1519:VAL:HG13	1:C:1530:LEU:HD23	1.99	0.44
1:E:1519:VAL:HG13	1:E:1530:LEU:HD23	1.98	0.44
1:A:746:TYR:HB2	1:A:833:ALA:HB1	1.99	0.44
1:C:1605:LYS:H	1:C:1658:LYS:HE2	1.82	0.44
1:A:163:LEU:HD13	1:A:181:LEU:HD23	2.00	0.44
1:F:1455:VAL:HB	1:F:1480:ARG:HH12	1.80	0.44
1:E:2472:TYR:CZ	1:E:2930:LEU:HD22	2.52	0.44
1:C:1483:LYS:O	1:C:1487:ILE:HG23	2.17	0.44
1:A:2462:VAL:HG13	1:A:2835:VAL:HG13	2.00	0.44
1:F:1037:ASP:HB2	1:F:1041:ALA:CB	2.36	0.44
1:A:1072:TRP:HE1	1:A:1077:VAL:HG22	1.80	0.44
1:A:936:ARG:O	1:A:941:ARG:N	2.45	0.44
1:D:1634:ARG:NH1	1:D:1639:ALA:N	2.65	0.44
1:B:2246:ALA:N	1:B:2255:ARG:HH12	2.16	0.44
1:A:2092:THR:O	1:A:2092:THR:CG2	2.64	0.44
1:E:1352:PHE:HA	1:E:1353:PRO:HD3	1.72	0.44
1:C:550:LYS:HD3	1:C:577:GLU:OE2	2.17	0.44
1:B:1352:PHE:HA	1:B:1353:PRO:HD3	1.72	0.44
1:B:2903:GLU:OE2	1:B:2995:THR:OG1	2.36	0.44
1:A:784:GLU:OE2	1:A:816:LEU:HD21	2.16	0.44
1:E:1350:TYR:CD1	1:E:1703:ILE:HD11	2.53	0.44
1:D:2891:LYS:HG3	1:D:2924:ILE:HD13	1.98	0.44
1:F:2958:ASN:HD22	1:F:2976:TRP:HE1	1.65	0.44
1:B:747:LEU:HD22	1:B:751:ARG:CZ	2.47	0.44
1:A:747:LEU:HD22	1:A:751:ARG:CZ	2.47	0.44
1:F:1093:PRO:HB3	1:F:1277:HIS:CE1	2.52	0.44
1:C:1093:PRO:HB3	1:C:1277:HIS:CE1	2.52	0.44
1:F:782:ARG:NH1	1:F:857:VAL:HG22	2.33	0.44
1:E:2879:LEU:HD13	1:E:3009:VAL:HG11	1.98	0.44
1:A:2672:TRP:CD1	1:A:2831:MET:HG2	2.52	0.44
1:C:2462:VAL:HG13	1:C:2835:VAL:HG13	2.00	0.44
1:E:163:LEU:HD13	1:E:181:LEU:HD23	2.00	0.44
1:D:2462:VAL:HG13	1:D:2835:VAL:HG13	2.00	0.44
1:B:1581:PHE:HB2	1:B:1586:LEU:HD22	1.99	0.44
1:E:1285:LYS:HB3	1:E:1286:PRO:HD2	1.99	0.44
1:F:970:ILE:HG23	1:F:992:THR:HG21	2.00	0.44
1:A:1634:ARG:NH1	1:A:1639:ALA:N	2.65	0.44
1:D:2014:SER:H	1:E:2591:ARG:HH12	1.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2252:VAL:HG22	1:A:2255:ARG:HH21	1.82	0.44
1:D:2246:ALA:N	1:D:2255:ARG:HH12	2.16	0.44
1:C:336:TRP:CH2	1:C:360:LEU:HD21	2.52	0.44
1:A:2753:LYS:HA	1:A:2753:LYS:HD3	1.83	0.44
1:C:1723:GLU:O	1:C:1725:SER:N	2.51	0.44
1:B:438:THR:HA	1:B:880:HIS:CE1	2.51	0.44
1:F:575:HIS:CD2	1:F:644:LEU:HD22	2.49	0.44
1:C:1350:TYR:CD1	1:C:1703:ILE:HD11	2.53	0.44
1:E:412:ASP:H	1:E:1025:VAL:CG2	2.31	0.44
1:C:2889:ILE:HD11	1:C:2922:LEU:HD22	1.98	0.44
1:A:1350:TYR:CD1	1:A:1703:ILE:HD11	2.53	0.44
1:A:222:LEU:HD13	1:A:248:ILE:HD12	1.99	0.44
1:E:782:ARG:NH1	1:E:857:VAL:HG22	2.33	0.44
1:D:782:ARG:NH1	1:D:857:VAL:HG22	2.33	0.44
1:C:2879:LEU:HD13	1:C:3009:VAL:HG11	1.98	0.44
1:C:1503:ILE:HB	1:C:1542:TYR:HB2	2.00	0.44
1:D:1503:ILE:HB	1:D:1542:TYR:HB2	2.00	0.44
1:A:2471:PRO:HA	1:A:2625:ILE:HA	2.00	0.44
1:A:2452:ASP:HA	1:A:3017:ALA:HA	1.99	0.44
1:E:1462:ALA:HB2	1:E:1468:TYR:HE1	1.81	0.44
1:C:88:SER:HB3	1:C:314:THR:OG1	2.18	0.44
1:E:381:ARG:O	1:E:384:GLN:HG2	2.17	0.44
1:B:515:ALA:HA	1:B:516:PRO:HD3	1.84	0.44
1:B:2580:PHE:HE1	1:B:2603:ARG:HH21	1.66	0.44
1:D:2580:PHE:HE1	1:D:2603:ARG:HH21	1.66	0.44
1:F:1072:TRP:HE1	1:F:1077:VAL:HG22	1.80	0.44
1:E:2845:PHE:CD2	1:E:2860:ALA:HA	2.52	0.44
1:E:2014:SER:H	1:F:2591:ARG:HH12	1.65	0.44
1:C:2710:LEU:O	1:C:2713:VAL:HG22	2.18	0.44
1:A:2591:ARG:HH12	1:C:2014:SER:H	1.65	0.44
1:C:2252:VAL:HG22	1:C:2255:ARG:HH21	1.82	0.44
1:B:336:TRP:CH2	1:B:360:LEU:HD21	2.52	0.44
1:F:671:THR:HB	1:F:682:ASN:CG	2.38	0.44
1:B:1350:TYR:CD1	1:B:1703:ILE:HD11	2.53	0.44
1:A:868:ARG:HD3	1:A:872:ARG:HH12	1.81	0.44
1:F:222:LEU:HD13	1:F:248:ILE:HD12	1.99	0.44
1:A:782:ARG:NH1	1:A:857:VAL:HG22	2.33	0.44
1:A:1605:LYS:H	1:A:1658:LYS:HE2	1.82	0.44
1:B:210:VAL:HG22	1:B:287:PHE:HD1	1.82	0.44
1:F:1723:GLU:O	1:F:1725:SER:N	2.51	0.44
1:A:1268:GLY:HA2	1:A:1271:LEU:HD12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1171:PRO:HA	1:B:1191:ARG:HG2	1.99	0.44
1:D:2471:PRO:HA	1:D:2625:ILE:HA	2.00	0.44
1:A:1285:LYS:HB3	1:A:1286:PRO:HD2	1.99	0.44
1:B:2296:ASN:HB3	1:B:2299:MET:SD	2.57	0.44
1:B:1705:VAL:O	1:B:1735:GLU:HB2	2.18	0.44
1:E:47:ALA:O	1:E:353:ASP:HA	2.17	0.44
1:C:1581:PHE:HB2	1:C:1586:LEU:HD22	1.99	0.44
1:E:1268:GLY:HA2	1:E:1271:LEU:HD12	1.99	0.44
1:A:2845:PHE:CD2	1:A:2860:ALA:HA	2.52	0.44
1:A:1488:VAL:HB	1:A:1579:VAL:HG22	1.99	0.44
1:D:2591:ARG:NH1	1:F:2014:SER:N	2.66	0.44
1:E:1488:VAL:HB	1:E:1579:VAL:HG22	1.99	0.44
1:B:2014:SER:N	1:C:2591:ARG:NH1	2.66	0.44
1:A:2014:SER:H	1:B:2591:ARG:HH12	1.66	0.44
1:B:585:HIS:CB	1:B:694:ASP:HB2	2.47	0.44
1:F:2209:LEU:O	1:F:2213:VAL:HG23	2.18	0.44
1:B:2297:ARG:HH22	1:B:2391:LYS:HZ3	1.66	0.44
1:C:583:GLY:HA2	1:C:892:ILE:HD13	1.99	0.44
1:B:583:GLY:HA2	1:B:892:ILE:HD13	2.00	0.44
1:B:1723:GLU:O	1:B:1725:SER:N	2.51	0.44
1:D:664:LEU:HB3	1:D:701:ALA:HB1	1.99	0.44
1:D:1537:LEU:HD13	1:D:1541:GLN:HB2	2.00	0.44
1:E:438:THR:HA	1:E:880:HIS:CE1	2.51	0.44
1:F:412:ASP:H	1:F:1025:VAL:CG2	2.31	0.44
1:D:1350:TYR:CD1	1:D:1703:ILE:HD11	2.53	0.44
1:B:412:ASP:H	1:B:1025:VAL:CG2	2.31	0.44
1:C:671:THR:HB	1:C:682:ASN:CG	2.38	0.44
1:A:816:LEU:HA	1:A:816:LEU:HD23	1.83	0.44
1:E:763:SER:HB3	1:E:766:ASP:HB2	1.99	0.44
1:A:1519:VAL:HG13	1:A:1530:LEU:HD23	1.98	0.44
1:B:602:ARG:NH2	1:B:641:ASP:OD1	2.27	0.44
1:B:1605:LYS:H	1:B:1658:LYS:HE2	1.82	0.44
1:B:782:ARG:NH1	1:B:857:VAL:HG22	2.33	0.44
1:A:210:VAL:HG22	1:A:287:PHE:HD1	1.83	0.44
1:F:2831:MET:HB3	1:F:2831:MET:HE2	1.87	0.44
1:F:657:THR:HB	1:F:662:LYS:HE3	2.00	0.44
1:F:381:ARG:O	1:F:384:GLN:HG2	2.17	0.44
1:C:2471:PRO:HA	1:C:2625:ILE:HA	2.00	0.44
1:E:2471:PRO:HA	1:E:2625:ILE:HA	2.00	0.44
1:F:88:SER:HB3	1:F:314:THR:OG1	2.18	0.44
1:D:1285:LYS:HB3	1:D:1286:PRO:HD2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:163:LEU:HD13	1:F:181:LEU:HD23	2.00	0.44
1:C:970:ILE:HG23	1:C:992:THR:HG21	2.00	0.44
1:E:1695:LEU:HA	1:E:1695:LEU:HD12	1.71	0.44
1:B:2845:PHE:CD2	1:B:2860:ALA:HA	2.52	0.44
1:D:2014:SER:N	1:E:2591:ARG:NH1	2.66	0.44
1:B:2014:SER:H	1:C:2591:ARG:HH12	1.65	0.44
1:E:671:THR:HB	1:E:682:ASN:CG	2.38	0.44
1:F:1350:TYR:CD1	1:F:1703:ILE:HD11	2.53	0.44
1:A:412:ASP:H	1:A:1025:VAL:CG2	2.31	0.44
1:C:344:HIS:CD2	1:C:373:ILE:HG13	2.53	0.44
1:E:747:LEU:HD22	1:E:751:ARG:CZ	2.47	0.44
1:F:2737:VAL:N	1:A:2735:HIS:O	2.51	0.44
1:D:1605:LYS:H	1:D:1658:LYS:HE2	1.82	0.44
1:F:1684:ASP:HA	1:F:1687:PHE:HD2	1.82	0.44
1:F:1462:ALA:HB2	1:F:1468:TYR:HE1	1.81	0.44
1:D:2452:ASP:HA	1:D:3017:ALA:HA	1.99	0.44
1:D:516:PRO:HA	1:D:962:MET:SD	2.58	0.44
1:F:2541:ARG:O	1:F:2621:VAL:HG13	2.18	0.44
1:F:1705:VAL:O	1:F:1735:GLU:HB2	2.18	0.44
1:A:2472:TYR:CZ	1:A:2930:LEU:HD22	2.52	0.44
1:D:931:VAL:HG13	1:D:934:LEU:N	2.21	0.44
1:E:1072:TRP:HE1	1:E:1077:VAL:HG22	1.80	0.44
1:D:475:LEU:HA	1:D:475:LEU:HD23	1.79	0.44
1:F:2252:VAL:HG22	1:F:2255:ARG:HH21	1.82	0.44
1:A:550:LYS:HD3	1:A:577:GLU:OE2	2.17	0.44
1:A:583:GLY:HA2	1:A:892:ILE:HD13	2.00	0.44
1:A:1537:LEU:HD13	1:A:1541:GLN:HB2	2.00	0.44
1:A:1723:GLU:O	1:A:1725:SER:N	2.51	0.44
1:C:1537:LEU:HD13	1:C:1541:GLN:HB2	2.00	0.44
1:D:1723:GLU:O	1:D:1725:SER:N	2.51	0.44
1:F:1352:PHE:HA	1:F:1353:PRO:HD3	1.72	0.44
1:D:671:THR:HB	1:D:682:ASN:CG	2.38	0.44
1:A:671:THR:HB	1:A:682:ASN:CG	2.38	0.44
1:C:816:LEU:HA	1:C:816:LEU:HD23	1.83	0.44
1:D:412:ASP:H	1:D:1025:VAL:CG2	2.31	0.44
1:F:2554:ALA:HB1	1:F:2614:LYS:HZ2	1.81	0.44
1:A:763:SER:HB3	1:A:766:ASP:HB2	1.99	0.44
1:E:745:THR:OG1	1:E:834:GLU:O	2.19	0.44
1:B:222:LEU:HD13	1:B:248:ILE:HD12	1.99	0.44
1:A:857:VAL:HG13	1:A:859:PHE:H	1.83	0.44
1:B:782:ARG:HH11	1:B:857:VAL:HG22	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:782:ARG:NH1	1:C:857:VAL:HG22	2.33	0.44
1:C:1450:ALA:N	1:C:1613:ARG:O	2.48	0.44
1:B:1503:ILE:HB	1:B:1542:TYR:HB2	2.00	0.44
1:B:657:THR:HB	1:B:662:LYS:HE3	2.00	0.44
1:E:1503:ILE:HB	1:E:1542:TYR:HB2	2.00	0.44
1:B:88:SER:HB3	1:B:314:THR:OG1	2.18	0.44
1:F:959:ALA:HB1	1:F:1126:ILE:C	2.35	0.43
1:D:970:ILE:HG23	1:D:992:THR:HG21	2.00	0.43
1:F:2580:PHE:HE1	1:F:2603:ARG:HH21	1.66	0.43
1:B:351:ILE:HB	1:B:375:ILE:HG12	1.99	0.43
1:E:2710:LEU:O	1:E:2713:VAL:HG22	2.18	0.43
1:A:2591:ARG:HH12	1:C:2014:SER:N	2.16	0.43
1:D:1582:HIS:HA	1:D:1674:ALA:O	2.18	0.43
1:A:2014:SER:N	1:B:2591:ARG:HH12	2.16	0.43
1:C:2246:ALA:N	1:C:2255:ARG:HH12	2.15	0.43
1:F:2710:LEU:O	1:F:2713:VAL:HG22	2.18	0.43
1:E:2180:LYS:HZ1	1:E:2962:ASP:HB3	1.83	0.43
1:A:1684:ASP:HA	1:A:1687:PHE:HD2	1.82	0.43
1:C:34:LEU:O	1:C:38:LEU:HG	2.18	0.43
1:F:2361:VAL:HG21	1:F:2401:ILE:HD11	1.98	0.43
1:A:344:HIS:CD2	1:A:373:ILE:HG13	2.53	0.43
1:B:2831:MET:HE2	1:B:2831:MET:HB3	1.87	0.43
1:F:2299:MET:HG2	1:F:2299:MET:H	1.68	0.43
1:F:1285:LYS:HB3	1:F:1286:PRO:HD2	1.99	0.43
1:D:3044:ALA:HB1	1:D:3050:PRO:HB3	2.00	0.43
1:D:2296:ASN:HB3	1:D:2299:MET:SD	2.57	0.43
1:C:2296:ASN:HB3	1:C:2299:MET:SD	2.57	0.43
1:A:874:ASP:OD2	1:A:877:TRP:CD1	2.71	0.43
1:D:1171:PRO:HA	1:D:1191:ARG:HG2	1.99	0.43
1:A:1551:LEU:HA	1:A:1551:LEU:HD13	1.79	0.43
1:A:1503:ILE:HB	1:A:1542:TYR:HB2	2.00	0.43
1:A:516:PRO:HA	1:A:962:MET:SD	2.58	0.43
1:F:3044:ALA:HB1	1:F:3050:PRO:HB3	2.00	0.43
1:C:874:ASP:OD2	1:C:877:TRP:CD1	2.72	0.43
1:F:958:TRP:HZ3	1:F:1130:LEU:HB2	1.83	0.43
1:E:2115:HIS:HA	1:E:2118:LEU:CG	2.48	0.43
1:F:2334:HIS:CD2	1:F:2391:LYS:HG3	2.50	0.43
1:E:1537:LEU:HD13	1:E:1541:GLN:HB2	2.00	0.43
1:D:2334:HIS:CD2	1:D:2391:LYS:HG3	2.50	0.43
1:E:695:ILE:HG22	1:E:697:GLU:HG3	2.00	0.43
1:C:695:ILE:HG22	1:C:697:GLU:HG3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2300:PHE:CZ	1:A:2398:LEU:HB3	2.52	0.43
1:A:2958:ASN:HD22	1:A:2976:TRP:HE1	1.65	0.43
1:C:2958:ASN:HD22	1:C:2976:TRP:HE1	1.65	0.43
1:F:344:HIS:CD2	1:F:373:ILE:HG13	2.53	0.43
1:B:1733:ASN:H	1:B:1737:ASP:HB2	1.83	0.43
1:F:2735:HIS:O	1:A:2737:VAL:N	2.51	0.43
1:A:782:ARG:HH11	1:A:857:VAL:HG22	1.83	0.43
1:B:516:PRO:HA	1:B:962:MET:SD	2.58	0.43
1:C:2452:ASP:HA	1:C:3017:ALA:HA	1.99	0.43
1:C:516:PRO:HA	1:C:962:MET:SD	2.58	0.43
1:A:398:ARG:HA	1:A:399:PRO:HD2	1.86	0.43
1:C:3044:ALA:HB1	1:C:3050:PRO:HB3	2.00	0.43
1:A:2096:VAL:HG13	1:A:2097:ALA:H	1.80	0.43
1:D:2115:HIS:HA	1:D:2118:LEU:CG	2.49	0.43
1:E:2580:PHE:HE1	1:E:2603:ARG:HH21	1.66	0.43
1:E:351:ILE:HB	1:E:375:ILE:HG12	1.99	0.43
1:B:544:ILE:O	1:B:546:HIS:N	2.40	0.43
1:F:1637:VAL:HA	1:F:1638:PRO:HD2	1.90	0.43
1:F:276:LYS:HB3	1:F:587:TRP:CH2	2.53	0.43
1:F:583:GLY:HA2	1:F:892:ILE:HD13	1.99	0.43
1:F:393:VAL:HG12	1:F:394:PRO:N	2.32	0.43
1:C:2334:HIS:CD2	1:C:2391:LYS:HG3	2.50	0.43
1:C:2297:ARG:HH22	1:C:2391:LYS:HZ3	1.64	0.43
1:B:671:THR:HB	1:B:682:ASN:CG	2.38	0.43
1:C:2903:GLU:OE2	1:C:2995:THR:OG1	2.36	0.43
1:C:2891:LYS:HG3	1:C:2924:ILE:HD13	1.98	0.43
1:E:2300:PHE:CZ	1:E:2398:LEU:HB3	2.52	0.43
1:C:315:VAL:C	1:C:317:LEU:H	2.22	0.43
1:E:344:HIS:CD2	1:E:373:ILE:HG13	2.53	0.43
1:E:1733:ASN:H	1:E:1737:ASP:HB2	1.83	0.43
1:E:1317:GLY:O	1:E:1324:VAL:HG12	2.19	0.43
1:B:3044:ALA:HB1	1:B:3050:PRO:HB3	2.00	0.43
1:B:1268:GLY:HA2	1:B:1271:LEU:HD12	1.99	0.43
1:B:163:LEU:HD13	1:B:181:LEU:HD23	2.00	0.43
1:E:88:SER:HB3	1:E:314:THR:OG1	2.18	0.43
1:D:1705:VAL:O	1:D:1735:GLU:HB2	2.18	0.43
1:D:2032:VAL:HG11	1:B:2032:VAL:HG11	2.01	0.43
1:F:2462:VAL:HG13	1:F:2835:VAL:HG13	2.00	0.43
1:E:1705:VAL:O	1:E:1735:GLU:HB2	2.18	0.43
1:F:513:SER:HB3	1:F:961:ARG:NH1	2.33	0.43
1:E:1013:THR:CG2	1:E:1014:TRP:H	1.96	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:351:ILE:HB	1:A:375:ILE:HG12	1.99	0.43
1:F:1634:ARG:NH1	1:F:1639:ALA:H	2.11	0.43
1:F:336:TRP:CH2	1:F:360:LEU:HD21	2.52	0.43
1:A:2591:ARG:NH1	1:C:2014:SER:N	2.66	0.43
1:A:2710:LEU:O	1:A:2713:VAL:HG22	2.18	0.43
1:E:2252:VAL:HG22	1:E:2255:ARG:HH21	1.82	0.43
1:E:34:LEU:O	1:E:38:LEU:HG	2.18	0.43
1:F:2092:THR:O	1:F:2092:THR:CG2	2.64	0.43
1:C:647:THR:N	2:C:4000:FMN:O3P	2.51	0.43
1:B:647:THR:N	2:B:4000:FMN:O3P	2.51	0.43
1:C:2209:LEU:O	1:C:2213:VAL:HG23	2.17	0.43
1:A:34:LEU:O	1:A:38:LEU:HG	2.19	0.43
1:B:575:HIS:CD2	1:B:644:LEU:HD22	2.49	0.43
1:F:2903:GLU:OE2	1:F:2995:THR:OG1	2.36	0.43
1:C:1660:LEU:HD23	1:C:1660:LEU:HA	1.86	0.43
1:D:2958:ASN:HD22	1:D:2976:TRP:HE1	1.65	0.43
1:B:315:VAL:C	1:B:317:LEU:H	2.22	0.43
1:E:2737:VAL:N	1:B:2735:HIS:O	2.51	0.43
1:A:1582:HIS:HA	1:A:1674:ALA:O	2.18	0.43
1:D:782:ARG:HH11	1:D:857:VAL:HG22	1.83	0.43
1:C:369:ARG:HA	1:C:369:ARG:HD2	1.85	0.43
1:C:857:VAL:HG13	1:C:859:PHE:H	1.83	0.43
1:B:2296:ASN:ND2	1:B:2395:THR:HG21	2.34	0.43
1:C:1504:ARG:HA	1:C:1540:SER:O	2.19	0.43
1:D:874:ASP:OD2	1:D:877:TRP:CD1	2.72	0.43
1:A:658:SER:HB2	1:A:661:VAL:HG23	2.01	0.43
1:A:657:THR:HB	1:A:662:LYS:HE3	2.00	0.43
1:B:658:SER:HB2	1:B:661:VAL:HG23	2.01	0.43
1:E:2209:LEU:O	1:E:2213:VAL:HG23	2.18	0.43
1:B:874:ASP:OD2	1:B:877:TRP:CD1	2.72	0.43
1:D:1483:LYS:O	1:D:1487:ILE:HG23	2.17	0.43
1:B:511:ARG:CB	1:B:540:ASN:HB2	2.46	0.43
1:E:2014:SER:N	1:F:2591:ARG:NH1	2.66	0.43
1:A:2014:SER:N	1:B:2591:ARG:NH1	2.66	0.43
1:E:647:THR:N	2:E:4000:FMN:O3P	2.51	0.43
1:D:583:GLY:HA2	1:D:892:ILE:HD13	2.00	0.43
1:A:393:VAL:HG12	1:A:394:PRO:N	2.32	0.43
1:A:695:ILE:HG22	1:A:697:GLU:HG3	2.01	0.43
1:B:341:THR:HG23	1:B:344:HIS:ND1	2.34	0.43
1:E:2735:HIS:O	1:B:2737:VAL:N	2.51	0.43
1:D:1317:GLY:O	1:D:1324:VAL:HG12	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1733:ASN:H	1:D:1737:ASP:HB2	1.83	0.43
1:F:1605:LYS:H	1:F:1658:LYS:HE2	1.82	0.43
1:F:210:VAL:HG22	1:F:287:PHE:HD1	1.82	0.43
1:A:2209:LEU:O	1:A:2213:VAL:HG23	2.18	0.43
1:F:2137:GLU:O	1:F:2163:THR:N	2.30	0.43
1:F:2032:VAL:HG11	1:C:2032:VAL:HG11	2.00	0.43
1:F:2512:TRP:O	1:F:2520:LEU:HD12	2.19	0.43
1:E:2452:ASP:HA	1:E:3017:ALA:HA	1.99	0.43
1:E:2541:ARG:O	1:E:2621:VAL:HG13	2.18	0.43
1:C:658:SER:HB2	1:C:661:VAL:HG23	2.00	0.43
1:D:658:SER:HB2	1:D:661:VAL:HG23	2.00	0.43
1:E:657:THR:HB	1:E:662:LYS:HE3	2.00	0.43
1:B:2115:HIS:HA	1:B:2118:LEU:CG	2.48	0.43
1:F:42:GLU:HA	1:F:43:PRO:HD3	1.91	0.43
1:C:2610:ARG:NH1	1:C:2700:LEU:HD11	2.25	0.43
1:F:2610:ARG:NH1	1:F:2700:LEU:HD11	2.25	0.43
1:D:1163:ASP:HA	1:D:1168:ARG:HA	2.01	0.43
1:C:1163:ASP:HA	1:C:1168:ARG:HA	2.01	0.43
1:F:936:ARG:O	1:F:941:ARG:N	2.45	0.43
1:E:580:ARG:HD3	1:E:896:ALA:HB3	2.01	0.43
1:D:580:ARG:HD3	1:D:896:ALA:HB3	2.01	0.43
1:A:580:ARG:HD3	1:A:896:ALA:HB3	2.01	0.43
1:F:351:ILE:HB	1:F:375:ILE:HG12	1.99	0.43
1:D:683:GLY:CA	1:D:700:ASN:HB2	2.44	0.43
1:E:1084:THR:CG2	1:E:1274:ALA:HA	2.48	0.43
1:E:1582:HIS:HA	1:E:1674:ALA:O	2.18	0.43
1:E:1087:PHE:HD2	1:F:117:LYS:HZ1	1.66	0.43
1:B:2710:LEU:O	1:B:2713:VAL:HG22	2.18	0.43
1:F:2297:ARG:HH12	1:F:2391:LYS:NZ	2.17	0.43
1:A:647:THR:N	2:A:4000:FMN:O3P	2.51	0.43
1:D:2209:LEU:O	1:D:2213:VAL:HG23	2.18	0.43
1:D:2748:GLU:HG2	1:C:2753:LYS:HZ2	1.81	0.43
1:B:34:LEU:O	1:B:38:LEU:HG	2.18	0.43
1:C:412:ASP:H	1:C:1025:VAL:CG2	2.31	0.43
1:B:695:ILE:HG22	1:B:697:GLU:HG3	2.01	0.43
1:B:2891:LYS:HZ1	1:B:2903:GLU:HB3	1.84	0.43
1:F:695:ILE:HG22	1:F:697:GLU:HG3	2.00	0.43
1:C:341:THR:HG23	1:C:344:HIS:ND1	2.34	0.43
1:A:1733:ASN:H	1:A:1737:ASP:HB2	1.83	0.43
1:E:746:TYR:HB2	1:E:833:ALA:HB1	1.99	0.43
1:B:1582:HIS:HA	1:B:1674:ALA:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:857:VAL:HG13	1:F:859:PHE:H	1.83	0.43
1:C:782:ARG:HH11	1:C:857:VAL:HG22	1.83	0.43
1:E:516:PRO:HA	1:E:962:MET:SD	2.58	0.43
1:F:658:SER:HB2	1:F:661:VAL:HG23	2.00	0.43
1:E:856:PRO:HG2	1:E:874:ASP:HB2	2.00	0.43
1:B:1504:ARG:HA	1:B:1540:SER:O	2.19	0.43
1:D:1504:ARG:HA	1:D:1540:SER:O	2.19	0.43
1:F:856:PRO:HG2	1:F:874:ASP:HB2	2.00	0.43
1:B:2512:TRP:O	1:B:2520:LEU:HD12	2.19	0.43
1:C:1117:ALA:HA	1:C:1120:GLU:HB2	2.01	0.43
1:C:2512:TRP:O	1:C:2520:LEU:HD12	2.19	0.43
1:A:2115:HIS:HA	1:A:2118:LEU:CG	2.49	0.43
1:F:70:SER:HG	1:F:142:ARG:HH22	1.65	0.43
1:C:2088:ARG:C	1:C:2188:ARG:NH1	2.72	0.43
1:A:2088:ARG:C	1:A:2188:ARG:NH1	2.72	0.43
1:C:340:ILE:HD11	1:C:351:ILE:HD13	2.00	0.43
1:C:1582:HIS:HA	1:C:1674:ALA:O	2.18	0.43
1:A:2706:PRO:O	1:A:2709:ILE:HG12	2.19	0.43
1:E:2246:ALA:N	1:E:2255:ARG:HH12	2.15	0.43
1:E:583:GLY:HA2	1:E:892:ILE:HD13	2.00	0.43
1:B:276:LYS:HB3	1:B:587:TRP:CH2	2.53	0.43
1:E:1723:GLU:O	1:E:1725:SER:N	2.51	0.43
1:A:575:HIS:CD2	1:A:644:LEU:HD22	2.49	0.43
1:F:2810:GLY:HA2	1:F:2896:THR:HG22	2.01	0.43
1:C:2665:THR:HA	1:C:2666:PRO:HD3	1.86	0.43
1:E:857:VAL:HG13	1:E:859:PHE:H	1.83	0.43
1:B:307:ILE:HG22	1:B:311:TRP:CE2	2.54	0.43
1:C:2541:ARG:O	1:C:2621:VAL:HG13	2.18	0.43
1:E:1672:GLN:HE21	1:E:1672:GLN:HB3	1.58	0.43
1:E:1612:GLY:N	1:E:1623:PHE:O	2.48	0.43
1:F:1163:ASP:HA	1:F:1168:ARG:HA	2.01	0.43
1:C:2115:HIS:HA	1:C:2118:LEU:CG	2.49	0.43
1:C:2580:PHE:HE1	1:C:2603:ARG:HH21	1.66	0.43
1:A:2580:PHE:HE1	1:A:2603:ARG:HH21	1.66	0.43
1:F:2697:HIS:CD2	1:A:2700:LEU:HD22	2.43	0.43
1:E:1163:ASP:HA	1:E:1168:ARG:HA	2.01	0.43
1:F:580:ARG:HD3	1:F:896:ALA:HB3	2.01	0.43
1:E:2088:ARG:C	1:E:2188:ARG:NH1	2.72	0.43
1:D:2591:ARG:HH12	1:F:2014:SER:N	2.16	0.43
1:F:1084:THR:CG2	1:F:1274:ALA:HA	2.48	0.43
1:E:550:LYS:HD3	1:E:577:GLU:OE2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:585:HIS:HD2	1:E:586:SER:H	1.62	0.43
1:E:276:LYS:HB3	1:E:587:TRP:CH2	2.53	0.43
1:F:647:THR:N	2:F:4000:FMN:O3P	2.51	0.43
1:F:34:LEU:O	1:F:38:LEU:HG	2.19	0.43
1:C:2891:LYS:HZ2	1:C:2903:GLU:HG2	1.83	0.43
1:C:780:ARG:NH1	1:C:817:GLU:OE2	2.52	0.43
1:F:1317:GLY:O	1:F:1324:VAL:HG12	2.19	0.43
1:C:307:ILE:HG22	1:C:311:TRP:CE2	2.54	0.43
1:D:857:VAL:HG13	1:D:859:PHE:H	1.83	0.43
1:B:857:VAL:HG13	1:B:859:PHE:H	1.83	0.43
1:C:210:VAL:HG22	1:C:287:PHE:HD1	1.83	0.43
1:D:856:PRO:HG2	1:D:874:ASP:HB2	2.00	0.43
1:E:2462:VAL:HG13	1:E:2835:VAL:HG13	2.00	0.43
1:C:2444:PRO:HB2	1:C:2988:PRO:HB3	2.01	0.43
1:F:2695:MET:HG3	1:F:2696:TYR:N	2.34	0.43
1:F:1695:LEU:HA	1:F:1695:LEU:HD12	1.71	0.43
1:B:2471:PRO:HA	1:B:2625:ILE:HA	2.00	0.43
1:D:657:THR:HB	1:D:662:LYS:HE3	2.00	0.43
1:C:1285:LYS:HB3	1:C:1286:PRO:HD2	1.99	0.43
1:F:1117:ALA:HA	1:F:1120:GLU:HB2	2.01	0.43
1:B:2096:VAL:CG1	1:B:2097:ALA:N	2.82	0.43
1:F:1030:ALA:N	1:F:1031:PRO:CD	2.81	0.43
1:F:475:LEU:HD23	1:F:475:LEU:HA	1.79	0.43
1:F:1413:PRO:O	1:C:2328:GLU:OE1	2.36	0.43
1:B:2088:ARG:C	1:B:2188:ARG:NH1	2.72	0.43
1:B:664:LEU:HB3	1:B:701:ALA:HB1	1.99	0.43
1:F:664:LEU:HB3	1:F:701:ALA:HB1	1.99	0.43
1:D:695:ILE:HG22	1:D:697:GLU:HG3	2.01	0.43
1:F:307:ILE:HG22	1:F:311:TRP:CE2	2.54	0.43
1:D:2810:GLY:HA2	1:D:2896:THR:HG22	2.01	0.43
1:B:344:HIS:CD2	1:B:373:ILE:HG13	2.53	0.43
1:D:2735:HIS:O	1:C:2737:VAL:N	2.51	0.43
1:B:1317:GLY:O	1:B:1324:VAL:HG12	2.19	0.43
1:D:1133:VAL:N	1:D:1193:ALA:O	2.48	0.43
1:D:2296:ASN:ND2	1:D:2395:THR:HG21	2.34	0.43
1:A:856:PRO:HG2	1:A:874:ASP:HB2	2.00	0.43
1:F:874:ASP:OD2	1:F:877:TRP:CD1	2.72	0.43
1:D:1117:ALA:HA	1:D:1120:GLU:HB2	2.01	0.43
1:E:2444:PRO:HB2	1:E:2988:PRO:HB3	2.01	0.43
1:C:163:LEU:HD13	1:C:181:LEU:HD23	2.00	0.43
1:D:2786:ASP:OD2	1:D:2789:MET:HG2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2541:ARG:O	1:B:2621:VAL:HG13	2.18	0.43
1:F:1457:GLU:OE2	1:F:1614:TYR:OH	2.29	0.43
1:F:2115:HIS:HA	1:F:2118:LEU:CG	2.49	0.43
1:E:970:ILE:HG23	1:E:992:THR:HG21	2.00	0.43
1:E:42:GLU:HA	1:E:43:PRO:HD3	1.91	0.43
1:B:2846:ALA:O	1:B:2859:GLY:HA3	2.19	0.43
1:D:2088:ARG:C	1:D:2188:ARG:NH1	2.72	0.43
1:E:340:ILE:HD11	1:E:351:ILE:HD13	2.01	0.43
1:A:340:ILE:HD11	1:A:351:ILE:HD13	2.01	0.43
1:A:2244:ARG:HG2	1:A:2245:VAL:N	2.34	0.43
1:D:2706:PRO:O	1:D:2709:ILE:HG12	2.19	0.43
1:D:2710:LEU:O	1:D:2713:VAL:HG22	2.18	0.43
1:D:2252:VAL:HG22	1:D:2255:ARG:HH21	1.82	0.43
1:B:2252:VAL:HG22	1:B:2255:ARG:HH21	1.82	0.43
1:F:2706:PRO:O	1:F:2709:ILE:HG12	2.19	0.43
1:A:2297:ARG:HH12	1:A:2391:LYS:NZ	2.17	0.43
1:B:2297:ARG:HH12	1:B:2391:LYS:NZ	2.17	0.43
1:D:647:THR:N	2:D:4000:FMN:O3P	2.51	0.43
1:B:1537:LEU:HD13	1:B:1541:GLN:HB2	2.00	0.43
1:A:438:THR:HA	1:A:880:HIS:CE1	2.51	0.43
1:E:487:PHE:O	1:E:521:VAL:N	2.51	0.43
1:C:393:VAL:O	1:C:395:GLU:N	2.52	0.43
1:C:709:LEU:HD21	1:C:872:ARG:NE	2.34	0.43
1:A:780:ARG:NH1	1:A:817:GLU:OE2	2.52	0.43
1:E:2958:ASN:HD22	1:E:2976:TRP:HE1	1.65	0.43
1:D:2903:GLU:OE2	1:D:2995:THR:OG1	2.36	0.43
1:C:2810:GLY:HA2	1:C:2896:THR:HG22	2.01	0.43
1:B:2810:GLY:HA2	1:B:2896:THR:HG22	2.01	0.43
1:E:307:ILE:HG22	1:E:311:TRP:CE2	2.54	0.43
1:C:78:GLU:HB2	1:C:176:VAL:HG21	2.01	0.43
1:E:782:ARG:HH11	1:E:857:VAL:HG22	1.83	0.43
1:E:874:ASP:OD2	1:E:877:TRP:CD1	2.72	0.43
1:A:3044:ALA:HB1	1:A:3050:PRO:HB3	2.00	0.43
1:D:885:GLU:HG2	1:D:887:ASP:H	1.84	0.43
1:E:2512:TRP:O	1:E:2520:LEU:HD12	2.19	0.43
1:C:2786:ASP:OD2	1:C:2789:MET:HG2	2.19	0.43
1:B:2695:MET:HG3	1:B:2696:TYR:N	2.34	0.43
1:A:2096:VAL:CG1	1:A:2097:ALA:N	2.82	0.42
1:E:2558:LEU:HD11	1:B:2610:ARG:HD2	2.01	0.42
1:E:2557:LEU:HB3	1:E:2613:ARG:HB2	2.01	0.42
1:E:2610:ARG:HD2	1:B:2558:LEU:HD11	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1695:LEU:HD12	1:D:1695:LEU:HA	1.71	0.42
1:A:2911:ALA:O	1:A:2916:ARG:HB2	2.19	0.42
1:F:436:THR:OG1	1:F:437:PRO:HD3	2.19	0.42
1:F:1412:HIS:HD2	1:F:1413:PRO:CD	2.31	0.42
1:A:544:ILE:C	1:A:546:HIS:H	2.22	0.42
1:E:544:ILE:O	1:E:546:HIS:N	2.40	0.42
1:D:2014:SER:N	1:E:2591:ARG:HH12	2.16	0.42
1:E:2014:SER:N	1:F:2591:ARG:HH12	2.16	0.42
1:F:1582:HIS:HA	1:F:1674:ALA:O	2.18	0.42
1:A:203:ASP:OD2	1:C:1087:PHE:CZ	2.72	0.42
1:A:1087:PHE:CZ	1:B:203:ASP:OD2	2.72	0.42
1:A:2334:HIS:CD2	1:A:2391:LYS:HG3	2.50	0.42
1:A:276:LYS:HB3	1:A:587:TRP:CH2	2.53	0.42
1:D:2297:ARG:HH22	1:D:2391:LYS:HZ3	1.67	0.42
1:C:2092:THR:O	1:C:2092:THR:CG2	2.64	0.42
1:F:2889:ILE:HB	1:F:2924:ILE:HG12	2.01	0.42
1:E:2891:LYS:HZ2	1:E:2903:GLU:HG2	1.83	0.42
1:C:2889:ILE:HB	1:C:2924:ILE:HG12	2.01	0.42
1:E:780:ARG:NH1	1:E:817:GLU:OE2	2.52	0.42
1:F:1733:ASN:H	1:F:1737:ASP:HB2	1.83	0.42
1:E:2296:ASN:ND2	1:E:2395:THR:HG21	2.34	0.42
1:A:2452:ASP:CG	1:A:2453:LEU:N	2.73	0.42
1:D:2299:MET:H	1:D:2299:MET:HG2	1.68	0.42
1:F:211:THR:HB	1:F:286:VAL:HB	2.01	0.42
1:B:2462:VAL:HG13	1:B:2835:VAL:HG13	2.00	0.42
1:D:2541:ARG:O	1:D:2621:VAL:HG13	2.18	0.42
1:D:2444:PRO:HB2	1:D:2988:PRO:HB3	2.01	0.42
1:C:1705:VAL:O	1:C:1735:GLU:HB2	2.18	0.42
1:A:2836:LEU:HD23	1:A:2836:LEU:HA	1.87	0.42
1:E:2228:LEU:HA	1:E:2228:LEU:HD23	1.86	0.42
1:E:3044:ALA:HB1	1:E:3050:PRO:HB3	2.00	0.42
1:A:2541:ARG:O	1:A:2621:VAL:HG13	2.18	0.42
1:F:2471:PRO:HA	1:F:2625:ILE:HA	2.00	0.42
1:B:1662:ARG:HG3	1:B:1663:LYS:N	2.34	0.42
1:F:1504:ARG:HA	1:F:1540:SER:O	2.19	0.42
1:E:53:SER:HA	1:E:359:ILE:HG13	2.01	0.42
1:B:970:ILE:HG23	1:B:992:THR:HG21	2.00	0.42
1:F:2557:LEU:HB3	1:F:2613:ARG:HB2	2.01	0.42
1:B:1163:ASP:HA	1:B:1168:ARG:HA	2.01	0.42
1:A:1163:ASP:HA	1:A:1168:ARG:HA	2.01	0.42
1:D:2911:ALA:O	1:D:2916:ARG:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:580:ARG:HD3	1:B:896:ALA:HB3	2.01	0.42
1:C:45:ALA:O	1:C:351:ILE:HA	2.19	0.42
1:A:544:ILE:O	1:A:546:HIS:N	2.41	0.42
1:E:2706:PRO:O	1:E:2709:ILE:HG12	2.19	0.42
1:F:1537:LEU:HD13	1:F:1541:GLN:HB2	2.00	0.42
1:D:780:ARG:NH1	1:D:817:GLU:OE2	2.52	0.42
1:B:780:ARG:NH1	1:B:817:GLU:OE2	2.52	0.42
1:F:341:THR:HG23	1:F:344:HIS:ND1	2.34	0.42
1:D:2737:VAL:N	1:C:2735:HIS:O	2.51	0.42
1:A:2808:ARG:HH21	1:A:2901:PRO:HD3	1.85	0.42
1:C:2452:ASP:CG	1:C:2453:LEU:N	2.73	0.42
1:B:856:PRO:HG2	1:B:874:ASP:HB2	2.00	0.42
1:E:2695:MET:HG3	1:E:2696:TYR:N	2.34	0.42
1:E:1662:ARG:HG3	1:E:1663:LYS:N	2.34	0.42
1:E:211:THR:HB	1:E:286:VAL:HB	2.01	0.42
1:E:2530:TYR:O	1:E:2533:ALA:N	2.52	0.42
1:C:1672:GLN:HE21	1:C:1672:GLN:HB3	1.58	0.42
1:C:2428:PRO:O	1:C:2428:PRO:CG	2.67	0.42
1:A:88:SER:HB3	1:A:314:THR:OG1	2.18	0.42
1:A:2512:TRP:O	1:A:2520:LEU:HD12	2.19	0.42
1:A:2530:TYR:O	1:A:2533:ALA:N	2.52	0.42
1:D:1662:ARG:HG3	1:D:1663:LYS:N	2.34	0.42
1:C:954:PRO:O	1:C:965:ASN:N	2.52	0.42
1:A:1705:VAL:O	1:A:1735:GLU:HB2	2.18	0.42
1:C:211:THR:HB	1:C:286:VAL:HB	2.01	0.42
1:A:211:THR:HB	1:A:286:VAL:HB	2.01	0.42
1:A:2444:PRO:HB2	1:A:2988:PRO:HB3	2.01	0.42
1:E:2674:HIS:HA	1:E:2675:PRO:HD2	1.88	0.42
1:F:1030:ALA:N	1:F:1031:PRO:HD3	2.34	0.42
1:E:45:ALA:O	1:E:351:ILE:HA	2.20	0.42
1:E:511:ARG:CB	1:E:540:ASN:HB2	2.46	0.42
1:B:1084:THR:CG2	1:B:1274:ALA:HA	2.48	0.42
1:C:2706:PRO:O	1:C:2709:ILE:HG12	2.19	0.42
1:D:2180:LYS:HZ1	1:D:2962:ASP:HB3	1.83	0.42
1:D:2297:ARG:HH12	1:D:2391:LYS:NZ	2.17	0.42
1:B:613:GLY:HA2	2:B:4000:FMN:O5'	2.19	0.42
1:D:2889:ILE:HB	1:D:2924:ILE:HG12	2.01	0.42
1:D:1093:PRO:HB3	1:D:1277:HIS:CE1	2.52	0.42
1:A:1093:PRO:HB3	1:A:1277:HIS:CE1	2.52	0.42
1:E:365:ALA:O	1:E:369:ARG:N	2.42	0.42
1:C:856:PRO:HG2	1:C:874:ASP:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2452:ASP:CG	1:E:2453:LEU:N	2.73	0.42
1:E:1275:ALA:O	1:E:1279:VAL:HG23	2.20	0.42
1:B:107:LEU:HD13	1:B:113:VAL:HB	2.01	0.42
1:B:1021:LEU:HB3	1:B:1034:GLU:HG2	2.01	0.42
1:F:1503:ILE:HB	1:F:1542:TYR:HB2	2.00	0.42
1:B:885:GLU:HG2	1:B:887:ASP:H	1.84	0.42
1:F:958:TRP:CZ3	1:F:1130:LEU:HB2	2.54	0.42
1:A:2557:LEU:HB3	1:A:2613:ARG:HB2	2.01	0.42
1:B:2557:LEU:HB3	1:B:2613:ARG:HB2	2.01	0.42
1:F:479:LEU:HD21	1:F:485:ILE:HD11	2.02	0.42
1:F:2911:ALA:O	1:F:2916:ARG:HB2	2.20	0.42
1:C:2911:ALA:O	1:C:2916:ARG:HB2	2.19	0.42
1:C:70:SER:HG	1:C:142:ARG:NH2	2.16	0.42
1:B:1634:ARG:NH1	1:B:1639:ALA:H	2.11	0.42
1:A:336:TRP:HE3	1:A:339:GLU:OE2	2.03	0.42
1:A:511:ARG:CB	1:A:540:ASN:HB2	2.46	0.42
1:F:1533:VAL:N	1:F:1543:ALA:O	2.52	0.42
1:B:1087:PHE:CZ	1:C:203:ASP:OD2	2.72	0.42
1:E:2297:ARG:HH12	1:E:2391:LYS:NZ	2.17	0.42
1:C:276:LYS:HB3	1:C:587:TRP:CH2	2.53	0.42
1:E:488:ASN:OD1	1:E:523:SER:OG	2.34	0.42
1:D:1703:ILE:HG22	1:D:1704:GLY:H	1.85	0.42
1:E:2903:GLU:OE2	1:E:2995:THR:OG1	2.36	0.42
1:F:780:ARG:NH1	1:F:817:GLU:OE2	2.52	0.42
1:A:2957:PRO:HB3	1:A:2980:PRO:N	2.35	0.42
1:C:2957:PRO:HB3	1:C:2980:PRO:N	2.34	0.42
1:E:2468:GLU:OE2	1:E:2478:ARG:NH2	2.48	0.42
1:B:2468:GLU:OE2	1:B:2478:ARG:NH2	2.48	0.42
1:A:2810:GLY:HA2	1:A:2896:THR:HG22	2.01	0.42
1:A:315:VAL:C	1:A:317:LEU:H	2.22	0.42
1:E:315:VAL:C	1:E:317:LEU:H	2.22	0.42
1:E:602:ARG:NH2	1:E:641:ASP:OD1	2.28	0.42
1:F:2808:ARG:HH21	1:F:2901:PRO:HD3	1.85	0.42
1:A:1280:THR:O	1:A:1288:PRO:HB3	2.20	0.42
1:F:53:SER:HA	1:F:359:ILE:HG13	2.01	0.42
1:B:53:SER:HA	1:B:359:ILE:HG13	2.01	0.42
1:A:2428:PRO:CG	1:A:2428:PRO:O	2.68	0.42
1:A:1672:GLN:HB3	1:A:1672:GLN:HE21	1.58	0.42
1:C:657:THR:HB	1:C:662:LYS:HE3	2.00	0.42
1:E:1504:ARG:HA	1:E:1540:SER:O	2.19	0.42
1:C:2141:VAL:HG22	1:C:2238:PHE:HD2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:970:ILE:HG23	1:A:992:THR:HG21	2.00	0.42
1:F:2558:LEU:HD11	1:A:2610:ARG:HD2	2.01	0.42
1:B:479:LEU:HD21	1:B:485:ILE:HD11	2.02	0.42
1:D:436:THR:OG1	1:D:437:PRO:HD3	2.19	0.42
1:D:668:THR:HG23	1:D:683:GLY:HA3	2.02	0.42
1:D:2244:ARG:HG2	1:D:2245:VAL:N	2.34	0.42
1:B:2706:PRO:O	1:B:2709:ILE:HG12	2.19	0.42
1:F:613:GLY:HA2	2:F:4000:FMN:O5'	2.19	0.42
1:D:613:GLY:HA2	2:D:4000:FMN:O5'	2.19	0.42
1:C:613:GLY:HA2	2:C:4000:FMN:O5'	2.19	0.42
1:C:2297:ARG:HH12	1:C:2391:LYS:NZ	2.17	0.42
1:A:488:ASN:OD1	1:A:523:SER:OG	2.34	0.42
1:B:709:LEU:HD21	1:B:872:ARG:NE	2.34	0.42
1:A:709:LEU:HD21	1:A:872:ARG:NE	2.34	0.42
1:F:709:LEU:HD21	1:F:872:ARG:NE	2.34	0.42
1:B:2891:LYS:NZ	1:B:2903:GLU:HB3	2.35	0.42
1:C:1656:LYS:N	1:C:1657:PRO:HD2	2.35	0.42
1:E:1656:LYS:N	1:E:1657:PRO:HD2	2.35	0.42
1:F:315:VAL:C	1:F:317:LEU:H	2.22	0.42
1:D:1106:CYS:SG	1:D:1174:VAL:HG11	2.60	0.42
1:D:1280:THR:O	1:D:1288:PRO:HB3	2.20	0.42
1:A:2831:MET:HE2	1:A:2831:MET:HB3	1.88	0.42
1:C:2296:ASN:ND2	1:C:2395:THR:HG21	2.34	0.42
1:A:1504:ARG:HA	1:A:1540:SER:O	2.19	0.42
1:F:559:SER:O	1:F:563:ILE:HG12	2.20	0.42
1:A:50:GLY:O	1:A:53:SER:OG	2.36	0.42
1:D:1247:ASN:HA	1:D:1248:PRO:HD3	1.83	0.42
1:A:2695:MET:HG3	1:A:2696:TYR:N	2.34	0.42
1:C:2855:ALA:HA	1:C:2856:PRO:HD3	1.93	0.42
1:B:2449:GLU:CG	1:B:2449:GLU:O	2.68	0.42
1:F:2428:PRO:CG	1:F:2428:PRO:O	2.67	0.42
1:D:2892:HIS:HA	1:D:2942:GLN:HE22	1.85	0.42
1:C:1662:ARG:HG3	1:C:1663:LYS:N	2.34	0.42
1:B:211:THR:HB	1:B:286:VAL:HB	2.01	0.42
1:E:1457:GLU:OE2	1:E:1614:TYR:OH	2.30	0.42
1:B:1275:ALA:HB2	1:B:1311:PHE:CE2	2.55	0.42
1:B:2786:ASP:OD2	1:B:2789:MET:HG2	2.19	0.42
1:D:2294:SER:HB3	1:D:2310:LYS:HB2	2.02	0.42
1:A:970:ILE:O	1:A:974:THR:HG22	2.20	0.42
1:C:970:ILE:O	1:C:974:THR:HG22	2.20	0.42
1:E:2805:ASP:OD2	1:E:2807:ARG:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2846:ALA:O	1:C:2859:GLY:HA3	2.19	0.42
1:C:479:LEU:HD21	1:C:485:ILE:HD11	2.02	0.42
1:B:45:ALA:O	1:B:351:ILE:HA	2.20	0.42
1:A:1008:VAL:O	1:A:1008:VAL:CG1	2.68	0.42
1:C:2244:ARG:HG2	1:C:2245:VAL:N	2.34	0.42
1:B:2244:ARG:HG2	1:B:2245:VAL:N	2.34	0.42
1:F:2244:ARG:HG2	1:F:2245:VAL:N	2.35	0.42
1:B:336:TRP:HE3	1:B:339:GLU:OE2	2.03	0.42
1:D:2753:LYS:HA	1:D:2753:LYS:HD3	1.83	0.42
1:E:1684:ASP:HA	1:E:1687:PHE:HD2	1.82	0.42
1:B:2800:PHE:CZ	1:B:2812:LEU:HD13	2.55	0.42
1:F:488:ASN:OD1	1:F:523:SER:OG	2.34	0.42
1:E:2889:ILE:HG13	1:E:2922:LEU:HD13	2.02	0.42
1:A:2891:LYS:HZ2	1:A:2903:GLU:HG2	1.83	0.42
1:A:2889:ILE:HG13	1:A:2922:LEU:HD13	2.02	0.42
1:D:2891:LYS:NZ	1:D:2903:GLU:HB3	2.35	0.42
1:F:2957:PRO:HB3	1:F:2980:PRO:N	2.34	0.42
1:F:2452:ASP:CG	1:F:2453:LEU:N	2.73	0.42
1:C:1280:THR:O	1:C:1288:PRO:HB3	2.20	0.42
1:E:1275:ALA:HB2	1:E:1311:PHE:CE2	2.55	0.42
1:E:658:SER:HB2	1:E:661:VAL:HG23	2.01	0.42
1:A:1457:GLU:OE2	1:A:1614:TYR:OH	2.30	0.42
1:A:559:SER:O	1:A:563:ILE:HG12	2.20	0.42
1:A:2055:VAL:HG22	1:A:2194:TRP:CD1	2.55	0.42
1:B:1120:GLU:HA	1:B:1125:VAL:CG2	2.50	0.42
1:D:2695:MET:HG3	1:D:2696:TYR:N	2.34	0.42
1:C:2892:HIS:HA	1:C:2942:GLN:HE22	1.85	0.42
1:C:1021:LEU:HB3	1:C:1034:GLU:HG2	2.01	0.42
1:D:2141:VAL:HG22	1:D:2238:PHE:HD2	1.84	0.42
1:F:2610:ARG:HD2	1:A:2558:LEU:HD11	2.02	0.42
1:C:436:THR:OG1	1:C:437:PRO:HD3	2.19	0.42
1:B:2805:ASP:OD2	1:B:2807:ARG:HB2	2.20	0.42
1:A:2805:ASP:OD2	1:A:2807:ARG:HB2	2.20	0.42
1:D:2591:ARG:HH12	1:F:2014:SER:H	1.65	0.42
1:E:613:GLY:HA2	2:E:4000:FMN:O5'	2.19	0.42
1:A:585:HIS:HD2	1:A:586:SER:H	1.62	0.42
1:D:1352:PHE:HA	1:D:1353:PRO:HD3	1.72	0.42
1:D:709:LEU:HD21	1:D:872:ARG:NE	2.34	0.42
1:F:2300:PHE:HZ	1:F:2398:LEU:HB3	1.85	0.42
1:B:1656:LYS:N	1:B:1657:PRO:HD2	2.35	0.42
1:A:2891:LYS:NZ	1:A:2903:GLU:HB3	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:488:ASN:OD1	1:B:523:SER:OG	2.34	0.42
1:D:2957:PRO:HB3	1:D:2980:PRO:N	2.34	0.42
1:B:2957:PRO:HB3	1:B:2980:PRO:N	2.35	0.42
1:F:1106:CYS:SG	1:F:1174:VAL:HG11	2.60	0.42
1:A:307:ILE:HG22	1:A:311:TRP:CE2	2.54	0.42
1:F:2715:PRO:HD2	1:A:2737:VAL:HG11	2.02	0.42
1:C:1317:GLY:O	1:C:1324:VAL:HG12	2.19	0.42
1:E:210:VAL:HG22	1:E:287:PHE:HD1	1.83	0.42
1:F:782:ARG:HH11	1:F:857:VAL:HG22	1.83	0.42
1:B:1280:THR:O	1:B:1288:PRO:HB3	2.20	0.42
1:C:2930:LEU:HD23	1:C:2930:LEU:HA	1.93	0.42
1:D:2452:ASP:CG	1:D:2453:LEU:N	2.73	0.42
1:A:53:SER:HA	1:A:359:ILE:HG13	2.01	0.42
1:C:2354:SER:O	1:C:2358:GLU:HG3	2.20	0.42
1:D:2512:TRP:O	1:D:2520:LEU:HD12	2.19	0.42
1:A:44:TYR:O	1:A:153:VAL:N	2.44	0.42
1:E:2032:VAL:HG11	1:A:2032:VAL:HG11	2.00	0.42
1:E:885:GLU:HG2	1:E:887:ASP:H	1.84	0.42
1:D:2286:ARG:HD3	1:D:2331:SER:OG	2.20	0.42
1:F:2786:ASP:OD2	1:F:2789:MET:HG2	2.19	0.42
1:B:2428:PRO:O	1:B:2428:PRO:CG	2.67	0.42
1:D:1275:ALA:HB2	1:D:1311:PHE:CE2	2.55	0.42
1:A:1275:ALA:O	1:A:1279:VAL:HG23	2.20	0.42
1:C:2055:VAL:HG22	1:C:2194:TRP:CD1	2.55	0.42
1:F:970:ILE:O	1:F:974:THR:HG22	2.20	0.42
1:C:931:VAL:HG13	1:C:934:LEU:N	2.21	0.42
1:E:2701:LEU:HD23	1:B:2558:LEU:HB2	2.02	0.42
1:C:2557:LEU:HB3	1:C:2613:ARG:HB2	2.01	0.42
1:F:2846:ALA:O	1:F:2859:GLY:HA3	2.20	0.42
1:D:2557:LEU:HB3	1:D:2613:ARG:HB2	2.01	0.42
1:E:2911:ALA:O	1:E:2916:ARG:HB2	2.19	0.42
1:F:2088:ARG:C	1:F:2188:ARG:NH1	2.72	0.42
1:F:336:TRP:HE3	1:F:339:GLU:OE2	2.03	0.42
1:B:2014:SER:N	1:C:2591:ARG:HH12	2.16	0.42
1:A:668:THR:HG23	1:A:683:GLY:HA3	2.02	0.42
1:B:2889:ILE:HG13	1:B:2922:LEU:HD13	2.02	0.42
1:D:1656:LYS:N	1:D:1657:PRO:HD2	2.35	0.42
1:D:1660:LEU:HD23	1:D:1660:LEU:HA	1.86	0.42
1:D:816:LEU:HD23	1:D:816:LEU:HA	1.83	0.42
1:E:2957:PRO:HB3	1:E:2980:PRO:N	2.35	0.42
1:D:2468:GLU:OE2	1:D:2478:ARG:NH2	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2810:GLY:HA2	1:E:2896:THR:HG22	2.01	0.42
1:C:1380:ALA:HB1	1:C:1474:LEU:CD1	2.50	0.42
1:C:1733:ASN:H	1:C:1737:ASP:HB2	1.83	0.42
1:C:2503:LYS:HG3	1:C:2513:TYR:HB2	2.02	0.42
1:C:365:ALA:O	1:C:369:ARG:N	2.42	0.42
1:E:1280:THR:O	1:E:1288:PRO:HB3	2.20	0.42
1:F:2452:ASP:CG	1:F:2453:LEU:H	2.23	0.42
1:B:2452:ASP:CG	1:B:2453:LEU:N	2.73	0.42
1:C:1504:ARG:HA	1:C:1505:PRO:HD2	1.93	0.42
1:D:1120:GLU:HA	1:D:1125:VAL:CG2	2.50	0.42
1:B:1275:ALA:O	1:B:1279:VAL:HG23	2.20	0.42
1:D:1228:VAL:HB	1:D:1311:PHE:HB2	2.02	0.42
1:E:2786:ASP:OD2	1:E:2789:MET:HG2	2.19	0.42
1:C:885:GLU:HG2	1:C:887:ASP:H	1.84	0.42
1:E:2141:VAL:HG22	1:E:2238:PHE:HD2	1.85	0.42
1:A:1021:LEU:HB3	1:A:1034:GLU:HG2	2.01	0.42
1:E:957:LEU:O	1:E:1034:GLU:HB2	2.20	0.42
1:F:885:GLU:HG2	1:F:887:ASP:H	1.84	0.42
1:F:107:LEU:HD13	1:F:113:VAL:HB	2.02	0.42
1:F:1275:ALA:HB2	1:F:1311:PHE:CE2	2.55	0.42
1:C:1275:ALA:HB2	1:C:1311:PHE:CE2	2.55	0.42
1:D:2428:PRO:CG	1:D:2428:PRO:O	2.68	0.42
1:B:2294:SER:HB3	1:B:2310:LYS:HB2	2.02	0.42
1:F:1612:GLY:N	1:F:1623:PHE:O	2.48	0.42
1:D:1021:LEU:HB3	1:D:1034:GLU:HG2	2.01	0.42
1:D:957:LEU:O	1:D:1034:GLU:HB2	2.20	0.42
1:A:2563:LEU:HD21	1:A:2567:PHE:HB2	2.02	0.42
1:E:2096:VAL:CG1	1:E:2097:ALA:N	2.82	0.42
1:D:970:ILE:O	1:D:974:THR:HG22	2.20	0.42
1:E:928:ALA:HB1	1:E:931:VAL:CB	2.50	0.42
1:E:2558:LEU:HB2	1:B:2701:LEU:HD23	2.02	0.42
1:D:479:LEU:HD21	1:D:485:ILE:HD11	2.02	0.42
1:F:2805:ASP:OD2	1:F:2807:ARG:HB2	2.20	0.42
1:B:2911:ALA:O	1:B:2916:ARG:HB2	2.19	0.42
1:D:2805:ASP:OD2	1:D:2807:ARG:HB2	2.20	0.42
1:A:436:THR:OG1	1:A:437:PRO:HD3	2.19	0.42
1:A:45:ALA:O	1:A:351:ILE:HA	2.20	0.42
1:B:340:ILE:HD11	1:B:351:ILE:HD13	2.01	0.42
1:E:1087:PHE:CZ	1:F:203:ASP:OD2	2.72	0.42
1:A:613:GLY:HA2	2:A:4000:FMN:O5'	2.19	0.42
1:F:393:VAL:O	1:F:395:GLU:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2891:LYS:HZ2	1:B:2903:GLU:HG2	1.84	0.42
1:F:2891:LYS:NZ	1:F:2903:GLU:HB3	2.35	0.42
1:A:2300:PHE:HZ	1:A:2398:LEU:HB3	1.85	0.42
1:F:78:GLU:HB2	1:F:176:VAL:HG21	2.01	0.42
1:E:341:THR:HG23	1:E:344:HIS:ND1	2.34	0.42
1:A:341:THR:HG23	1:A:344:HIS:ND1	2.34	0.42
1:F:1380:ALA:HB1	1:F:1474:LEU:CD1	2.50	0.42
1:F:1280:THR:O	1:F:1288:PRO:HB3	2.20	0.42
1:B:2452:ASP:CG	1:B:2453:LEU:H	2.24	0.42
1:E:1117:ALA:HA	1:E:1120:GLU:HB2	2.01	0.42
1:D:2354:SER:O	1:D:2358:GLU:HG3	2.20	0.42
1:A:1381:ASP:OD1	1:A:1391:SER:OG	2.22	0.42
1:C:2294:SER:HB3	1:C:2310:LYS:HB2	2.02	0.42
1:B:2584:ASP:O	1:B:2586:GLU:N	2.53	0.42
1:C:266:ALA:O	1:C:270:GLU:HG3	2.20	0.42
1:C:2449:GLU:CG	1:C:2449:GLU:O	2.68	0.42
1:E:2428:PRO:CG	1:E:2428:PRO:O	2.67	0.42
1:C:53:SER:HA	1:C:359:ILE:HG13	2.01	0.42
1:A:2620:THR:OG1	1:A:2791:ARG:NH2	2.53	0.42
1:F:2444:PRO:HB2	1:F:2988:PRO:HB3	2.01	0.42
1:E:559:SER:O	1:E:563:ILE:HG12	2.20	0.42
1:D:2055:VAL:HG22	1:D:2194:TRP:CD1	2.55	0.42
1:F:1394:HIS:ND1	1:C:2324:LYS:NZ	2.68	0.42
1:F:2558:LEU:HB2	1:A:2701:LEU:HD23	2.02	0.42
1:E:479:LEU:HD21	1:E:485:ILE:HD11	2.02	0.42
1:E:1008:VAL:CG1	1:E:1008:VAL:O	2.68	0.42
1:E:668:THR:HG23	1:E:683:GLY:HA3	2.02	0.42
1:E:2244:ARG:HG2	1:E:2245:VAL:N	2.34	0.42
1:B:393:VAL:O	1:B:395:GLU:N	2.52	0.42
1:C:2800:PHE:CZ	1:C:2812:LEU:HD13	2.55	0.42
1:B:669:LYS:O	1:B:682:ASN:HB3	2.20	0.42
1:F:2889:ILE:HG13	1:F:2922:LEU:HD13	2.02	0.42
1:A:1703:ILE:HG22	1:A:1704:GLY:H	1.85	0.42
1:A:1106:CYS:SG	1:A:1174:VAL:HG11	2.60	0.42
1:D:1380:ALA:HB1	1:D:1474:LEU:CD1	2.50	0.42
1:B:1380:ALA:HB1	1:B:1474:LEU:CD1	2.50	0.42
1:A:1317:GLY:O	1:A:1324:VAL:HG12	2.19	0.42
1:D:2503:LYS:HG3	1:D:2513:TYR:HB2	2.02	0.42
1:F:2296:ASN:ND2	1:F:2395:THR:HG21	2.34	0.42
1:D:1504:ARG:HA	1:D:1505:PRO:HD2	1.93	0.42
1:B:1228:VAL:HB	1:B:1311:PHE:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1021:LEU:HB3	1:E:1034:GLU:HG2	2.01	0.42
1:F:1228:VAL:HB	1:F:1311:PHE:HB2	2.02	0.42
1:B:1611:ILE:HG23	1:B:1624:THR:HA	2.02	0.42
1:F:2055:VAL:HG22	1:F:2194:TRP:CD1	2.55	0.42
1:B:2354:SER:O	1:B:2358:GLU:HG3	2.20	0.42
1:E:1013:THR:CG2	1:E:1014:TRP:N	2.58	0.41
1:E:2610:ARG:NH1	1:E:2700:LEU:HD11	2.25	0.41
1:A:2846:ALA:O	1:A:2859:GLY:HA3	2.20	0.41
1:D:2846:ALA:O	1:D:2859:GLY:HA3	2.20	0.41
1:C:668:THR:HG23	1:C:683:GLY:HA3	2.02	0.41
1:B:2180:LYS:HZ1	1:B:2962:ASP:HB3	1.83	0.41
1:B:1687:PHE:CE1	1:B:1723:GLU:HG2	2.55	0.41
1:A:1687:PHE:CE1	1:A:1723:GLU:HG2	2.55	0.41
1:F:1095:LEU:HD23	1:F:1098:VAL:HA	2.02	0.41
1:C:1703:ILE:HG22	1:C:1704:GLY:H	1.85	0.41
1:D:2800:PHE:CZ	1:D:2812:LEU:HD13	2.55	0.41
1:E:1703:ILE:HG22	1:E:1704:GLY:H	1.85	0.41
1:B:1106:CYS:SG	1:B:1174:VAL:HG11	2.60	0.41
1:A:756:LEU:HD13	1:A:859:PHE:CD2	2.55	0.41
1:B:756:LEU:HD13	1:B:859:PHE:CD2	2.55	0.41
1:E:2452:ASP:CG	1:E:2453:LEU:H	2.24	0.41
1:B:50:GLY:O	1:B:53:SER:OG	2.36	0.41
1:C:1228:VAL:HB	1:C:1311:PHE:HB2	2.02	0.41
1:E:1120:GLU:HA	1:E:1125:VAL:CG2	2.50	0.41
1:A:1117:ALA:HA	1:A:1120:GLU:HB2	2.01	0.41
1:B:2286:ARG:HD3	1:B:2331:SER:OG	2.20	0.41
1:F:1500:LEU:HD23	1:F:1574:VAL:HG21	2.02	0.41
1:C:160:GLN:HA	1:C:329:ILE:HD13	2.02	0.41
1:E:2620:THR:OG1	1:E:2791:ARG:NH2	2.53	0.41
1:E:2354:SER:O	1:E:2358:GLU:HG3	2.20	0.41
1:A:1662:ARG:HG3	1:A:1663:LYS:N	2.34	0.41
1:D:1611:ILE:HG23	1:D:1624:THR:HA	2.02	0.41
1:B:3065:PRO:O	1:B:3069:GLN:N	2.42	0.41
1:E:2563:LEU:HD21	1:E:2567:PHE:HB2	2.02	0.41
1:C:107:LEU:HD13	1:C:113:VAL:HB	2.01	0.41
1:A:885:GLU:HG2	1:A:887:ASP:H	1.84	0.41
1:F:266:ALA:O	1:F:270:GLU:HG3	2.20	0.41
1:B:795:HIS:NE2	1:B:797:GLN:HB2	2.35	0.41
1:F:928:ALA:HB1	1:F:931:VAL:CB	2.50	0.41
1:D:2700:LEU:HD22	1:C:2697:HIS:CD2	2.43	0.41
1:F:340:ILE:HD11	1:F:351:ILE:HD13	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1084:THR:CG2	1:A:1274:ALA:HA	2.49	0.41
1:A:393:VAL:O	1:A:395:GLU:N	2.52	0.41
1:E:1687:PHE:CE1	1:E:1723:GLU:HG2	2.55	0.41
1:F:2800:PHE:CZ	1:F:2812:LEU:HD13	2.55	0.41
1:B:1703:ILE:HG22	1:B:1704:GLY:H	1.85	0.41
1:A:2800:PHE:CE1	1:A:2812:LEU:HD22	2.50	0.41
1:E:2889:ILE:HB	1:E:2924:ILE:HG12	2.01	0.41
1:A:1656:LYS:N	1:A:1657:PRO:HD2	2.35	0.41
1:C:2300:PHE:HZ	1:C:2398:LEU:HB3	1.85	0.41
1:B:2961:LEU:HD22	1:B:2976:TRP:HD1	1.85	0.41
1:D:417:LEU:HD21	1:D:625:LEU:HD21	2.02	0.41
1:B:1706:LYS:HA	1:B:1735:GLU:HG3	2.03	0.41
1:D:2452:ASP:CG	1:D:2453:LEU:H	2.24	0.41
1:E:1228:VAL:HB	1:E:1311:PHE:HB2	2.02	0.41
1:B:1117:ALA:HA	1:B:1120:GLU:HB2	2.01	0.41
1:C:2620:THR:OG1	1:C:2791:ARG:NH2	2.53	0.41
1:E:2055:VAL:HG22	1:E:2194:TRP:CD1	2.55	0.41
1:D:1070:VAL:N	1:D:1152:PHE:O	2.52	0.41
1:D:2449:GLU:CG	1:D:2449:GLU:O	2.68	0.41
1:B:1551:LEU:HA	1:B:1551:LEU:HD13	1.80	0.41
1:F:2989:LEU:HD12	1:F:2989:LEU:HA	1.77	0.41
1:E:1460:ALA:O	1:E:1464:VAL:HG22	2.20	0.41
1:B:160:GLN:HA	1:B:329:ILE:HD13	2.02	0.41
1:A:1611:ILE:HG23	1:A:1624:THR:HA	2.02	0.41
1:E:970:ILE:O	1:E:974:THR:HG22	2.20	0.41
1:A:928:ALA:HB1	1:A:931:VAL:CB	2.50	0.41
1:D:2919:GLY:O	1:D:2921:PRO:HD3	2.21	0.41
1:F:2702:GLY:HA3	1:A:2557:LEU:CG	2.45	0.41
1:B:475:LEU:HA	1:B:475:LEU:HD23	1.79	0.41
1:C:2805:ASP:OD2	1:C:2807:ARG:HB2	2.20	0.41
1:B:436:THR:OG1	1:B:437:PRO:HD3	2.19	0.41
1:C:580:ARG:HD3	1:C:896:ALA:HB3	2.01	0.41
1:E:336:TRP:HE3	1:E:339:GLU:OE2	2.03	0.41
1:C:1008:VAL:CG1	1:C:1008:VAL:O	2.68	0.41
1:C:544:ILE:O	1:C:546:HIS:N	2.40	0.41
1:D:1087:PHE:CZ	1:E:203:ASP:OD2	2.72	0.41
1:A:618:PRO:HB3	1:A:915:PHE:HA	2.03	0.41
1:F:2297:ARG:HH22	1:F:2391:LYS:HZ3	1.67	0.41
1:D:1095:LEU:HD23	1:D:1098:VAL:HA	2.02	0.41
1:A:669:LYS:O	1:A:682:ASN:HB3	2.20	0.41
1:F:1656:LYS:N	1:F:1657:PRO:HD2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2889:ILE:HG13	1:D:2922:LEU:HD13	2.02	0.41
1:A:2961:LEU:HD22	1:A:2976:TRP:HD1	1.85	0.41
1:C:2492:VAL:HG12	1:C:2526:ILE:HG22	2.02	0.41
1:C:1106:CYS:SG	1:C:1174:VAL:HG11	2.60	0.41
1:E:2808:ARG:HH21	1:E:2901:PRO:HD3	1.85	0.41
1:E:2737:VAL:HG11	1:B:2715:PRO:HD2	2.02	0.41
1:B:78:GLU:HB2	1:B:176:VAL:HG21	2.01	0.41
1:A:2296:ASN:ND2	1:A:2395:THR:HG21	2.34	0.41
1:F:50:GLY:O	1:F:53:SER:OG	2.36	0.41
1:D:1275:ALA:O	1:D:1279:VAL:HG23	2.20	0.41
1:A:1275:ALA:HB2	1:A:1311:PHE:CE2	2.55	0.41
1:F:1233:PRO:HB2	1:F:1236:MET:HE2	2.01	0.41
1:A:266:ALA:O	1:A:270:GLU:HG3	2.20	0.41
1:C:1070:VAL:N	1:C:1152:PHE:O	2.51	0.41
1:B:266:ALA:O	1:B:270:GLU:HG3	2.20	0.41
1:F:2620:THR:OG1	1:F:2791:ARG:NH2	2.53	0.41
1:B:2892:HIS:HA	1:B:2942:GLN:HE22	1.85	0.41
1:B:1460:ALA:O	1:B:1464:VAL:HG22	2.20	0.41
1:A:2786:ASP:OD2	1:A:2789:MET:HG2	2.19	0.41
1:E:2552:ASP:N	1:E:2552:ASP:OD1	2.43	0.41
1:F:1672:GLN:HB3	1:F:1672:GLN:HE21	1.58	0.41
1:B:2141:VAL:HG22	1:B:2238:PHE:HD2	1.85	0.41
1:B:2620:THR:OG1	1:B:2791:ARG:NH2	2.53	0.41
1:B:1491:ASP:HB2	1:B:1495:ARG:HB2	2.02	0.41
1:C:2695:MET:HG3	1:C:2696:TYR:N	2.34	0.41
1:E:2013:LEU:HA	1:E:2013:LEU:HD23	1.87	0.41
1:F:160:GLN:HA	1:F:329:ILE:HD13	2.02	0.41
1:E:2584:ASP:O	1:E:2586:GLU:N	2.53	0.41
1:D:1491:ASP:HB2	1:D:1495:ARG:HB2	2.02	0.41
1:E:1611:ILE:HG23	1:E:1624:THR:HA	2.02	0.41
1:E:2294:SER:HB3	1:E:2310:LYS:HB2	2.02	0.41
1:F:2584:ASP:O	1:F:2586:GLU:N	2.53	0.41
1:F:1038:ALA:N	1:F:1127:GLU:H	2.19	0.41
1:B:970:ILE:O	1:B:974:THR:HG22	2.20	0.41
1:E:795:HIS:NE2	1:E:797:GLN:HB2	2.35	0.41
1:E:931:VAL:HG13	1:E:934:LEU:N	2.21	0.41
1:E:793:ARG:HH12	1:E:2523:GLU:CD	2.24	0.41
1:E:2557:LEU:CG	1:B:2702:GLY:HA3	2.46	0.41
1:A:479:LEU:HD21	1:A:485:ILE:HD11	2.02	0.41
1:C:1129:LEU:HA	1:C:1129:LEU:HD12	1.92	0.41
1:E:202:GLY:O	1:E:289:PRO:HD2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1533:VAL:N	1:E:1543:ALA:O	2.52	0.41
1:D:2710:LEU:HD12	1:D:2713:VAL:HG21	2.03	0.41
1:C:587:TRP:CZ2	1:C:694:ASP:OD2	2.74	0.41
1:D:1687:PHE:CE1	1:D:1723:GLU:HG2	2.55	0.41
1:F:1703:ILE:HG22	1:F:1704:GLY:H	1.85	0.41
1:F:2352:ILE:HG21	1:F:2412:ALA:CB	2.51	0.41
1:E:2300:PHE:HZ	1:E:2398:LEU:HB3	1.85	0.41
1:D:2808:ARG:HH21	1:D:2901:PRO:HD3	1.85	0.41
1:E:180:ALA:O	1:E:184:LEU:HG	2.21	0.41
1:F:756:LEU:HD13	1:F:859:PHE:CD2	2.55	0.41
1:E:1462:ALA:HB2	1:E:1468:TYR:CE1	2.56	0.41
1:B:957:LEU:O	1:B:1034:GLU:HB2	2.20	0.41
1:F:1460:ALA:O	1:F:1464:VAL:HG22	2.20	0.41
1:D:2620:THR:OG1	1:D:2791:ARG:NH2	2.53	0.41
1:A:2449:GLU:CG	1:A:2449:GLU:O	2.68	0.41
1:F:1611:ILE:HG23	1:F:1624:THR:HA	2.02	0.41
1:F:1035:VAL:HB	1:F:1042:MET:HG2	2.03	0.41
1:D:2096:VAL:CG1	1:D:2097:ALA:N	2.82	0.41
1:D:928:ALA:HB1	1:D:931:VAL:CB	2.50	0.41
1:C:928:ALA:HB1	1:C:931:VAL:CB	2.50	0.41
1:B:3080:ARG:CG	1:B:3080:ARG:NH1	2.72	0.41
1:D:2558:LEU:HB2	1:C:2701:LEU:HD23	2.02	0.41
1:E:436:THR:OG1	1:E:437:PRO:HD3	2.19	0.41
1:C:1400:PRO:O	1:C:1415:GLY:HA2	2.21	0.41
1:E:1412:HIS:CD2	1:E:1413:PRO:HD2	2.49	0.41
1:C:1634:ARG:NH1	1:C:1639:ALA:H	2.11	0.41
1:B:374:GLY:C	1:B:375:ILE:HG13	2.41	0.41
1:F:45:ALA:O	1:F:351:ILE:HA	2.20	0.41
1:E:2014:SER:H	1:F:2591:ARG:NH1	2.19	0.41
1:C:202:GLY:O	1:C:289:PRO:HD2	2.21	0.41
1:B:2014:SER:H	1:C:2591:ARG:NH1	2.19	0.41
1:E:618:PRO:HB3	1:E:915:PHE:HA	2.02	0.41
1:B:360:LEU:HA	1:B:363:LEU:HB3	2.03	0.41
1:D:2748:GLU:HG2	1:C:2753:LYS:HZ1	1.85	0.41
1:D:669:LYS:O	1:D:682:ASN:HB3	2.20	0.41
1:B:1660:LEU:HD23	1:B:1660:LEU:HA	1.85	0.41
1:E:709:LEU:HD21	1:E:872:ARG:NE	2.34	0.41
1:D:2300:PHE:HZ	1:D:2398:LEU:HB3	1.85	0.41
1:D:2961:LEU:HD22	1:D:2976:TRP:HD1	1.85	0.41
1:E:1106:CYS:SG	1:E:1174:VAL:HG11	2.60	0.41
1:E:1380:ALA:HB1	1:E:1474:LEU:CD1	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2737:VAL:HG23	1:A:2735:HIS:O	2.21	0.41
1:C:417:LEU:HD21	1:C:625:LEU:HD21	2.02	0.41
1:E:2503:LYS:HG3	1:E:2513:TYR:HB2	2.02	0.41
1:A:2503:LYS:HG3	1:A:2513:TYR:HB2	2.02	0.41
1:E:369:ARG:HA	1:E:369:ARG:HD2	1.85	0.41
1:A:1133:VAL:N	1:A:1193:ALA:O	2.48	0.41
1:C:2452:ASP:CG	1:C:2453:LEU:H	2.24	0.41
1:C:1706:LYS:HA	1:C:1735:GLU:HG3	2.03	0.41
1:C:957:LEU:O	1:C:1034:GLU:HB2	2.20	0.41
1:D:2141:VAL:HG22	1:D:2238:PHE:CD2	2.56	0.41
1:C:1275:ALA:O	1:C:1279:VAL:HG23	2.20	0.41
1:F:233:LEU:HB3	1:F:251:THR:OG1	2.21	0.41
1:E:107:LEU:HD13	1:E:113:VAL:HB	2.02	0.41
1:D:2530:TYR:O	1:D:2533:ALA:N	2.52	0.41
1:B:2483:VAL:HG13	1:B:2954:VAL:HG11	2.03	0.41
1:E:233:LEU:HB3	1:E:251:THR:OG1	2.21	0.41
1:A:2294:SER:HB3	1:A:2310:LYS:HB2	2.02	0.41
1:A:1491:ASP:HB2	1:A:1495:ARG:HB2	2.02	0.41
1:F:2449:GLU:CG	1:F:2449:GLU:O	2.68	0.41
1:C:2584:ASP:O	1:C:2586:GLU:N	2.53	0.41
1:D:2584:ASP:O	1:D:2586:GLU:N	2.53	0.41
1:A:2354:SER:O	1:A:2358:GLU:HG3	2.20	0.41
1:F:2354:SER:O	1:F:2358:GLU:HG3	2.20	0.41
1:A:160:GLN:HA	1:A:329:ILE:HD13	2.02	0.41
1:C:795:HIS:NE2	1:C:797:GLN:HB2	2.35	0.41
1:B:2919:GLY:O	1:B:2921:PRO:HD3	2.21	0.41
1:F:2919:GLY:O	1:F:2921:PRO:HD3	2.21	0.41
1:D:2558:LEU:HD11	1:C:2610:ARG:HD2	2.01	0.41
1:D:2701:LEU:HD23	1:C:2558:LEU:HB2	2.02	0.41
1:D:1412:HIS:HD2	1:D:1413:PRO:CD	2.31	0.41
1:D:1237:ARG:HG2	1:D:1237:ARG:HH11	1.86	0.41
1:E:2846:ALA:O	1:E:2859:GLY:HA3	2.20	0.41
1:A:374:GLY:C	1:A:375:ILE:HG13	2.41	0.41
1:D:2591:ARG:NH1	1:F:2014:SER:H	2.18	0.41
1:C:2710:LEU:HD12	1:C:2713:VAL:HG21	2.03	0.41
1:E:393:VAL:O	1:E:395:GLU:N	2.52	0.41
1:C:618:PRO:HB3	1:C:915:PHE:HA	2.02	0.41
1:F:2134:TYR:HB3	1:F:2189:PHE:HD2	1.85	0.41
1:E:2334:HIS:CD2	1:E:2391:LYS:HG3	2.50	0.41
1:B:2205:ASP:O	1:B:2209:LEU:HB2	2.21	0.41
1:F:587:TRP:CZ2	1:F:694:ASP:OD2	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2134:TYR:HB3	1:E:2189:PHE:HD2	1.85	0.41
1:E:1095:LEU:HD23	1:E:1098:VAL:HA	2.02	0.41
1:C:1095:LEU:HD23	1:C:1098:VAL:HA	2.03	0.41
1:A:1095:LEU:HD23	1:A:1098:VAL:HA	2.03	0.41
1:B:709:LEU:HD11	1:B:872:ARG:CZ	2.51	0.41
1:B:2891:LYS:HB2	1:B:2893:ASP:OD2	2.21	0.41
1:A:2889:ILE:HB	1:A:2924:ILE:HG12	2.01	0.41
1:E:816:LEU:HD23	1:E:816:LEU:HA	1.83	0.41
1:A:1380:ALA:HB1	1:A:1474:LEU:CD1	2.50	0.41
1:D:2492:VAL:HG12	1:D:2526:ILE:HG22	2.02	0.41
1:D:2735:HIS:O	1:C:2737:VAL:HG23	2.21	0.41
1:C:2808:ARG:HH21	1:C:2901:PRO:HD3	1.85	0.41
1:E:417:LEU:HD21	1:E:625:LEU:HD21	2.02	0.41
1:C:358:ASP:OD2	1:C:361:THR:HB	2.21	0.41
1:D:1706:LYS:HA	1:D:1735:GLU:HG3	2.03	0.41
1:F:2483:VAL:HG13	1:F:2954:VAL:HG11	2.03	0.41
1:E:1491:ASP:HB2	1:E:1495:ARG:HB2	2.02	0.41
1:F:1662:ARG:HG3	1:F:1663:LYS:N	2.34	0.41
1:A:594:LEU:O	1:A:598:TYR:HB2	2.21	0.41
1:C:2013:LEU:HD23	1:C:2013:LEU:HA	1.87	0.41
1:E:266:ALA:O	1:E:270:GLU:HG3	2.20	0.41
1:A:233:LEU:HB3	1:A:251:THR:OG1	2.21	0.41
1:A:2098:THR:HG23	1:A:2099:GLN:N	2.36	0.41
1:C:42:GLU:HA	1:C:43:PRO:HD3	1.91	0.41
1:F:2701:LEU:HD23	1:A:2558:LEU:HB2	2.02	0.41
1:D:2610:ARG:HD2	1:C:2558:LEU:HD11	2.02	0.41
1:F:2611:VAL:HA	1:F:2612:PRO:HD3	1.86	0.41
1:C:2770:LEU:CB	1:C:2815:GLN:HB3	2.51	0.41
1:B:2770:LEU:CB	1:B:2815:GLN:HB3	2.51	0.41
1:D:1400:PRO:O	1:D:1415:GLY:HA2	2.21	0.41
1:F:436:THR:HG22	1:F:460:GLY:HA3	2.03	0.41
1:C:1084:THR:CG2	1:C:1274:ALA:HA	2.49	0.41
1:B:2134:TYR:HB3	1:B:2189:PHE:HD2	1.85	0.41
1:A:585:HIS:HB3	1:A:694:ASP:HB2	2.03	0.41
1:C:2205:ASP:O	1:C:2209:LEU:HB2	2.21	0.41
1:B:2300:PHE:HZ	1:B:2398:LEU:HB3	1.85	0.41
1:F:2891:LYS:HB2	1:F:2893:ASP:OD2	2.21	0.41
1:C:2891:LYS:NZ	1:C:2903:GLU:HB3	2.35	0.41
1:A:417:LEU:HD21	1:A:625:LEU:HD21	2.02	0.41
1:D:756:LEU:HD13	1:D:859:PHE:CD2	2.55	0.41
1:C:1120:GLU:HA	1:C:1125:VAL:CG2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1275:ALA:O	1:F:1279:VAL:HG23	2.20	0.41
1:A:954:PRO:O	1:A:965:ASN:N	2.52	0.41
1:D:2483:VAL:HG13	1:D:2954:VAL:HG11	2.03	0.41
1:A:2141:VAL:HG22	1:A:2238:PHE:HD2	1.85	0.41
1:A:107:LEU:HD13	1:A:113:VAL:HB	2.02	0.41
1:D:2563:LEU:HD21	1:D:2567:PHE:HB2	2.02	0.41
1:E:2449:GLU:CG	1:E:2449:GLU:O	2.68	0.41
1:D:1460:ALA:O	1:D:1464:VAL:HG22	2.20	0.41
1:D:559:SER:O	1:D:563:ILE:HG12	2.20	0.41
1:F:2294:SER:HB3	1:F:2310:LYS:HB2	2.02	0.41
1:B:2444:PRO:HB2	1:B:2988:PRO:HB3	2.01	0.41
1:A:2892:HIS:HA	1:A:2942:GLN:HE22	1.85	0.41
1:F:1120:GLU:HA	1:F:1125:VAL:CG2	2.50	0.41
1:C:2286:ARG:HD3	1:C:2331:SER:OG	2.20	0.41
1:C:2096:VAL:CG1	1:C:2097:ALA:N	2.82	0.41
1:D:795:HIS:NE2	1:D:797:GLN:HB2	2.35	0.41
1:F:795:HIS:NE2	1:F:797:GLN:HB2	2.35	0.41
1:B:928:ALA:HB1	1:B:931:VAL:CB	2.50	0.41
1:E:2919:GLY:O	1:E:2921:PRO:HD3	2.21	0.41
1:E:2710:LEU:HD12	1:E:2713:VAL:HG21	2.03	0.41
1:F:202:GLY:O	1:F:289:PRO:HD2	2.21	0.41
1:B:1095:LEU:HD23	1:B:1098:VAL:HA	2.02	0.41
1:C:2134:TYR:HB3	1:C:2189:PHE:HD2	1.85	0.41
1:F:669:LYS:O	1:F:682:ASN:HB3	2.20	0.41
1:F:438:THR:HA	1:F:880:HIS:CE1	2.51	0.41
1:F:709:LEU:HD11	1:F:872:ARG:CZ	2.51	0.41
1:C:2891:LYS:HB2	1:C:2893:ASP:OD2	2.21	0.41
1:C:2889:ILE:HG13	1:C:2922:LEU:HD13	2.02	0.41
1:E:2800:PHE:CZ	1:E:2812:LEU:HD13	2.55	0.41
1:F:1660:LEU:HA	1:F:1660:LEU:HD23	1.86	0.41
1:F:1291:LYS:HZ2	1:F:1346:PRO:N	2.17	0.41
1:E:78:GLU:HB2	1:E:176:VAL:HG21	2.01	0.41
1:E:278:ARG:HD2	1:E:674:TRP:CE3	2.56	0.41
1:C:756:LEU:HD13	1:C:859:PHE:CD2	2.55	0.41
1:A:1462:ALA:HB2	1:A:1468:TYR:CE1	2.56	0.41
1:A:1120:GLU:HA	1:A:1125:VAL:CG2	2.50	0.41
1:D:594:LEU:O	1:D:598:TYR:HB2	2.21	0.41
1:F:1491:ASP:HB2	1:F:1495:ARG:HB2	2.02	0.41
1:E:160:GLN:HA	1:E:329:ILE:HD13	2.02	0.41
1:F:594:LEU:O	1:F:598:TYR:HB2	2.21	0.41
1:C:81:LEU:HA	1:C:81:LEU:HD23	1.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1099:PRO:HB2	1:E:1295:TRP:HE1	1.86	0.41
1:D:2405:MET:O	1:D:2409:ALA:HB3	2.21	0.41
1:C:2098:THR:HG23	1:C:2099:GLN:N	2.36	0.41
1:D:2098:THR:HG23	1:D:2099:GLN:N	2.36	0.41
1:A:795:HIS:NE2	1:A:797:GLN:HB2	2.35	0.41
1:F:793:ARG:HH12	1:F:2523:GLU:CD	2.24	0.41
1:A:2919:GLY:O	1:A:2921:PRO:HD3	2.21	0.41
1:A:793:ARG:HH12	1:A:2523:GLU:CD	2.24	0.41
1:D:2697:HIS:CD2	1:C:2700:LEU:HD22	2.43	0.41
1:A:2770:LEU:CB	1:A:2815:GLN:HB3	2.51	0.41
1:E:2647:VAL:HA	1:E:2650:TRP:CD1	2.53	0.41
1:C:2647:VAL:HA	1:C:2650:TRP:CD1	2.53	0.41
1:D:436:THR:HG22	1:D:460:GLY:HA3	2.03	0.41
1:A:436:THR:HG22	1:A:460:GLY:HA3	2.03	0.41
1:A:2845:PHE:N	1:A:3003:SER:O	2.46	0.41
1:C:1637:VAL:HA	1:C:1638:PRO:HD2	1.91	0.41
1:F:374:GLY:C	1:F:375:ILE:HG13	2.41	0.41
1:D:2014:SER:H	1:E:2591:ARG:NH1	2.19	0.41
1:F:668:THR:HG23	1:F:683:GLY:HA3	2.02	0.41
1:D:1087:PHE:HD2	1:E:117:LYS:HZ1	1.68	0.41
1:B:1087:PHE:CD1	1:C:198:ILE:HG23	2.56	0.41
1:A:1087:PHE:CD1	1:B:198:ILE:HG23	2.56	0.41
1:D:1533:VAL:N	1:D:1543:ALA:O	2.52	0.41
1:A:2710:LEU:HD12	1:A:2713:VAL:HG21	2.03	0.41
1:C:336:TRP:HE3	1:C:339:GLU:OE2	2.03	0.41
1:A:2134:TYR:HB3	1:A:2189:PHE:HD2	1.85	0.41
1:D:2205:ASP:O	1:D:2209:LEU:HB2	2.21	0.41
1:D:587:TRP:CZ2	1:D:694:ASP:OD2	2.74	0.41
1:C:1687:PHE:CE1	1:C:1723:GLU:HG2	2.55	0.41
1:C:1719:LEU:O	1:C:1723:GLU:HB3	2.21	0.41
1:D:1353:PRO:HB2	1:D:1707:SER:HB2	2.03	0.41
1:C:488:ASN:OD1	1:C:523:SER:OG	2.34	0.41
1:D:656:THR:OG1	1:D:880:HIS:ND1	2.35	0.41
1:E:669:LYS:O	1:E:682:ASN:HB3	2.20	0.41
1:C:709:LEU:HD11	1:C:872:ARG:CZ	2.51	0.41
1:B:2889:ILE:HB	1:B:2924:ILE:HG12	2.01	0.41
1:A:2800:PHE:CZ	1:A:2812:LEU:HD13	2.55	0.41
1:E:2889:ILE:HD12	1:E:2993:LEU:HD23	2.03	0.41
1:E:2891:LYS:NZ	1:E:2903:GLU:HB3	2.35	0.41
1:D:1619:VAL:HA	1:D:1620:PRO:HD2	1.81	0.41
1:E:2978:ARG:HG3	1:E:2979:GLU:HG3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2961:LEU:HD22	1:C:2976:TRP:HD1	1.85	0.41
1:B:747:LEU:O	1:B:751:ARG:N	2.44	0.41
1:F:180:ALA:O	1:F:184:LEU:HG	2.21	0.41
1:D:2422:GLU:CG	1:D:2422:GLU:O	2.69	0.41
1:A:78:GLU:HB2	1:A:176:VAL:HG21	2.01	0.41
1:D:2737:VAL:HG23	1:C:2735:HIS:O	2.21	0.41
1:B:417:LEU:HD21	1:B:625:LEU:HD21	2.02	0.41
1:C:1133:VAL:N	1:C:1193:ALA:O	2.48	0.41
1:A:358:ASP:OD2	1:A:361:THR:HB	2.21	0.41
1:B:358:ASP:OD2	1:B:361:THR:HB	2.21	0.41
1:E:2672:TRP:CZ3	1:E:2830:LYS:HG2	2.56	0.41
1:A:2452:ASP:CG	1:A:2453:LEU:H	2.23	0.41
1:E:1706:LYS:HA	1:E:1735:GLU:HG3	2.02	0.41
1:C:2618:SER:HB3	1:C:2786:ASP:OD1	2.21	0.41
1:A:1228:VAL:HB	1:A:1311:PHE:HB2	2.02	0.41
1:E:2010:GLN:OE1	1:E:2013:LEU:HD11	2.21	0.41
1:B:2055:VAL:HG22	1:B:2194:TRP:CD1	2.55	0.41
1:A:1099:PRO:HB2	1:A:1295:TRP:HE1	1.86	0.41
1:A:2584:ASP:O	1:A:2586:GLU:N	2.53	0.41
1:E:2286:ARG:HD3	1:E:2331:SER:OG	2.20	0.41
1:B:3062:HIS:H	1:B:3066:GLU:HG3	1.86	0.41
1:B:559:SER:O	1:B:563:ILE:HG12	2.20	0.41
1:F:3057:ASP:OD1	1:F:3057:ASP:N	2.54	0.41
1:C:559:SER:O	1:C:563:ILE:HG12	2.20	0.41
1:D:3062:HIS:H	1:D:3066:GLU:HG3	1.86	0.41
1:F:2563:LEU:HD21	1:F:2567:PHE:HB2	2.02	0.41
1:E:2892:HIS:HA	1:E:2942:GLN:HE22	1.85	0.41
1:B:1233:PRO:HB2	1:B:1236:MET:HE2	2.03	0.41
1:E:2483:VAL:HG13	1:E:2954:VAL:HG11	2.03	0.41
1:F:2892:HIS:HA	1:F:2942:GLN:HE22	1.85	0.41
1:C:2530:TYR:O	1:C:2533:ALA:N	2.52	0.41
1:F:2405:MET:O	1:F:2409:ALA:HB3	2.21	0.41
1:E:594:LEU:O	1:E:598:TYR:HB2	2.21	0.41
1:E:1133:VAL:O	1:E:1193:ALA:N	2.42	0.41
1:F:2200:MET:HE3	1:F:2200:MET:HB3	1.96	0.41
1:C:2405:MET:O	1:C:2409:ALA:HB3	2.21	0.41
1:C:1460:ALA:O	1:C:1464:VAL:HG22	2.20	0.41
1:B:954:PRO:O	1:B:965:ASN:N	2.52	0.41
1:F:2286:ARG:HD3	1:F:2331:SER:OG	2.20	0.41
1:B:2405:MET:O	1:B:2409:ALA:HB3	2.21	0.41
1:F:959:ALA:CB	1:F:1127:GLU:C	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:795:HIS:HE2	1:D:797:GLN:HB2	1.86	0.41
1:B:795:HIS:HE2	1:B:797:GLN:HB2	1.86	0.41
1:F:795:HIS:HE2	1:F:797:GLN:HB2	1.86	0.41
1:B:1400:PRO:O	1:B:1415:GLY:HA2	2.21	0.41
1:E:1237:ARG:HG2	1:E:1237:ARG:HH11	1.86	0.41
1:B:2212:TRP:O	1:B:2229:LYS:HB3	2.21	0.41
1:A:2212:TRP:O	1:A:2229:LYS:HB3	2.21	0.41
1:C:2212:TRP:O	1:C:2229:LYS:HB3	2.21	0.41
1:D:1087:PHE:CD1	1:E:198:ILE:HG23	2.56	0.41
1:C:1533:VAL:N	1:C:1543:ALA:O	2.52	0.41
1:A:202:GLY:O	1:A:289:PRO:HD2	2.21	0.41
1:B:618:PRO:HB3	1:B:915:PHE:HA	2.02	0.41
1:A:2014:SER:H	1:B:2591:ARG:NH1	2.19	0.41
1:F:618:PRO:HB3	1:F:915:PHE:HA	2.02	0.41
1:E:585:HIS:HB3	1:E:694:ASP:HB2	2.03	0.41
1:F:2205:ASP:O	1:F:2209:LEU:HB2	2.21	0.41
1:A:587:TRP:CZ2	1:A:694:ASP:OD2	2.74	0.41
1:B:1719:LEU:O	1:B:1723:GLU:HB3	2.21	0.41
1:F:1702:GLU:OE1	1:F:1711:VAL:HG22	2.21	0.41
1:A:1986:LEU:HA	1:A:1989:PHE:CD2	2.56	0.41
1:D:709:LEU:HD11	1:D:872:ARG:CZ	2.51	0.41
1:C:2978:ARG:HG3	1:C:2979:GLU:HG3	2.03	0.41
1:D:2715:PRO:HD2	1:C:2737:VAL:HG11	2.02	0.41
1:F:417:LEU:HD21	1:F:625:LEU:HD21	2.02	0.41
1:A:2422:GLU:CG	1:A:2422:GLU:O	2.69	0.41
1:B:278:ARG:HD2	1:B:674:TRP:CE3	2.56	0.41
1:F:1687:PHE:CE1	1:F:1723:GLU:HG2	2.55	0.41
1:F:2618:SER:HB3	1:F:2786:ASP:OD1	2.21	0.41
1:A:957:LEU:O	1:A:1034:GLU:HB2	2.20	0.41
1:F:3062:HIS:H	1:F:3066:GLU:CG	2.34	0.41
1:D:2010:GLN:OE1	1:D:2013:LEU:HD11	2.21	0.41
1:C:2563:LEU:HD21	1:C:2567:PHE:HB2	2.02	0.41
1:C:3062:HIS:H	1:C:3066:GLU:HG3	1.86	0.41
1:A:2286:ARG:HD3	1:A:2331:SER:OG	2.20	0.41
1:B:1017:ILE:HG12	1:B:1045:VAL:HG11	2.03	0.40
1:B:793:ARG:HH12	1:B:2523:GLU:CD	2.24	0.40
1:B:1237:ARG:HG2	1:B:1237:ARG:HH11	1.86	0.40
1:C:133:GLN:O	1:C:137:VAL:HG23	2.21	0.40
1:E:336:TRP:HE1	1:E:364:THR:HG22	1.86	0.40
1:E:587:TRP:CZ2	1:E:694:ASP:OD2	2.74	0.40
1:D:585:HIS:HD2	1:D:586:SER:H	1.62	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1702:GLU:OE1	1:B:1711:VAL:HG22	2.22	0.40
1:C:1353:PRO:HB2	1:C:1707:SER:HB2	2.04	0.40
1:A:487:PHE:O	1:A:521:VAL:N	2.51	0.40
1:D:488:ASN:OD1	1:D:523:SER:OG	2.34	0.40
1:A:2889:ILE:HD12	1:A:2993:LEU:HD23	2.03	0.40
1:C:2889:ILE:HD12	1:C:2993:LEU:HD23	2.03	0.40
1:E:709:LEU:HD11	1:E:872:ARG:CZ	2.51	0.40
1:A:180:ALA:O	1:A:184:LEU:HG	2.21	0.40
1:B:2808:ARG:HH21	1:B:2901:PRO:HD3	1.85	0.40
1:F:2735:HIS:O	1:A:2737:VAL:HG23	2.21	0.40
1:E:2715:PRO:HD2	1:B:2737:VAL:HG11	2.02	0.40
1:E:2735:HIS:O	1:B:2737:VAL:HG23	2.21	0.40
1:F:2503:LYS:HG3	1:F:2513:TYR:HB2	2.02	0.40
1:E:756:LEU:HD13	1:E:859:PHE:CD2	2.55	0.40
1:C:2672:TRP:CZ3	1:C:2830:LYS:HG2	2.56	0.40
1:A:163:LEU:HD21	1:A:181:LEU:HB3	2.04	0.40
1:F:1462:ALA:HB2	1:F:1468:TYR:CE1	2.56	0.40
1:E:1504:ARG:HA	1:E:1505:PRO:HD2	1.94	0.40
1:E:2141:VAL:HG22	1:E:2238:PHE:CD2	2.56	0.40
1:C:1606:ASP:HA	1:C:1607:PRO:HD3	1.95	0.40
1:B:1099:PRO:HB2	1:B:1295:TRP:HE1	1.86	0.40
1:C:1491:ASP:HB2	1:C:1495:ARG:HB2	2.02	0.40
1:C:2346:MET:O	1:C:2349:ASN:N	2.55	0.40
1:D:793:ARG:HH12	1:D:2523:GLU:CD	2.24	0.40
1:C:2919:GLY:O	1:C:2921:PRO:HD3	2.21	0.40
1:C:793:ARG:HH12	1:C:2523:GLU:CD	2.24	0.40
1:E:2865:ARG:HD2	1:B:2674:HIS:NE2	2.37	0.40
1:B:273:ARG:HD2	1:B:282:VAL:CG1	2.51	0.40
1:E:273:ARG:HD2	1:E:282:VAL:CG1	2.51	0.40
1:F:1271:LEU:HB3	1:F:1337:MET:SD	2.62	0.40
1:E:1400:PRO:O	1:E:1415:GLY:HA2	2.21	0.40
1:A:142:ARG:HD3	1:A:142:ARG:HA	1.91	0.40
1:E:374:GLY:C	1:E:375:ILE:HG13	2.41	0.40
1:D:1008:VAL:O	1:D:1008:VAL:CG1	2.67	0.40
1:B:1008:VAL:O	1:B:1008:VAL:CG1	2.67	0.40
1:D:618:PRO:HB3	1:D:915:PHE:HA	2.02	0.40
1:B:1095:LEU:HD13	1:B:1289:PRO:CB	2.52	0.40
1:A:1702:GLU:OE1	1:A:1711:VAL:HG22	2.22	0.40
1:D:1719:LEU:O	1:D:1723:GLU:HB3	2.21	0.40
1:E:2961:LEU:HD22	1:E:2976:TRP:HD1	1.85	0.40
1:E:2492:VAL:HG12	1:E:2526:ILE:HG22	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2737:VAL:HG23	1:B:2735:HIS:O	2.21	0.40
1:E:358:ASP:OD2	1:E:361:THR:HB	2.21	0.40
1:C:1462:ALA:HB2	1:C:1468:TYR:CE1	2.56	0.40
1:F:1719:LEU:O	1:F:1723:GLU:HB3	2.22	0.40
1:C:2831:MET:HE2	1:C:2831:MET:HB3	1.91	0.40
1:A:2672:TRP:CZ3	1:A:2830:LYS:HG2	2.56	0.40
1:A:2483:VAL:HG13	1:A:2954:VAL:HG11	2.03	0.40
1:F:2141:VAL:HG22	1:F:2238:PHE:CD2	2.56	0.40
1:A:2405:MET:O	1:A:2409:ALA:HB3	2.21	0.40
1:F:1237:ARG:HH11	1:F:1237:ARG:HG2	1.86	0.40
1:A:2346:MET:O	1:A:2349:ASN:N	2.55	0.40
1:F:956:VAL:HA	1:F:1034:GLU:OE1	2.20	0.40
1:E:795:HIS:HE2	1:E:797:GLN:HB2	1.86	0.40
1:E:2697:HIS:CD2	1:B:2700:LEU:HD22	2.43	0.40
1:A:2557:LEU:HD23	1:A:2558:LEU:N	2.37	0.40
1:E:1271:LEU:HB3	1:E:1337:MET:SD	2.62	0.40
1:B:1399:ASN:HA	1:B:1400:PRO:HD3	1.86	0.40
1:A:1400:PRO:O	1:A:1415:GLY:HA2	2.21	0.40
1:E:360:LEU:HA	1:E:363:LEU:HB3	2.03	0.40
1:F:360:LEU:HA	1:F:363:LEU:HB3	2.03	0.40
1:B:587:TRP:CZ2	1:B:694:ASP:OD2	2.74	0.40
1:D:1616:PRO:HG2	1:D:1619:VAL:HB	2.04	0.40
1:F:1616:PRO:HG2	1:F:1619:VAL:HB	2.04	0.40
1:D:2961:LEU:HD13	1:D:2976:TRP:CD1	2.57	0.40
1:D:2978:ARG:HG3	1:D:2979:GLU:HG3	2.03	0.40
1:B:2961:LEU:HD13	1:B:2976:TRP:CD1	2.57	0.40
1:A:2492:VAL:HG12	1:A:2526:ILE:HG22	2.02	0.40
1:F:2737:VAL:HG11	1:A:2715:PRO:HD2	2.02	0.40
1:B:1598:GLU:HG2	1:B:1666:ILE:HG21	2.04	0.40
1:A:2503:LYS:HE2	1:A:2514:ASP:O	2.22	0.40
1:E:278:ARG:HD2	1:E:674:TRP:HE3	1.87	0.40
1:B:2422:GLU:O	1:B:2422:GLU:CG	2.69	0.40
1:D:2574:GLU:HG3	1:D:2599:TRP:CE2	2.57	0.40
1:C:278:ARG:HD2	1:C:674:TRP:HE3	1.87	0.40
1:D:408:VAL:HG23	1:D:418:GLU:HB2	2.03	0.40
1:A:381:ARG:O	1:A:385:ARG:HG3	2.22	0.40
1:A:1706:LYS:HA	1:A:1735:GLU:HG3	2.03	0.40
1:C:2141:VAL:HG22	1:C:2238:PHE:CD2	2.56	0.40
1:F:3062:HIS:H	1:F:3066:GLU:HG3	1.86	0.40
1:E:2555:SER:HA	1:E:2556:PRO:HD2	1.85	0.40
1:F:839:HIS:HA	1:F:840:PRO:HD3	1.99	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1611:ILE:HG23	1:C:1624:THR:HA	2.02	0.40
1:C:233:LEU:HB3	1:C:251:THR:OG1	2.21	0.40
1:A:794:LEU:HD12	1:A:830:TYR:HB3	2.04	0.40
1:C:3057:ASP:OD1	1:C:3057:ASP:N	2.54	0.40
1:F:428:SER:HA	1:F:429:PRO:HD3	1.94	0.40
1:B:594:LEU:O	1:B:598:TYR:HB2	2.21	0.40
1:B:1070:VAL:N	1:B:1152:PHE:O	2.52	0.40
1:F:959:ALA:CB	1:F:1127:GLU:N	2.74	0.40
1:E:2098:THR:HG23	1:E:2099:GLN:N	2.36	0.40
1:E:2557:LEU:HD23	1:E:2558:LEU:N	2.37	0.40
1:C:273:ARG:HD2	1:C:282:VAL:CG1	2.51	0.40
1:B:2647:VAL:HA	1:B:2650:TRP:CD1	2.53	0.40
1:A:1237:ARG:HH11	1:A:1237:ARG:HG2	1.86	0.40
1:F:2212:TRP:O	1:F:2229:LYS:HB3	2.21	0.40
1:F:1400:PRO:O	1:F:1415:GLY:HA2	2.21	0.40
1:A:133:GLN:O	1:A:137:VAL:HG23	2.21	0.40
1:D:544:ILE:C	1:D:546:HIS:H	2.22	0.40
1:D:1580:PRO:O	1:D:1583:SER:OG	2.23	0.40
1:F:336:TRP:HE1	1:F:364:THR:HG22	1.86	0.40
1:A:1535:PHE:O	1:A:1679:TRP:N	2.48	0.40
1:A:198:ILE:HG23	1:C:1087:PHE:CD1	2.56	0.40
1:C:1095:LEU:HD13	1:C:1289:PRO:CB	2.52	0.40
1:A:260:LEU:HD13	1:C:1725:SER:CB	2.51	0.40
1:E:1719:LEU:O	1:E:1723:GLU:HB3	2.21	0.40
1:F:1095:LEU:HD13	1:F:1289:PRO:CB	2.52	0.40
1:D:1656:LYS:HE2	1:D:1660:LEU:HD21	2.03	0.40
1:C:669:LYS:O	1:C:682:ASN:HB3	2.20	0.40
1:F:2891:LYS:HZ1	1:F:2904:THR:N	2.19	0.40
1:A:2891:LYS:HB2	1:A:2893:ASP:OD2	2.21	0.40
1:E:2495:LEU:HA	1:E:2495:LEU:HD23	1.89	0.40
1:F:2352:ILE:HG21	1:F:2412:ALA:HB2	2.04	0.40
1:A:2978:ARG:HG3	1:A:2979:GLU:HG3	2.03	0.40
1:F:2422:GLU:CG	1:F:2422:GLU:O	2.69	0.40
1:F:2503:LYS:HE2	1:F:2514:ASP:O	2.22	0.40
1:E:2574:GLU:HG3	1:E:2599:TRP:CE2	2.57	0.40
1:B:2672:TRP:CZ3	1:B:2830:LYS:HG2	2.56	0.40
1:D:1462:ALA:HB2	1:D:1468:TYR:CE1	2.56	0.40
1:A:2299:MET:H	1:A:2299:MET:HG2	1.68	0.40
1:E:163:LEU:HD21	1:E:181:LEU:HB3	2.04	0.40
1:A:1504:ARG:HA	1:A:1505:PRO:HD2	1.93	0.40
1:B:2618:SER:HB3	1:B:2786:ASP:OD1	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3062:HIS:H	1:B:3066:GLU:CG	2.34	0.40
1:B:233:LEU:HB3	1:B:251:THR:OG1	2.21	0.40
1:E:794:LEU:HD12	1:E:830:TYR:HB3	2.04	0.40
1:C:1629:PHE:O	1:C:1633:ILE:HG13	2.22	0.40
1:C:1360:LYS:HD2	1:C:1398:ASP:HA	2.04	0.40
1:F:2346:MET:O	1:F:2349:ASN:N	2.55	0.40
1:D:3057:ASP:N	1:D:3057:ASP:OD1	2.54	0.40
1:B:1604:ASP:OD1	1:B:1604:ASP:N	2.55	0.40
1:B:2346:MET:O	1:B:2349:ASN:N	2.55	0.40
1:F:2010:GLN:OE1	1:F:2013:LEU:HD11	2.21	0.40
1:B:2098:THR:HG23	1:B:2099:GLN:N	2.36	0.40
1:C:795:HIS:HE2	1:C:797:GLN:HB2	1.86	0.40
1:F:2865:ARG:HD2	1:A:2674:HIS:NE2	2.37	0.40
1:E:2674:HIS:NE2	1:B:2865:ARG:HD2	2.37	0.40
1:D:2697:HIS:HE1	1:D:2773:GLU:OE2	2.05	0.40
1:B:2611:VAL:HA	1:B:2612:PRO:HD3	1.86	0.40
1:F:2645:ASP:OD2	1:F:2691:SER:HB2	2.22	0.40
1:F:2770:LEU:CB	1:F:2815:GLN:HB3	2.51	0.40
1:C:436:THR:HG22	1:C:460:GLY:HA3	2.03	0.40
1:F:2211:GLU:O	1:F:2215:THR:OG1	2.39	0.40
1:D:2843:GLN:HE22	1:C:2758:LYS:HB3	1.87	0.40
1:F:1399:ASN:HA	1:F:1400:PRO:HD3	1.86	0.40
1:A:336:TRP:HE1	1:A:364:THR:HG22	1.86	0.40
1:B:668:THR:HG23	1:B:683:GLY:HA3	2.02	0.40
1:E:1535:PHE:O	1:E:1679:TRP:N	2.48	0.40
1:B:202:GLY:O	1:B:289:PRO:HD2	2.21	0.40
1:D:1095:LEU:HD13	1:D:1289:PRO:CB	2.52	0.40
1:F:1353:PRO:HB2	1:F:1707:SER:HB2	2.03	0.40
1:A:1989:PHE:O	1:A:1992:LYS:HG2	2.22	0.40
1:E:2891:LYS:HZ1	1:E:2904:THR:N	2.20	0.40
1:B:1616:PRO:HG2	1:B:1619:VAL:HB	2.04	0.40
1:E:1656:LYS:HE2	1:E:1660:LEU:HD21	2.03	0.40
1:F:2961:LEU:HD22	1:F:2976:TRP:HD1	1.85	0.40
1:B:2978:ARG:HG3	1:B:2979:GLU:HG3	2.03	0.40
1:D:745:THR:HG22	1:D:747:LEU:N	2.37	0.40
1:E:745:THR:HG22	1:E:747:LEU:N	2.37	0.40
1:F:745:THR:HG22	1:F:747:LEU:N	2.37	0.40
1:D:2737:VAL:HG11	1:C:2715:PRO:HD2	2.02	0.40
1:A:1291:LYS:HZ2	1:A:1346:PRO:N	2.20	0.40
1:F:541:GLU:HG3	1:F:542:VAL:N	2.37	0.40
1:C:180:ALA:O	1:C:184:LEU:HG	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2422:GLU:CG	1:C:2422:GLU:O	2.69	0.40
1:C:2574:GLU:HG3	1:C:2599:TRP:CE2	2.57	0.40
1:A:278:ARG:HD2	1:A:674:TRP:CE3	2.56	0.40
1:A:1487:ILE:HG12	1:A:1487:ILE:H	1.75	0.40
1:F:1133:VAL:N	1:F:1193:ALA:O	2.48	0.40
1:F:2672:TRP:CZ3	1:F:2830:LYS:HG2	2.56	0.40
1:B:163:LEU:HD21	1:B:181:LEU:HB3	2.04	0.40
1:C:2010:GLN:OE1	1:C:2013:LEU:HD11	2.21	0.40
1:A:2141:VAL:HG22	1:A:2238:PHE:CD2	2.56	0.40
1:C:3062:HIS:H	1:C:3066:GLU:CG	2.34	0.40
1:A:1460:ALA:O	1:A:1464:VAL:HG22	2.20	0.40
1:C:2483:VAL:HG13	1:C:2954:VAL:HG11	2.03	0.40
1:E:1606:ASP:HA	1:E:1607:PRO:HD3	1.95	0.40
1:A:90:LEU:HD22	1:A:93:VAL:HB	2.04	0.40
1:A:1070:VAL:N	1:A:1152:PHE:O	2.52	0.40
1:B:2530:TYR:O	1:B:2533:ALA:N	2.52	0.40
1:B:1500:LEU:HD23	1:B:1574:VAL:HG21	2.03	0.40
1:C:594:LEU:O	1:C:598:TYR:HB2	2.21	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	2818/3089 (91%)	2642 (94%)	157 (6%)	19 (1%)	26	71
1	B	2818/3089 (91%)	2642 (94%)	158 (6%)	18 (1%)	30	74
1	C	2818/3089 (91%)	2642 (94%)	157 (6%)	19 (1%)	26	71
1	D	2448/3089 (79%)	2293 (94%)	138 (6%)	17 (1%)	26	71
1	E	2818/3089 (91%)	2641 (94%)	159 (6%)	18 (1%)	30	74
1	F	2818/3089 (91%)	2630 (93%)	163 (6%)	25 (1%)	21	67

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
All	All	16538/18534 (89%)	15490 (94%)	932 (6%)	116 (1%)	31	71

All (116) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	D	930	PRO
1	D	1148	GLU
1	D	2428	PRO
1	D	2436	PRO
1	D	2446	PRO
1	D	2448	PRO
1	E	930	PRO
1	E	1148	GLU
1	E	2428	PRO
1	E	2436	PRO
1	E	2446	PRO
1	E	2448	PRO
1	F	930	PRO
1	F	1041	ALA
1	F	1043	ARG
1	F	1148	GLU
1	F	2428	PRO
1	F	2436	PRO
1	F	2446	PRO
1	F	2448	PRO
1	A	930	PRO
1	A	1148	GLU
1	A	2428	PRO
1	A	2436	PRO
1	A	2446	PRO
1	A	2448	PRO
1	B	930	PRO
1	B	1148	GLU
1	B	2428	PRO
1	B	2436	PRO
1	B	2446	PRO
1	B	2448	PRO
1	C	930	PRO
1	C	1148	GLU
1	C	2428	PRO
1	C	2436	PRO
1	C	2446	PRO

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Mol	Chain	Res	Type
1	C	2448	PRO
1	D	990	PRO
1	D	1009	PRO
1	E	990	PRO
1	E	1009	PRO
1	F	990	PRO
1	F	1009	PRO
1	A	990	PRO
1	A	1009	PRO
1	B	990	PRO
1	B	1009	PRO
1	C	990	PRO
1	C	1009	PRO
1	D	1724	TYR
1	E	1724	TYR
1	F	1724	TYR
1	A	1724	TYR
1	B	1652	TRP
1	B	1724	TYR
1	C	1724	TYR
1	D	1205	ASP
1	D	1652	TRP
1	D	1705	VAL
1	E	149	ALA
1	E	1205	ASP
1	E	1652	TRP
1	E	1705	VAL
1	F	149	ALA
1	F	1034	GLU
1	F	1205	ASP
1	F	1652	TRP
1	F	1705	VAL
1	A	149	ALA
1	A	1205	ASP
1	A	1652	TRP
1	A	1705	VAL
1	B	149	ALA
1	B	1205	ASP
1	B	1705	VAL
1	C	149	ALA
1	C	1205	ASP
1	C	1652	TRP

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Mol	Chain	Res	Type
1	C	1705	VAL
1	D	1221	PRO
1	D	2444	PRO
1	E	89	GLU
1	E	1221	PRO
1	E	2444	PRO
1	F	89	GLU
1	F	1038	ALA
1	F	1221	PRO
1	F	2444	PRO
1	A	89	GLU
1	A	1221	PRO
1	A	2444	PRO
1	B	89	GLU
1	B	1221	PRO
1	B	2444	PRO
1	C	89	GLU
1	C	1221	PRO
1	C	2444	PRO
1	F	959	ALA
1	F	1040	THR
1	D	1068	VAL
1	D	1285	LYS
1	E	1068	VAL
1	E	1285	LYS
1	F	1068	VAL
1	F	1285	LYS
1	A	1068	VAL
1	A	1285	LYS
1	B	1068	VAL
1	B	1285	LYS
1	C	1068	VAL
1	C	1285	LYS
1	D	2585	PRO
1	F	2585	PRO
1	A	2585	PRO
1	C	2585	PRO

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	2100 / 2402 (87%)	1998 (95%)	102 (5%)	31	67
1	B	2100 / 2402 (87%)	1997 (95%)	103 (5%)	31	67
1	C	2100 / 2402 (87%)	1998 (95%)	102 (5%)	31	67
1	D	1810 / 2402 (75%)	1722 (95%)	88 (5%)	31	67
1	E	2100 / 2402 (87%)	1998 (95%)	102 (5%)	31	67
1	F	2100 / 2402 (87%)	1995 (95%)	105 (5%)	30	66
All	All	12310 / 14412 (85%)	11708 (95%)	602 (5%)	35	67

All (602) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	D	409	LYS
1	D	424	LEU
1	D	427	ARG
1	D	439	THR
1	D	456	GLU
1	D	517	ILE
1	D	544	ILE
1	D	580	ARG
1	D	584	HIS
1	D	595	LEU
1	D	606	ASN
1	D	621	SER
1	D	638	MET
1	D	644	LEU
1	D	654	GLU
1	D	694	ASP
1	D	696	HIS
1	D	699	ASP
1	D	791	GLU
1	D	857	VAL
1	D	930	PRO
1	D	990	PRO
1	D	1009	PRO
1	D	1021	LEU
1	D	1096	THR
1	D	1105	ARG

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Mol	Chain	Res	Type
1	D	1127	GLU
1	D	1162	THR
1	D	1206	PRO
1	D	1221	PRO
1	D	1253	ARG
1	D	1358	GLN
1	D	1421	GLN
1	D	1468	TYR
1	D	1471	GLU
1	D	1488	VAL
1	D	1508	ILE
1	D	1544	ILE
1	D	1551	LEU
1	D	1564	ILE
1	D	1618	LEU
1	D	1651	THR
1	D	1662	ARG
1	D	1672	GLN
1	D	1673	PHE
1	D	1745	ASP
1	D	2059	ARG
1	D	2067	LEU
1	D	2070	LEU
1	D	2129	PRO
1	D	2192	THR
1	D	2196	VAL
1	D	2209	LEU
1	D	2294	SER
1	D	2297	ARG
1	D	2299	MET
1	D	2303	ASP
1	D	2306	TYR
1	D	2395	THR
1	D	2401	ILE
1	D	2428	PRO
1	D	2436	PRO
1	D	2438	PRO
1	D	2439	PRO
1	D	2444	PRO
1	D	2446	PRO
1	D	2448	PRO
1	D	2620	THR

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Mol	Chain	Res	Type
1	D	2692	MET
1	D	2742	THR
1	D	2784	THR
1	D	2800	PHE
1	D	2802	ARG
1	D	2809	LEU
1	D	2827	LEU
1	D	2861	LEU
1	D	2871	THR
1	D	2879	LEU
1	D	2894	THR
1	D	2916	ARG
1	D	2930	LEU
1	D	2935	LYS
1	D	2962	ASP
1	D	3001	HIS
1	D	3019	ASP
1	D	3076	SER
1	D	3077	THR
1	D	3080	ARG
1	E	90	LEU
1	E	208	VAL
1	E	209	SER
1	E	232	VAL
1	E	233	LEU
1	E	248	ILE
1	E	251	THR
1	E	342	GLU
1	E	344	HIS
1	E	358	ASP
1	E	361	THR
1	E	389	THR
1	E	390	VAL
1	E	400	TRP
1	E	409	LYS
1	E	424	LEU
1	E	427	ARG
1	E	439	THR
1	E	456	GLU
1	E	517	ILE
1	E	544	ILE
1	E	580	ARG

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Mol	Chain	Res	Type
1	E	584	HIS
1	E	595	LEU
1	E	606	ASN
1	E	621	SER
1	E	638	MET
1	E	644	LEU
1	E	654	GLU
1	E	694	ASP
1	E	696	HIS
1	E	699	ASP
1	E	791	GLU
1	E	857	VAL
1	E	930	PRO
1	E	990	PRO
1	E	1009	PRO
1	E	1021	LEU
1	E	1096	THR
1	E	1105	ARG
1	E	1127	GLU
1	E	1162	THR
1	E	1206	PRO
1	E	1221	PRO
1	E	1253	ARG
1	E	1358	GLN
1	E	1421	GLN
1	E	1468	TYR
1	E	1471	GLU
1	E	1488	VAL
1	E	1508	ILE
1	E	1544	ILE
1	E	1551	LEU
1	E	1564	ILE
1	E	1618	LEU
1	E	1651	THR
1	E	1662	ARG
1	E	1672	GLN
1	E	1673	PHE
1	E	1745	ASP
1	E	2059	ARG
1	E	2067	LEU
1	E	2070	LEU
1	E	2129	PRO

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Mol	Chain	Res	Type
1	E	2192	THR
1	E	2196	VAL
1	E	2209	LEU
1	E	2294	SER
1	E	2297	ARG
1	E	2299	MET
1	E	2303	ASP
1	E	2306	TYR
1	E	2395	THR
1	E	2401	ILE
1	E	2428	PRO
1	E	2436	PRO
1	E	2438	PRO
1	E	2439	PRO
1	E	2444	PRO
1	E	2446	PRO
1	E	2448	PRO
1	E	2620	THR
1	E	2692	MET
1	E	2742	THR
1	E	2784	THR
1	E	2800	PHE
1	E	2802	ARG
1	E	2809	LEU
1	E	2827	LEU
1	E	2861	LEU
1	E	2871	THR
1	E	2879	LEU
1	E	2894	THR
1	E	2916	ARG
1	E	2930	LEU
1	E	2935	LYS
1	E	2962	ASP
1	E	3001	HIS
1	E	3019	ASP
1	E	3076	SER
1	E	3077	THR
1	E	3080	ARG
1	F	90	LEU
1	F	208	VAL
1	F	209	SER
1	F	232	VAL

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Mol	Chain	Res	Type
1	F	233	LEU
1	F	248	ILE
1	F	251	THR
1	F	342	GLU
1	F	344	HIS
1	F	358	ASP
1	F	361	THR
1	F	389	THR
1	F	390	VAL
1	F	400	TRP
1	F	409	LYS
1	F	424	LEU
1	F	427	ARG
1	F	439	THR
1	F	456	GLU
1	F	517	ILE
1	F	544	ILE
1	F	580	ARG
1	F	584	HIS
1	F	595	LEU
1	F	606	ASN
1	F	621	SER
1	F	638	MET
1	F	644	LEU
1	F	654	GLU
1	F	694	ASP
1	F	696	HIS
1	F	699	ASP
1	F	791	GLU
1	F	857	VAL
1	F	930	PRO
1	F	958	TRP
1	F	990	PRO
1	F	1009	PRO
1	F	1021	LEU
1	F	1034	GLU
1	F	1040	THR
1	F	1096	THR
1	F	1105	ARG
1	F	1127	GLU
1	F	1162	THR
1	F	1206	PRO

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Mol	Chain	Res	Type
1	F	1221	PRO
1	F	1253	ARG
1	F	1358	GLN
1	F	1421	GLN
1	F	1468	TYR
1	F	1471	GLU
1	F	1488	VAL
1	F	1508	ILE
1	F	1544	ILE
1	F	1551	LEU
1	F	1564	ILE
1	F	1618	LEU
1	F	1651	THR
1	F	1662	ARG
1	F	1672	GLN
1	F	1673	PHE
1	F	1745	ASP
1	F	2059	ARG
1	F	2067	LEU
1	F	2070	LEU
1	F	2129	PRO
1	F	2192	THR
1	F	2196	VAL
1	F	2209	LEU
1	F	2294	SER
1	F	2297	ARG
1	F	2299	MET
1	F	2303	ASP
1	F	2306	TYR
1	F	2395	THR
1	F	2401	ILE
1	F	2428	PRO
1	F	2436	PRO
1	F	2438	PRO
1	F	2439	PRO
1	F	2444	PRO
1	F	2446	PRO
1	F	2448	PRO
1	F	2620	THR
1	F	2692	MET
1	F	2742	THR
1	F	2784	THR

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Mol	Chain	Res	Type
1	F	2800	PHE
1	F	2802	ARG
1	F	2809	LEU
1	F	2827	LEU
1	F	2861	LEU
1	F	2871	THR
1	F	2879	LEU
1	F	2894	THR
1	F	2916	ARG
1	F	2930	LEU
1	F	2935	LYS
1	F	2962	ASP
1	F	3001	HIS
1	F	3019	ASP
1	F	3076	SER
1	F	3077	THR
1	F	3080	ARG
1	A	90	LEU
1	A	208	VAL
1	A	209	SER
1	A	232	VAL
1	A	233	LEU
1	A	248	ILE
1	A	251	THR
1	A	342	GLU
1	A	344	HIS
1	A	358	ASP
1	A	361	THR
1	A	389	THR
1	A	390	VAL
1	A	400	TRP
1	A	409	LYS
1	A	424	LEU
1	A	427	ARG
1	A	439	THR
1	A	456	GLU
1	A	517	ILE
1	A	544	ILE
1	A	580	ARG
1	A	584	HIS
1	A	595	LEU
1	A	606	ASN

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Mol	Chain	Res	Type
1	A	621	SER
1	A	638	MET
1	A	644	LEU
1	A	654	GLU
1	A	694	ASP
1	A	696	HIS
1	A	699	ASP
1	A	791	GLU
1	A	857	VAL
1	A	930	PRO
1	A	990	PRO
1	A	1009	PRO
1	A	1021	LEU
1	A	1096	THR
1	A	1105	ARG
1	A	1127	GLU
1	A	1162	THR
1	A	1206	PRO
1	A	1221	PRO
1	A	1253	ARG
1	A	1358	GLN
1	A	1421	GLN
1	A	1468	TYR
1	A	1471	GLU
1	A	1488	VAL
1	A	1508	ILE
1	A	1544	ILE
1	A	1551	LEU
1	A	1564	ILE
1	A	1618	LEU
1	A	1651	THR
1	A	1662	ARG
1	A	1672	GLN
1	A	1673	PHE
1	A	1745	ASP
1	A	2059	ARG
1	A	2067	LEU
1	A	2070	LEU
1	A	2129	PRO
1	A	2192	THR
1	A	2196	VAL
1	A	2209	LEU

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Mol	Chain	Res	Type
1	A	2294	SER
1	A	2297	ARG
1	A	2299	MET
1	A	2303	ASP
1	A	2306	TYR
1	A	2395	THR
1	A	2401	ILE
1	A	2428	PRO
1	A	2436	PRO
1	A	2438	PRO
1	A	2439	PRO
1	A	2444	PRO
1	A	2446	PRO
1	A	2448	PRO
1	A	2620	THR
1	A	2692	MET
1	A	2742	THR
1	A	2784	THR
1	A	2800	PHE
1	A	2802	ARG
1	A	2809	LEU
1	A	2827	LEU
1	A	2861	LEU
1	A	2871	THR
1	A	2879	LEU
1	A	2894	THR
1	A	2916	ARG
1	A	2930	LEU
1	A	2935	LYS
1	A	2962	ASP
1	A	3001	HIS
1	A	3019	ASP
1	A	3076	SER
1	A	3077	THR
1	A	3080	ARG
1	B	90	LEU
1	B	208	VAL
1	B	209	SER
1	B	232	VAL
1	B	233	LEU
1	B	248	ILE
1	B	251	THR

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Mol	Chain	Res	Type
1	B	342	GLU
1	B	344	HIS
1	B	358	ASP
1	B	361	THR
1	B	389	THR
1	B	390	VAL
1	B	400	TRP
1	B	409	LYS
1	B	424	LEU
1	B	427	ARG
1	B	439	THR
1	B	456	GLU
1	B	517	ILE
1	B	544	ILE
1	B	580	ARG
1	B	584	HIS
1	B	595	LEU
1	B	606	ASN
1	B	621	SER
1	B	638	MET
1	B	644	LEU
1	B	654	GLU
1	B	694	ASP
1	B	696	HIS
1	B	699	ASP
1	B	791	GLU
1	B	857	VAL
1	B	930	PRO
1	B	990	PRO
1	B	1009	PRO
1	B	1021	LEU
1	B	1096	THR
1	B	1105	ARG
1	B	1127	GLU
1	B	1162	THR
1	B	1206	PRO
1	B	1221	PRO
1	B	1253	ARG
1	B	1358	GLN
1	B	1401	THR
1	B	1421	GLN
1	B	1468	TYR

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Mol	Chain	Res	Type
1	B	1471	GLU
1	B	1488	VAL
1	B	1508	ILE
1	B	1544	ILE
1	B	1551	LEU
1	B	1564	ILE
1	B	1618	LEU
1	B	1651	THR
1	B	1662	ARG
1	B	1672	GLN
1	B	1673	PHE
1	B	1745	ASP
1	B	2059	ARG
1	B	2067	LEU
1	B	2070	LEU
1	B	2129	PRO
1	B	2192	THR
1	B	2196	VAL
1	B	2209	LEU
1	B	2294	SER
1	B	2297	ARG
1	B	2299	MET
1	B	2303	ASP
1	B	2306	TYR
1	B	2395	THR
1	B	2401	ILE
1	B	2428	PRO
1	B	2436	PRO
1	B	2438	PRO
1	B	2439	PRO
1	B	2444	PRO
1	B	2446	PRO
1	B	2448	PRO
1	B	2620	THR
1	B	2692	MET
1	B	2742	THR
1	B	2784	THR
1	B	2800	PHE
1	B	2802	ARG
1	B	2809	LEU
1	B	2827	LEU
1	B	2861	LEU

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Mol	Chain	Res	Type
1	B	2871	THR
1	B	2879	LEU
1	B	2894	THR
1	B	2916	ARG
1	B	2930	LEU
1	B	2935	LYS
1	B	2962	ASP
1	B	3001	HIS
1	B	3019	ASP
1	B	3076	SER
1	B	3077	THR
1	B	3080	ARG
1	C	90	LEU
1	C	208	VAL
1	C	209	SER
1	C	232	VAL
1	C	233	LEU
1	C	248	ILE
1	C	251	THR
1	C	342	GLU
1	C	344	HIS
1	C	358	ASP
1	C	361	THR
1	C	389	THR
1	C	390	VAL
1	C	400	TRP
1	C	409	LYS
1	C	424	LEU
1	C	427	ARG
1	C	439	THR
1	C	456	GLU
1	C	517	ILE
1	C	544	ILE
1	C	580	ARG
1	C	584	HIS
1	C	595	LEU
1	C	606	ASN
1	C	621	SER
1	C	638	MET
1	C	644	LEU
1	C	654	GLU
1	C	694	ASP

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Mol	Chain	Res	Type
1	C	696	HIS
1	C	699	ASP
1	C	791	GLU
1	C	857	VAL
1	C	930	PRO
1	C	990	PRO
1	C	1009	PRO
1	C	1021	LEU
1	C	1096	THR
1	C	1105	ARG
1	C	1127	GLU
1	C	1162	THR
1	C	1206	PRO
1	C	1221	PRO
1	C	1253	ARG
1	C	1358	GLN
1	C	1421	GLN
1	C	1468	TYR
1	C	1471	GLU
1	C	1488	VAL
1	C	1508	ILE
1	C	1544	ILE
1	C	1551	LEU
1	C	1564	ILE
1	C	1618	LEU
1	C	1651	THR
1	C	1662	ARG
1	C	1672	GLN
1	C	1673	PHE
1	C	1745	ASP
1	C	2059	ARG
1	C	2067	LEU
1	C	2070	LEU
1	C	2129	PRO
1	C	2192	THR
1	C	2196	VAL
1	C	2209	LEU
1	C	2294	SER
1	C	2297	ARG
1	C	2299	MET
1	C	2303	ASP
1	C	2306	TYR

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Mol	Chain	Res	Type
1	C	2395	THR
1	C	2401	ILE
1	C	2428	PRO
1	C	2436	PRO
1	C	2438	PRO
1	C	2439	PRO
1	C	2444	PRO
1	C	2446	PRO
1	C	2448	PRO
1	C	2620	THR
1	C	2692	MET
1	C	2742	THR
1	C	2784	THR
1	C	2800	PHE
1	C	2802	ARG
1	C	2809	LEU
1	C	2827	LEU
1	C	2861	LEU
1	C	2871	THR
1	C	2879	LEU
1	C	2894	THR
1	C	2916	ARG
1	C	2930	LEU
1	C	2935	LYS
1	C	2962	ASP
1	C	3001	HIS
1	C	3019	ASP
1	C	3076	SER
1	C	3077	THR
1	C	3080	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (136) such sidechains are listed below:

Mol	Chain	Res	Type
1	D	486	GLN
1	D	540	ASN
1	D	575	HIS
1	D	585	HIS
1	D	606	ASN
1	D	1057	ASN
1	D	1134	HIS
1	D	1276	GLN

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Mol	Chain	Res	Type
1	D	1277	HIS
1	D	1355	GLN
1	D	1582	HIS
1	D	1617	ASN
1	D	1672	GLN
1	D	2288	HIS
1	D	2296	ASN
1	D	2334	HIS
1	D	2349	ASN
1	D	2651	ASN
1	D	2815	GLN
1	D	2850	HIS
1	D	2927	GLN
1	D	2942	GLN
1	D	2973	HIS
1	E	386	ASN
1	E	486	GLN
1	E	540	ASN
1	E	585	HIS
1	E	1057	ASN
1	E	1134	HIS
1	E	1276	GLN
1	E	1277	HIS
1	E	1355	GLN
1	E	1534	ASN
1	E	1582	HIS
1	E	1617	ASN
1	E	1672	GLN
1	E	2288	HIS
1	E	2334	HIS
1	E	2349	ASN
1	E	2651	ASN
1	E	2815	GLN
1	E	2850	HIS
1	E	2927	GLN
1	E	2942	GLN
1	E	2973	HIS
1	F	386	ASN
1	F	486	GLN
1	F	540	ASN
1	F	575	HIS
1	F	585	HIS

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Mol	Chain	Res	Type
1	F	682	ASN
1	F	1057	ASN
1	F	1134	HIS
1	F	1276	GLN
1	F	1277	HIS
1	F	1355	GLN
1	F	1394	HIS
1	F	1582	HIS
1	F	1617	ASN
1	F	1672	GLN
1	F	2288	HIS
1	F	2334	HIS
1	F	2349	ASN
1	F	2651	ASN
1	F	2815	GLN
1	F	2850	HIS
1	F	2927	GLN
1	F	2942	GLN
1	F	2973	HIS
1	A	386	ASN
1	A	486	GLN
1	A	540	ASN
1	A	575	HIS
1	A	585	HIS
1	A	1057	ASN
1	A	1134	HIS
1	A	1276	GLN
1	A	1277	HIS
1	A	1355	GLN
1	A	1582	HIS
1	A	1617	ASN
1	A	1672	GLN
1	A	2288	HIS
1	A	2334	HIS
1	A	2349	ASN
1	A	2651	ASN
1	A	2815	GLN
1	A	2850	HIS
1	A	2927	GLN
1	A	2942	GLN
1	A	2973	HIS
1	B	386	ASN

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Mol	Chain	Res	Type
1	B	486	GLN
1	B	540	ASN
1	B	575	HIS
1	B	585	HIS
1	B	1057	ASN
1	B	1134	HIS
1	B	1276	GLN
1	B	1277	HIS
1	B	1355	GLN
1	B	1582	HIS
1	B	1617	ASN
1	B	1672	GLN
1	B	2288	HIS
1	B	2296	ASN
1	B	2334	HIS
1	B	2349	ASN
1	B	2651	ASN
1	B	2815	GLN
1	B	2850	HIS
1	B	2927	GLN
1	B	2942	GLN
1	B	2973	HIS
1	C	386	ASN
1	C	486	GLN
1	C	540	ASN
1	C	575	HIS
1	C	585	HIS
1	C	1057	ASN
1	C	1134	HIS
1	C	1276	GLN
1	C	1277	HIS
1	C	1355	GLN
1	C	1582	HIS
1	C	1617	ASN
1	C	1672	GLN
1	C	2288	HIS
1	C	2334	HIS
1	C	2349	ASN
1	C	2651	ASN
1	C	2815	GLN
1	C	2850	HIS
1	C	2927	GLN

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Mol	Chain	Res	Type
1	C	2942	GLN
1	C	2973	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 ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

6 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
2	FMN	A	4000	-	32,33,33	1.21	3 (9%)	34,50,50	1.72	7 (20%)
2	FMN	B	4000	-	32,33,33	1.21	3 (9%)	34,50,50	1.72	7 (20%)
2	FMN	C	4000	-	32,33,33	1.21	3 (9%)	34,50,50	1.70	7 (20%)
2	FMN	D	4000	-	32,33,33	1.21	3 (9%)	34,50,50	1.72	7 (20%)
2	FMN	E	4000	-	32,33,33	1.21	3 (9%)	34,50,50	1.71	7 (20%)
2	FMN	F	4000	-	32,33,33	1.20	3 (9%)	34,50,50	1.71	7 (20%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means

no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	FMN	A	4000	-	-	0/18/18/18	0/3/3/3
2	FMN	B	4000	-	-	0/18/18/18	0/3/3/3
2	FMN	C	4000	-	-	0/18/18/18	0/3/3/3
2	FMN	D	4000	-	-	0/18/18/18	0/3/3/3
2	FMN	E	4000	-	-	0/18/18/18	0/3/3/3
2	FMN	F	4000	-	-	0/18/18/18	0/3/3/3

All (18) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	4000	FMN	C5A-N5	2.22	1.38	1.35
2	E	4000	FMN	C5A-N5	2.25	1.38	1.35
2	A	4000	FMN	C5A-N5	2.25	1.38	1.35
2	F	4000	FMN	C5A-N5	2.26	1.38	1.35
2	C	4000	FMN	C5A-N5	2.29	1.38	1.35
2	D	4000	FMN	C5A-N5	2.30	1.38	1.35
2	B	4000	FMN	C4-N3	3.12	1.38	1.33
2	A	4000	FMN	C4-N3	3.14	1.38	1.33
2	F	4000	FMN	C4-N3	3.15	1.38	1.33
2	E	4000	FMN	C4-N3	3.15	1.38	1.33
2	D	4000	FMN	C4-N3	3.15	1.38	1.33
2	C	4000	FMN	C4-N3	3.18	1.38	1.33
2	C	4000	FMN	C4A-N5	3.46	1.38	1.33
2	F	4000	FMN	C4A-N5	3.47	1.38	1.33
2	D	4000	FMN	C4A-N5	3.47	1.38	1.33
2	E	4000	FMN	C4A-N5	3.51	1.38	1.33
2	A	4000	FMN	C4A-N5	3.52	1.38	1.33
2	B	4000	FMN	C4A-N5	3.58	1.38	1.33

All (42) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	4000	FMN	N3-C2-N1	-4.49	120.14	127.69
2	B	4000	FMN	N3-C2-N1	-4.48	120.14	127.69
2	E	4000	FMN	N3-C2-N1	-4.46	120.17	127.69
2	C	4000	FMN	N3-C2-N1	-4.45	120.19	127.69
2	F	4000	FMN	N3-C2-N1	-4.44	120.21	127.69
2	D	4000	FMN	N3-C2-N1	-4.44	120.22	127.69
2	D	4000	FMN	C4A-C4-N3	-2.86	119.78	123.52
2	A	4000	FMN	C4A-C4-N3	-2.86	119.78	123.52
2	F	4000	FMN	C4A-C4-N3	-2.86	119.78	123.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	4000	FMN	C4A-C4-N3	-2.83	119.82	123.52
2	B	4000	FMN	C4A-C4-N3	-2.83	119.83	123.52
2	C	4000	FMN	C4A-C4-N3	-2.78	119.89	123.52
2	B	4000	FMN	C1'-N10-C9A	2.03	121.19	118.83
2	C	4000	FMN	C1'-N10-C9A	2.05	121.20	118.83
2	F	4000	FMN	C1'-N10-C9A	2.06	121.22	118.83
2	E	4000	FMN	C1'-N10-C9A	2.07	121.22	118.83
2	D	4000	FMN	C1'-N10-C9A	2.08	121.24	118.83
2	A	4000	FMN	C1'-N10-C9A	2.09	121.25	118.83
2	F	4000	FMN	C4-C4A-N5	2.21	121.39	118.70
2	A	4000	FMN	C4-C4A-N5	2.23	121.41	118.70
2	C	4000	FMN	C4-C4A-N5	2.25	121.43	118.70
2	B	4000	FMN	C4-C4A-N5	2.28	121.47	118.70
2	D	4000	FMN	C4-C4A-N5	2.29	121.48	118.70
2	E	4000	FMN	C4-C4A-N5	2.29	121.49	118.70
2	F	4000	FMN	C4A-N5-C5A	2.70	119.90	116.72
2	B	4000	FMN	C4A-N5-C5A	2.70	119.90	116.72
2	A	4000	FMN	C4A-N5-C5A	2.71	119.92	116.72
2	C	4000	FMN	C4A-N5-C5A	2.73	119.94	116.72
2	D	4000	FMN	C4A-N5-C5A	2.77	119.98	116.72
2	E	4000	FMN	C4A-N5-C5A	2.78	120.00	116.72
2	E	4000	FMN	C5A-C9A-N10	2.89	119.75	117.58
2	C	4000	FMN	C5A-C9A-N10	2.90	119.75	117.58
2	B	4000	FMN	C5A-C9A-N10	2.94	119.78	117.58
2	A	4000	FMN	C5A-C9A-N10	2.95	119.79	117.58
2	F	4000	FMN	C5A-C9A-N10	2.97	119.80	117.58
2	D	4000	FMN	C5A-C9A-N10	3.02	119.84	117.58
2	C	4000	FMN	C4-N3-C2	5.88	120.06	115.16
2	E	4000	FMN	C4-N3-C2	5.94	120.11	115.16
2	F	4000	FMN	C4-N3-C2	5.96	120.13	115.16
2	D	4000	FMN	C4-N3-C2	6.01	120.17	115.16
2	B	4000	FMN	C4-N3-C2	6.01	120.17	115.16
2	A	4000	FMN	C4-N3-C2	6.02	120.18	115.16

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

6 monomers are involved in 24 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	4000	FMN	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	4000	FMN	4	0
2	C	4000	FMN	4	0
2	D	4000	FMN	4	0
2	E	4000	FMN	4	0
2	F	4000	FMN	4	0

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.