



## Full wwPDB EM Validation Report ⓘ

Nov 5, 2024 – 04:27 AM EST

PDB ID : 9E1I  
EMDB ID : EMD-47395  
Title : Structure of RyR1 in the open state in the presence of oxopyricid  
Authors : Miotto, M.C.; Marks, A.R.  
Deposited on : 2024-10-21  
Resolution : 3.20 Å (reported)  
Based on initial model : 7TZC

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

EMDB validation analysis : 0.0.1.dev113  
Mogul : 2022.3.0, CSD as543be (2022)  
MolProbity : 4.02b-467  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.39

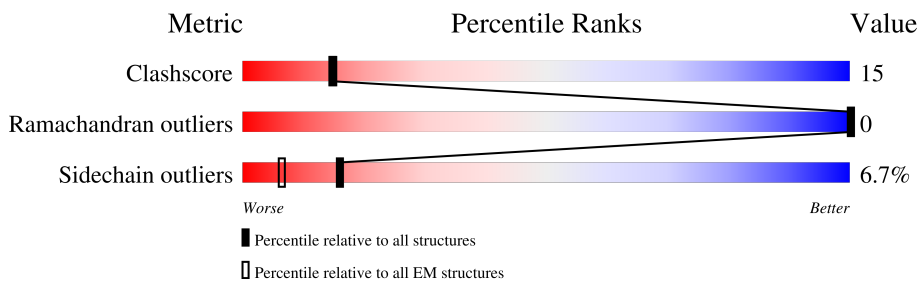
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.20 Å.

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



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

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion  $< 40\%$ ). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	5037	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">43%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey);"></div> <div style="text-align: center;">58%</div> <div style="text-align: center;">27%</div> <div style="text-align: center;">•</div> <div style="text-align: center;">13%</div> </div>
1	B	5037	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">43%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey);"></div> <div style="text-align: center;">58%</div> <div style="text-align: center;">27%</div> <div style="text-align: center;">•</div> <div style="text-align: center;">13%</div> </div>
1	C	5037	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">43%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey);"></div> <div style="text-align: center;">58%</div> <div style="text-align: center;">27%</div> <div style="text-align: center;">•</div> <div style="text-align: center;">13%</div> </div>
1	D	5037	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">43%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey);"></div> <div style="text-align: center;">58%</div> <div style="text-align: center;">27%</div> <div style="text-align: center;">•</div> <div style="text-align: center;">13%</div> </div>
2	E	108	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">79%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey);"></div> <div style="text-align: center;">69%</div> <div style="text-align: center;">29%</div> <div style="text-align: center;">••</div> </div>
2	F	108	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">77%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey);"></div> <div style="text-align: center;">73%</div> <div style="text-align: center;">24%</div> <div style="text-align: center;">••</div> </div>
2	G	108	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">78%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey);"></div> <div style="text-align: center;">70%</div> <div style="text-align: center;">26%</div> <div style="text-align: center;">••</div> </div>
2	H	108	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">77%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red, orange, yellow, green, grey);"></div> <div style="text-align: center;">71%</div> <div style="text-align: center;">26%</div> <div style="text-align: center;">••</div> </div>

## 2 Entry composition

There are 7 unique types of molecules in this entry. The entry contains 144120 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	4404	Total 35150	C 22365	N 6063	O 6485	S 237	9	0
1	B	4404	Total 35150	C 22365	N 6063	O 6485	S 237	9	0
1	D	4404	Total 35150	C 22365	N 6063	O 6485	S 237	9	0
1	C	4404	Total 35150	C 22365	N 6063	O 6485	S 237	9	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	E	107	Total 831	C 527	N 146	O 154	S 4	0	0
2	H	107	Total 831	C 527	N 146	O 154	S 4	0	0
2	G	107	Total 831	C 527	N 146	O 154	S 4	0	0
2	F	107	Total 831	C 527	N 146	O 154	S 4	0	0

- Molecule 3 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula:  $C_{10}H_{16}N_5O_{13}P_3$ ).



Mol	Chain	Residues	Atoms					AltConf
3	A	1	Total	C	N	O	P	0
			31	10	5	13	3	
3	B	1	Total	C	N	O	P	0
			31	10	5	13	3	
3	D	1	Total	C	N	O	P	0
			31	10	5	13	3	
3	C	1	Total	C	N	O	P	0
			31	10	5	13	3	

- Molecule 4 is CALCIUM ION (three-letter code: CA) (formula: Ca).

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

- Molecule 5 is ZINC ION (three-letter code: ZN) (formula: Zn).

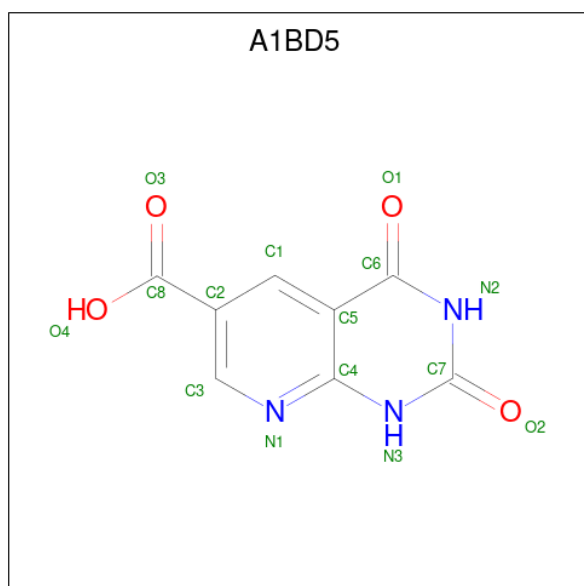
Mol	Chain	Residues	Atoms		AltConf
5	A	1	Total	Zn	0
			1	1	

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

- Molecule 6 is oxopyricid (three-letter code: A1BD5) (formula:  $C_8H_5N_3O_4$ ) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
6	A	1	Total	C	N	O	0
			15	8	3	4	
6	B	1	Total	C	N	O	0
			15	8	3	4	
6	D	1	Total	C	N	O	0
			15	8	3	4	
6	C	1	Total	C	N	O	0
			15	8	3	4	

- Molecule 7 is water.

Mol	Chain	Residues	Atoms		AltConf
7	A	1	Total	O	0
			1	1	
7	B	1	Total	O	0
			1	1	

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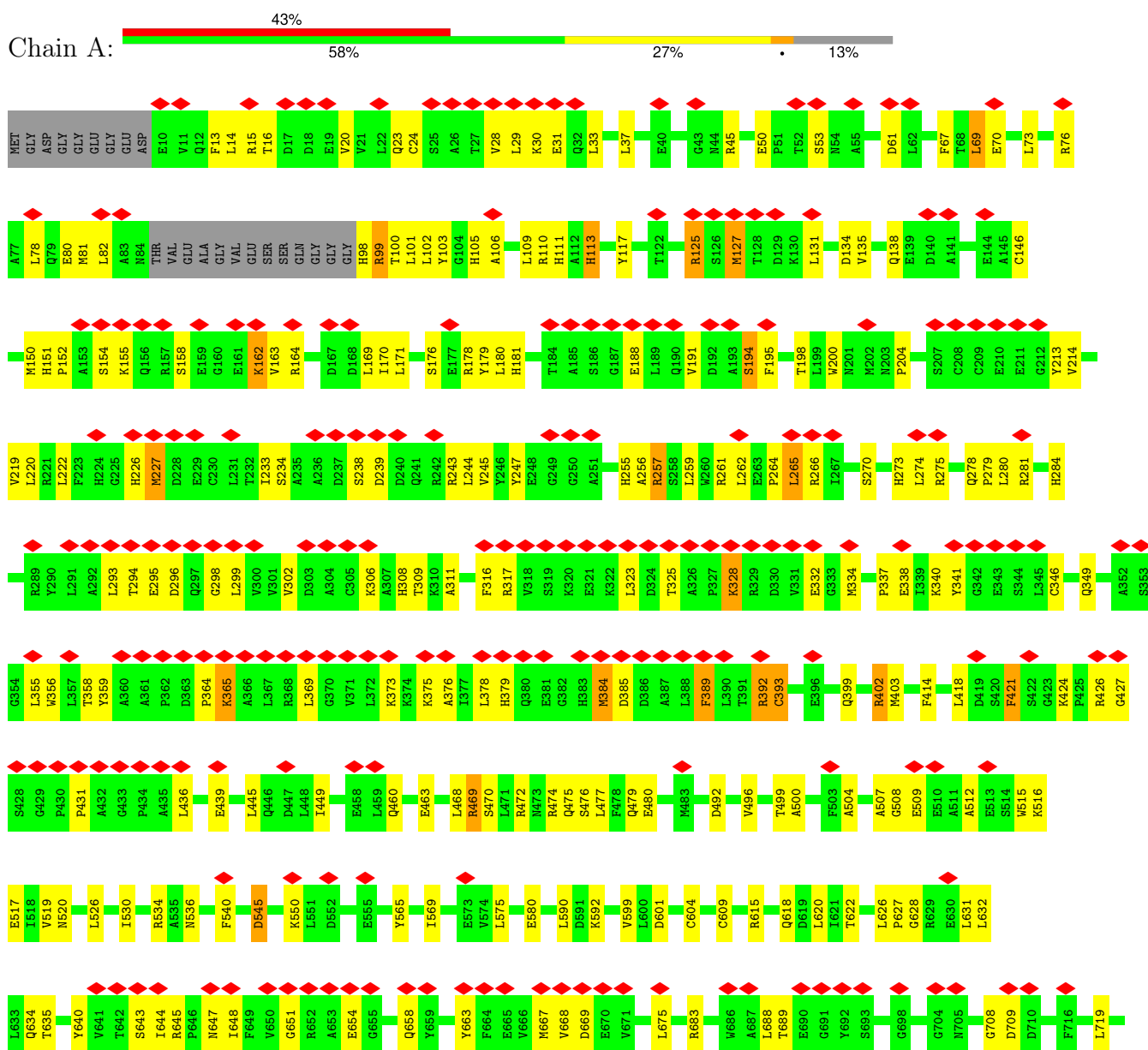
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Mol	Chain	Residues	Atoms	AltConf
7	D	1	Total O 1 1	0
7	C	1	Total O 1 1	0

### 3 Residue-property plots

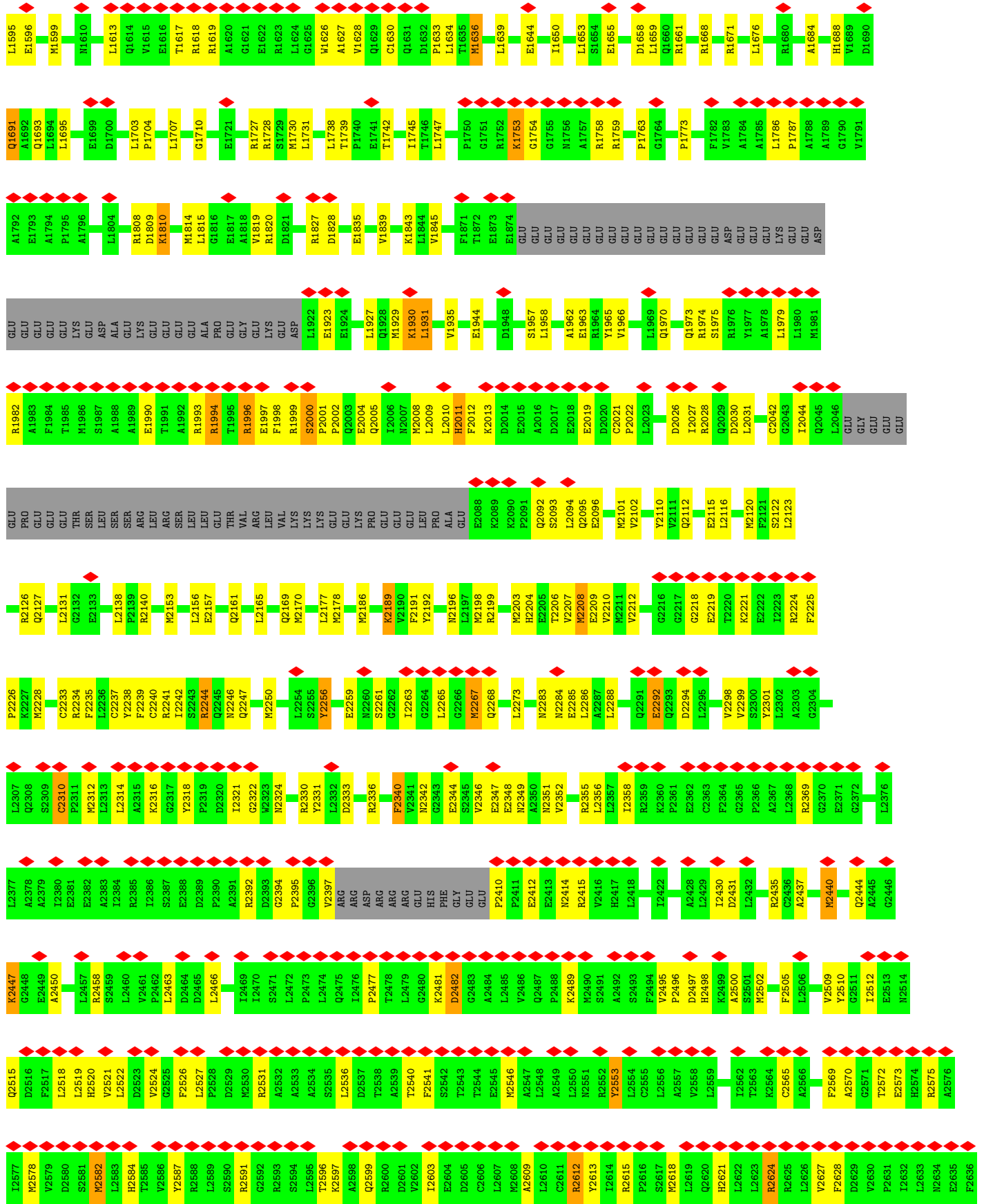
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

#### • Molecule 1: Ryanodine receptor 1



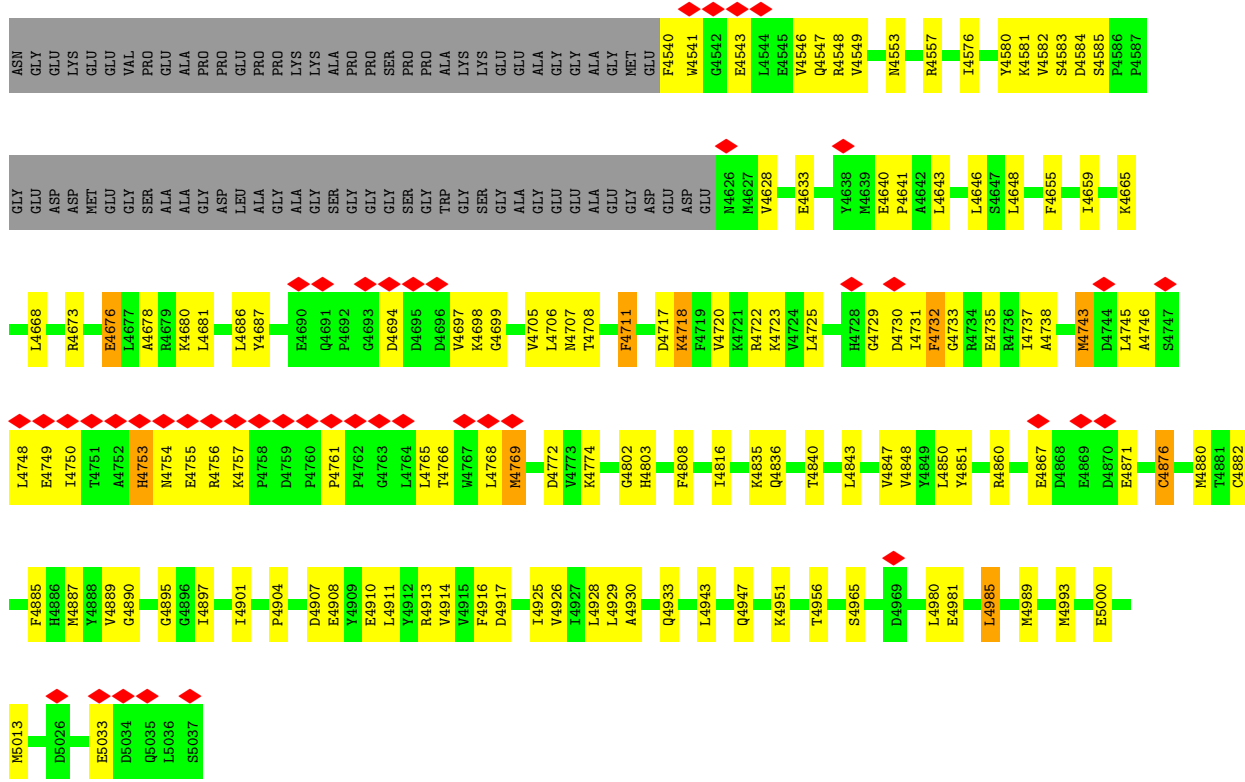
L722	L723	G724	H725	V726	A727	F728	V730	T731	S732	P733	G734	L737	P740	E741	D742	V743	V744	L748	D749	L750	V751	S752	P753	S754	F757	R758	I759	N760	G761	F768	E769	A770	F771	L773	D774	G775	L776	F777	F778	P779	V780	S782	F783	S784	A785	V786	G787	K788	V789	R790	F791										
L792	L793	G794	G795	V796	H797	G798	E799	F800	K801	F802	L803	P804	P805	P806	G807	Y808	C811	H812	E813	A814	V815	L816	S817	R818	E819	R820	L821	R822	L823	E824	P825	I826	K827	E828	Y829	R830	R831	E832	G833	P834	R835	S843	R844	C845	L846	S847	H848	T849	D850	F851	V852	P853	V854	C855	P856	D857	T858				
V859	Q860	I861	V862	L863	P864	P865	H866	L867	E868	R869	I870	R871	E872	K873	L874	A875	E876	N877	I878	H879	E880	L881	W882	A883	L884	T885	R886	I887	E888	Q889	G890	W891	T892	Y893	G894	P895	V896	R897	D898	D899	N900	K901	R902	L903	H904	P905	C906	L907	V908	N909	F910	H911	S912	L913	P914	E915	V916	E917	R918		
N919	Y920	N921	L922	Q923	N924	S925	G926	E927	T928	L929	K930	T931	L932	L933	A934	L935	G936	C937	H938	V939	G940	N941	A942	D943	E944	K945	A946	E947	D948	N949	L950	K951	K952	T953	K954	L955	P956	K957	T958	Y959	N960	M961	S962	N963	G964	Y965	K966	P967	A968	P969	L970	D971	S972	S973	H974	V975	R976	L977	T978		
P979	A980	Q981	T982	T983	L984	V985	D986	E987	L988	A989	E990	H993	A997	R998	D999	R1000	V1001	A1002	Q1003	G1004	W1005	S1006	A1009	V1010	Q1011	D1012	E1013	P1014	A1015	R1016	R1017	R1020	L1021	F1022	P1023	Y1024	R1025	L1026	L1027	D1028	S929	A1030	G1031	K1032	R1033	P967	S1034	N1035	R1036	D1037	S1038	L1039	C1040	Q1041	A1042	V1043					
R1044	T1045	L1046	L1047	Y1048	G1050	Y1051	N1052	I1053	E1054	P1055	P1056	D1057	Q1058	E1059	P1060	S1061	Q1062	V1063	E1064	N1065	Q1066	S1067	R1068	W1069	D1070	R1071	V1072	R1076	A1077	E1078	K1079	S1085	G1086	R1087	W1088	Y1089	A1093	A1094	V1095	T1096	T1097	G1098	E1099	M1100	L1101	V1102	G1103	W1104	A1105	R1106	P1107	E1108	L1109	D1112	R1180						
V1113	E1114	L1115	D1118	E1119	L1120	V1123	F1124	N1125	G1126	H1127	R1128	G1129	Q1130	G1135	S1136	E1137	P1138	F1139	G1140	R1141	P1142	W1143	Q1144	S1145	L1146	D1147	M1152	I1153	D1154	L1155	T1156	E1157	M1158	T1159	L1160	L1161	F1162	T1163	N1165	G1166	E1167	L1168	L1169	M1170	S1171	D1172	S1173	G1174	S1175	E1176	P1177	A1178	F1179	R1180							
E1181	I1182	E1183	I1184	G1185	D1186	G1187	F1188	L1189	V1190	F1191	G1192	S1193	L1194	G1195	G1200	L1204	G1205	Q1206	D1207	V1208	S1209	S1210	L1211	R1212	F1213	F1214	A1215	I1216	C1217	G1218	L1219	Q1220	E1221	F1223	E1224	P1225	F1226	L1227	I1228	Q1231	R1232	Y1248	E1251	H1252	P1253	H1254	Y1255	R1259	M1260	D1261	G1262	T1263									
V1264	D1265	C1269	L1270	R1271	A1272	H1274	R1275	V1276	T1277	G1278	S1279	Q1280	N1281	S1282	L1283	V1284	E1285	M1286	F1288	L1289	R1290	L1291	S1292	L1293	Q1296	H1300	F1301	R1302	C1303	T1304	ALA	GLY	ALA	ASN	THR	THR	LYS	LEU	ALA	PRO	PRO	PRO	PRO	GLY	ALA	GLU	THR	GLY	ASP	PRO	PRO	GLY	ASP	GLU	ALA	ARG	ALA	ALA	GLU	PRO	PRO
ASP	PRO	ASP	TYR	GLU	ASN	LEU	ARG	ARG	SER	ALA	GLY	GLY	TRP	GLY	GLU	ALA	GLU	GLY	GLY	LYS	GLY	GLY	THR	THR	THR	PRO	PRO	PRO	GLN	VAL	VAL	ALA	ALA	GLY	ASN	GLU	LYS	GLN	PRO	PRO	ALA	ASP	ASP	GLU	ALA	ALA	ALA	ARG	ALA	ALA	LYS	LYS	ARG	GLY							
PHE	LEU	PHE	LYS	ALA	LYS	ALA	ALA	ALA	MET	THR	GLN	PRO	PRO	ALA	THR	THR	ALA	LEU	PRO	ARG	LEU	PRO	PRO	HIS	ASP	VAL	VAL	PRO	ALA	D1419	N1420	R1421	D1422	D1423	P1424	E1425	I1426	I1427	L1428	N1429	Y1433	Y1434	Y1435	S1436	V1437	R1438	V1439	F1440	A1441	G1442	Q1443	E1444	C1447	V1448	W1449	V1450	G1451				
T1454	P1455	D1456	Y1457	H1458	H1460	M1461	D1462	M1463	F1464	A1465	L1466	S1467	K1468	V1469	R1470	A1471	M1476	G1477	D1478	E1479	Q1480	G1481	M1482	V1483	H1484	S1485	S1486	L1487	K1488	C1489	S1490	M1491	C1492	Y1493	M1494	V1495	D1499	F1500	V1501	S1502	P1503	G1504	Q1505	Q1506	G1507	L1508	I1509	S1510	H1511	T1512	D1513	L1514	V1515	I1516							
L1519	V1520	D1521	L1522	A1523	L1526	M1527	F1529	T1530	A1531	M1532	G1533	K1534	E1535	S1536	M1537	T1538	F1539	F1540	Q1541	K1547	L1548	A1551	V1552	F1553	V1554	Q1559	M1560	F1564	E1565	L1566	K1567	K1568	Q1569	K1570	M1571	I1572	M1573	P1574	L1575	S1576	A1577	A1578	L1581	S1582	E1583	R1584	K1585	H1586	Q1590	R1594											



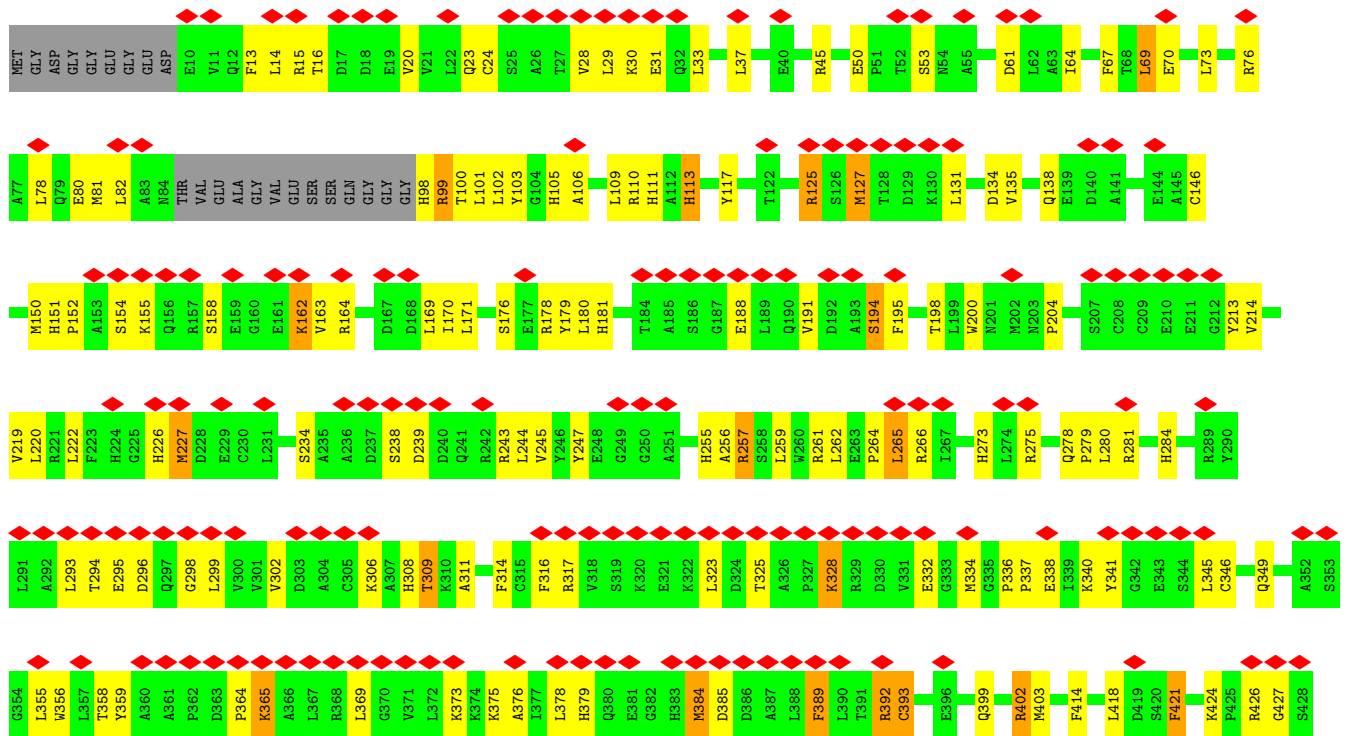
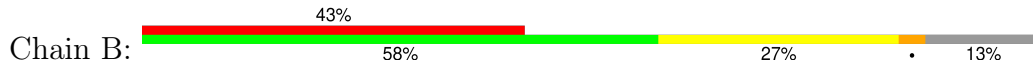


H3357	P3297	E3237	T3177	F3057	F2997	V2937	Q2877	I2817	K2757	R2697	A2637
F3358	A3298	E3238	T3178	G3058	F2998	T2938	L2878	A2818	F2758	M2698	K2638
I3359	G3299	M3239	F3179	T3059	A2999	R2939	A2879	V2819	A2759	A2699	M2639
P3360	A3300	C3240	N3180	D3060	K3000	GLY	E2880	E2820	E2760	M2700	P2640
T3361	P3301	P3241	T3181	A3061	I3001	LEU	N2881	N2821	Y2761	P2701	L2641
L3362	P3302	D3242	Y3182	P3062	L3002	LYS	Y2882	T2822	C2702	C2702	K2642
G3363	P3303	I3243	V3183	A3063	L3003	ASP	H2883	I2823	L2703	L2703	L2643
R3364	C3304	P3244	E3184	V3064	P3004	MET	N2884	E2824	E2704	C2704	L2644
L3365	A3305	Y3245	K3185	V3065	L3005	GLU	T2885	K2825	K2765	A2705	T2645
L3366	A3306	L3246	L3186	N3066	I3006	D2947	W2886	A2826	W2766	I2706	N2646
R3367	V3307	D3247	R3187	C3067	N3007	T2948	G2887	R2827	A2707	A2707	H2647
R3368	T3308	R3248	P3188	L3068	Q3008	S2949	R2888	E2828	F2768	G2708	Y2648
A3369	S3309	L3249	A3189	H3069	Y3009	S2950	R2889	G2829	D2769	A2709	E2649
G3370	D3310	M3250	I3190	I3070	F3009	I2951	K2890	E2830	K2770	L2710	K2650
K3371	H3311	A3251	T3132	L3071	T3011	E2952	K2891	GLU	I2771	P2711	C2651
V3372	L3312	D3252	T3133	A3072	N3012	K2953	Q2892	ARG	Q2772	P2712	N2652
V3373	N3313	I3253	V3134	R3073	H3013	R2954	E2893	THR	D2773	D2713	K2653
A3374	S3314	G3254	A3135	S3074	C3014	F2955	L2894	GLU	N2774	Y2714	Y2654
E3375	L3315	G3255	L3136	L3075	L3015	A2956	E2895	LYS	W2775	V2715	Y2655
E3376	L3316	L3256	L3137	D3076	Y3016	F2957	A2896	LYS	S2776	D2716	C2656
E3377	G3317	A3257	P3138	A3077	F3017	G2958	K2897	LYS	A2777	A2717	L2657
Q3378	N3318	L3197	L3139	R3078	G2898	F2959	G2898	ARG	Q2778	S2718	P2658
L3379	I3319	E3258	L3140	T3079	S3019	L2960	G2899	LYS	E2779	Y2719	T2659
R3380	L3320	S3259	T3141	V3080	T3020	Q2961	Q2900	SER	N2780	S2720	G2660
L3381	R3321	G3260	T3142	M3081	P3021	Q2962	T2901	GLN	Y2781	S2721	W2661
E3382	I3322	R3262	L3143	K3082	A3022	L2963	H2902	THR	D2782	K2722	A2662
A3383	I3323	Y3263	F3144	S3083	K3023	L2964	P2903	ALA	E2783	A2723	N2663
K3384	V3324	T3264	Q3145	G3084	V3024	R2965	L2904	THR	E2784	E2724	F2664
N3325	M3325	E3265	H3146	P3085	L3025	W2966	L2905	ASP	L2785	K2725	G2665
E3386	N3326	K3266	I3147	W2967	G3026	K2967	V2906	THR	K2786	A2726	Y2666
A3387	L3327	P3267	A3148	I3087	S3027	D2968	P2907	PRO	T2787	LYS	T2667
G3328	P3328	H3268	Q3149	V3088	G3028	L2969	P2907	ARG	H2788	THR	S2668
V3329	Q3209	V3269	H3150	K3089	G3029	S2970	Y2908	GLU	V2789	VAL	E2669
L3330	Q3210	Q3151	Q3151	A3090	H3030	Q2971	D2909	ALA	P2789	ASP	E2670
E3331	N3211	F3152	G3153	G3091	A3031	E2972	T2910	N2856	L2791	GLU	E2671
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A3355	S3236	G3176	V3115	S3055	S3055	K2996	Y2935	E2876	A2815	N2756	Y2696
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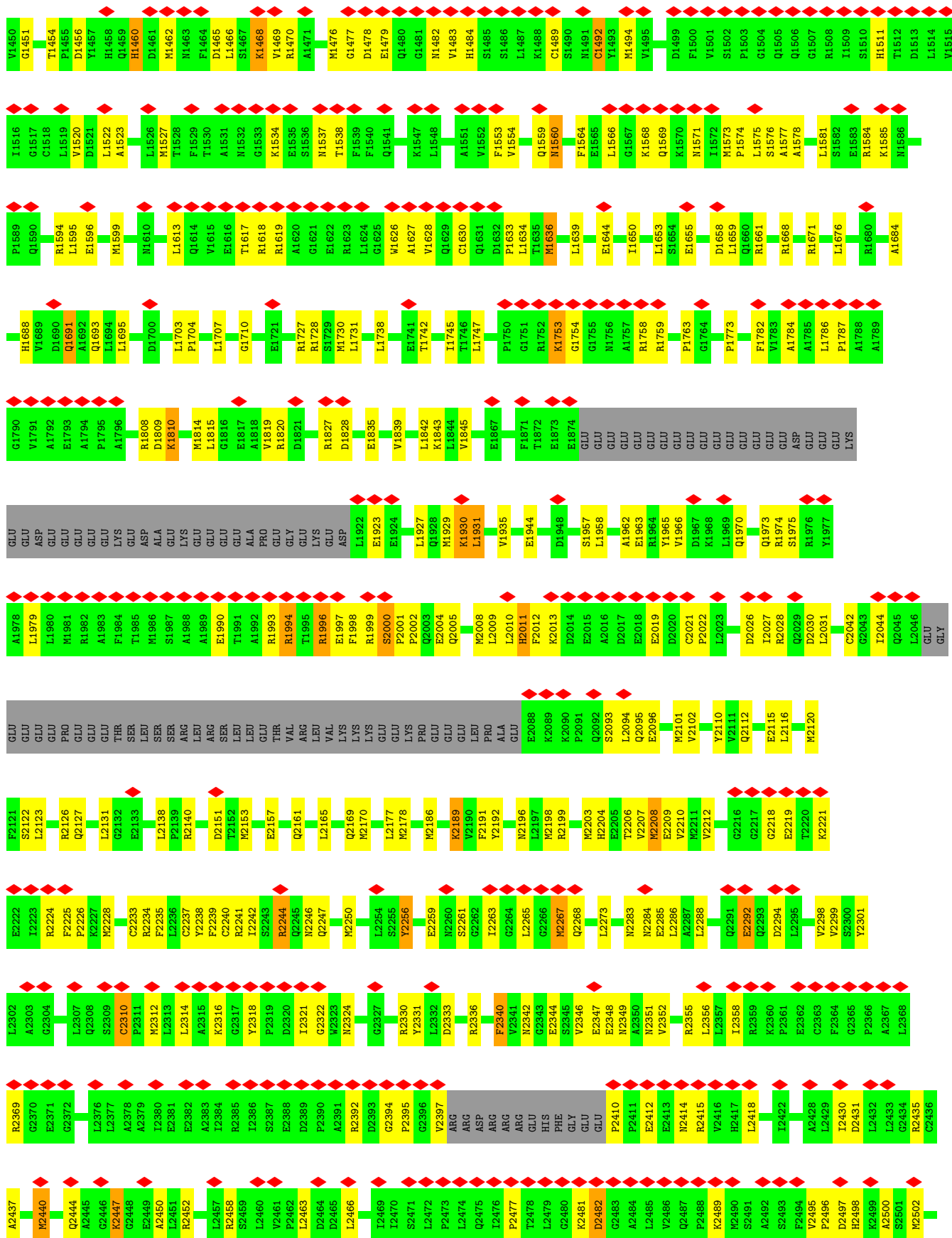
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GLY	F4234	L4048	D3941	D3941	D3843	L3735	A3631	R3450	ALA
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• Molecule 1: Ryanodine receptor 1



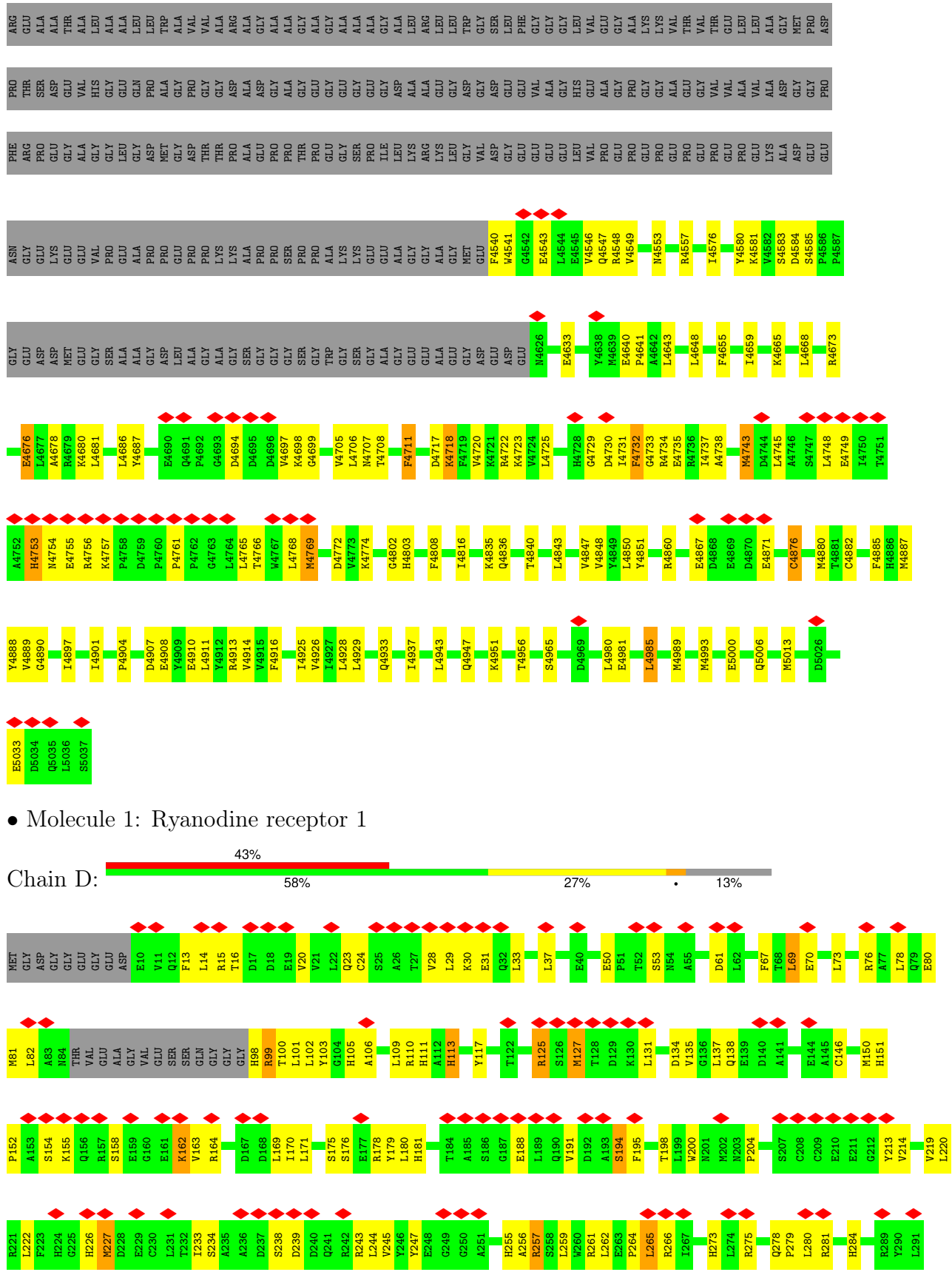
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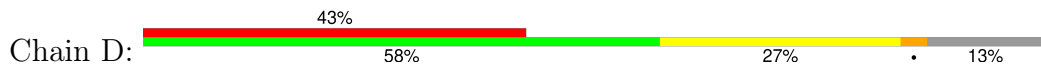
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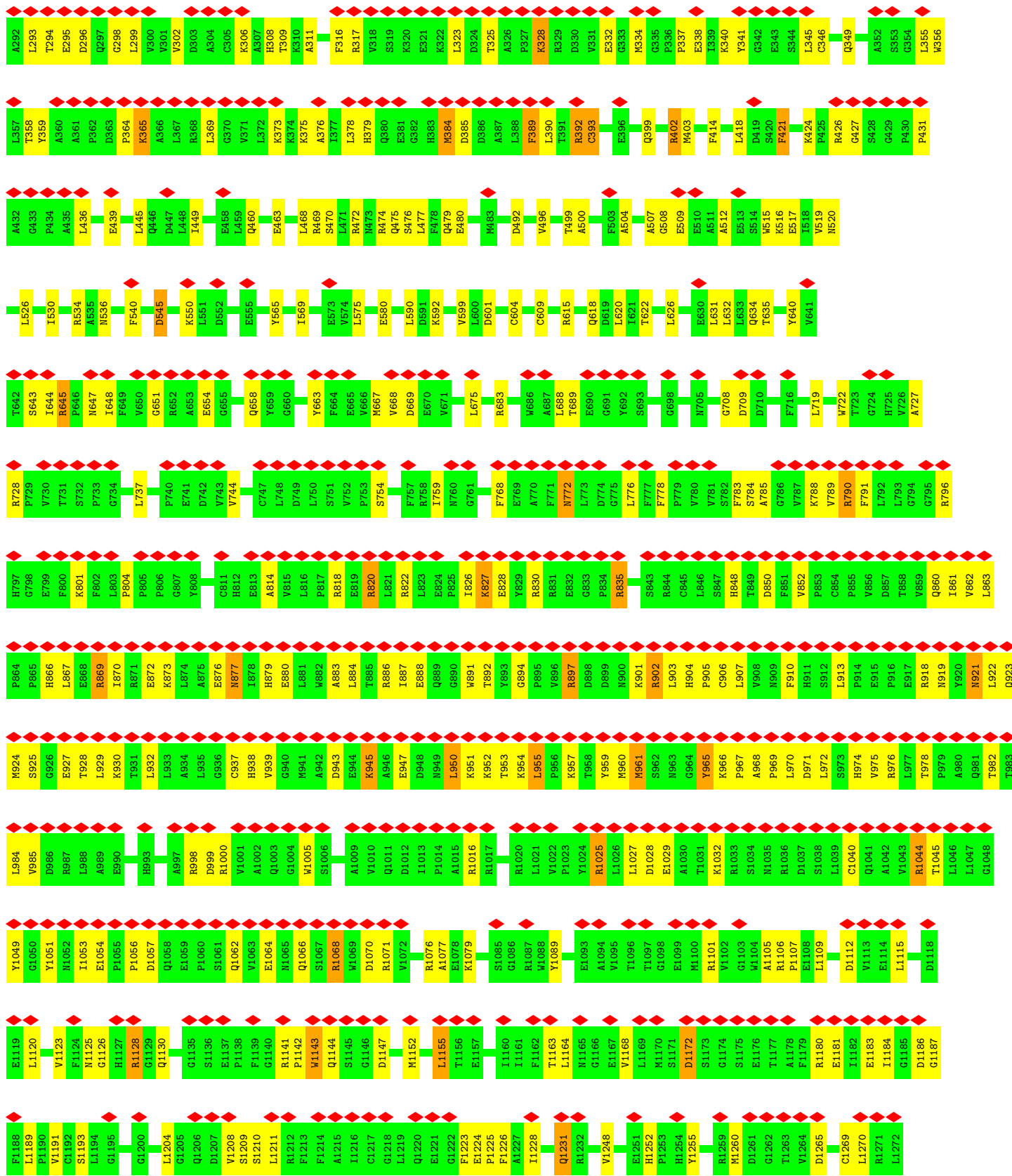
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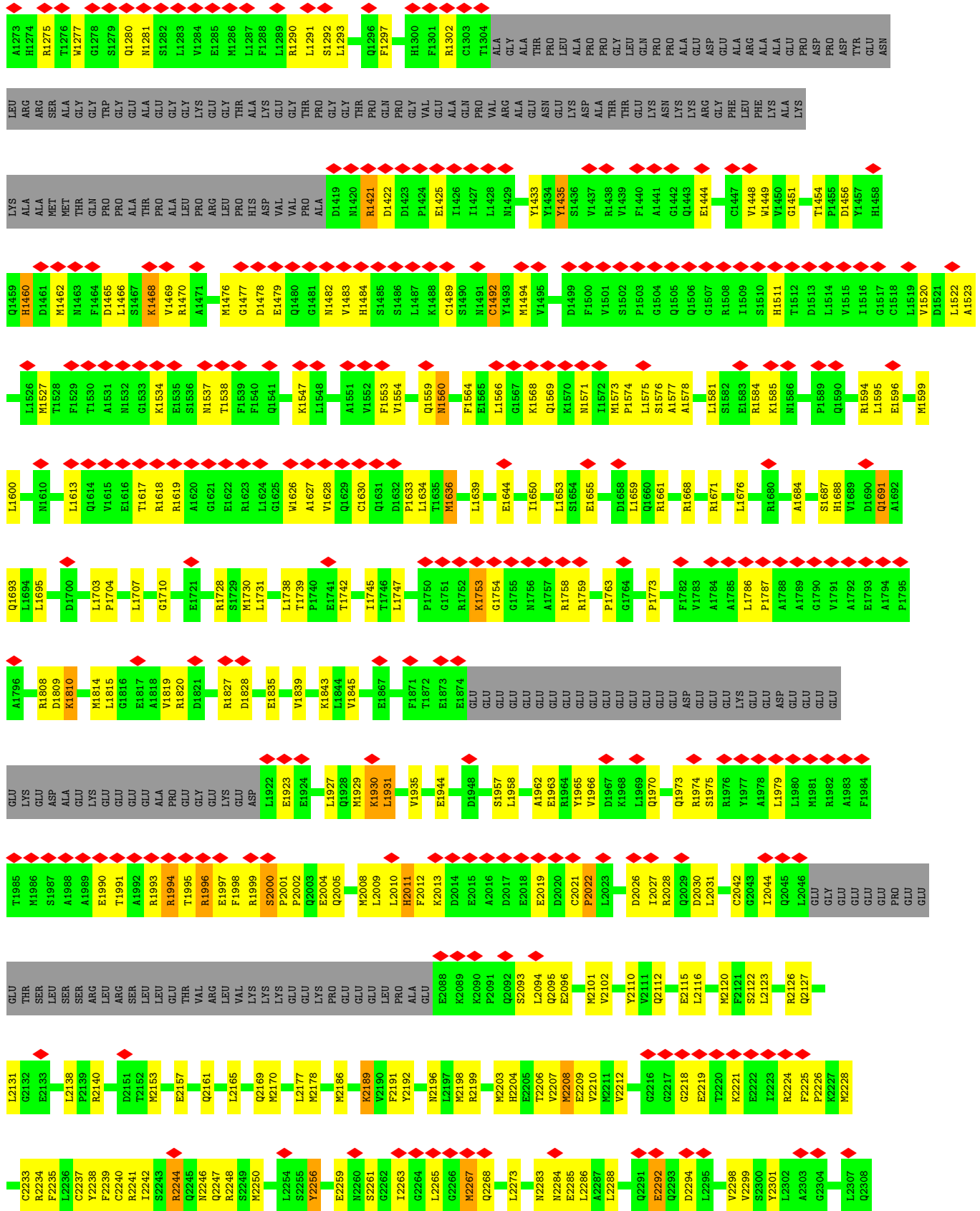




• Molecule 1: Ryanodine receptor 1

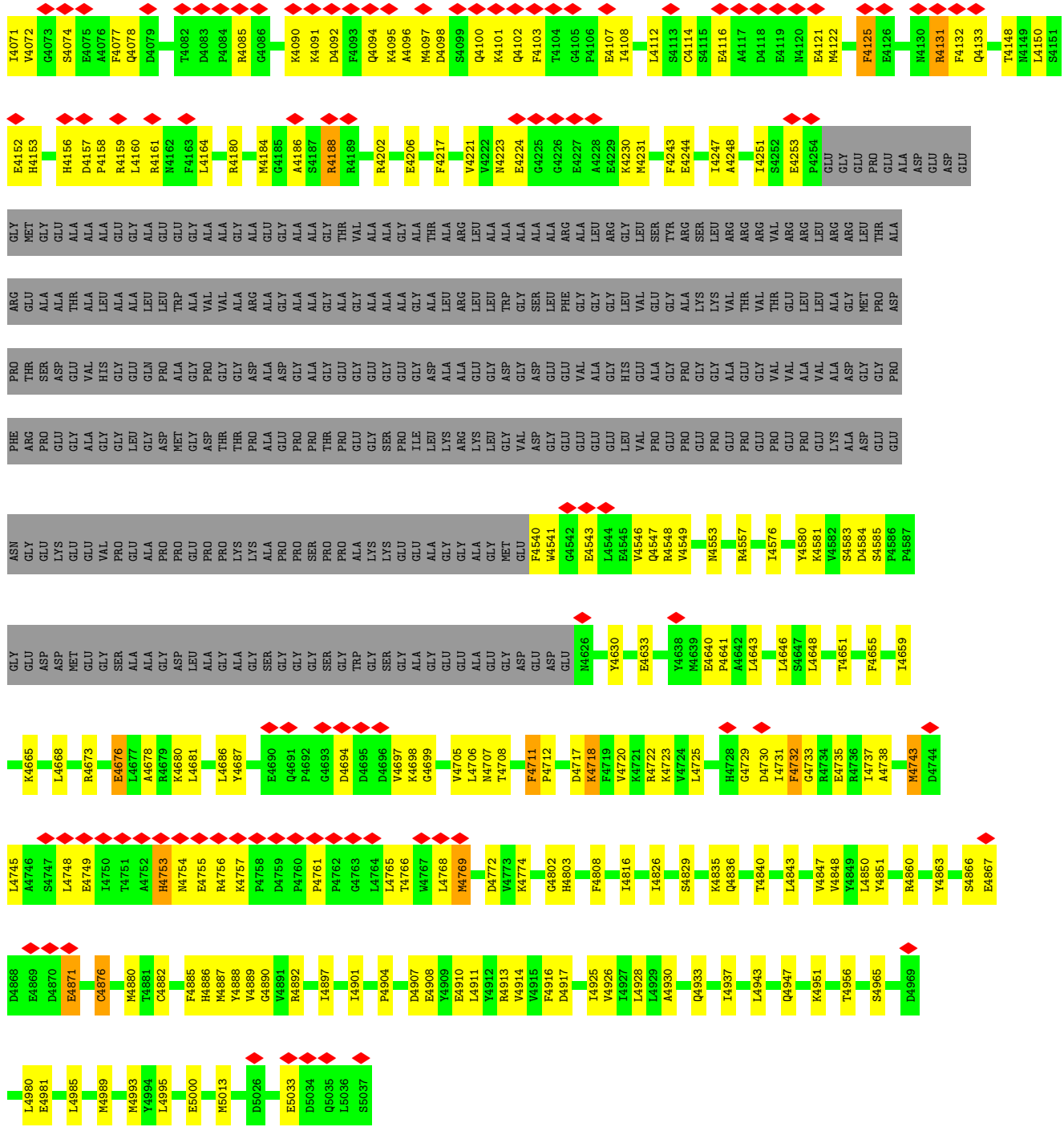






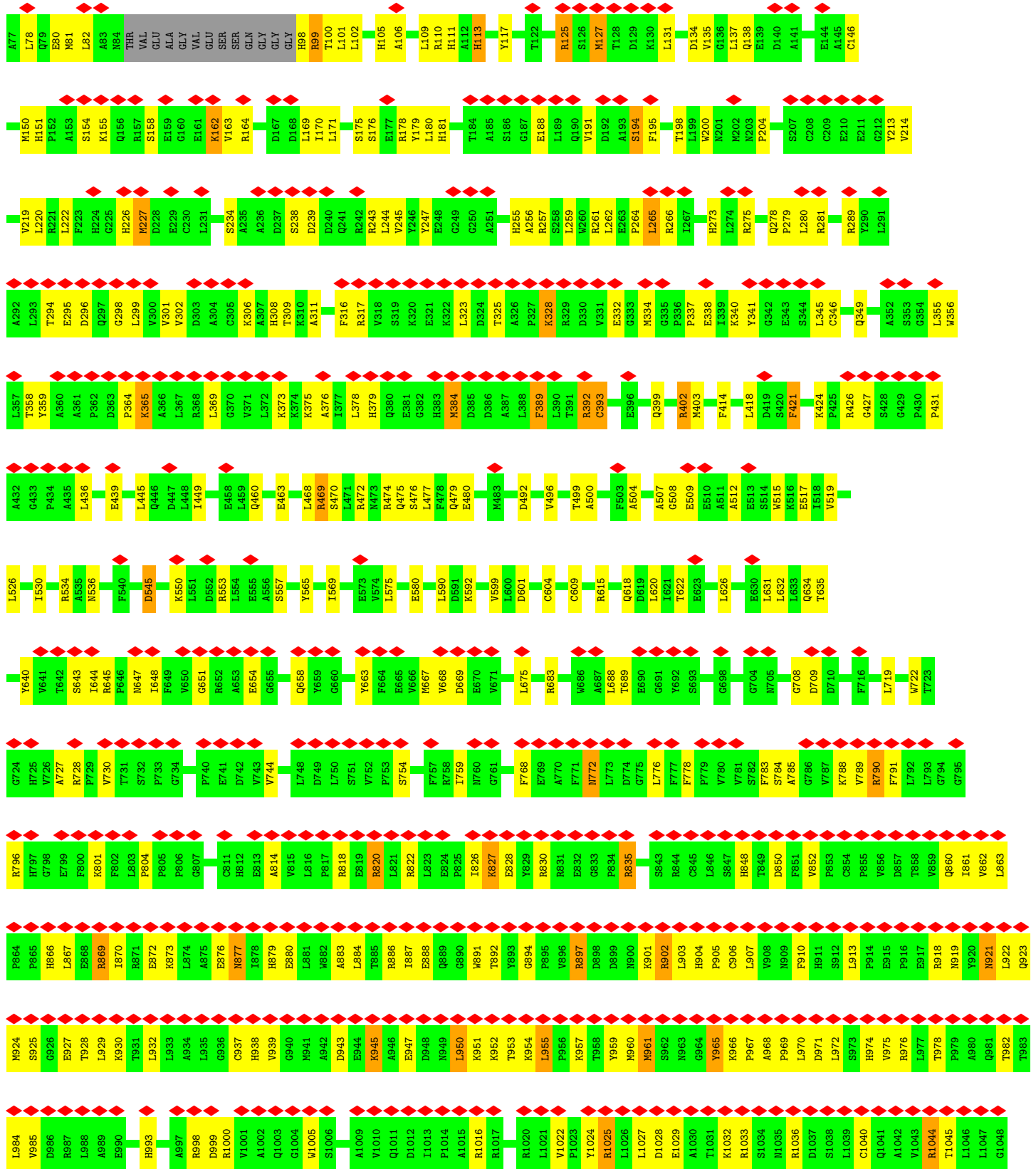
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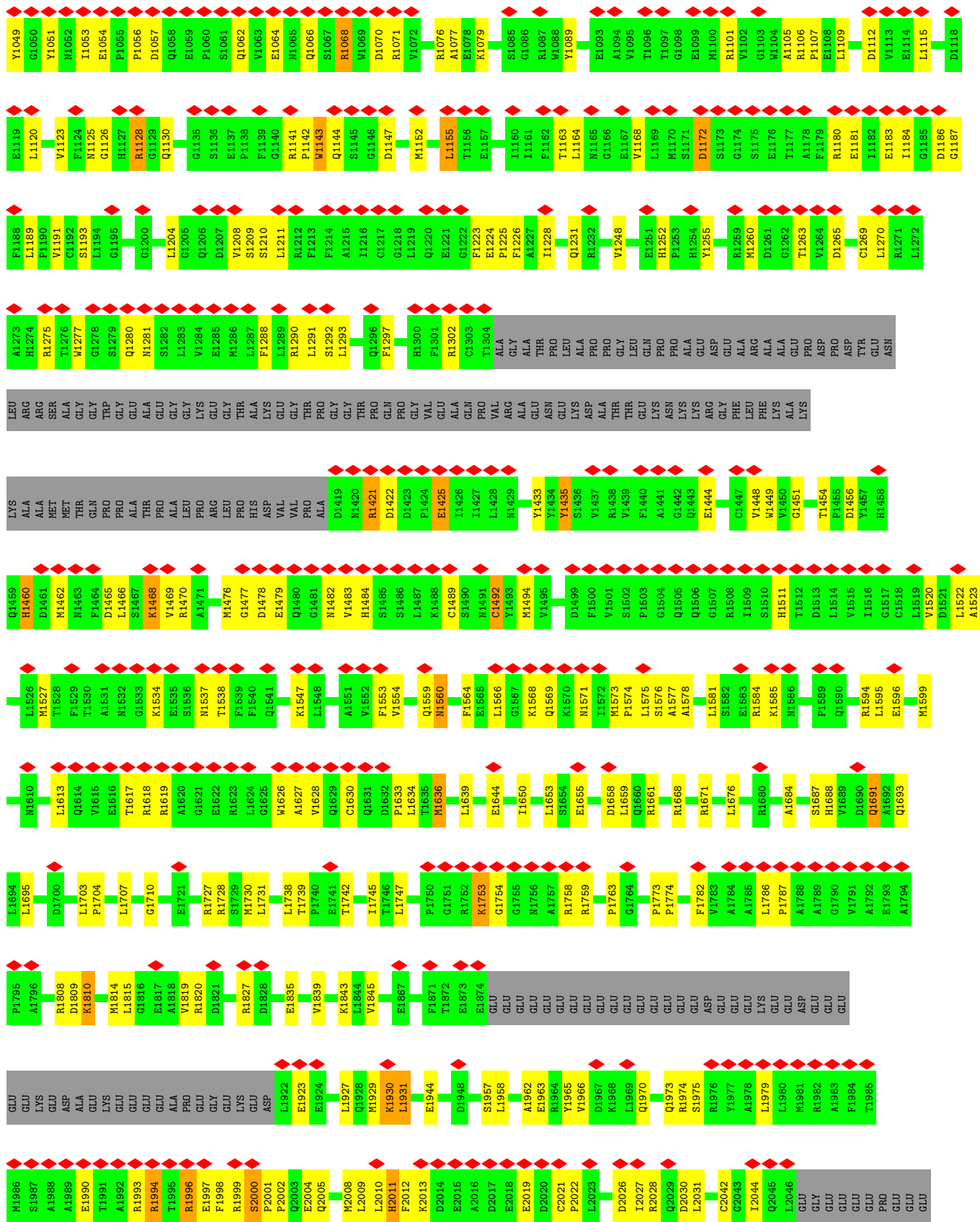




● Molecule 1: Ryanodine receptor 1



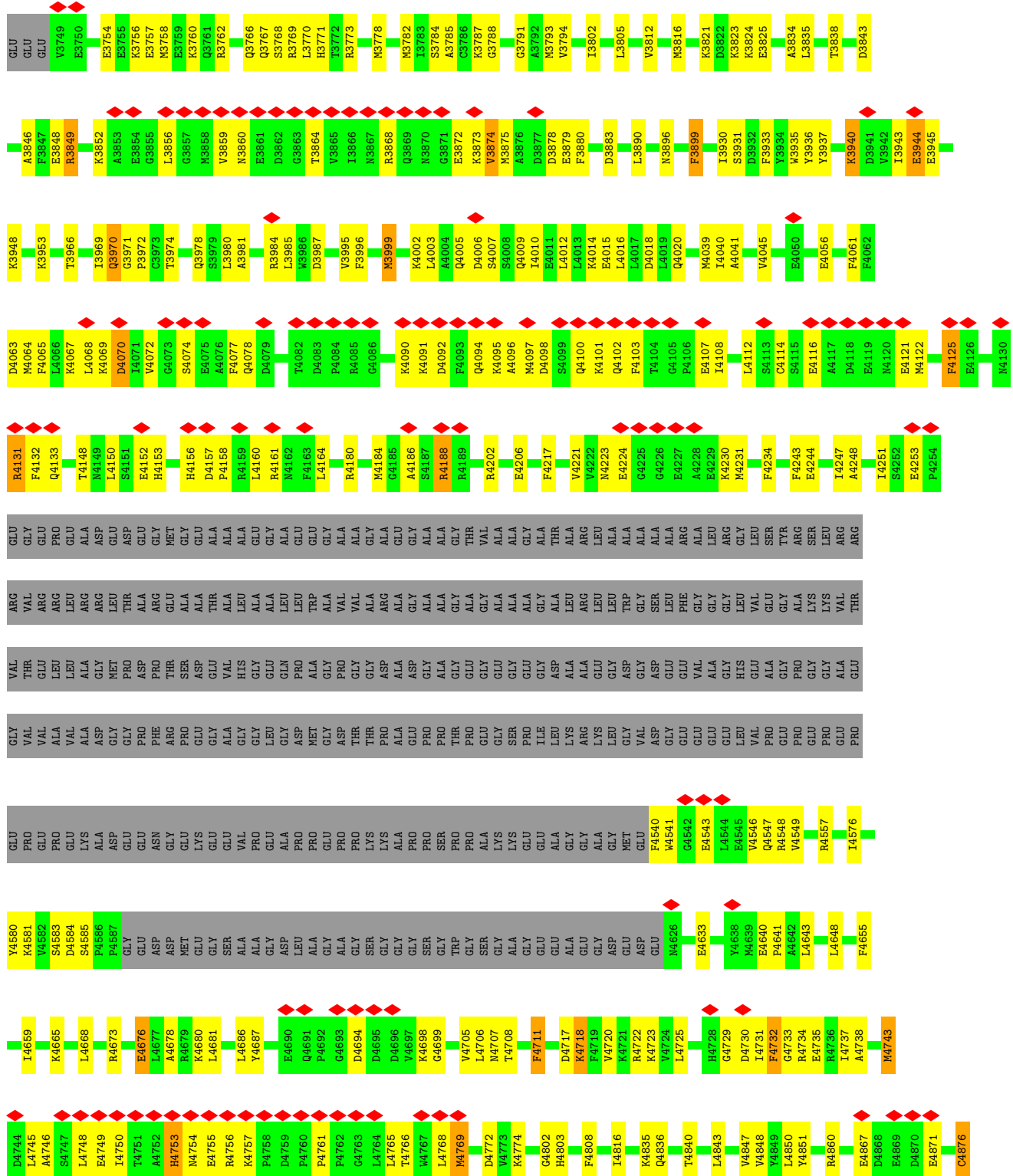


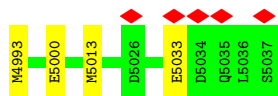




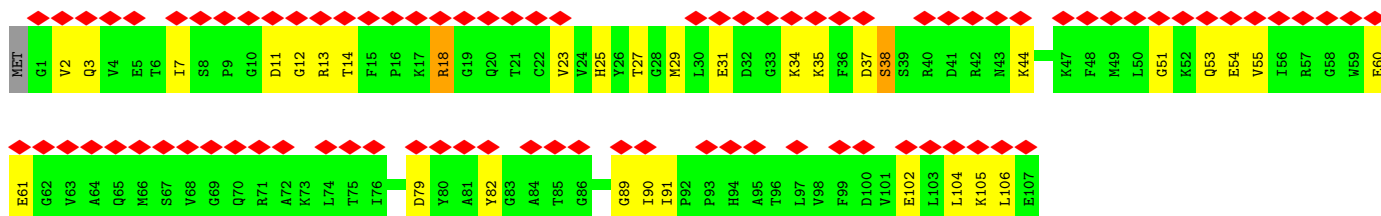
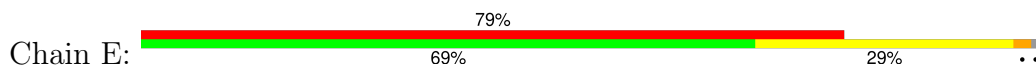


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L3232	P3233	N3234	S3235	V3236	E3237	E3238	H3239	C3240	P3241	D3242	I3243	P3244	V3245	L3246	D3247	R3248	L3249	M3250	A3251	D3252	I3253	G3254	G3255	L3256	E3258	S3259	G3260	R3262	Y3263	T3264	G3265	H3266	P3267	H3268	Q3269	L3270	E3271	A3272	E3273	T3274	L3274	P3275	N3276	L3277	C3278	S3279	Y3280	L3281	P3282	R3283	N3284	G3285	E3286	R3287	G3288	R3289	R3290	A3291		
P3292	P3293	P3294	A3295	L3296	P3297	A3298	G3299	A3300	P3301	P3302	P3303	C3304	T3305	A3306	V3307	T3308	S3309	D3310	H3311	L3312	N3313	S3314	S3314	G3315	L3316	G3317	N3318	L3319	L3320	I3322	L3323	V3324	N3325	N3326	L3327	G3328	I3329	D3330	E3331	A3332	T3333	M3334	M3335	K3336	R3337	L3338	A3339	V3340	F3341	A3342	Q3343	P3344	I3345	V3346	A3347	L3348	R3349	R3350	P3351	
E3352	L3353	L3354	H3355	S3356	H3357	F3358	I3359	P3360	T3361	L3362	G3363	R3364	L3365	R3366	K3367	R3368	A3369	G3370	K3371	V3372	V3373	A3374	E3375	L3376	E3377	Q3378	L3379	R3380	L3381	F3382	A3383	K3384	A3385	E3386	A3387	E3388	E3389	G3390	E3391	L3392	L3393	V3394	R3395	Q3456	N3457	F3458	V3459	V3460	Q3461	N3462	E3463	L3464	N3465	N3466	M3467	L3468	F3469	L3470	T3471	
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A3472	D3473	S3474	K3475	S3476	M3478	A3479	LYS	ALA	GLY	ASP	ALA	GLN	SER	GLY	SER	ASP	GLN	ARG	THR	LYS	LYS	R3498	R3499	G3500	D3501	R3502	Y3503	S3504	V3505	Q3506	T3507	S3508	L3509	I3510	V3511	A3512	T3513	L3514	K3515	K3516	M3517	M3518	P3519	G3520	S3521	L3522	N3523	M3524	M3525	A3526	P3527	T3528	D3529	Q3530	D3531					
L3532	L3533	M3534	L3535	A3536	K3537	T3538	R3539	Y3540	A3541	L3542	K3543	D3544	V3545	D3546	E3547	E3548	V3549	R3550	E3551	F3552	L3553	Q3554	N3555	N3556	L3557	H3558	L3559	Q3560	G3561	K3562	V3563	E3564	G3565	S3566	P3567	S3568	R3569	L3570	M3571	Q3572	M3573	A3574	L3575	V3576	R3577	G3578	L3579	P3580	G3581	R3582	E3583	E3584	D3585	A3586	D3587	D3588	L3589	E3590	K3591	
I3592	V3593	R3594	R3595	V3596	Q3597	E3598	V3599	A3600	S3601	V3602	L3603	Y3604	H3605	L3606	E3607	T3608	E3609	E3610	H3611	P3612	Y3613	K3614	S3615	K3616	K3617	A3618	V3619	H3620	H3621	K3622	L3623	L3624	S3625	K3626	Q3627	R3628	R3629	R3630	A3631	V3632	V3633	A3634	C3635	F3636	R3637	M3638	P3639	P3640	L3641	Y3642	N3643	L3644	P3645	N3651	K3652	F3653	L3654	E3655		
S3656	T3657	K3658	A3659	L3662	L3663	T3664	E3665	D3675	D3676	K3679	A3680	G3681	E3682	Q3683	E3684	E3685	E3686	E3687	E3688	E3689	V3690	E3691	E3692	K3693	D3696	R3707	L3710	T3711	E3712	K3713	S3714	K3715	L3716	D3717	Y3720	M3729	A3730	K3731	H3734	L3735	E3736	GLU	GLY	GLY	GLU	ASN	GLY	GLU	ALA	GLU	N3651	K3652	F3653	L3654	E3655					

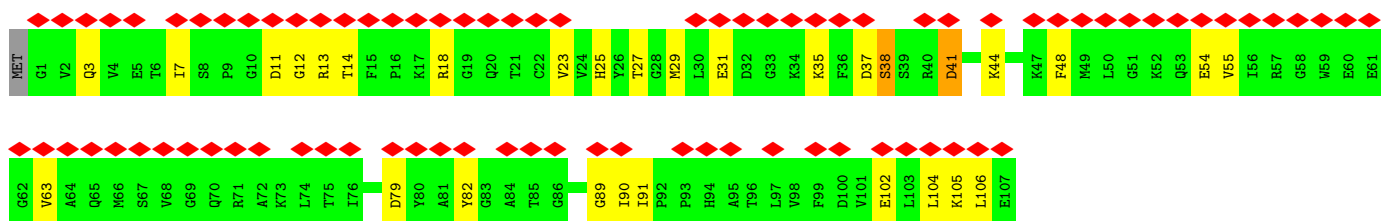
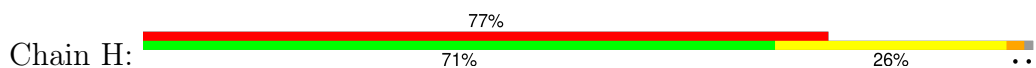




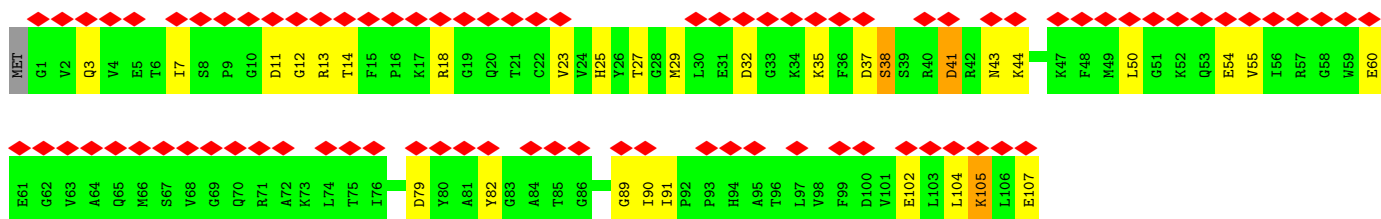
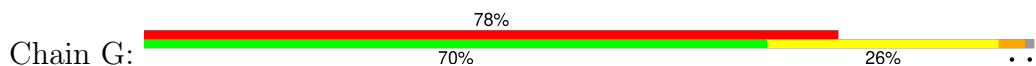
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



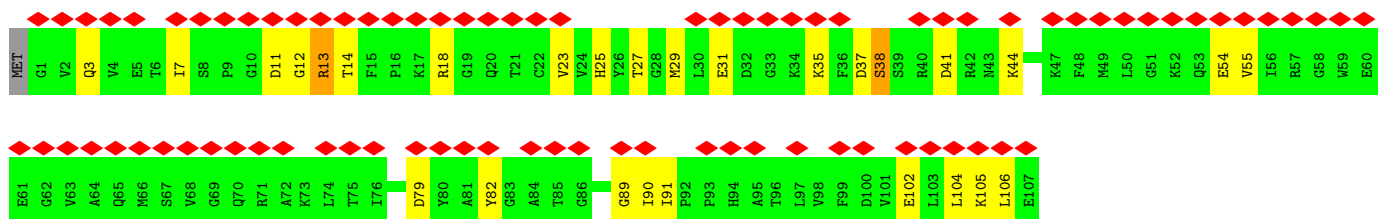
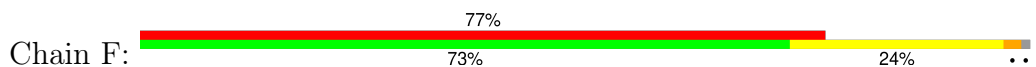
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



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



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



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	33308	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	58	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	1500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.428	Depositor
Minimum map value	-0.219	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.017	Depositor
Recommended contour level	0.1	Depositor
Map size (Å)	423.68, 423.68, 423.68	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.8275, 0.8275, 0.8275	Depositor

## 5 Model quality [i](#)

### 5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: ATP, A1BD5, ZN, CA

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	A	0.28	1/35977 (0.0%)	0.54	7/48726 (0.0%)
1	B	0.28	1/35977 (0.0%)	0.54	7/48726 (0.0%)
1	C	0.28	1/35977 (0.0%)	0.54	7/48726 (0.0%)
1	D	0.28	1/35977 (0.0%)	0.54	7/48726 (0.0%)
2	E	0.31	0/850	0.61	0/1146
2	F	0.30	0/850	0.62	0/1146
2	G	0.32	0/850	0.62	0/1146
2	H	0.30	0/850	0.61	0/1146
All	All	0.28	4/147308 (0.0%)	0.54	28/199488 (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	1
1	B	0	1
1	C	0	1
1	D	0	1
All	All	0	4

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	2237	CYS	CB-SG	6.17	1.92	1.82
1	C	2237	CYS	CB-SG	6.17	1.92	1.82
1	A	2237	CYS	CB-SG	6.15	1.92	1.82
1	D	2237	CYS	CB-SG	6.14	1.92	1.82

All (28) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	227	MET	CA-CB-CG	7.46	125.98	113.30
1	A	227	MET	CA-CB-CG	7.44	125.95	113.30
1	B	227	MET	CA-CB-CG	7.43	125.93	113.30
1	D	227	MET	CA-CB-CG	7.41	125.90	113.30
1	D	2905	LEU	CA-CB-CG	6.32	129.83	115.30
1	B	2905	LEU	CA-CB-CG	6.31	129.82	115.30
1	C	2905	LEU	CA-CB-CG	6.31	129.81	115.30
1	A	2905	LEU	CA-CB-CG	6.30	129.80	115.30
1	D	3354	LEU	CA-CB-CG	5.85	128.76	115.30
1	A	3354	LEU	CA-CB-CG	5.85	128.75	115.30
1	C	3354	LEU	CA-CB-CG	5.85	128.75	115.30
1	B	3354	LEU	CA-CB-CG	5.83	128.71	115.30
1	D	3266	MET	CA-CB-CG	5.67	122.94	113.30
1	C	3266	MET	CA-CB-CG	5.66	122.93	113.30
1	A	3266	MET	CA-CB-CG	5.66	122.93	113.30
1	B	3266	MET	CA-CB-CG	5.65	122.90	113.30
1	B	29	LEU	CA-CB-CG	5.45	127.83	115.30
1	A	29	LEU	CA-CB-CG	5.45	127.82	115.30
1	C	29	LEU	CA-CB-CG	5.44	127.82	115.30
1	D	29	LEU	CA-CB-CG	5.44	127.81	115.30
1	D	3535	LEU	CA-CB-CG	5.29	127.47	115.30
1	A	3535	LEU	CA-CB-CG	5.29	127.47	115.30
1	C	3535	LEU	CA-CB-CG	5.29	127.46	115.30
1	B	3535	LEU	CA-CB-CG	5.28	127.43	115.30
1	B	2482	ASP	CB-CG-OD2	5.24	123.02	118.30
1	D	2482	ASP	CB-CG-OD2	5.23	123.01	118.30
1	A	2482	ASP	CB-CG-OD2	5.23	123.01	118.30
1	C	2482	ASP	CB-CG-OD2	5.22	123.00	118.30

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	2244	ARG	Sidechain
1	B	2244	ARG	Sidechain
1	C	2244	ARG	Sidechain
1	D	2244	ARG	Sidechain

## 5.2 Too-close contacts [i](#)

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

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	35150	0	34794	1088	0
1	B	35150	0	34792	1077	0
1	C	35150	0	34792	1066	0
1	D	35150	0	34792	1074	0
2	E	831	0	831	25	0
2	F	831	0	831	21	0
2	G	831	0	831	27	0
2	H	831	0	831	27	0
3	A	31	0	12	1	0
3	B	31	0	12	1	0
3	C	31	0	12	1	0
3	D	31	0	12	0	0
4	A	1	0	0	0	0
4	B	1	0	0	0	0
4	C	1	0	0	0	0
4	D	1	0	0	0	0
5	A	1	0	0	0	0
5	B	1	0	0	0	0
5	C	1	0	0	0	0
5	D	1	0	0	0	0
6	A	15	0	0	0	0
6	B	15	0	0	0	0
6	C	15	0	0	0	0
6	D	15	0	0	0	0
7	A	1	0	0	0	0
7	B	1	0	0	0	0
7	C	1	0	0	0	0
7	D	1	0	0	0	0
All	All	144120	0	142542	4265	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 15.

All (4265) 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:A:3477:LYS:HE3	1:B:1141:ARG:CZ	1.20	1.58
1:A:3477:LYS:CE	1:B:1141:ARG:NH1	1.69	1.54
1:A:3477:LYS:CE	1:B:1141:ARG:HD3	1.33	1.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1141:ARG:NH1	1:D:3477:LYS:CE	1.70	1.43
1:A:3477:LYS:CE	1:B:1141:ARG:CZ	1.93	1.38
1:A:3477:LYS:CE	1:B:1141:ARG:CD	1.93	1.32
1:A:3477:LYS:NZ	1:B:1141:ARG:CG	1.95	1.26
1:A:3477:LYS:HZ1	1:B:1141:ARG:CG	1.46	1.26
1:A:3477:LYS:CE	1:B:1141:ARG:NE	2.00	1.24
1:A:3477:LYS:HZ1	1:B:1141:ARG:NE	1.37	1.20
1:A:1141:ARG:NH1	1:D:3477:LYS:HE3	0.90	1.16
1:A:3477:LYS:HE3	1:B:1141:ARG:NH1	0.77	1.08
1:A:1141:ARG:NH1	1:D:3477:LYS:CD	2.24	0.99
2:H:90:ILE:HD12	1:D:1687:SER:OG	1.63	0.98
2:G:90:ILE:HD12	1:C:1687:SER:OG	1.64	0.98
2:F:90:ILE:HG22	2:F:91:ILE:HD12	1.46	0.96
1:D:76:ARG:HH12	1:C:3936:TYR:N	1.64	0.96
1:A:1141:ARG:NH1	1:D:3477:LYS:HG3	1.81	0.95
2:E:90:ILE:HG22	2:E:91:ILE:HD12	1.47	0.94
1:A:3477:LYS:NZ	1:B:1141:ARG:HD2	1.28	0.94
1:B:3936:TYR:N	1:C:76:ARG:HH12	1.68	0.92
1:B:150:MET:HB2	1:B:169:LEU:HD11	1.54	0.89
1:A:150:MET:HB2	1:A:169:LEU:HD11	1.54	0.88
1:D:150:MET:HB2	1:D:169:LEU:HD11	1.54	0.88
1:C:150:MET:HB2	1:C:169:LEU:HD11	1.54	0.86
1:B:2902:HIS:HB3	1:B:2905:LEU:HD22	1.58	0.86
1:D:2902:HIS:HB3	1:D:2905:LEU:HD22	1.58	0.86
1:A:2902:HIS:HB3	1:A:2905:LEU:HD22	1.58	0.85
2:H:90:ILE:HD11	1:D:1684:ALA:HA	1.57	0.85
1:C:2902:HIS:HB3	1:C:2905:LEU:HD22	1.58	0.85
1:D:195:PHE:CE1	1:C:2358:ILE:HD12	2.11	0.84
2:G:90:ILE:HD11	1:C:1684:ALA:HA	1.57	0.84
1:B:2244:ARG:HH22	1:B:3860:ASN:HA	1.43	0.83
1:B:3400:VAL:HG23	1:B:3403:ARG:HH21	1.44	0.83
1:A:1141:ARG:NH1	1:D:3477:LYS:CG	2.40	0.83
1:D:2244:ARG:HH22	1:D:3860:ASN:HA	1.43	0.83
1:A:3477:LYS:HZ2	1:B:1141:ARG:CG	1.78	0.82
1:C:2244:ARG:HH22	1:C:3860:ASN:HA	1.43	0.82
1:D:3400:VAL:HG23	1:D:3403:ARG:HH21	1.44	0.82
1:A:2244:ARG:HH22	1:A:3860:ASN:HA	1.43	0.81
1:A:3400:VAL:HG23	1:A:3403:ARG:HH21	1.44	0.81
1:C:3400:VAL:HG23	1:C:3403:ARG:HH21	1.44	0.81
1:B:2358:ILE:HD12	1:C:195:PHE:CE1	2.14	0.81
1:A:3477:LYS:HE2	1:B:1141:ARG:CZ	2.09	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3477:LYS:CD	1:B:1141:ARG:NH1	2.43	0.81
1:D:3132:THR:HG23	1:D:3136:LEU:HB3	1.63	0.80
1:B:3132:THR:HG23	1:B:3136:LEU:HB3	1.63	0.80
1:A:3132:THR:HG23	1:A:3136:LEU:HB3	1.63	0.80
1:C:3132:THR:HG23	1:C:3136:LEU:HB3	1.63	0.79
1:B:4678:ALA:HB1	1:B:4720:VAL:HG21	1.64	0.79
1:A:76:ARG:HH12	1:D:3936:TYR:N	1.80	0.78
1:D:4678:ALA:HB1	1:D:4720:VAL:HG21	1.64	0.78
1:C:4678:ALA:HB1	1:C:4720:VAL:HG21	1.64	0.78
1:A:2667:THR:HG21	1:A:2672:LEU:HG	1.66	0.77
1:B:2667:THR:HG21	1:B:2672:LEU:HG	1.66	0.77
1:C:2667:THR:HG21	1:C:2672:LEU:HG	1.66	0.77
1:D:2667:THR:HG21	1:D:2672:LEU:HG	1.66	0.77
1:A:4678:ALA:HB1	1:A:4720:VAL:HG21	1.64	0.77
1:A:3936:TYR:N	1:B:76:ARG:HH12	1.82	0.77
1:B:790:ARG:HD3	1:B:1627:ALA:HB2	1.67	0.76
1:C:3106:MET:HE1	1:C:3132:THR:HB	1.67	0.76
1:A:790:ARG:HD3	1:A:1627:ALA:HB2	1.68	0.76
1:D:2667:THR:HG22	1:D:2669:GLU:H	1.51	0.76
1:D:2519:LEU:HA	1:D:2522:LEU:HD12	1.68	0.76
1:A:2001:PRO:HB3	1:A:3864:THR:HB	1.68	0.75
1:D:3107:VAL:HG11	1:D:3171:SER:HB2	1.68	0.75
1:C:790:ARG:HD3	1:C:1627:ALA:HB2	1.67	0.75
1:D:195:PHE:CZ	1:C:2358:ILE:HD12	2.21	0.75
1:A:2519:LEU:HA	1:A:2522:LEU:HD12	1.68	0.75
1:A:3107:VAL:HG11	1:A:3171:SER:HB2	1.69	0.75
1:D:2001:PRO:HB3	1:D:3864:THR:HB	1.68	0.75
1:A:3106:MET:HE1	1:A:3132:THR:HB	1.67	0.75
1:C:2667:THR:HG22	1:C:2669:GLU:H	1.51	0.75
1:A:4843:LEU:HD23	1:A:4928:LEU:HD21	1.69	0.75
1:D:4843:LEU:HD23	1:D:4928:LEU:HD21	1.69	0.75
1:B:2358:ILE:HD12	1:C:195:PHE:CZ	2.22	0.75
1:D:790:ARG:HD3	1:D:1627:ALA:HB2	1.67	0.75
1:A:929:LEU:HA	1:A:932:LEU:HD12	1.68	0.74
1:B:275:ARG:NH2	1:B:334:MET:O	2.20	0.74
1:D:3106:MET:HE1	1:D:3132:THR:HB	1.68	0.74
1:D:929:LEU:HA	1:D:932:LEU:HD12	1.68	0.74
1:A:2869:ARG:HH21	1:A:2870[B]:GLU:HG3	1.53	0.74
1:B:601:ASP:OD1	1:B:1668:ARG:NH2	2.21	0.74
1:C:275:ARG:NH2	1:C:334:MET:O	2.20	0.74
1:C:929:LEU:HA	1:C:932:LEU:HD12	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3107:VAL:HG11	1:B:3171:SER:HB2	1.69	0.74
1:C:2001:PRO:HB3	1:C:3864:THR:HB	1.68	0.74
1:D:2869:ARG:HH21	1:D:2870[B]:GLU:HG3	1.53	0.74
1:C:2519:LEU:HA	1:C:2522:LEU:HD12	1.68	0.74
1:B:2519:LEU:HA	1:B:2522:LEU:HD12	1.68	0.74
1:A:2667:THR:HG22	1:A:2669:GLU:H	1.51	0.74
1:B:3106:MET:HE1	1:B:3132:THR:HB	1.68	0.74
1:D:275:ARG:NH2	1:D:334:MET:O	2.20	0.74
1:C:3107:VAL:HG11	1:C:3171:SER:HB2	1.69	0.74
1:A:601:ASP:OD1	1:A:1668:ARG:NH2	2.21	0.74
1:D:2654:TYR:HB2	1:D:2661:TRP:HB2	1.70	0.74
1:B:575:LEU:HD12	1:B:609:CYS:HB3	1.69	0.73
1:B:2667:THR:HG22	1:B:2669:GLU:H	1.51	0.73
1:C:575:LEU:HD12	1:C:609:CYS:HB3	1.69	0.73
1:C:601:ASP:OD1	1:C:1668:ARG:NH2	2.21	0.73
1:A:275:ARG:NH2	1:A:334:MET:O	2.20	0.73
1:B:2001:PRO:HB3	1:B:3864:THR:HB	1.68	0.73
1:B:4843:LEU:HD23	1:B:4928:LEU:HD21	1.69	0.73
1:A:2654:TYR:HB2	1:A:2661:TRP:HB2	1.70	0.73
1:D:575:LEU:HD12	1:D:609:CYS:HB3	1.69	0.73
1:C:1753:LYS:HZ1	1:C:1759:ARG:HG2	1.53	0.73
1:B:2869:ARG:HH21	1:B:2870[B]:GLU:HG3	1.53	0.73
1:D:76:ARG:HH22	1:C:3936:TYR:HA	1.54	0.73
1:C:2869:ARG:HH21	1:C:2870[B]:GLU:HG3	1.53	0.73
1:A:575:LEU:HD12	1:A:609:CYS:HB3	1.69	0.73
1:A:3477:LYS:NZ	1:B:1141:ARG:NE	1.93	0.73
1:A:3675:ASP:OD1	1:A:3769:ARG:NH1	2.21	0.73
1:B:826:ILE:HG22	1:B:827:LYS:HG2	1.70	0.73
1:A:826:ILE:HG22	1:A:827:LYS:HG2	1.70	0.73
1:A:1141:ARG:HH12	1:D:3477:LYS:HG3	1.52	0.73
1:B:892:THR:HA	1:B:961:MET:HB2	1.71	0.73
1:C:826:ILE:HG22	1:C:827:LYS:HG2	1.70	0.73
1:D:892:THR:HA	1:D:961:MET:HB2	1.71	0.73
1:C:2654:TYR:HB2	1:C:2661:TRP:HB2	1.70	0.73
1:C:4843:LEU:HD23	1:C:4928:LEU:HD21	1.69	0.73
1:A:892:THR:HA	1:A:961:MET:HB2	1.71	0.72
1:D:601:ASP:OD1	1:D:1668:ARG:NH2	2.21	0.72
1:D:826:ILE:HG22	1:D:827:LYS:HG2	1.70	0.72
2:H:90:ILE:HG22	2:H:91:ILE:HD12	1.71	0.72
1:C:4094:GLN:HG2	1:C:4108:ILE:HG21	1.72	0.72
1:A:2519:LEU:HD13	1:A:2575:ARG:HG3	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2980:VAL:HB	1:B:2985:ARG:HA	1.72	0.72
1:B:2654:TYR:HB2	1:B:2661:TRP:HB2	1.70	0.72
1:B:929:LEU:HA	1:B:932:LEU:HD12	1.68	0.72
1:C:2980:VAL:HB	1:C:2985:ARG:HA	1.72	0.72
1:B:2519:LEU:HD13	1:B:2575:ARG:HG3	1.72	0.72
1:B:4094:GLN:HG2	1:B:4108:ILE:HG21	1.72	0.72
1:D:4094:GLN:HG2	1:D:4108:ILE:HG21	1.72	0.72
1:C:3110:LEU:HD12	1:C:3182:TYR:HB2	1.72	0.72
1:A:4094:GLN:HG2	1:A:4108:ILE:HG21	1.72	0.72
2:G:90:ILE:HG22	2:G:91:ILE:HD12	1.71	0.72
1:D:213:TYR:CD2	1:D:337:PRO:HG2	2.25	0.72
1:A:213:TYR:CD2	1:A:337:PRO:HG2	2.25	0.72
1:D:1573:MET:HE3	1:D:1574:PRO:HD2	1.70	0.72
1:D:1990:GLU:HA	1:D:1993:ARG:HH21	1.54	0.72
1:B:213:TYR:CD2	1:B:337:PRO:HG2	2.25	0.71
1:C:892:THR:HA	1:C:961:MET:HB2	1.71	0.71
1:C:1990:GLU:HA	1:C:1993:ARG:HH21	1.54	0.71
1:B:3675:ASP:OD1	1:B:3769:ARG:NH1	2.21	0.71
1:C:3675:ASP:OD1	1:C:3769:ARG:NH1	2.21	0.71
1:A:615:ARG:NH1	1:A:618:GLN:OE1	2.23	0.71
1:A:1990:GLU:HA	1:A:1993:ARG:HH21	1.55	0.71
1:A:3384:LYS:HD2	1:A:3386:GLU:H	1.55	0.71
1:B:1990:GLU:HA	1:B:1993:ARG:HH21	1.54	0.71
1:B:3384:LYS:HD2	1:B:3386:GLU:H	1.55	0.71
1:C:213:TYR:CD2	1:C:337:PRO:HG2	2.25	0.71
1:A:1617:THR:HG22	1:A:1628:VAL:HG12	1.73	0.71
1:A:1810:LYS:O	1:A:1814:MET:HG2	1.91	0.71
1:B:3110:LEU:HD12	1:B:3182:TYR:HB2	1.72	0.71
1:D:3110:LEU:HD12	1:D:3182:TYR:HB2	1.72	0.71
1:B:615:ARG:NH1	1:B:618:GLN:OE1	2.23	0.71
1:D:2519:LEU:HD13	1:D:2575:ARG:HG3	1.72	0.71
1:A:2980:VAL:HB	1:A:2985:ARG:HA	1.72	0.71
1:D:615:ARG:NH1	1:D:618:GLN:OE1	2.24	0.71
1:D:1810:LYS:O	1:D:1814:MET:HG2	1.91	0.71
1:A:2005:GLN:HA	1:A:2008:MET:HE2	1.71	0.71
1:D:2599:GLN:O	1:D:2603:ILE:HD12	1.91	0.71
1:A:3477:LYS:HZ1	1:B:1141:ARG:HD2	1.06	0.71
1:D:3675:ASP:OD1	1:D:3769:ARG:NH1	2.21	0.71
1:D:2980:VAL:HB	1:D:2985:ARG:HA	1.72	0.70
1:B:1810:LYS:O	1:B:1814:MET:HG2	1.91	0.70
1:C:1810:LYS:O	1:C:1814:MET:HG2	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2519:LEU:HD13	1:C:2575:ARG:HG3	1.72	0.70
1:D:1617:THR:HG22	1:D:1628:VAL:HG12	1.73	0.70
1:C:1617:THR:HG22	1:C:1628:VAL:HG12	1.73	0.70
1:B:1293:LEU:HD21	1:B:1594:ARG:HD3	1.74	0.70
1:B:2599:GLN:O	1:B:2603:ILE:HD12	1.91	0.70
1:C:3384:LYS:HD2	1:C:3386:GLU:H	1.55	0.70
1:A:4761:PRO:HB2	1:A:4766:THR:HG21	1.74	0.70
2:G:90:ILE:CD1	1:C:1687:SER:OG	2.39	0.70
1:A:3110:LEU:HD12	1:A:3182:TYR:HB2	1.72	0.70
1:D:3384:LYS:HD2	1:D:3386:GLU:H	1.55	0.70
1:C:615:ARG:NH1	1:C:618:GLN:OE1	2.23	0.70
1:C:2599:GLN:O	1:C:2603:ILE:HD12	1.91	0.70
1:C:1293:LEU:HD21	1:C:1594:ARG:HD3	1.74	0.70
1:A:1293:LEU:HD21	1:A:1594:ARG:HD3	1.74	0.70
1:A:2599:GLN:O	1:A:2603:ILE:HD12	1.91	0.70
1:B:4761:PRO:HB2	1:B:4766:THR:HG21	1.74	0.70
2:G:3:GLN:OE1	2:G:3:GLN:N	2.25	0.69
1:C:2970:SER:HA	1:C:2973:PHE:CE1	2.27	0.69
1:B:1617:THR:HG22	1:B:1628:VAL:HG12	1.73	0.69
1:B:3510:ILE:HD12	1:B:3511:VAL:H	1.57	0.69
1:A:1753:LYS:HZ1	1:A:1759:ARG:HG2	1.57	0.69
1:C:1997:GLU:HB2	1:C:2008:MET:HE3	1.72	0.69
1:D:2970:SER:HA	1:D:2973:PHE:CE1	2.27	0.69
1:B:517:GLU:N	1:B:517:GLU:OE2	2.25	0.69
1:C:3510:ILE:HD12	1:C:3511:VAL:H	1.57	0.69
1:B:3936:TYR:HA	1:C:76:ARG:HH2	1.57	0.69
1:C:517:GLU:N	1:C:517:GLU:OE2	2.25	0.69
2:H:90:ILE:CD1	1:D:1687:SER:OG	2.38	0.69
2:G:90:ILE:HD11	1:C:1684:ALA:CA	2.23	0.69
1:D:1293:LEU:HD21	1:D:1594:ARG:HD3	1.74	0.69
1:D:4761:PRO:HB2	1:D:4766:THR:HG21	1.74	0.69
2:H:3:GLN:OE1	2:H:3:GLN:N	2.26	0.69
1:D:3510:ILE:HD12	1:D:3511:VAL:H	1.57	0.69
1:A:2970:SER:HA	1:A:2973:PHE:CE1	2.27	0.69
1:B:2970:SER:HA	1:B:2973:PHE:CE1	2.27	0.69
1:D:2005:GLN:HA	1:D:2008:MET:HE2	1.75	0.69
1:C:4761:PRO:HB2	1:C:4766:THR:HG21	1.74	0.69
1:A:3510:ILE:HD12	1:A:3511:VAL:H	1.57	0.69
1:A:3937:TYR:OH	1:A:3944:GLU:OE1	2.11	0.69
1:D:921:ASN:HA	1:D:924:MET:HG3	1.75	0.69
1:C:1753:LYS:HD3	1:C:1753:LYS:H	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2447:LYS:HD2	1:D:2450:ALA:H	1.59	0.68
1:D:4158:PRO:HA	1:D:4161:ARG:HD2	1.75	0.68
1:C:265:LEU:HD21	1:C:279:PRO:HB2	1.76	0.68
1:C:3213:TYR:CE2	1:C:3302:PRO:HD2	2.28	0.68
1:B:2219:GLU:HG2	1:B:2263:ILE:HG21	1.76	0.68
1:C:2219:GLU:HG2	1:C:2263:ILE:HG21	1.76	0.68
1:B:265:LEU:HD21	1:B:279:PRO:HB2	1.76	0.68
1:B:3213:TYR:CE2	1:B:3302:PRO:HD2	2.28	0.68
1:D:2219:GLU:HG2	1:D:2263:ILE:HG21	1.76	0.68
1:B:921:ASN:HA	1:B:924:MET:HG3	1.75	0.68
1:B:2447:LYS:HD2	1:B:2450:ALA:H	1.59	0.68
1:A:265:LEU:HD21	1:A:279:PRO:HB2	1.76	0.68
1:A:4158:PRO:HA	1:A:4161:ARG:HD2	1.75	0.68
1:D:2662:ALA:O	1:D:2663:ASN:ND2	2.27	0.68
1:C:3937:TYR:OH	1:C:3944:GLU:OE1	2.11	0.68
1:A:195:PHE:CE1	1:D:2358:ILE:HD12	2.29	0.68
1:A:2886:TRP:HH2	1:A:2904:LEU:HB3	1.59	0.68
1:D:517:GLU:OE2	1:D:517:GLU:N	2.25	0.68
1:C:67:PHE:HB3	1:C:109:LEU:HD22	1.76	0.68
1:A:1208:VAL:CG2	1:D:3575:LEU:HD11	2.24	0.68
1:A:1753:LYS:H	1:A:1753:LYS:HD3	1.58	0.68
1:A:2219:GLU:HG2	1:A:2263:ILE:HG21	1.76	0.68
1:D:3213:TYR:CE2	1:D:3302:PRO:HD2	2.28	0.68
1:A:2358:ILE:HD12	1:B:195:PHE:CE1	2.29	0.68
1:D:265:LEU:HD21	1:D:279:PRO:HB2	1.76	0.68
1:A:3510:ILE:HD12	1:A:3511:VAL:N	2.10	0.67
1:B:61:ASP:OD2	1:B:402:ARG:NH2	2.27	0.67
1:D:3510:ILE:HD12	1:D:3511:VAL:N	2.10	0.67
1:C:2662:ALA:O	1:C:2663:ASN:ND2	2.27	0.67
1:C:3354:LEU:HB3	1:C:3415:TYR:CE2	2.29	0.67
1:A:176:SER:OG	1:A:178:ARG:NH1	2.27	0.67
1:A:517:GLU:N	1:A:517:GLU:OE2	2.25	0.67
1:A:921:ASN:HA	1:A:924:MET:HG3	1.75	0.67
1:A:972:LEU:HD22	1:A:1044:ARG:HB3	1.76	0.67
1:D:972:LEU:HD22	1:D:1044:ARG:HB3	1.76	0.67
1:D:4917:ASP:OD2	1:C:4888:TYR:OH	2.10	0.67
1:C:1477:GLY:HA2	1:C:1483:VAL:HA	1.76	0.67
1:C:2447:LYS:HD2	1:C:2450:ALA:H	1.59	0.67
1:C:4158:PRO:HA	1:C:4161:ARG:HD2	1.75	0.67
2:H:90:ILE:HD11	1:D:1684:ALA:CA	2.23	0.67
2:F:31:GLU:N	2:F:31:GLU:OE2	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1997:GLU:HB2	1:B:2008:MET:HE3	1.76	0.67
1:B:2886:TRP:HH2	1:B:2904:LEU:HB3	1.59	0.67
1:B:3510:ILE:HD12	1:B:3511:VAL:N	2.10	0.67
1:C:3510:ILE:HD12	1:C:3511:VAL:N	2.10	0.67
1:A:2447:LYS:HD2	1:A:2450:ALA:H	1.59	0.67
1:A:3354:LEU:HB3	1:A:3415:TYR:CE2	2.29	0.67
2:F:3:GLN:OE1	2:F:3:GLN:N	2.26	0.67
1:B:3937:TYR:OH	1:B:3944:GLU:OE1	2.11	0.67
1:D:176:SER:OG	1:D:178:ARG:NH1	2.27	0.67
1:C:873:LYS:O	1:C:873:LYS:NZ	2.27	0.67
1:B:1290:ARG:NH2	1:B:1644:GLU:OE1	2.28	0.67
1:B:1753:LYS:H	1:B:1753:LYS:HD3	1.58	0.67
1:D:2914:LYS:H	1:D:2914:LYS:HD2	1.60	0.67
1:C:2914:LYS:H	1:C:2914:LYS:HD2	1.60	0.67
1:A:2662:ALA:O	1:A:2663:ASN:ND2	2.27	0.67
1:A:3213:TYR:CE2	1:A:3302:PRO:HD2	2.28	0.67
1:B:2914:LYS:H	1:B:2914:LYS:HD2	1.60	0.67
1:B:4888:TYR:OH	1:C:4917:ASP:OD2	2.12	0.67
1:D:1454:THR:OG1	1:D:1456:ASP:OD2	2.13	0.67
1:D:1753:LYS:H	1:D:1753:LYS:HD3	1.58	0.67
1:B:4158:PRO:HA	1:B:4161:ARG:HD2	1.75	0.67
1:D:2661:TRP:HB3	1:D:2664:PHE:HB2	1.77	0.67
1:D:2886:TRP:HH2	1:D:2904:LEU:HB3	1.59	0.67
1:D:67:PHE:HB3	1:D:109:LEU:HD22	1.76	0.67
1:C:972:LEU:HD22	1:C:1044:ARG:HB3	1.76	0.67
1:A:61:ASP:OD2	1:A:402:ARG:NH2	2.27	0.67
1:A:1208:VAL:HG22	1:D:3575:LEU:HD11	1.77	0.67
2:E:3:GLN:OE1	2:E:3:GLN:N	2.28	0.67
1:B:4729:GLY:O	1:B:4733:GLY:N	2.28	0.67
1:C:176:SER:OG	1:C:178:ARG:NH1	2.27	0.67
1:A:3477:LYS:NZ	1:B:1141:ARG:CD	0.76	0.67
1:B:2661:TRP:HB3	1:B:2664:PHE:HB2	1.77	0.67
1:D:61:ASP:OD2	1:D:402:ARG:NH2	2.27	0.67
1:D:3354:LEU:HB3	1:D:3415:TYR:CE2	2.29	0.67
1:C:921:ASN:HA	1:C:924:MET:HG3	1.75	0.67
1:C:1290:ARG:NH2	1:C:1644:GLU:OE1	2.28	0.67
1:A:3477:LYS:HZ1	1:B:1141:ARG:CD	0.15	0.66
2:F:27:THR:HG23	2:F:38:SER:HB2	1.77	0.66
1:B:1477:GLY:HA2	1:B:1483:VAL:HA	1.76	0.66
1:B:2662:ALA:O	1:B:2663:ASN:ND2	2.27	0.66
1:A:1477:GLY:HA2	1:A:1483:VAL:HA	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:972:LEU:HB3	1:B:1044:ARG:HG2	1.76	0.66
1:B:4835:LYS:H	1:B:4835:LYS:HD2	1.61	0.66
1:D:4729:GLY:O	1:D:4733:GLY:N	2.28	0.66
1:C:4180:ARG:HD2	1:C:4981:GLU:HB2	1.76	0.66
1:A:67:PHE:HB3	1:A:109:LEU:HD22	1.76	0.66
1:A:870:ILE:HD11	1:A:947:GLU:HG2	1.78	0.66
1:A:1454:THR:OG1	1:A:1456:ASP:OD2	2.13	0.66
1:A:1573:MET:HE3	1:A:1574:PRO:HD2	1.78	0.66
1:B:1454:THR:OG1	1:B:1456:ASP:OD2	2.13	0.66
1:B:3354:LEU:HB3	1:B:3415:TYR:CE2	2.29	0.66
1:B:4180:ARG:HD2	1:B:4981:GLU:HB2	1.76	0.66
1:D:3937:TYR:OH	1:D:3944:GLU:OE1	2.11	0.66
1:A:4729:GLY:O	1:A:4733:GLY:N	2.28	0.66
1:B:67:PHE:HB3	1:B:109:LEU:HD22	1.76	0.66
1:D:870:ILE:HD11	1:D:947:GLU:HG2	1.78	0.66
1:D:972:LEU:HB3	1:D:1044:ARG:HG2	1.76	0.66
1:D:4180:ARG:HD2	1:D:4981:GLU:HB2	1.77	0.66
1:A:332:GLU:OE1	1:A:332:GLU:N	2.25	0.66
1:A:4835:LYS:H	1:A:4835:LYS:HD2	1.61	0.66
1:B:953:THR:HB	1:B:969:PRO:HG2	1.78	0.66
1:D:3318:ASN:OD1	1:D:3321:ARG:NH2	2.29	0.66
1:B:3214:ASN:HB2	1:B:3304:CYS:SG	2.36	0.66
1:B:3318:ASN:OD1	1:B:3321:ARG:NH2	2.29	0.66
1:D:2927:LEU:HA	1:D:2930:LEU:HD12	1.77	0.66
1:D:4835:LYS:HD2	1:D:4835:LYS:H	1.61	0.66
1:C:61:ASP:OD2	1:C:402:ARG:NH2	2.27	0.66
1:C:668:VAL:HA	1:C:789:VAL:HG23	1.78	0.66
1:C:2661:TRP:HB3	1:C:2664:PHE:HB2	1.77	0.66
1:C:2886:TRP:HH2	1:C:2904:LEU:HB3	1.59	0.66
1:C:2927:LEU:HA	1:C:2930:LEU:HD12	1.77	0.66
1:A:953:THR:HB	1:A:969:PRO:HG2	1.78	0.66
1:A:2661:TRP:HB3	1:A:2664:PHE:HB2	1.77	0.66
1:A:3995:VAL:O	1:A:3999:MET:HB2	1.96	0.66
1:B:870:ILE:HD11	1:B:947:GLU:HG2	1.78	0.66
1:D:873:LYS:O	1:D:873:LYS:NZ	2.27	0.66
1:D:1290:ARG:NH2	1:D:1644:GLU:OE1	2.28	0.66
1:C:1454:THR:OG1	1:C:1456:ASP:OD2	2.13	0.66
1:A:102:LEU:HB3	1:A:105:HIS:CD2	2.31	0.66
1:A:1560:ASN:N	1:A:1560:ASN:OD1	2.29	0.66
1:A:2358:ILE:HD12	1:B:195:PHE:CZ	2.31	0.66
1:A:3477:LYS:CD	1:B:1141:ARG:HD3	2.24	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:972:LEU:HD22	1:B:1044:ARG:HB3	1.76	0.66
1:D:668:VAL:HA	1:D:789:VAL:HG23	1.78	0.66
1:D:1477:GLY:HA2	1:D:1483:VAL:HA	1.76	0.66
1:C:3214:ASN:HB2	1:C:3304:CYS:SG	2.36	0.66
1:C:3318:ASN:OD1	1:C:3321:ARG:NH2	2.29	0.66
1:A:668:VAL:HA	1:A:789:VAL:HG23	1.78	0.65
1:D:3154:ASP:HA	1:D:3202:PRO:HB3	1.78	0.65
1:D:3214:ASN:HB2	1:D:3304:CYS:SG	2.36	0.65
1:C:4729:GLY:O	1:C:4733:GLY:N	2.28	0.65
1:A:873:LYS:O	1:A:873:LYS:NZ	2.27	0.65
1:B:4836:GLN:N	1:B:4836:GLN:OE1	2.30	0.65
1:D:953:THR:HB	1:D:969:PRO:HG2	1.78	0.65
1:A:2914:LYS:H	1:A:2914:LYS:HD2	1.60	0.65
1:A:3214:ASN:HB2	1:A:3304:CYS:SG	2.36	0.65
1:B:102:LEU:HB3	1:B:105:HIS:CD2	2.31	0.65
1:B:668:VAL:HA	1:B:789:VAL:HG23	1.78	0.65
1:D:332:GLU:OE1	1:D:332:GLU:N	2.25	0.65
1:C:953:THR:HB	1:C:969:PRO:HG2	1.78	0.65
1:C:4836:GLN:OE1	1:C:4836:GLN:N	2.29	0.65
1:A:2927:LEU:HA	1:A:2930:LEU:HD12	1.77	0.65
1:C:1560:ASN:N	1:C:1560:ASN:OD1	2.29	0.65
1:C:3154:ASP:HA	1:C:3202:PRO:HB3	1.78	0.65
1:C:3995:VAL:O	1:C:3999:MET:HB2	1.96	0.65
1:B:2927:LEU:HA	1:B:2930:LEU:HD12	1.77	0.65
1:D:2667:THR:HG23	1:D:2671:GLU:HG3	1.79	0.65
1:C:2794:TYR:HA	1:C:2797:PHE:HB2	1.79	0.65
1:A:2261:SER:HB2	1:A:2273:LEU:HB2	1.78	0.65
1:B:2199:ARG:NH1	1:B:2246:ASN:OD1	2.30	0.65
1:B:2794:TYR:HA	1:B:2797:PHE:HB2	1.79	0.65
1:D:3995:VAL:O	1:D:3999:MET:HB2	1.96	0.65
1:C:972:LEU:HB3	1:C:1044:ARG:HG2	1.76	0.65
1:A:2667:THR:HG23	1:A:2671:GLU:HG3	1.79	0.65
1:A:4180:ARG:HD2	1:A:4981:GLU:HB2	1.76	0.65
1:C:870:ILE:HD11	1:C:947:GLU:HG2	1.78	0.65
1:A:2265:LEU:HD21	1:A:2330:ARG:HB2	1.78	0.65
1:A:3154:ASP:HA	1:A:3202:PRO:HB3	1.78	0.65
1:A:3477:LYS:HZ3	1:B:1141:ARG:CD	1.30	0.65
1:D:2261:SER:HB2	1:D:2273:LEU:HB2	1.78	0.65
1:A:972:LEU:HB3	1:A:1044:ARG:HG2	1.76	0.65
1:A:2738:ARG:HD3	1:A:2738:ARG:H	1.62	0.65
1:A:3318:ASN:OD1	1:A:3321:ARG:NH2	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4092:ASP:HA	1:A:4095:LYS:HE3	1.79	0.65
2:G:27:THR:HG23	2:G:38:SER:HB2	1.79	0.65
1:B:2738:ARG:H	1:B:2738:ARG:HD3	1.62	0.65
1:D:102:LEU:HB3	1:D:105:HIS:CD2	2.31	0.65
1:D:1560:ASN:N	1:D:1560:ASN:OD1	2.29	0.65
1:A:4848:VAL:HG11	1:A:4887:MET:HG2	1.79	0.65
1:B:176:SER:OG	1:B:178:ARG:NH1	2.27	0.65
1:B:943:ASP:HB3	1:B:945:LYS:HE3	1.79	0.65
1:B:2165:LEU:HD11	1:B:2177:LEU:HD23	1.79	0.65
1:B:2261:SER:HB2	1:B:2273:LEU:HB2	1.78	0.65
1:B:3154:ASP:HA	1:B:3202:PRO:HB3	1.78	0.65
1:B:3995:VAL:O	1:B:3999:MET:HB2	1.96	0.65
1:B:4848:VAL:HG11	1:B:4887:MET:HG2	1.79	0.65
1:D:2026:ASP:OD1	1:D:2027:ILE:N	2.30	0.65
1:C:102:LEU:HB3	1:C:105:HIS:CD2	2.31	0.65
1:C:2265:LEU:HD21	1:C:2330:ARG:HB2	1.78	0.65
1:D:2199:ARG:NH1	1:D:2246:ASN:OD1	2.30	0.64
1:D:891:TRP:HE1	1:D:902:ARG:HH21	1.45	0.64
1:D:2794:TYR:HA	1:D:2797:PHE:HB2	1.79	0.64
1:A:891:TRP:HE1	1:A:902:ARG:HH21	1.45	0.64
1:A:2794:TYR:HA	1:A:2797:PHE:HB2	1.79	0.64
1:B:1560:ASN:OD1	1:B:1560:ASN:N	2.29	0.64
1:B:2751:LEU:HD13	1:B:2823:ILE:HG21	1.79	0.64
1:A:2627:VAL:HA	1:A:2678:LEU:HD13	1.80	0.64
1:B:3213:TYR:HE2	1:B:3302:PRO:HD2	1.63	0.64
1:D:4836:GLN:OE1	1:D:4836:GLN:N	2.30	0.64
1:C:4835:LYS:H	1:C:4835:LYS:HD2	1.61	0.64
1:B:2265:LEU:HD21	1:B:2330:ARG:HB2	1.78	0.64
1:B:2792:ARG:NH2	1:B:2801:ASP:OD2	2.31	0.64
1:D:195:PHE:CD1	1:C:2358:ILE:HB	2.32	0.64
1:D:4092:ASP:HA	1:D:4095:LYS:HE3	1.79	0.64
1:C:943:ASP:HB3	1:C:945:LYS:HE3	1.79	0.64
1:C:2026:ASP:OD1	1:C:2027:ILE:N	2.30	0.64
1:A:2199:ARG:NH1	1:A:2246:ASN:OD1	2.30	0.64
1:A:4836:GLN:OE1	1:A:4836:GLN:N	2.30	0.64
2:E:27:THR:HG23	2:E:38:SER:HB2	1.79	0.64
1:B:2627:VAL:HA	1:B:2678:LEU:HD13	1.80	0.64
1:C:2738:ARG:HD3	1:C:2738:ARG:H	1.62	0.64
1:D:2265:LEU:HD21	1:D:2330:ARG:HB2	1.78	0.64
1:D:2792:ARG:NH2	1:D:2801:ASP:OD2	2.31	0.64
1:C:2261:SER:HB2	1:C:2273:LEU:HB2	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2751:LEU:HD13	1:C:2823:ILE:HG21	1.79	0.64
1:C:3213:TYR:HE2	1:C:3302:PRO:HD2	1.63	0.64
1:A:399:GLN:O	1:A:403:MET:HG3	1.98	0.64
2:H:18:ARG:HH11	2:H:18:ARG:HG3	1.63	0.64
2:H:27:THR:HG23	2:H:38:SER:HB2	1.79	0.64
1:B:399:GLN:O	1:B:403:MET:HG3	1.98	0.64
1:B:891:TRP:HE1	1:B:902:ARG:HH21	1.45	0.64
1:B:1573:MET:HE3	1:B:1574:PRO:HD2	1.80	0.64
1:D:2627:VAL:HA	1:D:2678:LEU:HD13	1.79	0.64
1:D:2738:ARG:H	1:D:2738:ARG:HD3	1.62	0.64
1:A:1290:ARG:NH2	1:A:1644:GLU:OE1	2.28	0.64
1:A:2165:LEU:HD11	1:A:2177:LEU:HD23	1.79	0.64
1:B:1753:LYS:HZ1	1:B:1759:ARG:HG2	1.63	0.64
1:B:2026:ASP:OD1	1:B:2027:ILE:N	2.30	0.64
1:D:1753:LYS:HZ1	1:D:1759:ARG:HG2	1.62	0.64
1:C:399:GLN:O	1:C:403:MET:HG3	1.98	0.64
1:A:2751:LEU:HD13	1:A:2823:ILE:HG21	1.79	0.63
2:F:23:VAL:HG12	2:F:104:LEU:HB2	1.79	0.63
1:B:2110:TYR:O	1:B:2112:GLN:NE2	2.31	0.63
1:D:399:GLN:O	1:D:403:MET:HG3	1.98	0.63
1:A:3213:TYR:HE2	1:A:3302:PRO:HD2	1.63	0.63
1:B:2667:THR:HG23	1:B:2671:GLU:HG3	1.79	0.63
1:B:2869:ARG:NH2	1:B:2870[A]:GLU:OE1	2.32	0.63
1:D:2869:ARG:NH2	1:D:2870[A]:GLU:OE1	2.32	0.63
1:C:2667:THR:HG23	1:C:2671:GLU:HG3	1.79	0.63
1:B:873:LYS:O	1:B:873:LYS:NZ	2.27	0.63
1:C:1252:HIS:O	1:C:1275:ARG:NH1	2.32	0.63
1:C:4092:ASP:HA	1:C:4095:LYS:HE3	1.79	0.63
1:C:4848:VAL:HG11	1:C:4887:MET:HG2	1.79	0.63
1:B:1079:LYS:NZ	1:B:1107:PRO:O	2.32	0.63
1:C:615:ARG:NH2	1:C:1676:LEU:O	2.32	0.63
1:C:2165:LEU:HD11	1:C:2177:LEU:HD23	1.80	0.63
1:C:2792:ARG:NH2	1:C:2801:ASP:OD2	2.31	0.63
1:C:2869:ARG:NH2	1:C:2870[A]:GLU:OE1	2.32	0.63
1:A:1079:LYS:NZ	1:A:1107:PRO:O	2.32	0.63
1:A:2792:ARG:NH2	1:A:2801:ASP:OD2	2.31	0.63
1:B:332:GLU:OE1	1:B:332:GLU:N	2.25	0.63
1:D:943:ASP:HB3	1:D:945:LYS:HE3	1.79	0.63
1:D:2751:LEU:HD13	1:D:2823:ILE:HG21	1.79	0.63
1:C:2627:VAL:HA	1:C:2678:LEU:HD13	1.79	0.63
1:A:1252:HIS:O	1:A:1275:ARG:NH1	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3477:LYS:HZ3	1:B:1141:ARG:HD2	1.05	0.63
1:B:2165:LEU:HB2	1:B:2178:MET:HE3	1.81	0.63
1:B:2994:GLU:OE1	1:B:2994:GLU:N	2.29	0.63
1:D:2178:MET:HB3	1:D:2228:MET:HE1	1.81	0.63
1:C:919:ASN:HA	1:C:922:LEU:HG	1.80	0.63
1:A:1435:TYR:HB2	1:A:1575:LEU:HD22	1.81	0.63
1:A:2026:ASP:OD1	1:A:2027:ILE:N	2.30	0.63
1:A:3568:SER:HA	1:A:3571:TRP:CD1	2.34	0.63
1:D:1435:TYR:HB2	1:D:1575:LEU:HD22	1.81	0.63
1:A:2110:TYR:O	1:A:2112:GLN:NE2	2.31	0.63
2:F:90:ILE:HD11	1:B:1684:ALA:HA	1.81	0.63
1:B:4092:ASP:HA	1:B:4095:LYS:HE3	1.79	0.63
1:C:1573:MET:HE3	1:C:1574:PRO:HD2	1.79	0.63
1:A:615:ARG:NH2	1:A:1676:LEU:O	2.32	0.63
1:D:1252:HIS:O	1:D:1275:ARG:NH1	2.32	0.63
1:D:2165:LEU:HD11	1:D:2177:LEU:HD23	1.79	0.63
1:C:3731:LYS:HA	1:C:3734:HIS:CD2	2.34	0.63
1:A:2869:ARG:NH2	1:A:2870[A]:GLU:OE1	2.32	0.62
1:A:3731:LYS:HA	1:A:3734:HIS:CD2	2.34	0.62
1:B:355:LEU:HB3	1:B:378:LEU:HB3	1.81	0.62
1:B:3731:LYS:HA	1:B:3734:HIS:CD2	2.34	0.62
1:B:3980:LEU:HD13	1:B:3985:LEU:HD22	1.81	0.62
1:D:615:ARG:NH2	1:D:1676:LEU:O	2.32	0.62
1:D:4848:VAL:HG11	1:D:4887:MET:HG2	1.79	0.62
1:D:919:ASN:HA	1:D:922:LEU:HG	1.80	0.62
1:C:891:TRP:HE1	1:C:902:ARG:HH21	1.45	0.62
1:A:195:PHE:CZ	1:D:2358:ILE:HD12	2.34	0.62
1:A:3535:LEU:HD13	1:A:3552:PHE:HE1	1.64	0.62
1:B:919:ASN:HA	1:B:922:LEU:HG	1.80	0.62
1:D:3731:LYS:HA	1:D:3734:HIS:CD2	2.34	0.62
1:C:1079:LYS:NZ	1:C:1107:PRO:O	2.32	0.62
1:A:919:ASN:HA	1:A:922:LEU:HG	1.80	0.62
1:B:5033:GLU:N	1:B:5033:GLU:OE2	2.33	0.62
1:D:102:LEU:HD11	1:C:3984:ARG:HH22	1.65	0.62
1:C:2199:ARG:NH1	1:C:2246:ASN:OD1	2.30	0.62
1:C:2247:GLN:OE1	1:C:2283:ASN:ND2	2.33	0.62
1:C:3980:LEU:HD13	1:C:3985:LEU:HD22	1.81	0.62
1:A:355:LEU:HB3	1:A:378:LEU:HB3	1.81	0.62
1:A:2284:ASN:HB2	1:A:3856:LEU:HD11	1.82	0.62
1:B:162:LYS:O	1:B:164:ARG:NH1	2.33	0.62
1:B:1252:HIS:O	1:B:1275:ARG:NH1	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1435:TYR:HB2	1:B:1575:LEU:HD22	1.81	0.62
1:D:2284:ASN:HB2	1:D:3856:LEU:HD11	1.82	0.62
1:D:3535:LEU:HD13	1:D:3552:PHE:HE1	1.64	0.62
1:C:355:LEU:HB3	1:C:378:LEU:HB3	1.81	0.62
1:C:1435:TYR:HB2	1:C:1575:LEU:HD22	1.81	0.62
1:C:2110:TYR:O	1:C:2112:GLN:NE2	2.31	0.62
1:A:3477:LYS:HE2	1:B:1141:ARG:NE	2.10	0.62
1:D:5033:GLU:N	1:D:5033:GLU:OE2	2.32	0.62
1:A:162:LYS:O	1:A:164:ARG:NH1	2.33	0.62
1:A:5033:GLU:OE2	1:A:5033:GLU:N	2.33	0.62
1:D:355:LEU:HB3	1:D:378:LEU:HB3	1.81	0.62
1:D:2110:TYR:O	1:D:2112:GLN:NE2	2.31	0.62
1:A:2002:PRO:HB2	1:A:3652:MET:HE1	1.82	0.62
1:A:2247:GLN:OE1	1:A:2283:ASN:ND2	2.33	0.62
1:B:2247:GLN:OE1	1:B:2283:ASN:ND2	2.32	0.62
1:B:2358:ILE:HB	1:C:195:PHE:CD1	2.34	0.62
1:B:3568:SER:HA	1:B:3571:TRP:CD1	2.34	0.62
1:D:937:CYS:HB2	1:D:1056:PRO:HD3	1.82	0.62
1:D:2165:LEU:HB2	1:D:2178:MET:HE3	1.82	0.62
1:D:2189:LYS:HA	1:D:2192:TYR:HD2	1.65	0.62
1:C:1125:ASN:ND2	1:C:1128:ARG:HG2	2.15	0.62
1:C:2165:LEU:HB2	1:C:2178:MET:HE3	1.82	0.62
1:C:2209:GLU:HA	1:C:2212:VAL:HG22	1.81	0.62
1:A:943:ASP:HB3	1:A:945:LYS:HE3	1.79	0.62
1:A:2189:LYS:HA	1:A:2192:TYR:HD2	1.65	0.62
1:A:2994:GLU:OE1	1:A:2994:GLU:N	2.29	0.62
2:H:31:GLU:N	2:H:31:GLU:OE2	2.33	0.62
1:B:615:ARG:NH2	1:B:1676:LEU:O	2.32	0.62
1:D:162:LYS:O	1:D:164:ARG:NH1	2.33	0.62
1:D:1079:LYS:NZ	1:D:1107:PRO:O	2.32	0.62
1:D:2209:GLU:HA	1:D:2212:VAL:HG22	1.81	0.62
1:D:2247:GLN:OE1	1:D:2283:ASN:ND2	2.33	0.62
1:D:3568:SER:HA	1:D:3571:TRP:CD1	2.34	0.62
1:C:162:LYS:O	1:C:164:ARG:NH1	2.33	0.62
1:A:1684:ALA:HA	2:E:90:ILE:HD11	1.81	0.61
1:A:3980:LEU:HD13	1:A:3985:LEU:HD22	1.81	0.61
1:B:3535:LEU:HD13	1:B:3552:PHE:HE1	1.64	0.61
1:C:2284:ASN:HB2	1:C:3856:LEU:HD11	1.82	0.61
1:C:3568:SER:HA	1:C:3571:TRP:CD1	2.34	0.61
1:D:3329:ILE:O	1:D:3403:ARG:NH2	2.34	0.61
1:C:530:ILE:HG22	1:C:536:ASN:HB3	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2002:PRO:HB2	1:C:3652:MET:HE1	1.81	0.61
1:A:937:CYS:HB2	1:A:1056:PRO:HD3	1.82	0.61
1:D:3980:LEU:HD13	1:D:3985:LEU:HD22	1.81	0.61
1:C:545:ASP:OD2	1:C:545:ASP:N	2.33	0.61
1:B:530:ILE:HG22	1:B:536:ASN:HB3	1.83	0.61
1:B:2779:GLU:HG3	1:B:2792:ARG:HG2	1.83	0.61
1:D:1639:LEU:HB2	1:D:1650:ILE:HD12	1.82	0.61
1:C:1639:LEU:HB2	1:C:1650:ILE:HD12	1.82	0.61
1:C:5033:GLU:N	1:C:5033:GLU:OE2	2.32	0.61
1:B:1125:ASN:ND2	1:B:1128:ARG:HG2	2.15	0.61
1:B:2002:PRO:HB2	1:B:3652:MET:HE1	1.82	0.61
1:B:2284:ASN:HB2	1:B:3856:LEU:HD11	1.82	0.61
1:D:4765:LEU:O	1:D:4768:LEU:N	2.34	0.61
1:C:3087:ILE:HD12	1:C:3088:VAL:H	1.66	0.61
1:A:2209:GLU:HA	1:A:2212:VAL:HG22	1.81	0.61
1:B:2102:VAL:HG13	1:B:2120:MET:HE2	1.82	0.61
1:B:2209:GLU:HA	1:B:2212:VAL:HG22	1.81	0.61
1:B:2250:MET:HA	1:B:2250:MET:HE3	1.83	0.61
1:B:3087:ILE:HD12	1:B:3088:VAL:H	1.66	0.61
1:C:2189:LYS:HA	1:C:2192:TYR:HD2	1.65	0.61
1:B:3611:HIS:ND1	1:B:3611:HIS:O	2.34	0.61
1:D:1125:ASN:ND2	1:D:1128:ARG:HG2	2.15	0.61
1:D:1208:VAL:CG2	1:C:3575:LEU:HD11	2.30	0.61
1:D:2233:CYS:O	1:D:2234:ARG:C	2.39	0.61
1:D:3213:TYR:HE2	1:D:3302:PRO:HD2	1.63	0.61
1:C:3535:LEU:HD13	1:C:3552:PHE:HE1	1.64	0.61
1:A:1577:ALA:HB1	1:A:1584:ARG:HA	1.83	0.61
1:A:2102:VAL:HG13	1:A:2120:MET:HE2	1.82	0.61
1:B:1753:LYS:HZ1	1:B:1759:ARG:H	1.48	0.61
1:B:2178:MET:HB3	1:B:2228:MET:HE1	1.82	0.61
1:B:2189:LYS:HA	1:B:2192:TYR:HD2	1.65	0.61
1:D:3087:ILE:HD12	1:D:3088:VAL:H	1.66	0.61
1:D:3340:VAL:HA	1:D:3343:GLN:HE21	1.66	0.61
1:A:530:ILE:HG22	1:A:536:ASN:HB3	1.83	0.61
1:A:3087:ILE:HD12	1:A:3088:VAL:H	1.66	0.61
1:B:953:THR:N	1:B:969:PRO:O	2.34	0.61
1:D:111:HIS:HE1	1:D:113:HIS:HB3	1.66	0.61
1:C:2858:GLN:HB2	1:C:2859:PRO:HD3	1.83	0.61
1:A:111:HIS:HE1	1:A:113:HIS:HB3	1.66	0.61
1:A:1125:ASN:ND2	1:A:1128:ARG:HG2	2.15	0.61
1:A:3329:ILE:O	1:A:3403:ARG:NH2	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:226:HIS:HA	1:D:389:PHE:HE1	1.66	0.61
1:D:526:LEU:O	1:D:530:ILE:HG13	2.01	0.61
1:D:3731:LYS:HD3	1:D:3734:HIS:HE2	1.66	0.61
1:B:226:HIS:HA	1:B:389:PHE:HE1	1.66	0.60
1:B:545:ASP:N	1:B:545:ASP:OD2	2.33	0.60
1:D:1577:ALA:HB1	1:D:1584:ARG:HA	1.83	0.60
1:C:3247:ASP:OD2	1:C:3248:ARG:N	2.34	0.60
1:A:2430:ILE:HG21	1:A:2502:MET:HE3	1.83	0.60
1:A:3247:ASP:OD2	1:A:3248:ARG:N	2.34	0.60
1:A:3477:LYS:HG3	1:B:1141:ARG:NH1	2.16	0.60
1:A:4930:ALA:HB1	1:D:4937:ILE:HD11	1.82	0.60
1:B:4765:LEU:O	1:B:4768:LEU:N	2.34	0.60
1:D:953:THR:N	1:D:969:PRO:O	2.34	0.60
1:C:3329:ILE:O	1:C:3403:ARG:NH2	2.34	0.60
1:A:226:HIS:HA	1:A:389:PHE:HE1	1.66	0.60
1:A:835:ARG:NH2	1:A:1210:SER:O	2.34	0.60
1:A:3114:LYS:HE2	1:A:3125:VAL:HG11	1.83	0.60
1:B:1128:ARG:CZ	1:B:1128:ARG:HA	2.31	0.60
1:B:3586:ALA:O	1:B:3591:LYS:HD2	2.02	0.60
1:C:1128:ARG:HA	1:C:1128:ARG:CZ	2.31	0.60
2:F:54:GLU:HG2	2:F:55:VAL:HG13	1.82	0.60
1:D:1208:VAL:HG22	1:C:3575:LEU:HD11	1.83	0.60
1:C:127:MET:CE	1:C:127:MET:H	2.15	0.60
1:C:835:ARG:NH2	1:C:1210:SER:O	2.35	0.60
1:C:2102:VAL:HG13	1:C:2120:MET:HE2	1.82	0.60
1:C:3731:LYS:HD3	1:C:3734:HIS:HE2	1.66	0.60
1:C:4095:LYS:HA	1:C:4098:ASP:OD2	2.02	0.60
1:C:4765:LEU:O	1:C:4768:LEU:N	2.34	0.60
1:A:2165:LEU:HB2	1:A:2178:MET:HE3	1.83	0.60
1:B:3114:LYS:HE2	1:B:3125:VAL:HG11	1.83	0.60
1:D:3247:ASP:OD2	1:D:3248:ARG:N	2.34	0.60
1:A:1128:ARG:CZ	1:A:1128:ARG:HA	2.31	0.60
1:A:2858:GLN:HB2	1:A:2859:PRO:HD3	1.83	0.60
1:A:3586:ALA:O	1:A:3591:LYS:HD2	2.02	0.60
1:A:4095:LYS:HA	1:A:4098:ASP:OD2	2.02	0.60
1:B:111:HIS:HE1	1:B:113:HIS:HB3	1.66	0.60
1:B:127:MET:CE	1:B:127:MET:H	2.15	0.60
1:B:937:CYS:HB2	1:B:1056:PRO:HD3	1.82	0.60
1:B:3329:ILE:O	1:B:3403:ARG:NH2	2.34	0.60
1:C:1152:MET:HG2	1:C:1223:PHE:CD2	2.36	0.60
1:C:3112:LEU:HB2	1:C:3180:ASN:HD21	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3586:ALA:O	1:C:3591:LYS:HD2	2.02	0.60
1:A:953:THR:N	1:A:969:PRO:O	2.34	0.60
1:A:1639:LEU:HB2	1:A:1650:ILE:HD12	1.82	0.60
1:A:4765:LEU:O	1:A:4768:LEU:N	2.34	0.60
2:E:18:ARG:HD2	2:E:51:GLY:HA3	1.83	0.60
2:H:54:GLU:HG2	2:H:55:VAL:HG13	1.82	0.60
1:D:127:MET:H	1:D:127:MET:CE	2.15	0.60
1:D:504:ALA:HB2	1:D:512:ALA:HB2	1.83	0.60
1:D:2102:VAL:HG13	1:D:2120:MET:HE2	1.83	0.60
1:D:3552:PHE:O	1:D:3556:ASN:ND2	2.35	0.60
1:C:3552:PHE:O	1:C:3556:ASN:ND2	2.35	0.60
1:B:835:ARG:NH2	1:B:1210:SER:O	2.34	0.60
1:D:530:ILE:HG22	1:D:536:ASN:HB3	1.83	0.60
1:D:3112:LEU:HB2	1:D:3180:ASN:HD21	1.66	0.60
1:C:504:ALA:HB2	1:C:512:ALA:HB2	1.83	0.60
1:C:937:CYS:HB2	1:C:1056:PRO:HD3	1.82	0.60
1:C:3340:VAL:HA	1:C:3343:GLN:HE21	1.66	0.60
1:C:3350:ARG:O	1:C:3415:TYR:OH	2.20	0.60
1:A:2779:GLU:HG3	1:A:2792:ARG:HG2	1.83	0.60
1:A:3112:LEU:HB2	1:A:3180:ASN:HD21	1.66	0.60
1:A:3688:GLU:OE1	1:A:3688:GLU:N	2.35	0.60
1:B:913:LEU:O	1:B:918:ARG:NH2	2.33	0.60
1:B:1577:ALA:HB1	1:B:1584:ARG:HA	1.83	0.60
1:B:1639:LEU:HB2	1:B:1650:ILE:HD12	1.82	0.60
1:D:835:ARG:NH2	1:D:1210:SER:O	2.35	0.60
1:D:2779:GLU:HG3	1:D:2792:ARG:HG2	1.83	0.60
1:D:3114:LYS:HE2	1:D:3125:VAL:HG11	1.83	0.60
1:D:4095:LYS:HA	1:D:4098:ASP:OD2	2.02	0.60
1:C:111:HIS:HE1	1:C:113:HIS:HB3	1.66	0.60
1:A:1152:MET:HG2	1:A:1223:PHE:CD2	2.36	0.60
1:A:3340:VAL:HA	1:A:3343:GLN:HE21	1.66	0.60
1:A:3731:LYS:HD3	1:A:3734:HIS:HE2	1.66	0.60
1:C:243:ARG:HH21	1:C:302:VAL:HA	1.67	0.60
1:C:2233:CYS:O	1:C:2234:ARG:C	2.39	0.60
1:A:526:LEU:O	1:A:530:ILE:HG13	2.01	0.59
1:B:526:LEU:O	1:B:530:ILE:HG13	2.01	0.59
1:B:2858:GLN:HB2	1:B:2859:PRO:HD3	1.83	0.59
1:B:3247:ASP:OD2	1:B:3248:ARG:N	2.34	0.59
1:B:3350:ARG:O	1:B:3415:TYR:OH	2.20	0.59
1:D:3611:HIS:ND1	1:D:3611:HIS:O	2.34	0.59
1:D:3688:GLU:OE1	1:D:3688:GLU:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:526:LEU:O	1:C:530:ILE:HG13	2.01	0.59
1:C:2250:MET:HA	1:C:2250:MET:HE3	1.82	0.59
1:A:2627:VAL:HG22	1:A:2678:LEU:HB2	1.85	0.59
1:D:243:ARG:HH21	1:D:302:VAL:HA	1.67	0.59
1:D:1152:MET:HG2	1:D:1223:PHE:CD2	2.36	0.59
1:D:3350:ARG:O	1:D:3415:TYR:OH	2.20	0.59
1:A:3235:SER:HB3	1:A:3238:GLU:HB2	1.84	0.59
1:B:635:THR:OG1	1:B:1693:GLN:OE1	2.20	0.59
1:B:3235:SER:HB3	1:B:3238:GLU:HB2	1.84	0.59
1:B:3984:ARG:HH22	1:C:102:LEU:HD11	1.65	0.59
1:B:4150:LEU:HB3	1:B:4160:LEU:HD21	1.85	0.59
1:D:884:LEU:O	1:D:887:ILE:HG13	2.02	0.59
1:D:2285:GLU:OE1	1:D:2285:GLU:N	2.26	0.59
1:D:3235:SER:HB3	1:D:3238:GLU:HB2	1.84	0.59
1:C:226:HIS:HA	1:C:389:PHE:HE1	1.66	0.59
1:C:3235:SER:HB3	1:C:3238:GLU:HB2	1.84	0.59
1:C:3688:GLU:OE1	1:C:3688:GLU:N	2.35	0.59
1:A:504:ALA:HB2	1:A:512:ALA:HB2	1.83	0.59
1:A:884:LEU:O	1:A:887:ILE:HG13	2.02	0.59
1:A:913:LEU:O	1:A:918:ARG:NH2	2.33	0.59
1:A:1581:LEU:HD12	1:A:1584:ARG:HE	1.68	0.59
1:A:2540:THR:HG23	1:A:2541:PHE:CD1	2.38	0.59
1:B:2627:VAL:HG22	1:B:2678:LEU:HB2	1.85	0.59
1:B:3731:LYS:HD3	1:B:3734:HIS:HE2	1.66	0.59
1:D:1128:ARG:CZ	1:D:1128:ARG:HA	2.31	0.59
1:C:332:GLU:OE1	1:C:332:GLU:N	2.25	0.59
1:C:884:LEU:O	1:C:887:ILE:HG13	2.02	0.59
1:C:2779:GLU:HG3	1:C:2792:ARG:HG2	1.83	0.59
1:A:3552:PHE:O	1:A:3556:ASN:ND2	2.35	0.59
1:A:3611:HIS:ND1	1:A:3611:HIS:O	2.34	0.59
2:F:105:LYS:NZ	2:F:106:LEU:O	2.36	0.59
1:B:243:ARG:HH21	1:B:302:VAL:HA	1.67	0.59
1:B:1152:MET:HG2	1:B:1223:PHE:CD2	2.36	0.59
1:D:2627:VAL:HG22	1:D:2678:LEU:HB2	1.85	0.59
1:C:1577:ALA:HB1	1:C:1584:ARG:HA	1.83	0.59
1:C:3324:VAL:HG11	1:C:3361:THR:HG22	1.85	0.59
1:C:4150:LEU:HB3	1:C:4160:LEU:HD21	1.85	0.59
1:A:3477:LYS:HZ2	1:B:1141:ARG:HD3	0.80	0.59
1:A:4150:LEU:HB3	1:A:4160:LEU:HD21	1.85	0.59
1:B:2021:CYS:O	1:B:2028:ARG:NH2	2.36	0.59
1:B:3688:GLU:N	1:B:3688:GLU:OE1	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4005:GLN:HA	1:B:4114:CYS:HA	1.85	0.59
1:D:2609:ALA:HA	1:D:2612[B]:ARG:HH11	1.68	0.59
1:C:3114:LYS:HE2	1:C:3125:VAL:HG11	1.83	0.59
1:C:3611:HIS:ND1	1:C:3611:HIS:O	2.34	0.59
1:A:3324:VAL:HG11	1:A:3361:THR:HG22	1.85	0.59
1:B:910:PHE:HE2	1:B:968:ALA:HB3	1.68	0.59
1:B:2430:ILE:HG21	1:B:2502:MET:HE3	1.84	0.59
1:B:3112:LEU:HB2	1:B:3180:ASN:HD21	1.66	0.59
1:D:3324:VAL:HG11	1:D:3361:THR:HG22	1.85	0.59
1:D:4098:ASP:O	1:D:4101:LYS:NZ	2.33	0.59
1:D:4150:LEU:HB3	1:D:4160:LEU:HD21	1.85	0.59
1:C:953:THR:N	1:C:969:PRO:O	2.34	0.59
1:B:504:ALA:HB2	1:B:512:ALA:HB2	1.83	0.59
1:B:1581:LEU:HD12	1:B:1584:ARG:HE	1.68	0.59
1:D:1581:LEU:HD12	1:D:1584:ARG:HE	1.68	0.59
1:D:1753:LYS:HZ1	1:D:1759:ARG:H	1.49	0.59
1:A:234:SER:HG	1:A:238:SER:HG	1.51	0.59
1:A:2233:CYS:O	1:A:2234:ARG:C	2.39	0.59
1:B:2005:GLN:HA	1:B:2008:MET:HE2	1.85	0.59
1:B:2233:CYS:O	1:B:2234:ARG:C	2.39	0.59
1:B:4095:LYS:HA	1:B:4098:ASP:OD2	2.02	0.59
1:D:131:LEU:CD1	1:D:195:PHE:H	2.16	0.59
1:D:2985:ARG:HG3	1:D:2985:ARG:HH11	1.68	0.59
1:D:3586:ALA:O	1:D:3591:LYS:HD2	2.02	0.59
1:C:910:PHE:HE2	1:C:968:ALA:HB3	1.68	0.59
1:C:2021:CYS:O	1:C:2028:ARG:NH2	2.36	0.59
1:C:4005:GLN:HA	1:C:4114:CYS:HA	1.85	0.59
1:A:127:MET:CE	1:A:127:MET:H	2.15	0.58
1:A:910:PHE:HE2	1:A:968:ALA:HB3	1.68	0.58
1:A:2871:LEU:HD13	1:A:2927:LEU:HD12	1.85	0.58
1:B:2871:LEU:HD13	1:B:2927:LEU:HD12	1.85	0.58
1:D:2751:LEU:O	1:D:2755:ILE:HG13	2.03	0.58
1:D:2871:LEU:HD13	1:D:2927:LEU:HD12	1.85	0.58
1:D:4731:ILE:HD12	1:D:4732:PHE:CD2	2.38	0.58
1:C:2285:GLU:OE1	1:C:2285:GLU:N	2.26	0.58
1:A:2463:LEU:HA	1:A:2466:LEU:HD12	1.85	0.58
1:B:2540:THR:HG23	1:B:2541:PHE:CD1	2.38	0.58
1:D:2244:ARG:NH2	1:D:3859:VAL:O	2.36	0.58
1:D:2463:LEU:HA	1:D:2466:LEU:HD12	1.85	0.58
1:D:2540:THR:HG23	1:D:2541:PHE:CD1	2.38	0.58
1:C:2540:THR:HG23	1:C:2541:PHE:CD1	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3350:ARG:O	1:A:3415:TYR:OH	2.20	0.58
1:A:4926:VAL:HG13	1:D:4933:GLN:HG3	1.84	0.58
1:B:884:LEU:O	1:B:887:ILE:HG13	2.02	0.58
1:B:3510:ILE:HD12	1:B:3511:VAL:HG12	1.85	0.58
1:D:910:PHE:HE2	1:D:968:ALA:HB3	1.68	0.58
1:C:2627:VAL:HG22	1:C:2678:LEU:HB2	1.85	0.58
1:A:76:ARG:HH22	1:D:3936:TYR:HA	1.68	0.58
1:A:2609:ALA:HA	1:A:2612[B]:ARG:HH11	1.68	0.58
1:D:913:LEU:O	1:D:918:ARG:NH2	2.33	0.58
1:D:3412:LEU:HD11	1:D:3434:LEU:HD21	1.85	0.58
1:C:1581:LEU:HD12	1:C:1584:ARG:HE	1.68	0.58
1:C:2871:LEU:HD13	1:C:2927:LEU:HD12	1.85	0.58
1:C:4731:ILE:HD12	1:C:4732:PHE:CD2	2.38	0.58
1:A:2021:CYS:O	1:A:2028:ARG:NH2	2.36	0.58
1:A:2244:ARG:NH2	1:A:3859:VAL:O	2.36	0.58
1:A:2751:LEU:O	1:A:2755:ILE:HG13	2.03	0.58
1:A:2985:ARG:HH11	1:A:2985:ARG:HG3	1.68	0.58
1:A:4876:CYS:HA	1:A:4882:CYS:HB2	1.85	0.58
2:G:82:TYR:HD1	1:C:1786:LEU:HG	1.68	0.58
1:B:2751:LEU:O	1:B:2755:ILE:HG13	2.03	0.58
1:B:3340:VAL:HA	1:B:3343:GLN:HE21	1.66	0.58
1:B:3412:LEU:HD11	1:B:3434:LEU:HD21	1.85	0.58
1:D:2858:GLN:HB2	1:D:2859:PRO:HD3	1.83	0.58
1:C:2244:ARG:NH2	1:C:3859:VAL:O	2.36	0.58
1:A:2206:THR:HA	1:A:2209:GLU:OE1	2.04	0.58
1:B:245:VAL:HG23	1:B:376:ALA:HB3	1.84	0.58
1:B:3324:VAL:HG11	1:B:3361:THR:HG22	1.85	0.58
1:D:3510:ILE:HD12	1:D:3511:VAL:HG12	1.85	0.58
1:C:131:LEU:CD1	1:C:195:PHE:H	2.16	0.58
1:C:2985:ARG:HH11	1:C:2985:ARG:HG3	1.68	0.58
1:A:76:ARG:O	1:A:80:GLU:HG2	2.04	0.58
1:A:243:ARG:HH21	1:A:302:VAL:HA	1.67	0.58
1:A:2250:MET:HA	1:A:2250:MET:HE3	1.84	0.58
1:A:3510:ILE:HD12	1:A:3511:VAL:HG12	1.85	0.58
1:B:131:LEU:CD1	1:B:195:PHE:H	2.16	0.58
1:B:2985:ARG:HH11	1:B:2985:ARG:HG3	1.68	0.58
1:B:3093:ARG:HD2	1:B:3160:ASP:OD2	2.04	0.58
1:D:545:ASP:OD2	1:D:545:ASP:N	2.33	0.58
1:D:2021:CYS:O	1:D:2028:ARG:NH2	2.36	0.58
1:D:2206:THR:HA	1:D:2209:GLU:OE1	2.04	0.58
1:C:245:VAL:HG23	1:C:376:ALA:HB3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3412:LEU:HD11	1:A:3434:LEU:HD21	1.85	0.58
1:A:4005:GLN:HA	1:A:4114:CYS:HA	1.85	0.58
1:B:76:ARG:O	1:B:80:GLU:HG2	2.04	0.58
1:B:3552:PHE:O	1:B:3556:ASN:ND2	2.35	0.58
1:D:3093:ARG:HD2	1:D:3160:ASP:OD2	2.03	0.58
1:C:1619:ARG:HA	1:C:1626:TRP:HA	1.86	0.58
1:C:2206:THR:HA	1:C:2209:GLU:OE1	2.04	0.58
1:C:2751:LEU:O	1:C:2755:ILE:HG13	2.03	0.58
1:A:2178:MET:HB3	1:A:2228:MET:HE1	1.86	0.58
1:A:3202:PRO:HA	1:A:3283:ARG:NH2	2.19	0.58
1:C:1930:LYS:O	1:C:1930:LYS:HD2	2.04	0.58
1:C:2609:ALA:HA	1:C:2612[B]:ARG:HH11	1.68	0.58
1:B:2463:LEU:HA	1:B:2466:LEU:HD12	1.85	0.58
1:B:2609:ALA:HA	1:B:2612[B]:ARG:HH11	1.68	0.58
1:B:3106:MET:HG3	1:B:3110:LEU:CD2	2.34	0.58
1:B:3588:ASP:O	1:B:3592:ILE:HG13	2.04	0.58
1:C:4161:ARG:HA	1:C:4164:LEU:HD12	1.86	0.58
1:A:3384:LYS:HD2	1:A:3386:GLU:N	2.19	0.57
2:G:54:GLU:HG2	2:G:55:VAL:HG13	1.86	0.57
1:B:654:GLU:N	1:B:654:GLU:OE2	2.37	0.57
1:B:2244:ARG:NH2	1:B:3859:VAL:O	2.36	0.57
1:B:4161:ARG:HA	1:B:4164:LEU:HD12	1.86	0.57
1:D:239:ASP:OD2	1:D:239:ASP:N	2.37	0.57
1:D:2002:PRO:HB2	1:D:3652:MET:HE1	1.86	0.57
1:D:3106:MET:HG3	1:D:3110:LEU:CD2	2.34	0.57
1:C:892:THR:HG22	1:C:961:MET:HA	1.86	0.57
1:C:3510:ILE:HD12	1:C:3511:VAL:HG12	1.85	0.57
1:A:1619:ARG:HA	1:A:1626:TRP:HA	1.86	0.57
1:B:3202:PRO:HA	1:B:3283:ARG:NH2	2.19	0.57
1:D:463:GLU:OE2	1:D:463:GLU:N	2.29	0.57
1:D:654:GLU:N	1:D:654:GLU:OE2	2.37	0.57
1:D:1930:LYS:HD2	1:D:1930:LYS:O	2.04	0.57
1:D:3588:ASP:O	1:D:3592:ILE:HG13	2.04	0.57
1:D:3788:GLY:HA2	1:D:3835:LEU:HG	1.86	0.57
1:C:76:ARG:O	1:C:80:GLU:HG2	2.04	0.57
1:C:2096:GLU:N	1:C:2096:GLU:OE2	2.38	0.57
1:C:2463:LEU:HA	1:C:2466:LEU:HD12	1.85	0.57
1:C:3106:MET:HG3	1:C:3110:LEU:CD2	2.34	0.57
1:A:131:LEU:CD1	1:A:195:PHE:H	2.16	0.57
1:A:654:GLU:N	1:A:654:GLU:OE2	2.37	0.57
1:A:1930:LYS:HD2	1:A:1930:LYS:O	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3848:GLU:O	1:A:3852:LYS:HG2	2.05	0.57
1:A:4731:ILE:HD12	1:A:4732:PHE:CD2	2.38	0.57
1:A:4917:ASP:OD2	1:D:4888:TYR:OH	2.13	0.57
2:E:105:LYS:NZ	2:E:106:LEU:O	2.38	0.57
1:B:2244:ARG:HA	1:B:2247:GLN:HB2	1.87	0.57
1:B:3384:LYS:HD2	1:B:3386:GLU:N	2.19	0.57
1:D:2250:MET:HA	1:D:2250:MET:HE3	1.85	0.57
1:A:245:VAL:HG23	1:A:376:ALA:HB3	1.84	0.57
1:A:3106:MET:HG3	1:A:3110:LEU:CD2	2.34	0.57
1:A:3788:GLY:HA2	1:A:3835:LEU:HG	1.86	0.57
1:A:4980:LEU:HB3	1:A:4981:GLU:OE1	2.05	0.57
1:B:3575:LEU:HD11	1:C:1208:VAL:CG2	2.34	0.57
1:B:3575:LEU:HD11	1:C:1208:VAL:HG22	1.86	0.57
1:B:3848:GLU:O	1:B:3852:LYS:HG2	2.05	0.57
1:D:892:THR:HG22	1:D:961:MET:HA	1.86	0.57
1:D:2096:GLU:N	1:D:2096:GLU:OE2	2.38	0.57
1:C:2522:LEU:HA	1:C:2526:PHE:HB2	1.87	0.57
1:C:3588:ASP:O	1:C:3592:ILE:HG13	2.04	0.57
1:A:2011:HIS:ND1	1:A:2011:HIS:O	2.38	0.57
1:B:892:THR:HG22	1:B:961:MET:HA	1.86	0.57
1:B:2096:GLU:OE2	1:B:2096:GLU:N	2.38	0.57
1:B:2522:LEU:HA	1:B:2526:PHE:HB2	1.87	0.57
1:B:2863:SER:O	1:B:2928:LYS:NZ	2.38	0.57
1:B:4731:ILE:HD12	1:B:4732:PHE:CD2	2.38	0.57
1:D:76:ARG:O	1:D:80:GLU:HG2	2.04	0.57
1:D:3104:GLU:O	1:D:3107:VAL:HG22	2.05	0.57
1:D:4005:GLN:HA	1:D:4114:CYS:HA	1.85	0.57
1:D:4876:CYS:HA	1:D:4882:CYS:HB2	1.85	0.57
1:A:2522:LEU:HA	1:A:2526:PHE:HB2	1.87	0.57
1:A:3093:ARG:HD2	1:A:3160:ASP:OD2	2.04	0.57
2:F:82:TYR:HD1	1:B:1786:LEU:HG	1.69	0.57
1:B:1619:ARG:HA	1:B:1626:TRP:HA	1.85	0.57
1:B:1930:LYS:HD2	1:B:1930:LYS:O	2.04	0.57
1:B:3547:GLU:OE1	1:B:3547:GLU:N	2.38	0.57
1:D:245:VAL:HG23	1:D:376:ALA:HB3	1.84	0.57
1:D:3547:GLU:OE1	1:D:3547:GLU:N	2.38	0.57
1:A:2863:SER:O	1:A:2928:LYS:NZ	2.38	0.57
1:A:3547:GLU:OE1	1:A:3547:GLU:N	2.38	0.57
1:A:4161:ARG:HA	1:A:4164:LEU:HD12	1.86	0.57
2:G:18:ARG:HG3	2:G:18:ARG:HH11	1.70	0.57
1:B:1492:CYS:SG	1:B:1494:MET:HG3	2.45	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2244:ARG:NH1	1:B:2244:ARG:HB2	2.20	0.57
1:B:2867:LEU:HB2	1:B:2928:LYS:HE2	1.87	0.57
1:D:1492:CYS:SG	1:D:1494:MET:HG3	2.45	0.57
1:D:2867:LEU:HB2	1:D:2928:LYS:HE2	1.87	0.57
1:D:3202:PRO:HA	1:D:3283:ARG:NH2	2.19	0.57
1:C:3202:PRO:HA	1:C:3283:ARG:NH2	2.19	0.57
1:C:3412:LEU:HD11	1:C:3434:LEU:HD21	1.85	0.57
1:A:2867:LEU:HB2	1:A:2928:LYS:HE2	1.87	0.57
1:A:3104:GLU:O	1:A:3107:VAL:HG22	2.05	0.57
1:B:2206:THR:HA	1:B:2209:GLU:OE1	2.04	0.57
1:D:2863:SER:O	1:D:2928:LYS:NZ	2.38	0.57
1:D:3356:SER:HG	1:D:3357:HIS:HD1	1.51	0.57
1:D:4980:LEU:HB3	1:D:4981:GLU:OE1	2.05	0.57
1:C:3104:GLU:O	1:C:3107:VAL:HG22	2.05	0.57
1:A:239:ASP:OD2	1:A:239:ASP:N	2.37	0.57
1:A:1492:CYS:SG	1:A:1494:MET:HG3	2.45	0.57
1:A:2244:ARG:HA	1:A:2247:GLN:HB2	1.87	0.57
1:A:3588:ASP:O	1:A:3592:ILE:HG13	2.04	0.57
2:F:13:ARG:NH1	2:F:13:ARG:HB3	2.20	0.57
1:B:1068:ARG:HA	1:B:1071:ARG:HG2	1.87	0.57
1:B:4876:CYS:HA	1:B:4882:CYS:HB2	1.86	0.57
1:C:2011:HIS:ND1	1:C:2011:HIS:O	2.38	0.57
1:D:2011:HIS:ND1	1:D:2011:HIS:O	2.38	0.57
1:D:2823:ILE:HD11	1:D:2935:TYR:HB3	1.87	0.57
1:D:3848:GLU:O	1:D:3852:LYS:HG2	2.05	0.57
1:D:4161:ARG:HA	1:D:4164:LEU:HD12	1.86	0.57
1:C:2244:ARG:NH1	1:C:2244:ARG:HB2	2.20	0.57
1:C:3093:ARG:HD2	1:C:3160:ASP:OD2	2.03	0.57
1:C:3547:GLU:N	1:C:3547:GLU:OE1	2.38	0.57
1:C:3788:GLY:HA2	1:C:3835:LEU:HG	1.86	0.57
1:A:179:TYR:N	1:A:194:SER:O	2.38	0.56
1:A:2823:ILE:HD11	1:A:2935:TYR:HB3	1.87	0.56
1:A:3984:ARG:HH22	1:B:102:LEU:HD11	1.69	0.56
1:B:239:ASP:OD2	1:B:239:ASP:N	2.37	0.56
1:D:2244:ARG:HA	1:D:2247:GLN:HB2	1.87	0.56
1:D:2440:MET:SD	1:D:2444:GLN:NE2	2.78	0.56
1:D:2522:LEU:HA	1:D:2526:PHE:HB2	1.87	0.56
1:C:2863:SER:O	1:C:2928:LYS:NZ	2.38	0.56
1:C:4847:VAL:HA	1:C:4850:LEU:HD12	1.87	0.56
1:A:4041:ALA:O	1:A:4045:VAL:HG23	2.05	0.56
1:B:1186:ASP:OD1	1:B:1187:GLY:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2011:HIS:ND1	1:B:2011:HIS:O	2.38	0.56
1:B:4980:LEU:HB3	1:B:4981:GLU:OE1	2.05	0.56
1:D:1068:ARG:HA	1:D:1071:ARG:HG2	1.87	0.56
1:A:892:THR:HG22	1:A:961:MET:HA	1.86	0.56
1:A:1186:ASP:OD1	1:A:1187:GLY:N	2.38	0.56
1:A:1653:LEU:HD23	1:A:1707:LEU:HD11	1.87	0.56
1:A:2440:MET:SD	1:A:2444:GLN:NE2	2.78	0.56
1:B:894:GLY:HA3	1:B:903:LEU:HB3	1.87	0.56
1:D:76:ARG:HH12	1:C:3936:TYR:CA	2.18	0.56
1:D:1619:ARG:HA	1:D:1626:TRP:HA	1.86	0.56
1:D:3384:LYS:HD2	1:D:3386:GLU:N	2.19	0.56
1:D:3506:GLN:OE1	1:D:3506:GLN:N	2.38	0.56
1:C:2430:ILE:HG21	1:C:2502:MET:HE3	1.87	0.56
1:C:2994:GLU:OE1	1:C:2994:GLU:N	2.29	0.56
1:C:3848:GLU:O	1:C:3852:LYS:HG2	2.05	0.56
1:C:4738:ALA:HA	1:C:4743:MET:HG3	1.88	0.56
1:A:635:THR:OG1	1:A:1693:GLN:OE1	2.20	0.56
1:D:1653:LEU:HD23	1:D:1707:LEU:HD11	1.87	0.56
1:D:4041:ALA:O	1:D:4045:VAL:HG23	2.06	0.56
1:C:654:GLU:N	1:C:654:GLU:OE2	2.37	0.56
1:C:894:GLY:HA3	1:C:903:LEU:HB3	1.87	0.56
1:C:1068:ARG:HA	1:C:1071:ARG:HG2	1.87	0.56
1:C:1653:LEU:HD23	1:C:1707:LEU:HD11	1.87	0.56
1:C:2497:ASP:OD2	1:C:2498:HIS:N	2.38	0.56
1:B:445:LEU:O	1:B:449:ILE:HG13	2.06	0.56
1:B:3878:ASP:OD2	1:B:3879:GLU:N	2.39	0.56
1:B:4847:VAL:HA	1:B:4850:LEU:HD12	1.87	0.56
1:D:1079:LYS:HA	1:D:1189:LEU:HD11	1.87	0.56
1:D:3878:ASP:OD2	1:D:3879:GLU:N	2.39	0.56
1:A:719:LEU:HD11	2:E:7:ILE:HA	1.88	0.56
1:A:3936:TYR:HA	1:B:76:ARG:HH22	1.71	0.56
2:E:54:GLU:HG2	2:E:55:VAL:HG13	1.87	0.56
1:B:580:GLU:HG3	1:B:620:LEU:HD22	1.88	0.56
1:B:2440:MET:SD	1:B:2444:GLN:NE2	2.78	0.56
1:D:281:ARG:NE	1:D:309:THR:OG1	2.39	0.56
1:D:1186:ASP:OD1	1:D:1187:GLY:N	2.38	0.56
1:D:4847:VAL:HA	1:D:4850:LEU:HD12	1.87	0.56
1:C:4980:LEU:HB3	1:C:4981:GLU:OE1	2.05	0.56
1:A:445:LEU:O	1:A:449:ILE:HG13	2.06	0.56
1:A:1068:ARG:HA	1:A:1071:ARG:HG2	1.87	0.56
1:B:4041:ALA:O	1:B:4045:VAL:HG23	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:580:GLU:HG3	1:D:620:LEU:HD22	1.88	0.56
1:D:883:ALA:HB1	1:D:907:LEU:HD13	1.88	0.56
1:D:1997:GLU:HB2	1:D:2008:MET:HE3	1.88	0.56
1:D:2497:ASP:OD2	1:D:2498:HIS:N	2.38	0.56
1:D:4016:LEU:O	1:D:4020:GLN:HG3	2.06	0.56
1:C:2867:LEU:HB2	1:C:2928:LYS:HE2	1.87	0.56
1:C:3384:LYS:HD2	1:C:3386:GLU:N	2.19	0.56
1:C:4876:CYS:HA	1:C:4882:CYS:HB2	1.85	0.56
1:A:580:GLU:HG3	1:A:620:LEU:HD22	1.88	0.56
1:A:2244:ARG:HB2	1:A:2244:ARG:NH1	2.20	0.56
1:A:3211:ASN:ND2	1:A:3236:VAL:HB	2.21	0.56
1:A:3351:PRO:O	1:A:3354:LEU:HG	2.06	0.56
1:A:3506:GLN:OE1	1:A:3506:GLN:N	2.38	0.56
1:A:3655:GLU:HA	1:A:3658:LYS:HZ3	1.71	0.56
2:H:82:TYR:HD1	1:D:1786:LEU:HG	1.70	0.56
1:D:2994:GLU:OE1	1:D:2994:GLU:N	2.29	0.56
1:C:913:LEU:O	1:C:918:ARG:NH2	2.33	0.56
1:C:3878:ASP:OD2	1:C:3879:GLU:N	2.39	0.56
1:A:1057:ASP:OD1	1:A:1057:ASP:N	2.39	0.56
1:B:1265:ASP:OD1	1:B:1265:ASP:N	2.38	0.56
1:D:138:GLN:NE2	1:D:146:CYS:SG	2.79	0.56
1:C:883:ALA:HB1	1:C:907:LEU:HD13	1.88	0.56
1:A:1079:LYS:HA	1:A:1189:LEU:HD11	1.87	0.56
1:A:4731:ILE:HD12	1:A:4732:PHE:HD2	1.71	0.56
1:A:4847:VAL:HA	1:A:4850:LEU:HD12	1.87	0.56
1:B:1079:LYS:HA	1:B:1189:LEU:HD11	1.87	0.56
1:B:2823:ILE:HD11	1:B:2935:TYR:HB3	1.87	0.56
1:D:965:TYR:HD1	1:D:966:LYS:H	1.54	0.56
1:D:3211:ASN:ND2	1:D:3236:VAL:HB	2.21	0.56
1:D:4738:ALA:HA	1:D:4743:MET:HG3	1.88	0.56
1:C:281:ARG:NE	1:C:309:THR:OG1	2.39	0.56
1:C:1057:ASP:OD1	1:C:1057:ASP:N	2.39	0.56
1:C:1465:ASP:OD1	1:C:1468:LYS:N	2.39	0.56
1:C:2440:MET:SD	1:C:2444:GLN:NE2	2.78	0.56
1:C:2823:ILE:HD11	1:C:2935:TYR:HB3	1.87	0.56
1:C:4016:LEU:O	1:C:4020:GLN:HG3	2.06	0.56
1:A:138:GLN:NE2	1:A:146:CYS:SG	2.79	0.55
1:A:651:GLY:N	1:A:658:GLN:OE1	2.36	0.55
1:A:965:TYR:HD1	1:A:966:LYS:H	1.54	0.55
1:B:179:TYR:N	1:B:194:SER:O	2.38	0.55
1:B:281:ARG:NE	1:B:309:THR:OG1	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1465:ASP:OD1	1:B:1468:LYS:N	2.39	0.55
1:B:2821:TRP:HH2	1:B:2877:GLN:HB3	1.71	0.55
1:B:3104:GLU:O	1:B:3107:VAL:HG22	2.05	0.55
1:B:3788:GLY:HA2	1:B:3835:LEU:HG	1.86	0.55
1:D:2244:ARG:HB2	1:D:2244:ARG:NH1	2.20	0.55
1:D:2430:ILE:HG21	1:D:2502:MET:HE3	1.86	0.55
1:C:138:GLN:NE2	1:C:146:CYS:SG	2.79	0.55
1:C:2244:ARG:HA	1:C:2247:GLN:HB2	1.87	0.55
1:C:4041:ALA:O	1:C:4045:VAL:HG23	2.05	0.55
1:C:4731:ILE:HD12	1:C:4732:PHE:HD2	1.71	0.55
1:A:281:ARG:NE	1:A:309:THR:OG1	2.39	0.55
1:A:2497:ASP:OD2	1:A:2498:HIS:N	2.38	0.55
1:B:131:LEU:HD13	1:B:195:PHE:H	1.70	0.55
1:B:2497:ASP:OD2	1:B:2498:HIS:N	2.38	0.55
1:B:4738:ALA:HA	1:B:4743:MET:HG3	1.88	0.55
1:D:445:LEU:O	1:D:449:ILE:HG13	2.06	0.55
1:D:894:GLY:HA3	1:D:903:LEU:HB3	1.87	0.55
1:D:2821:TRP:HH2	1:D:2877:GLN:HB3	1.71	0.55
1:C:179:TYR:N	1:C:194:SER:O	2.39	0.55
1:C:1079:LYS:HA	1:C:1189:LEU:HD11	1.87	0.55
1:C:2821:TRP:HH2	1:C:2877:GLN:HB3	1.71	0.55
1:A:590:LEU:HD22	1:A:631:LEU:HD13	1.89	0.55
1:A:4016:LEU:O	1:A:4020:GLN:HG3	2.06	0.55
1:B:590:LEU:HD22	1:B:631:LEU:HD13	1.89	0.55
1:D:1057:ASP:N	1:D:1057:ASP:OD1	2.39	0.55
1:C:635:THR:OG1	1:C:1693:GLN:OE1	2.20	0.55
1:C:1186:ASP:OD1	1:C:1187:GLY:N	2.38	0.55
1:C:1492:CYS:SG	1:C:1494:MET:HG3	2.45	0.55
1:C:3211:ASN:ND2	1:C:3236:VAL:HB	2.21	0.55
1:C:4098:ASP:O	1:C:4101:LYS:NZ	2.33	0.55
1:C:4867:GLU:OE1	1:C:4867:GLU:N	2.37	0.55
1:A:545:ASP:OD2	1:A:545:ASP:N	2.33	0.55
1:A:2285:GLU:OE1	1:A:2285:GLU:N	2.26	0.55
1:A:3356:SER:HG	1:A:3357:HIS:HD1	1.52	0.55
1:A:3878:ASP:OD2	1:A:3879:GLU:N	2.39	0.55
1:B:1653:LEU:HD23	1:B:1707:LEU:HD11	1.87	0.55
1:B:3211:ASN:ND2	1:B:3236:VAL:HB	2.21	0.55
1:C:445:LEU:O	1:C:449:ILE:HG13	2.06	0.55
1:C:580:GLU:HG3	1:C:620:LEU:HD22	1.88	0.55
1:A:1228:ILE:HG12	1:D:3571:TRP:CE2	2.41	0.55
1:B:213:TYR:HD1	1:B:340:LYS:HD3	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3351:PRO:O	1:B:3354:LEU:HG	2.06	0.55
1:D:111:HIS:CE1	1:D:113:HIS:HB3	2.42	0.55
1:D:213:TYR:HD1	1:D:340:LYS:HD3	1.72	0.55
1:D:3351:PRO:O	1:D:3354:LEU:HG	2.06	0.55
1:C:880:GLU:OE1	1:C:969:PRO:HA	2.07	0.55
1:D:1465:ASP:OD1	1:D:1468:LYS:N	2.39	0.55
1:A:111:HIS:CE1	1:A:113:HIS:HB3	2.42	0.55
1:A:131:LEU:HD13	1:A:195:PHE:H	1.70	0.55
1:A:1291:LEU:HD13	1:A:1595:LEU:HD11	1.89	0.55
1:A:2096:GLU:N	1:A:2096:GLU:OE2	2.38	0.55
1:B:2668:SER:O	1:B:2669:GLU:HG3	2.07	0.55
1:D:880:GLU:OE1	1:D:969:PRO:HA	2.07	0.55
1:C:131:LEU:HD13	1:C:195:PHE:H	1.70	0.55
1:C:965:TYR:HD1	1:C:966:LYS:H	1.54	0.55
1:C:1291:LEU:HD13	1:C:1595:LEU:HD11	1.89	0.55
1:C:2973:PHE:CD2	1:C:2995:ILE:HG12	2.42	0.55
1:C:3351:PRO:O	1:C:3354:LEU:HG	2.06	0.55
1:C:3620:TRP:CD1	1:C:3622:LYS:HB3	2.42	0.55
1:A:894:GLY:HA3	1:A:903:LEU:HB3	1.87	0.55
1:A:1999:ARG:NH2	1:A:3638:MET:O	2.40	0.55
1:A:4738:ALA:HA	1:A:4743:MET:HG3	1.88	0.55
2:F:18:ARG:HH11	2:F:18:ARG:HG3	1.71	0.55
1:B:138:GLN:NE2	1:B:146:CYS:SG	2.79	0.55
1:C:33:LEU:HD12	1:C:53:SER:HB2	1.89	0.55
1:C:2668:SER:O	1:C:2669:GLU:HG3	2.07	0.55
1:C:4096:ALA:O	1:C:4100:GLN:HG2	2.07	0.55
1:A:2656:CYS:HA	1:A:2711:PRO:HG3	1.88	0.55
1:A:4091:LYS:O	1:A:4095:LYS:HG2	2.07	0.55
2:E:35:LYS:NZ	2:E:38:SER:HB3	2.22	0.55
1:B:358:THR:HG21	1:B:379:HIS:HB3	1.89	0.55
1:B:3108:GLU:HB3	1:B:3114:LYS:HZ2	1.72	0.55
1:B:3499:ARG:O	1:B:3499:ARG:NE	2.36	0.55
1:D:131:LEU:HD13	1:D:195:PHE:H	1.70	0.55
1:D:590:LEU:HD22	1:D:631:LEU:HD13	1.89	0.55
1:C:2656:CYS:HA	1:C:2711:PRO:HG3	1.88	0.55
1:A:213:TYR:HD1	1:A:340:LYS:HD3	1.72	0.55
1:A:3380:ARG:NH1	1:A:3391:GLU:OE1	2.40	0.55
1:B:1079:LYS:HG2	1:B:1107:PRO:HB3	1.89	0.55
1:B:1568:LYS:NZ	1:B:1569:GLN:O	2.40	0.55
1:B:3380:ARG:NH1	1:B:3391:GLU:OE1	2.40	0.55
1:A:883:ALA:HB1	1:A:907:LEU:HD13	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2030:ASP:OD2	1:B:2031:LEU:N	2.40	0.54
1:B:2285:GLU:OE1	1:B:2285:GLU:N	2.26	0.54
1:B:3007:ASN:O	1:B:3011:THR:OG1	2.19	0.54
1:C:213:TYR:HD1	1:C:340:LYS:HD3	1.72	0.54
1:C:1265:ASP:OD1	1:C:1265:ASP:N	2.38	0.54
1:C:4687:TYR:OH	1:C:4699:GLY:O	2.20	0.54
1:A:33:LEU:HD12	1:A:53:SER:HB2	1.89	0.54
1:A:2030:ASP:OD2	1:A:2031:LEU:N	2.40	0.54
1:A:2821:TRP:HH2	1:A:2877:GLN:HB3	1.71	0.54
1:B:33:LEU:HD12	1:B:53:SER:HB2	1.89	0.54
1:B:2806:ARG:HG3	1:B:2810:LYS:NZ	2.22	0.54
1:B:3524:MET:O	1:B:3595:ARG:NH1	2.41	0.54
1:B:3943:ILE:HG13	1:B:4002:LYS:HE2	1.89	0.54
1:B:4016:LEU:O	1:B:4020:GLN:HG3	2.06	0.54
1:B:4731:ILE:HD12	1:B:4732:PHE:HD2	1.71	0.54
1:C:590:LEU:HD22	1:C:631:LEU:HD13	1.89	0.54
1:C:651:GLY:N	1:C:658:GLN:OE1	2.36	0.54
1:C:3499:ARG:O	1:C:3499:ARG:NE	2.36	0.54
1:A:299:LEU:HD13	1:A:378:LEU:HD11	1.89	0.54
1:A:385:ASP:OD1	1:A:385:ASP:N	2.38	0.54
1:A:1079:LYS:HG2	1:A:1107:PRO:HB3	1.89	0.54
1:A:2189:LYS:HA	1:A:2192:TYR:CD2	2.42	0.54
1:A:2668:SER:O	1:A:2669:GLU:HG3	2.07	0.54
1:B:426:ARG:NH1	1:B:509:GLU:OE1	2.34	0.54
1:B:883:ALA:HB1	1:B:907:LEU:HD13	1.88	0.54
1:B:1291:LEU:HD13	1:B:1595:LEU:HD11	1.89	0.54
1:B:2973:PHE:CD2	1:B:2995:ILE:HG12	2.42	0.54
1:C:801:LYS:HE2	1:C:801:LYS:HA	1.89	0.54
1:C:3380:ARG:NH1	1:C:3391:GLU:OE1	2.40	0.54
1:A:2973:PHE:CD2	1:A:2995:ILE:HG12	2.42	0.54
1:A:4096:ALA:O	1:A:4100:GLN:HG2	2.07	0.54
1:B:965:TYR:HD1	1:B:966:LYS:H	1.54	0.54
1:D:179:TYR:N	1:D:194:SER:O	2.38	0.54
1:D:515:TRP:O	1:D:519:VAL:HG13	2.08	0.54
1:D:1944:GLU:HB2	1:D:2123:LEU:HD11	1.89	0.54
1:D:2030:ASP:OD2	1:D:2031:LEU:N	2.41	0.54
1:D:2189:LYS:HA	1:D:2192:TYR:CD2	2.42	0.54
1:D:4867:GLU:OE1	1:D:4867:GLU:N	2.37	0.54
1:C:111:HIS:CE1	1:C:113:HIS:HB3	2.42	0.54
1:C:1975:SER:O	1:C:1979:LEU:HD22	2.08	0.54
1:A:296:ASP:OD2	1:A:296:ASP:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:463:GLU:OE2	1:A:463:GLU:N	2.29	0.54
1:A:2002:PRO:HD3	1:A:3638:MET:SD	2.48	0.54
1:A:4098:ASP:O	1:A:4101:LYS:NZ	2.33	0.54
1:B:3655:GLU:HA	1:B:3658:LYS:HZ3	1.71	0.54
1:B:4090:LYS:HE2	1:B:4112:LEU:HD22	1.89	0.54
1:B:4091:LYS:O	1:B:4095:LYS:HG2	2.07	0.54
1:B:4096:ALA:O	1:B:4100:GLN:HG2	2.07	0.54
1:D:33:LEU:HD12	1:D:53:SER:HB2	1.89	0.54
1:D:299:LEU:HD13	1:D:378:LEU:HD11	1.89	0.54
1:D:651:GLY:N	1:D:658:GLN:OE1	2.36	0.54
1:D:1291:LEU:HD13	1:D:1595:LEU:HD11	1.89	0.54
1:D:1999:ARG:NH2	1:D:3638:MET:O	2.40	0.54
1:D:2656:CYS:HA	1:D:2711:PRO:HG3	1.89	0.54
1:C:239:ASP:OD2	1:C:239:ASP:N	2.37	0.54
1:C:3373:VAL:HG11	1:C:3444:TYR:HB3	1.89	0.54
1:B:385:ASP:OD1	1:B:385:ASP:N	2.38	0.54
1:B:515:TRP:O	1:B:519:VAL:HG13	2.08	0.54
1:B:2002:PRO:HD3	1:B:3638:MET:SD	2.48	0.54
1:B:3373:VAL:HG11	1:B:3444:TYR:HB3	1.89	0.54
1:B:3620:TRP:CD1	1:B:3622:LYS:HB3	2.42	0.54
1:D:3007:ASN:O	1:D:3011:THR:OG1	2.19	0.54
1:D:4090:LYS:HE2	1:D:4112:LEU:HD22	1.89	0.54
1:C:4091:LYS:O	1:C:4095:LYS:HG2	2.07	0.54
1:A:358:THR:HG21	1:A:379:HIS:HB3	1.89	0.54
1:A:1753:LYS:HZ1	1:A:1759:ARG:H	1.55	0.54
2:E:18:ARG:HA	2:E:18:ARG:HH11	1.72	0.54
1:B:3320:LEU:HD11	1:B:3358:PHE:CE1	2.43	0.54
1:D:2668:SER:O	1:D:2669:GLU:HG3	2.07	0.54
1:D:3373:VAL:HG11	1:D:3444:TYR:HB3	1.89	0.54
1:D:4731:ILE:HD12	1:D:4732:PHE:HD2	1.71	0.54
1:C:3506:GLN:N	1:C:3506:GLN:OE1	2.38	0.54
1:C:4131:ARG:HG2	1:C:4132:PHE:CD2	2.43	0.54
1:A:801:LYS:HE2	1:A:801:LYS:HA	1.89	0.54
1:B:111:HIS:CE1	1:B:113:HIS:HB3	2.42	0.54
1:B:565:TYR:O	1:B:569:ILE:HG23	2.08	0.54
1:D:1537:ASN:OD1	1:D:1537:ASN:N	2.40	0.54
1:D:3524:MET:O	1:D:3595:ARG:NH1	2.41	0.54
1:C:294:THR:O	1:C:298:GLY:N	2.41	0.54
1:C:3300:ALA:HB3	1:C:3301:PRO:HD3	1.90	0.54
1:C:3515:LYS:HD3	1:C:3606:LEU:HD11	1.90	0.54
1:C:3943:ILE:HG13	1:C:4002:LYS:HE2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4725:LEU:HA	1:C:4737:ILE:HG21	1.90	0.54
1:A:515:TRP:O	1:A:519:VAL:HG13	2.08	0.54
1:A:3320:LEU:HD11	1:A:3358:PHE:CE1	2.43	0.54
1:A:3620:TRP:CD1	1:A:3622:LYS:HB3	2.42	0.54
1:B:954:LYS:HE3	1:B:966:LYS:HE3	1.90	0.54
1:B:1292:SER:OG	1:B:1596:GLU:O	2.26	0.54
1:D:294:THR:O	1:D:298:GLY:N	2.41	0.54
1:D:2806:ARG:HG3	1:D:2810:LYS:NZ	2.22	0.54
1:D:3380:ARG:NH1	1:D:3391:GLU:OE1	2.40	0.54
1:C:515:TRP:O	1:C:519:VAL:HG13	2.08	0.54
1:C:2005:GLN:HA	1:C:2008:MET:HE2	1.89	0.54
1:C:3524:MET:O	1:C:3595:ARG:NH1	2.41	0.54
1:A:3524:MET:O	1:A:3595:ARG:NH1	2.41	0.54
1:A:3943:ILE:HG13	1:A:4002:LYS:HE2	1.89	0.54
2:E:37:ASP:OD2	2:E:38:SER:N	2.40	0.54
1:B:3300:ALA:HB3	1:B:3301:PRO:HD3	1.90	0.54
1:D:635:THR:OG1	1:D:1693:GLN:OE1	2.20	0.54
1:D:2002:PRO:HD3	1:D:3638:MET:SD	2.48	0.54
1:D:2292:GLU:OE1	1:D:2292:GLU:N	2.41	0.54
1:D:3515:LYS:HD3	1:D:3606:LEU:HD11	1.90	0.54
1:D:3620:TRP:CD1	1:D:3622:LYS:HB3	2.42	0.54
1:D:3943:ILE:HG13	1:D:4002:LYS:HE2	1.89	0.54
1:D:4096:ALA:O	1:D:4100:GLN:HG2	2.07	0.54
1:C:999:ASP:OD1	1:C:1000:ARG:N	2.41	0.54
1:C:2806:ARG:HG3	1:C:2810:LYS:NZ	2.22	0.54
1:C:3621:HIS:HB3	1:C:3623:LEU:HD23	1.90	0.54
1:C:3729:MET:HB3	1:C:3770:LEU:HD11	1.91	0.54
1:C:4640:GLU:HB3	1:C:4641:PRO:HD3	1.90	0.54
1:A:880:GLU:OE1	1:A:969:PRO:HA	2.07	0.53
1:A:3169:LEU:HD12	1:A:3194:LEU:HD11	1.90	0.53
1:A:4090:LYS:HE2	1:A:4112:LEU:HD22	1.89	0.53
1:B:877:ASN:HA	1:B:880:GLU:OE1	2.09	0.53
1:B:999:ASP:OD1	1:B:1000:ARG:N	2.41	0.53
1:B:2189:LYS:HA	1:B:2192:TYR:CD2	2.42	0.53
1:B:4725:LEU:HA	1:B:4737:ILE:HG21	1.90	0.53
1:D:877:ASN:HA	1:D:880:GLU:OE1	2.09	0.53
1:D:1079:LYS:HG2	1:D:1107:PRO:HB3	1.89	0.53
1:D:3768:SER:HA	1:D:3771:HIS:CE1	2.43	0.53
1:C:3108:GLU:HB3	1:C:3114:LYS:HZ2	1.72	0.53
1:A:954:LYS:HE3	1:A:966:LYS:HE3	1.90	0.53
1:A:2806:ARG:HG3	1:A:2810:LYS:NZ	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3621:HIS:HB3	1:A:3623:LEU:HD23	1.90	0.53
1:B:880:GLU:OE1	1:B:969:PRO:HA	2.07	0.53
1:B:3515:LYS:HD3	1:B:3606:LEU:HD11	1.90	0.53
1:B:4098:ASP:O	1:B:4101:LYS:NZ	2.33	0.53
1:D:2973:PHE:CD2	1:D:2995:ILE:HG12	2.42	0.53
1:D:4091:LYS:O	1:D:4095:LYS:HG2	2.07	0.53
1:D:4131:ARG:HG2	1:D:4132:PHE:CD2	2.43	0.53
1:C:1115:LEU:HD13	1:C:1123:VAL:HG11	1.91	0.53
1:C:2192:TYR:HE1	1:C:2238:TYR:CE1	2.27	0.53
1:C:3356:SER:HG	1:C:3357:HIS:HD1	1.52	0.53
1:C:3768:SER:HA	1:C:3771:HIS:CE1	2.43	0.53
1:C:4090:LYS:HE2	1:C:4112:LEU:HD22	1.89	0.53
1:B:1999:ARG:NH2	1:B:3638:MET:O	2.40	0.53
1:B:2192:TYR:HE1	1:B:2238:TYR:CE1	2.27	0.53
1:B:3087:ILE:HD12	1:B:3088:VAL:N	2.24	0.53
1:D:426:ARG:NH1	1:D:509:GLU:OE1	2.34	0.53
1:D:565:TYR:O	1:D:569:ILE:HG23	2.08	0.53
1:D:999:ASP:OD1	1:D:1000:ARG:N	2.41	0.53
1:D:3320:LEU:HD11	1:D:3358:PHE:CE1	2.43	0.53
1:C:234:SER:HG	1:C:238:SER:HG	1.55	0.53
1:C:2030:ASP:OD2	1:C:2031:LEU:N	2.40	0.53
1:A:73:LEU:O	1:A:106:ALA:N	2.28	0.53
1:A:1944:GLU:HB2	1:A:2123:LEU:HD11	1.89	0.53
1:A:1970:GLN:HG2	1:A:3642:TYR:HA	1.90	0.53
1:A:2192:TYR:HE1	1:A:2238:TYR:CE1	2.27	0.53
1:A:4131:ARG:HG2	1:A:4132:PHE:CD2	2.43	0.53
1:B:651:GLY:N	1:B:658:GLN:OE1	2.36	0.53
1:B:1944:GLU:HB2	1:B:2123:LEU:HD11	1.89	0.53
1:D:1975:SER:O	1:D:1979:LEU:HD22	2.08	0.53
1:D:3169:LEU:HD12	1:D:3194:LEU:HD11	1.90	0.53
1:D:3368:ARG:O	1:D:3372:VAL:HG23	2.09	0.53
1:C:1079:LYS:HG2	1:C:1107:PRO:HB3	1.89	0.53
1:C:2189:LYS:HA	1:C:2192:TYR:CD2	2.42	0.53
1:A:877:ASN:HA	1:A:880:GLU:OE1	2.08	0.53
1:A:1975:SER:O	1:A:1979:LEU:HD22	2.08	0.53
1:A:2358:ILE:HB	1:B:195:PHE:CD1	2.44	0.53
1:A:3416:VAL:HG11	1:A:3517:MET:HG2	1.90	0.53
2:H:105:LYS:NZ	2:H:106:LEU:O	2.42	0.53
1:B:801:LYS:HE2	1:B:801:LYS:HA	1.89	0.53
1:B:1263:THR:OG1	1:B:1265:ASP:OD1	2.25	0.53
1:B:3506:GLN:OE1	1:B:3506:GLN:N	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4131:ARG:HG2	1:B:4132:PHE:CD2	2.43	0.53
1:D:801:LYS:HA	1:D:801:LYS:HE2	1.89	0.53
1:D:954:LYS:HE3	1:D:966:LYS:HE3	1.90	0.53
1:D:1115:LEU:HD13	1:D:1123:VAL:HG11	1.91	0.53
1:D:3087:ILE:HD12	1:D:3088:VAL:N	2.24	0.53
1:D:3108:GLU:HB3	1:D:3114:LYS:HZ2	1.72	0.53
1:C:1999:ARG:NH2	1:C:3638:MET:O	2.40	0.53
1:C:3320:LEU:HD11	1:C:3358:PHE:CE1	2.43	0.53
1:A:1106:ARG:NH2	1:A:1183:GLU:OE2	2.42	0.53
1:B:299:LEU:HD13	1:B:378:LEU:HD11	1.89	0.53
1:B:1106:ARG:NH2	1:B:1183:GLU:OE2	2.42	0.53
1:D:358:THR:HG21	1:D:379:HIS:HB3	1.89	0.53
1:D:1820:ARG:NH1	1:D:1820:ARG:HB2	2.24	0.53
1:D:1970:GLN:HG2	1:D:3642:TYR:HA	1.90	0.53
1:D:3240:CYS:HB2	1:D:3242:ASP:OD1	2.09	0.53
1:D:4640:GLU:HB3	1:D:4641:PRO:HD3	1.90	0.53
1:C:299:LEU:HD13	1:C:378:LEU:HD11	1.89	0.53
1:C:358:THR:HG21	1:C:379:HIS:HB3	1.89	0.53
1:C:1944:GLU:HB2	1:C:2123:LEU:HD11	1.89	0.53
1:A:565:TYR:O	1:A:569:ILE:HG23	2.08	0.53
1:A:950:LEU:HD22	1:A:970:LEU:HD11	1.91	0.53
1:A:3729:MET:HB3	1:A:3770:LEU:HD11	1.91	0.53
1:B:294:THR:O	1:B:298:GLY:N	2.41	0.53
1:B:1115:LEU:HD13	1:B:1123:VAL:HG11	1.91	0.53
1:B:2656:CYS:HA	1:B:2711:PRO:HG3	1.89	0.53
1:C:426:ARG:NE	1:C:427:GLY:O	2.42	0.53
1:A:164:ARG:HH11	1:A:164:ARG:HG3	1.74	0.53
1:A:213:TYR:CD1	1:A:340:LYS:HD3	2.44	0.53
1:A:3335:MET:SD	1:A:3403:ARG:NH1	2.82	0.53
1:A:4860:ARG:NH1	1:D:4630:TYR:OH	2.38	0.53
1:D:213:TYR:CD1	1:D:340:LYS:HD3	2.44	0.53
1:D:2299:VAL:HG11	1:D:2356:LEU:HB3	1.91	0.53
1:C:13:PHE:CE1	1:C:164:ARG:HG2	2.44	0.53
1:A:999:ASP:OD1	1:A:1000:ARG:N	2.41	0.53
1:A:3768:SER:HA	1:A:3771:HIS:CE1	2.43	0.53
2:G:35:LYS:HZ1	2:G:38:SER:HB3	1.74	0.53
1:B:463:GLU:OE2	1:B:463:GLU:N	2.29	0.53
1:B:1172:ASP:OD1	1:B:1172:ASP:N	2.35	0.53
1:B:3416:VAL:HG11	1:B:3517:MET:HG2	1.90	0.53
1:B:3768:SER:HA	1:B:3771:HIS:CE1	2.43	0.53
1:D:1106:ARG:NH2	1:D:1183:GLU:OE2	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3729:MET:HB3	1:D:3770:LEU:HD11	1.91	0.53
1:D:4687:TYR:OH	1:D:4699:GLY:O	2.20	0.53
1:C:213:TYR:CD1	1:C:340:LYS:HD3	2.44	0.53
1:C:877:ASN:HA	1:C:880:GLU:OE1	2.08	0.53
1:C:1820:ARG:HB2	1:C:1820:ARG:NH1	2.24	0.53
1:C:2002:PRO:HD3	1:C:3638:MET:SD	2.48	0.53
1:A:901:LYS:HG3	1:A:903:LEU:HG	1.91	0.53
1:A:3300:ALA:HB3	1:A:3301:PRO:HD3	1.90	0.53
1:A:3368:ARG:O	1:A:3372:VAL:HG23	2.09	0.53
1:A:3515:LYS:HD3	1:A:3606:LEU:HD11	1.90	0.53
1:A:4725:LEU:HA	1:A:4737:ILE:HG21	1.90	0.53
1:B:13:PHE:CE1	1:B:164:ARG:HG2	2.44	0.53
1:B:164:ARG:HH11	1:B:164:ARG:HG3	1.74	0.53
1:B:426:ARG:NE	1:B:427:GLY:O	2.42	0.53
1:B:925:SER:O	1:B:928:THR:OG1	2.20	0.53
1:B:3621:HIS:HB3	1:B:3623:LEU:HD23	1.90	0.53
1:D:13:PHE:CE1	1:D:164:ARG:HG2	2.44	0.53
1:C:2821:TRP:HD1	1:C:2939:ARG:HA	1.74	0.53
1:C:3416:VAL:HG11	1:C:3517:MET:HG2	1.90	0.53
1:C:3966:THR:O	1:C:3970:GLN:HB2	2.09	0.53
1:C:4989:MET:O	1:C:4993:MET:HG3	2.09	0.53
1:A:195:PHE:CD1	1:D:2358:ILE:HB	2.44	0.52
1:A:426:ARG:NE	1:A:427:GLY:O	2.42	0.52
1:A:647:ASN:OD1	1:A:822:ARG:N	2.39	0.52
1:A:870:ILE:HD12	1:A:1049:TYR:CG	2.44	0.52
1:A:1141:ARG:HB2	1:D:3479:ALA:HA	1.90	0.52
1:A:3087:ILE:HD12	1:A:3088:VAL:N	2.24	0.52
1:A:3754:GLU:HB2	1:A:4718:LYS:HG3	1.91	0.52
1:A:4640:GLU:HB3	1:A:4641:PRO:HD3	1.90	0.52
1:B:73:LEU:O	1:B:106:ALA:N	2.28	0.52
1:B:213:TYR:CD1	1:B:340:LYS:HD3	2.44	0.52
1:D:950:LEU:HD22	1:D:970:LEU:HD11	1.91	0.52
1:D:3300:ALA:HB3	1:D:3301:PRO:HD3	1.90	0.52
1:C:565:TYR:O	1:C:569:ILE:HG23	2.08	0.52
1:C:954:LYS:HE3	1:C:966:LYS:HE3	1.90	0.52
1:C:1970:GLN:HG2	1:C:3642:TYR:HA	1.89	0.52
1:C:3187:ARG:HG3	1:C:3188:PRO:HD3	1.92	0.52
1:C:3240:CYS:HB2	1:C:3242:ASP:OD1	2.09	0.52
1:C:3655:GLU:HA	1:C:3658:LYS:HZ3	1.74	0.52
1:C:3754:GLU:HB2	1:C:4718:LYS:HG3	1.91	0.52
1:C:4705:VAL:HG22	1:C:4711:PHE:HB2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:426:ARG:NH1	1:A:509:GLU:OE1	2.34	0.52
1:A:1115:LEU:HD13	1:A:1123:VAL:HG11	1.91	0.52
1:B:870:ILE:HD12	1:B:1049:TYR:CG	2.44	0.52
1:B:1975:SER:O	1:B:1979:LEU:HD22	2.08	0.52
1:B:3187:ARG:HG3	1:B:3188:PRO:HD3	1.92	0.52
1:B:3356:SER:HG	1:B:3357:HIS:HD1	1.50	0.52
1:D:164:ARG:HH11	1:D:164:ARG:HG3	1.74	0.52
1:D:879:HIS:NE2	1:D:918:ARG:HA	2.25	0.52
1:D:3335:MET:SD	1:D:3403:ARG:NH1	2.82	0.52
1:D:4725:LEU:HA	1:D:4737:ILE:HG21	1.90	0.52
1:D:4989:MET:O	1:D:4993:MET:HG3	2.09	0.52
1:C:1106:ARG:NH2	1:C:1183:GLU:OE2	2.42	0.52
1:C:3087:ILE:HD12	1:C:3088:VAL:N	2.24	0.52
1:C:4156:HIS:HA	1:C:4161:ARG:HH21	1.74	0.52
1:A:13:PHE:CE1	1:A:164:ARG:HG2	2.44	0.52
1:A:3373:VAL:HG11	1:A:3444:TYR:HB3	1.89	0.52
1:B:1970:GLN:HG2	1:B:3642:TYR:HA	1.89	0.52
1:B:3240:CYS:HB2	1:B:3242:ASP:OD1	2.09	0.52
1:B:4640:GLU:HB3	1:B:4641:PRO:HD3	1.90	0.52
1:B:4705:VAL:HG22	1:B:4711:PHE:HB2	1.92	0.52
1:D:901:LYS:HG3	1:D:903:LEU:HG	1.91	0.52
1:D:1568:LYS:NZ	1:D:1569:GLN:O	2.40	0.52
1:D:2821:TRP:HD1	1:D:2939:ARG:HA	1.74	0.52
1:D:3533:ILE:HG13	1:D:3596:VAL:HG13	1.92	0.52
1:C:877:ASN:HD21	1:C:970:LEU:HB2	1.74	0.52
1:C:1449:TRP:HB2	1:C:1553:PHE:HB2	1.91	0.52
1:A:870:ILE:HD12	1:A:1049:TYR:CD2	2.45	0.52
1:A:879:HIS:NE2	1:A:918:ARG:HA	2.25	0.52
1:A:3320:LEU:O	1:A:3324:VAL:HG13	2.10	0.52
1:B:3169:LEU:HD12	1:B:3194:LEU:HD11	1.90	0.52
1:B:3335:MET:SD	1:B:3403:ARG:NH1	2.82	0.52
1:B:3754:GLU:HB2	1:B:4718:LYS:HG3	1.91	0.52
1:B:3966:THR:O	1:B:3970:GLN:HB2	2.09	0.52
1:B:4717:ASP:OD2	1:B:4723:LYS:NZ	2.42	0.52
1:D:3187:ARG:HG3	1:D:3188:PRO:HD3	1.92	0.52
1:A:294:THR:O	1:A:298:GLY:N	2.41	0.52
1:A:1172:ASP:OD1	1:A:1172:ASP:N	2.35	0.52
1:A:2299:VAL:HG11	1:A:2356:LEU:HB3	1.91	0.52
1:A:3240:CYS:HB2	1:A:3242:ASP:OD1	2.09	0.52
1:B:214:VAL:HG22	1:B:341:TYR:CD2	2.45	0.52
1:D:214:VAL:HG22	1:D:341:TYR:CD2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:426:ARG:NE	1:D:427:GLY:O	2.42	0.52
1:D:3416:VAL:HG11	1:D:3517:MET:HG2	1.90	0.52
1:C:879:HIS:NE2	1:C:918:ARG:HA	2.25	0.52
1:C:1753:LYS:HD3	1:C:1753:LYS:N	2.24	0.52
1:C:3368:ARG:O	1:C:3372:VAL:HG23	2.09	0.52
1:A:627:PRO:HD3	2:E:89:GLY:HA2	1.91	0.52
1:A:1568:LYS:NZ	1:A:1569:GLN:O	2.40	0.52
1:A:3533:ILE:HG13	1:A:3596:VAL:HG13	1.92	0.52
1:A:3966:THR:O	1:A:3970:GLN:HB2	2.09	0.52
1:B:950:LEU:HD22	1:B:970:LEU:HD11	1.91	0.52
1:D:647:ASN:OD1	1:D:822:ARG:N	2.39	0.52
1:D:870:ILE:HD12	1:D:1049:TYR:CG	2.44	0.52
1:D:2192:TYR:HE1	1:D:2238:TYR:CE1	2.27	0.52
1:C:296:ASP:OD2	1:C:296:ASP:N	2.40	0.52
1:C:618:GLN:O	1:C:622:THR:HG23	2.10	0.52
1:C:3169:LEU:HD12	1:C:3194:LEU:HD11	1.90	0.52
1:C:3320:LEU:O	1:C:3324:VAL:HG13	2.10	0.52
1:A:2587:TYR:CZ	1:A:2591:ARG:HD2	2.45	0.52
1:A:3187:ARG:HG3	1:A:3188:PRO:HD3	1.92	0.52
2:H:25:HIS:CD2	2:H:104:LEU:HD11	2.45	0.52
2:H:89:GLY:O	2:H:90:ILE:HD13	2.09	0.52
1:B:884:LEU:O	1:B:888:GLU:HG2	2.10	0.52
1:B:901:LYS:HG3	1:B:903:LEU:HG	1.91	0.52
1:B:3449:HIS:CE1	1:B:3453:ARG:HD2	2.45	0.52
1:D:870:ILE:HD12	1:D:1049:TYR:CD2	2.45	0.52
1:D:4705:VAL:HG22	1:D:4711:PHE:HB2	1.92	0.52
1:C:870:ILE:HD12	1:C:1049:TYR:CG	2.44	0.52
1:C:3007:ASN:O	1:C:3011:THR:OG1	2.19	0.52
1:A:214:VAL:HG22	1:A:341:TYR:CD2	2.45	0.52
1:A:1537:ASN:OD1	1:A:1537:ASN:N	2.40	0.52
1:A:4705:VAL:HG22	1:A:4711:PHE:HB2	1.92	0.52
2:G:89:GLY:O	2:G:90:ILE:HD13	2.09	0.52
1:B:870:ILE:HD12	1:B:1049:TYR:CD2	2.45	0.52
1:B:879:HIS:NE2	1:B:918:ARG:HA	2.25	0.52
1:B:2881:ASN:HA	1:B:2884:ASN:ND2	2.25	0.52
1:D:618:GLN:O	1:D:622:THR:HG23	2.10	0.52
1:D:884:LEU:O	1:D:888:GLU:HG2	2.10	0.52
1:D:3621:HIS:HB3	1:D:3623:LEU:HD23	1.90	0.52
1:D:3872:GLU:OE1	1:D:3872:GLU:N	2.42	0.52
1:C:164:ARG:HG3	1:C:164:ARG:HH11	1.74	0.52
1:C:214:VAL:HG22	1:C:341:TYR:CD2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1101:ARG:HG2	1:C:1125:ASN:HB2	1.91	0.52
1:C:3335:MET:SD	1:C:3403:ARG:NH1	2.82	0.52
1:C:4068:LEU:O	1:C:4072:VAL:HG13	2.10	0.52
1:A:884:LEU:O	1:A:888:GLU:HG2	2.10	0.52
1:A:1101:ARG:HG2	1:A:1125:ASN:HB2	1.92	0.52
1:A:1820:ARG:NH1	1:A:1820:ARG:HB2	2.24	0.52
1:A:3033:ASN:HA	1:A:3036:LYS:HD2	1.92	0.52
1:A:3872:GLU:N	1:A:3872:GLU:OE1	2.42	0.52
1:B:1820:ARG:NH1	1:B:1820:ARG:HB2	2.24	0.52
1:B:3872:GLU:OE1	1:B:3872:GLU:N	2.42	0.52
1:D:3499:ARG:O	1:D:3499:ARG:NE	2.36	0.52
1:D:4068:LEU:O	1:D:4072:VAL:HG13	2.10	0.52
1:C:2881:ASN:HA	1:C:2884:ASN:ND2	2.25	0.52
1:C:3872:GLU:OE1	1:C:3872:GLU:N	2.42	0.52
1:A:877:ASN:HD21	1:A:970:LEU:HB2	1.74	0.52
1:A:3449:HIS:CE1	1:A:3453:ARG:HD2	2.45	0.52
1:B:2587:TYR:CZ	1:B:2591:ARG:HD2	2.45	0.52
1:B:2821:TRP:HD1	1:B:2939:ARG:HA	1.74	0.52
1:B:2992:GLU:HA	1:B:2995:ILE:HD12	1.92	0.52
1:B:4989:MET:O	1:B:4993:MET:HG3	2.09	0.52
1:D:1101:ARG:HG2	1:D:1125:ASN:HB2	1.91	0.52
1:D:3320:LEU:O	1:D:3324:VAL:HG13	2.10	0.52
1:C:1172:ASP:OD1	1:C:1172:ASP:N	2.35	0.52
1:C:2178:MET:HB3	1:C:2228:MET:HE1	1.92	0.52
1:C:3449:HIS:CE1	1:C:3453:ARG:HD2	2.45	0.52
1:A:618:GLN:O	1:A:622:THR:HG23	2.10	0.51
1:A:2005:GLN:HA	1:A:2008:MET:CE	2.40	0.51
1:B:1101:ARG:HG2	1:B:1125:ASN:HB2	1.92	0.51
1:B:3320:LEU:O	1:B:3324:VAL:HG13	2.10	0.51
1:B:3368:ARG:O	1:B:3372:VAL:HG23	2.09	0.51
1:B:4687:TYR:OH	1:B:4699:GLY:O	2.20	0.51
1:D:3145:GLN:HG2	1:D:3149:GLN:NE2	2.25	0.51
1:C:950:LEU:HD22	1:C:970:LEU:HD11	1.91	0.51
1:C:4548:ARG:HH21	1:C:4549:VAL:HG12	1.76	0.51
1:A:2881:ASN:HA	1:A:2884:ASN:ND2	2.25	0.51
1:A:2991:HIS:O	1:A:2995:ILE:HG13	2.11	0.51
2:F:37:ASP:OD1	2:F:38:SER:N	2.42	0.51
1:B:877:ASN:HD21	1:B:970:LEU:HB2	1.74	0.51
1:B:4156:HIS:HA	1:B:4161:ARG:HH21	1.74	0.51
1:B:4548:ARG:HH21	1:B:4549:VAL:HG12	1.75	0.51
1:D:877:ASN:HD21	1:D:970:LEU:HB2	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:647:ASN:OD1	1:C:822:ARG:N	2.39	0.51
1:C:2299:VAL:HG11	1:C:2356:LEU:HB3	1.91	0.51
1:C:4717:ASP:OD2	1:C:4723:LYS:NZ	2.43	0.51
1:A:2821:TRP:HD1	1:A:2939:ARG:HA	1.74	0.51
1:A:3477:LYS:CG	1:B:1141:ARG:NH1	2.73	0.51
1:B:870:ILE:HG13	1:B:1051:TYR:CZ	2.46	0.51
1:B:3598:GLU:O	1:B:3602:VAL:HG23	2.11	0.51
1:D:316:PHE:CD2	1:D:346:CYS:HB3	2.46	0.51
1:D:2587:TYR:CZ	1:D:2591:ARG:HD2	2.45	0.51
1:D:2992:GLU:HA	1:D:2995:ILE:HD12	1.93	0.51
1:D:3604:TYR:O	1:D:3607:GLU:HG3	2.11	0.51
1:D:3754:GLU:HB2	1:D:4718:LYS:HG3	1.91	0.51
1:C:870:ILE:HG13	1:C:1051:TYR:CZ	2.46	0.51
1:C:925:SER:O	1:C:928:THR:OG1	2.20	0.51
1:C:1568:LYS:NZ	1:C:1569:GLN:O	2.40	0.51
1:C:2005:GLN:HA	1:C:2008:MET:CE	2.40	0.51
1:C:3145:GLN:HG2	1:C:3149:GLN:NE2	2.25	0.51
1:C:3533:ILE:HG13	1:C:3596:VAL:HG13	1.92	0.51
1:C:4244:GLU:HG3	1:C:4668:LEU:HD22	1.92	0.51
1:A:1449:TRP:HB2	1:A:1553:PHE:HB2	1.91	0.51
1:A:2992:GLU:HA	1:A:2995:ILE:HD12	1.93	0.51
1:A:3007:ASN:O	1:A:3011:THR:OG1	2.19	0.51
1:A:3604:TYR:O	1:A:3607:GLU:HG3	2.11	0.51
1:A:4243:PHE:CE2	1:A:4247:ILE:HD11	2.46	0.51
1:B:3729:MET:HB3	1:B:3770:LEU:HD11	1.91	0.51
1:B:4243:PHE:CE2	1:B:4247:ILE:HD11	2.46	0.51
1:D:3391:GLU:OE2	1:D:3450:ASN:ND2	2.43	0.51
1:D:3472:ALA:O	1:D:3476:SER:OG	2.25	0.51
1:D:3966:THR:O	1:D:3970:GLN:HB2	2.09	0.51
1:D:4156:HIS:HA	1:D:4161:ARG:HH21	1.75	0.51
1:C:316:PHE:CD2	1:C:346:CYS:HB3	2.46	0.51
1:C:870:ILE:HD12	1:C:1049:TYR:CD2	2.45	0.51
1:C:901:LYS:HG3	1:C:903:LEU:HG	1.91	0.51
1:C:2208:MET:O	1:C:2212:VAL:HG13	2.11	0.51
1:C:2292:GLU:OE1	1:C:2292:GLU:N	2.41	0.51
1:C:3455:GLU:OE1	1:C:3503:TYR:OH	2.29	0.51
1:A:102:LEU:HD11	1:D:3984:ARG:HH22	1.75	0.51
1:A:3145:GLN:HG2	1:A:3149:GLN:NE2	2.25	0.51
1:A:3455:GLU:OE1	1:A:3503:TYR:OH	2.29	0.51
1:D:1228:ILE:HG12	1:C:3571:TRP:CE2	2.46	0.51
1:D:2881:ASN:HA	1:D:2884:ASN:ND2	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3449:HIS:CE1	1:D:3453:ARG:HD2	2.45	0.51
1:D:4243:PHE:CE2	1:D:4247:ILE:HD11	2.46	0.51
1:C:2587:TYR:CZ	1:C:2591:ARG:HD2	2.45	0.51
1:C:3590:GLU:O	1:C:3593:VAL:HG22	2.11	0.51
1:C:4217:PHE:O	1:C:4221:VAL:HG22	2.11	0.51
1:B:316:PHE:CE2	1:B:346:CYS:HB3	2.46	0.51
1:B:3936:TYR:CA	1:C:76:ARG:HH12	2.22	0.51
1:D:3875:MET:HB2	1:D:3953:LYS:HZ3	1.75	0.51
1:C:1773:PRO:HA	1:C:2153:MET:HE2	1.92	0.51
1:C:2876:GLU:O	1:C:2880:GLU:HG3	2.11	0.51
1:C:2992:GLU:HA	1:C:2995:ILE:HD12	1.93	0.51
1:C:3033:ASN:HA	1:C:3036:LYS:HD2	1.92	0.51
1:C:4243:PHE:CE2	1:C:4247:ILE:HD11	2.46	0.51
1:A:870:ILE:HG13	1:A:1051:TYR:CZ	2.46	0.51
1:A:2208:MET:O	1:A:2212:VAL:HG13	2.11	0.51
1:A:3598:GLU:O	1:A:3602:VAL:HG23	2.11	0.51
1:A:4576:ILE:HG21	1:A:4643:LEU:HB2	1.93	0.51
1:A:4717:ASP:OD2	1:A:4723:LYS:NZ	2.42	0.51
2:F:25:HIS:CD2	2:F:104:LEU:HD11	2.46	0.51
1:B:2876:GLU:O	1:B:2880:GLU:HG3	2.11	0.51
1:B:3033:ASN:HA	1:B:3036:LYS:HD2	1.92	0.51
1:B:3533:ILE:HG13	1:B:3596:VAL:HG13	1.92	0.51
1:D:870:ILE:HG13	1:D:1051:TYR:CZ	2.45	0.51
1:D:2991:HIS:O	1:D:2995:ILE:HG13	2.11	0.51
1:D:3455:GLU:OE1	1:D:3503:TYR:OH	2.29	0.51
1:D:4576:ILE:HG21	1:D:4643:LEU:HB2	1.93	0.51
1:C:3896:ASN:OD1	1:C:3899:PHE:HB2	2.11	0.51
1:C:4576:ILE:HG21	1:C:4643:LEU:HB2	1.93	0.51
1:A:316:PHE:CE2	1:A:346:CYS:HB3	2.46	0.51
1:A:689:THR:HG23	1:A:776:LEU:O	2.11	0.51
1:A:728:ARG:NH2	1:A:1489:CYS:SG	2.84	0.51
1:A:1753:LYS:HD3	1:A:1753:LYS:N	2.24	0.51
1:A:4156:HIS:HA	1:A:4161:ARG:HH21	1.74	0.51
1:A:4989:MET:O	1:A:4993:MET:HG3	2.09	0.51
1:B:15:ARG:HG3	1:B:98:HIS:HB3	1.93	0.51
1:B:3129:LEU:O	1:B:3133:THR:HG22	2.10	0.51
1:B:3823:LYS:HE2	1:B:3823:LYS:HA	1.93	0.51
1:B:4745:LEU:H	1:B:4745:LEU:HD12	1.76	0.51
1:D:385:ASP:OD1	1:D:385:ASP:N	2.38	0.51
1:D:2005:GLN:HA	1:D:2008:MET:CE	2.40	0.51
1:D:2208:MET:O	1:D:2212:VAL:HG13	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2707:ALA:HB1	1:D:3009:TYR:HD1	1.76	0.51
1:D:3033:ASN:HA	1:D:3036:LYS:HD2	1.92	0.51
1:D:4116:GLU:OE2	1:D:4131:ARG:NH1	2.44	0.51
1:C:3812:VAL:O	1:C:3816:MET:HG3	2.11	0.51
1:A:3129:LEU:O	1:A:3133:THR:HG22	2.10	0.51
1:A:4548:ARG:HH21	1:A:4549:VAL:HG12	1.76	0.51
1:B:316:PHE:CD2	1:B:346:CYS:HB3	2.46	0.51
1:B:421:PHE:HE1	1:B:436:LEU:HD11	1.76	0.51
1:B:2208:MET:O	1:B:2212:VAL:HG13	2.11	0.51
1:B:2299:VAL:HG11	1:B:2356:LEU:HB3	1.91	0.51
1:B:2716:ASP:N	1:B:2716:ASP:OD1	2.44	0.51
1:B:3107:VAL:HG12	1:B:3175:LEU:CD2	2.41	0.51
1:D:316:PHE:CE2	1:D:346:CYS:HB3	2.46	0.51
1:D:3129:LEU:O	1:D:3133:THR:HG22	2.10	0.51
1:D:3354:LEU:HD23	1:D:3415:TYR:CE1	2.46	0.51
1:D:4548:ARG:HH21	1:D:4549:VAL:HG12	1.76	0.51
1:C:3620:TRP:HE3	1:C:3620:TRP:H	1.58	0.51
1:C:3823:LYS:HE2	1:C:3823:LYS:HA	1.93	0.51
1:C:4745:LEU:HD12	1:C:4745:LEU:H	1.76	0.51
1:A:1786:LEU:HG	2:E:82:TYR:HD1	1.76	0.51
1:B:37:LEU:HD12	1:B:191:VAL:HG21	1.93	0.51
1:B:618:GLN:O	1:B:622:THR:HG23	2.10	0.51
1:B:2224:ARG:NH1	1:B:2224:ARG:HB2	2.26	0.51
1:B:2707:ALA:HB1	1:B:3009:TYR:HD1	1.76	0.51
1:B:3354:LEU:HD23	1:B:3415:TYR:CE1	2.46	0.51
1:B:3604:TYR:O	1:B:3607:GLU:HG3	2.11	0.51
1:B:3880:PHE:HA	1:B:3883:ASP:OD2	2.11	0.51
1:D:886:ARG:HB3	1:D:891:TRP:HB2	1.93	0.51
1:D:1449:TRP:HB2	1:D:1553:PHE:HB2	1.91	0.51
1:D:2573:GLU:OE2	1:D:2615:ARG:NE	2.44	0.51
1:D:3107:VAL:HG12	1:D:3175:LEU:CD2	2.41	0.51
1:D:4745:LEU:H	1:D:4745:LEU:HD12	1.76	0.51
1:C:37:LEU:HD12	1:C:191:VAL:HG21	1.93	0.51
1:C:1742:THR:HA	1:C:1745:ILE:HD12	1.93	0.51
1:C:3129:LEU:O	1:C:3133:THR:HG22	2.10	0.51
1:C:3604:TYR:O	1:C:3607:GLU:HG3	2.11	0.51
1:A:316:PHE:CD2	1:A:346:CYS:HB3	2.46	0.50
1:A:421:PHE:HE1	1:A:436:LEU:HD11	1.76	0.50
1:A:3590:GLU:O	1:A:3593:VAL:HG22	2.11	0.50
1:A:3880:PHE:HA	1:A:3883:ASP:OD2	2.11	0.50
2:F:11:ASP:OD2	2:F:12:GLY:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:35:LYS:NZ	2:F:38:SER:HB3	2.25	0.50
1:B:3455:GLU:OE1	1:B:3503:TYR:OH	2.29	0.50
1:B:3590:GLU:O	1:B:3593:VAL:HG22	2.11	0.50
1:B:4244:GLU:HG3	1:B:4668:LEU:HD22	1.92	0.50
1:D:3620:TRP:HE3	1:D:3620:TRP:H	1.58	0.50
1:C:181:HIS:HB3	1:C:194:SER:HB3	1.94	0.50
1:C:316:PHE:CE2	1:C:346:CYS:HB3	2.46	0.50
1:C:861:ILE:HA	1:C:930:LYS:HD2	1.93	0.50
1:C:884:LEU:O	1:C:888:GLU:HG2	2.10	0.50
1:C:886:ARG:HB3	1:C:891:TRP:HB2	1.93	0.50
1:C:2816:MET:HA	1:C:2878:LEU:HD21	1.93	0.50
1:C:3107:VAL:HG12	1:C:3175:LEU:CD2	2.41	0.50
1:C:3354:LEU:HD23	1:C:3415:TYR:CE1	2.46	0.50
1:C:3875:MET:HB2	1:C:3953:LYS:HZ3	1.76	0.50
1:A:2238:TYR:O	1:A:2242:ILE:HG13	2.12	0.50
1:A:2707:ALA:HB1	1:A:3009:TYR:HD1	1.76	0.50
1:A:4217:PHE:O	1:A:4221:VAL:HG22	2.11	0.50
1:B:181:HIS:HB3	1:B:194:SER:HB3	1.93	0.50
1:B:1449:TRP:HB2	1:B:1553:PHE:HB2	1.91	0.50
1:D:957:LYS:H	1:D:957:LYS:HE2	1.77	0.50
1:D:3880:PHE:HA	1:D:3883:ASP:OD2	2.11	0.50
1:D:4217:PHE:O	1:D:4221:VAL:HG22	2.11	0.50
1:D:4244:GLU:HG3	1:D:4668:LEU:HD22	1.92	0.50
1:C:421:PHE:HE1	1:C:436:LEU:HD11	1.76	0.50
1:C:2012:PHE:CZ	1:C:2031:LEU:HD23	2.47	0.50
1:C:2283:ASN:HB3	1:C:2286:LEU:HB2	1.93	0.50
1:C:4116:GLU:OE2	1:C:4131:ARG:NH1	2.44	0.50
1:A:3499:ARG:O	1:A:3499:ARG:NE	2.36	0.50
1:A:4068:LEU:O	1:A:4072:VAL:HG13	2.10	0.50
1:A:4745:LEU:H	1:A:4745:LEU:HD12	1.76	0.50
1:B:256:ALA:HB2	1:B:477:LEU:HD22	1.94	0.50
1:B:728:ARG:NH2	1:B:1489:CYS:SG	2.84	0.50
1:B:2005:GLN:HA	1:B:2008:MET:CE	2.40	0.50
1:B:3896:ASN:OD1	1:B:3899:PHE:HB2	2.11	0.50
1:D:421:PHE:HE1	1:D:436:LEU:HD11	1.76	0.50
1:D:1927:LEU:HD13	1:D:2101:MET:HG3	1.93	0.50
1:D:2816:MET:HA	1:D:2878:LEU:HD21	1.93	0.50
1:D:2876:GLU:O	1:D:2880:GLU:HG3	2.11	0.50
1:D:3590:GLU:O	1:D:3593:VAL:HG22	2.11	0.50
1:D:3598:GLU:O	1:D:3602:VAL:HG23	2.11	0.50
1:C:1753:LYS:HZ1	1:C:1759:ARG:H	1.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:256:ALA:HB2	1:A:477:LEU:HD22	1.94	0.50
1:A:1478:ASP:HB3	1:A:1482:ASN:HB2	1.94	0.50
1:A:1997:GLU:HB2	1:A:2008:MET:HE3	1.94	0.50
1:A:2886:TRP:CH2	1:A:2904:LEU:HB3	2.44	0.50
1:A:3812:VAL:O	1:A:3816:MET:HG3	2.11	0.50
1:B:689:THR:HG23	1:B:776:LEU:O	2.11	0.50
1:B:2010:LEU:HD12	1:B:3656:SER:HB3	1.94	0.50
1:B:2192:TYR:HE1	1:B:2238:TYR:HE1	1.60	0.50
1:B:2886:TRP:CH2	1:B:2904:LEU:HB3	2.43	0.50
1:B:3812:VAL:O	1:B:3816:MET:HG3	2.11	0.50
1:B:4068:LEU:O	1:B:4072:VAL:HG13	2.10	0.50
1:B:4217:PHE:O	1:B:4221:VAL:HG22	2.11	0.50
1:D:2716:ASP:N	1:D:2716:ASP:OD1	2.44	0.50
1:D:3655:GLU:HA	1:D:3658:LYS:HZ3	1.76	0.50
1:C:644:ILE:HG12	1:C:783:PHE:HZ	1.77	0.50
1:C:689:THR:HG23	1:C:776:LEU:O	2.11	0.50
1:C:2573:GLU:OE2	1:C:2615:ARG:NE	2.44	0.50
1:C:3391:GLU:OE2	1:C:3450:ASN:ND2	2.43	0.50
1:A:2876:GLU:O	1:A:2880:GLU:HG3	2.11	0.50
1:A:3823:LYS:HA	1:A:3823:LYS:HE2	1.93	0.50
1:B:1478:ASP:HB3	1:B:1482:ASN:HB2	1.94	0.50
1:B:2991:HIS:O	1:B:2995:ILE:HG13	2.11	0.50
1:D:15:ARG:HG3	1:D:98:HIS:HB3	1.93	0.50
1:D:37:LEU:HD12	1:D:191:VAL:HG21	1.93	0.50
1:D:151:HIS:O	1:D:170:ILE:HG22	2.11	0.50
1:D:728:ARG:NH2	1:D:1489:CYS:SG	2.84	0.50
1:D:2224:ARG:NH1	1:D:2224:ARG:HB2	2.26	0.50
1:D:2238:TYR:HD2	1:D:2241:ARG:HB2	1.77	0.50
1:D:3896:ASN:OD1	1:D:3899:PHE:HB2	2.11	0.50
1:D:4010:ILE:O	1:D:4014:LYS:HG3	2.12	0.50
1:D:4157:ASP:OD2	1:D:4160:LEU:N	2.39	0.50
1:D:4730:ASP:OD1	1:D:4731:ILE:N	2.45	0.50
1:C:728:ARG:NH2	1:C:1489:CYS:SG	2.84	0.50
1:C:957:LYS:HE2	1:C:957:LYS:H	1.77	0.50
1:C:1618:ARG:HB3	1:C:1618:ARG:NH1	2.27	0.50
1:C:2238:TYR:O	1:C:2242:ILE:HG13	2.12	0.50
1:A:15:ARG:HG3	1:A:98:HIS:HB3	1.93	0.50
1:A:628:GLY:O	2:E:34:LYS:NZ	2.43	0.50
1:A:957:LYS:H	1:A:957:LYS:HE2	1.77	0.50
1:A:1465:ASP:OD1	1:A:1468:LYS:N	2.39	0.50
1:A:3107:VAL:HG12	1:A:3175:LEU:CD2	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3896:ASN:OD1	1:A:3899:PHE:HB2	2.11	0.50
1:A:4244:GLU:HG3	1:A:4668:LEU:HD22	1.92	0.50
1:A:4730:ASP:OD1	1:A:4731:ILE:N	2.45	0.50
1:B:1422:ASP:OD1	1:B:1571:ASN:N	2.39	0.50
1:B:2012:PHE:CZ	1:B:2031:LEU:HD23	2.46	0.50
1:B:4010:ILE:O	1:B:4014:LYS:HG3	2.12	0.50
1:D:3034:LYS:HZ1	1:D:3038:MET:HG3	1.76	0.50
1:D:3873:LYS:HD3	1:D:3873:LYS:N	2.27	0.50
1:C:1292:SER:OG	1:C:1596:GLU:O	2.26	0.50
1:C:2224:ARG:NH1	1:C:2224:ARG:HB2	2.26	0.50
1:C:2991:HIS:O	1:C:2995:ILE:HG13	2.11	0.50
1:A:2573:GLU:OE2	1:A:2615:ARG:NE	2.44	0.50
1:A:2716:ASP:OD1	1:A:2716:ASP:N	2.44	0.50
1:A:4681:LEU:HD11	1:A:4706:LEU:HD22	1.94	0.50
2:H:37:ASP:OD1	2:H:38:SER:N	2.45	0.50
1:B:151:HIS:O	1:B:170:ILE:HG22	2.11	0.50
1:B:1773:PRO:HA	1:B:2153:MET:HE2	1.93	0.50
1:B:2238:TYR:HD2	1:B:2241:ARG:HB2	1.77	0.50
1:B:2238:TYR:O	1:B:2242:ILE:HG13	2.12	0.50
1:D:689:THR:HG23	1:D:776:LEU:O	2.11	0.50
1:D:1115:LEU:HD12	1:D:1193:SER:HB3	1.94	0.50
1:D:1618:ARG:NH1	1:D:1618:ARG:HB3	2.27	0.50
1:D:2238:TYR:O	1:D:2242:ILE:HG13	2.12	0.50
1:D:2340:PHE:CD1	1:D:2435:ARG:HD3	2.47	0.50
1:D:3357:HIS:O	1:D:3361:THR:HG23	2.12	0.50
1:D:3948:LYS:HD3	1:D:4012:LEU:HD22	1.94	0.50
1:C:2010:LEU:HD12	1:C:3656:SER:HB3	1.94	0.50
1:A:181:HIS:HB3	1:A:194:SER:HB3	1.94	0.50
1:A:2012:PHE:CZ	1:A:2031:LEU:HD23	2.47	0.50
1:A:2157:GLU:O	1:A:2161:GLN:HG2	2.12	0.50
1:A:2192:TYR:HE1	1:A:2238:TYR:HE1	1.60	0.50
1:A:2224:ARG:NH1	1:A:2224:ARG:HB2	2.26	0.50
1:A:2886:TRP:O	1:A:2889:LYS:HG2	2.12	0.50
1:A:3354:LEU:HD23	1:A:3415:TYR:CE1	2.46	0.50
1:A:3405:LEU:HD21	1:A:3510:ILE:HG23	1.94	0.50
1:A:4010:ILE:O	1:A:4014:LYS:HG3	2.12	0.50
1:B:952:LYS:HE2	1:B:970:LEU:HG	1.94	0.50
1:B:957:LYS:H	1:B:957:LYS:HE2	1.77	0.50
1:B:3405:LEU:HD21	1:B:3510:ILE:HG23	1.94	0.50
1:B:3592:ILE:HA	1:B:3595:ARG:HE	1.77	0.50
1:B:4116:GLU:OE2	1:B:4131:ARG:NH1	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4730:ASP:OD1	1:B:4731:ILE:N	2.45	0.50
1:D:1742:THR:HA	1:D:1745:ILE:HD12	1.93	0.50
1:D:2283:ASN:HB3	1:D:2286:LEU:HB2	1.93	0.50
1:D:3683:GLN:HA	1:D:3686:GLU:HB2	1.94	0.50
1:C:151:HIS:O	1:C:170:ILE:HG22	2.11	0.50
1:C:2340:PHE:CD1	1:C:2435:ARG:HD3	2.47	0.50
1:C:3598:GLU:O	1:C:3602:VAL:HG23	2.10	0.50
1:C:4730:ASP:OD1	1:C:4731:ILE:N	2.45	0.50
1:A:1618:ARG:NH1	1:A:1618:ARG:HB3	2.27	0.50
1:A:3244:PRO:HG2	1:A:3249:LEU:HD13	1.94	0.50
1:A:3628:ARG:HH11	1:A:3628:ARG:HA	1.77	0.50
1:A:3683:GLN:HA	1:A:3686:GLU:HB2	1.94	0.50
1:B:923:GLN:O	1:B:927:GLU:HG2	2.12	0.50
1:B:2292:GLU:OE1	1:B:2292:GLU:N	2.41	0.50
1:B:2669:GLU:HA	1:B:2672:LEU:HB2	1.94	0.50
1:B:3145:GLN:HG2	1:B:3149:GLN:NE2	2.25	0.50
1:B:3550:ARG:HG3	1:B:3597:GLN:HG3	1.94	0.50
1:B:4681:LEU:HD11	1:B:4706:LEU:HD22	1.94	0.50
1:D:181:HIS:HB3	1:D:194:SER:HB3	1.94	0.50
1:D:923:GLN:O	1:D:927:GLU:HG2	2.11	0.50
1:D:2019:GLU:N	1:D:2019:GLU:OE1	2.45	0.50
1:D:2792:ARG:HH21	1:D:2798:SER:H	1.59	0.50
1:D:2886:TRP:O	1:D:2889:LYS:HG2	2.12	0.50
1:D:3434:LEU:O	1:D:3438:VAL:HG12	2.12	0.50
1:D:3812:VAL:O	1:D:3816:MET:HG3	2.11	0.50
1:D:3823:LYS:HA	1:D:3823:LYS:HE2	1.93	0.50
1:C:1927:LEU:HD13	1:C:2101:MET:HG3	1.93	0.50
1:C:3256:LEU:HD22	1:C:3266:MET:HG3	1.94	0.50
1:A:2867:LEU:HD23	1:A:2872:GLN:HG3	1.94	0.49
1:A:3620:TRP:HE3	1:A:3620:TRP:H	1.58	0.49
1:B:2867:LEU:HD23	1:B:2872:GLN:HG3	1.94	0.49
1:B:3434:LEU:O	1:B:3438:VAL:HG12	2.12	0.49
1:B:4576:ILE:HG21	1:B:4643:LEU:HB2	1.93	0.49
1:D:3106:MET:CE	1:D:3132:THR:HB	2.40	0.49
1:D:3628:ARG:HH11	1:D:3628:ARG:HA	1.77	0.49
1:D:4681:LEU:HD11	1:D:4706:LEU:HD22	1.94	0.49
1:C:955:LEU:HD13	1:C:967:PRO:HD2	1.94	0.49
1:C:1115:LEU:HD12	1:C:1193:SER:HB3	1.94	0.49
1:C:1478:ASP:HB3	1:C:1482:ASN:HB2	1.94	0.49
1:C:2192:TYR:HE1	1:C:2238:TYR:HE1	1.60	0.49
1:C:3592:ILE:HA	1:C:3595:ARG:HE	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:151:HIS:O	1:A:170:ILE:HG22	2.11	0.49
1:A:886:ARG:HB3	1:A:891:TRP:HB2	1.93	0.49
1:A:1742:THR:HA	1:A:1745:ILE:HD12	1.93	0.49
1:A:2292:GLU:OE1	1:A:2292:GLU:N	2.41	0.49
1:A:4116:GLU:OE2	1:A:4131:ARG:NH1	2.44	0.49
1:B:1112:ASP:OD1	1:B:1112:ASP:N	2.44	0.49
1:B:1927:LEU:HD13	1:B:2101:MET:HG3	1.93	0.49
1:B:2573:GLU:OE2	1:B:2615:ARG:NE	2.44	0.49
1:B:4543:GLU:HA	1:B:4546:VAL:HG12	1.93	0.49
1:D:1958:LEU:HD23	1:D:2138:LEU:HD21	1.95	0.49
1:D:2012:PHE:CZ	1:D:2031:LEU:HD23	2.46	0.49
1:D:4717:ASP:OD2	1:D:4723:LYS:NZ	2.43	0.49
1:C:2707:ALA:HB1	1:C:3009:TYR:HD1	1.76	0.49
1:C:3948:LYS:HD3	1:C:4012:LEU:HD22	1.94	0.49
1:A:923:GLN:O	1:A:927:GLU:HG2	2.12	0.49
1:A:1115:LEU:HD12	1:A:1193:SER:HB3	1.94	0.49
1:A:2920:ARG:O	1:A:2924:GLN:HG2	2.12	0.49
2:H:11:ASP:OD2	2:H:12:GLY:N	2.45	0.49
2:G:37:ASP:OD1	2:G:38:SER:N	2.45	0.49
1:B:644:ILE:HG12	1:B:783:PHE:HZ	1.77	0.49
1:B:3244:PRO:HG2	1:B:3249:LEU:HD13	1.94	0.49
1:B:3620:TRP:H	1:B:3620:TRP:HE3	1.58	0.49
1:C:463:GLU:OE2	1:C:463:GLU:N	2.29	0.49
1:C:3628:ARG:HA	1:C:3628:ARG:HH11	1.77	0.49
1:C:4681:LEU:HD11	1:C:4706:LEU:HD22	1.94	0.49
1:A:37:LEU:HD12	1:A:191:VAL:HG21	1.93	0.49
1:A:955:LEU:HD13	1:A:967:PRO:HD2	1.94	0.49
1:A:1927:LEU:HD13	1:A:2101:MET:HG3	1.93	0.49
1:A:1958:LEU:HD23	1:A:2138:LEU:HD21	1.95	0.49
1:A:2238:TYR:HD2	1:A:2241:ARG:HB2	1.77	0.49
1:A:3357:HIS:O	1:A:3361:THR:HG23	2.12	0.49
1:A:3592:ILE:HA	1:A:3595:ARG:HE	1.77	0.49
1:B:20:VAL:HG12	1:B:204:PRO:HA	1.94	0.49
1:B:180:LEU:HD23	1:B:200:TRP:CE2	2.48	0.49
1:B:955:LEU:HD13	1:B:967:PRO:HD2	1.94	0.49
1:B:1270:LEU:HB2	1:B:1564:PHE:HB2	1.94	0.49
1:B:2816:MET:HA	1:B:2878:LEU:HD21	1.93	0.49
1:B:2886:TRP:O	1:B:2889:LYS:HG2	2.12	0.49
1:B:3256:LEU:HD22	1:B:3266:MET:HG3	1.94	0.49
1:B:3628:ARG:HA	1:B:3628:ARG:HH11	1.77	0.49
1:D:644:ILE:HG12	1:D:783:PHE:HZ	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1478:ASP:HB3	1:D:1482:ASN:HB2	1.94	0.49
1:D:2192:TYR:HE1	1:D:2238:TYR:HE1	1.60	0.49
1:D:2867:LEU:HD23	1:D:2872:GLN:HG3	1.95	0.49
1:C:952:LYS:HE2	1:C:970:LEU:HG	1.94	0.49
1:C:2669:GLU:HA	1:C:2672:LEU:HB2	1.94	0.49
1:A:257:ARG:O	1:A:284:HIS:NE2	2.28	0.49
1:A:2669:GLU:HA	1:A:2672:LEU:HB2	1.94	0.49
1:A:2816:MET:HA	1:A:2878:LEU:HD21	1.93	0.49
1:A:3948:LYS:HD3	1:A:4012:LEU:HD22	1.94	0.49
1:B:1753:LYS:HD3	1:B:1753:LYS:N	2.24	0.49
1:B:3683:GLN:HA	1:B:3686:GLU:HB2	1.94	0.49
1:D:180:LEU:HD23	1:D:200:TRP:CE2	2.48	0.49
1:D:4926:VAL:HG13	1:C:4933:GLN:HG3	1.95	0.49
1:C:2792:ARG:HH21	1:C:2798:SER:H	1.59	0.49
1:C:2825:LYS:HB3	1:C:2935:TYR:HA	1.95	0.49
1:C:3244:PRO:HG2	1:C:3249:LEU:HD13	1.94	0.49
1:C:3683:GLN:HA	1:C:3686:GLU:HB2	1.94	0.49
1:A:180:LEU:HD23	1:A:200:TRP:CE2	2.48	0.49
1:A:952:LYS:HE2	1:A:970:LEU:HG	1.94	0.49
1:A:3106:MET:CE	1:A:3132:THR:HB	2.40	0.49
1:A:3108:GLU:HB3	1:A:3114:LYS:HZ2	1.78	0.49
1:A:4926:VAL:CG1	1:D:4933:GLN:HG3	2.43	0.49
2:E:25:HIS:CD2	2:E:104:LEU:HD11	2.47	0.49
1:B:13:PHE:CD1	1:B:162:LYS:HG3	2.48	0.49
1:B:1077:ALA:HB3	1:B:1189:LEU:HD22	1.94	0.49
1:B:1759:ARG:HA	1:B:1759:ARG:CZ	2.43	0.49
1:B:2283:ASN:HB3	1:B:2286:LEU:HB2	1.93	0.49
1:B:3948:LYS:HD3	1:B:4012:LEU:HD22	1.94	0.49
1:B:4933:GLN:HG3	1:C:4926:VAL:HG13	1.94	0.49
1:D:73:LEU:O	1:D:106:ALA:N	2.28	0.49
1:D:1773:PRO:HA	1:D:2153:MET:HE2	1.95	0.49
1:D:2157:GLU:O	1:D:2161:GLN:HG2	2.12	0.49
1:D:2825:LYS:HB3	1:D:2935:TYR:HA	1.95	0.49
1:D:3256:LEU:HD22	1:D:3266:MET:HG3	1.94	0.49
1:D:3592:ILE:HA	1:D:3595:ARG:HE	1.77	0.49
1:D:3707:ARG:O	1:D:3711:THR:HG23	2.13	0.49
1:D:4543:GLU:HA	1:D:4546:VAL:HG12	1.93	0.49
1:C:426:ARG:NH1	1:C:509:GLU:OE1	2.34	0.49
1:C:923:GLN:O	1:C:927:GLU:HG2	2.11	0.49
1:C:2867:LEU:HD23	1:C:2872:GLN:HG3	1.95	0.49
1:C:3235:SER:OG	1:C:3237:GLU:OE1	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3434:LEU:O	1:C:3438:VAL:HG12	2.12	0.49
1:C:3880:PHE:HA	1:C:3883:ASP:OD2	2.11	0.49
1:A:1076:ARG:HB3	1:A:1191:VAL:HG23	1.95	0.49
1:A:4867:GLU:OE1	1:A:4867:GLU:N	2.37	0.49
2:E:60:GLU:OE1	2:E:60:GLU:HA	2.13	0.49
1:B:965:TYR:HD1	1:B:966:LYS:N	2.11	0.49
1:B:1057:ASP:OD1	1:B:1057:ASP:N	2.39	0.49
1:B:1076:ARG:HB3	1:B:1191:VAL:HG23	1.95	0.49
1:D:13:PHE:CD1	1:D:162:LYS:HG3	2.48	0.49
1:C:2157:GLU:O	1:C:2161:GLN:HG2	2.12	0.49
1:C:2886:TRP:O	1:C:2889:LYS:HG2	2.12	0.49
1:C:3873:LYS:HD3	1:C:3873:LYS:N	2.27	0.49
1:A:13:PHE:CD1	1:A:162:LYS:HG3	2.48	0.49
1:A:861:ILE:HA	1:A:930:LYS:HD2	1.93	0.49
1:A:2010:LEU:HD12	1:A:3656:SER:HB3	1.94	0.49
1:B:861:ILE:HA	1:B:930:LYS:HD2	1.93	0.49
1:B:1618:ARG:HB3	1:B:1618:ARG:NH1	2.27	0.49
1:B:2019:GLU:OE1	1:B:2019:GLU:N	2.45	0.49
1:B:3391:GLU:OE2	1:B:3450:ASN:ND2	2.43	0.49
1:D:861:ILE:HA	1:D:930:LYS:HD2	1.93	0.49
1:D:1076:ARG:HB3	1:D:1191:VAL:HG23	1.95	0.49
1:D:1448:VAL:HG22	1:D:1554:VAL:HG23	1.95	0.49
1:D:2495:VAL:HG12	1:D:2497:ASP:H	1.78	0.49
1:C:13:PHE:CD1	1:C:162:LYS:HG3	2.48	0.49
1:C:1270:LEU:HB2	1:C:1564:PHE:HB2	1.94	0.49
1:C:3357:HIS:O	1:C:3361:THR:HG23	2.12	0.49
1:C:3405:LEU:HD21	1:C:3510:ILE:HG23	1.94	0.49
1:A:1994:ARG:CZ	1:A:1994:ARG:HA	2.43	0.49
1:A:2340:PHE:CD1	1:A:2435:ARG:HD3	2.47	0.49
1:A:2495:VAL:HG12	1:A:2497:ASP:H	1.78	0.49
1:A:3256:LEU:HD22	1:A:3266:MET:HG3	1.94	0.49
1:A:3550:ARG:HG3	1:A:3597:GLN:HG3	1.94	0.49
1:B:1115:LEU:HD12	1:B:1193:SER:HB3	1.94	0.49
1:B:2495:VAL:HG12	1:B:2497:ASP:H	1.78	0.49
1:D:965:TYR:HD1	1:D:966:LYS:N	2.11	0.49
1:C:1958:LEU:HD23	1:C:2138:LEU:HD21	1.95	0.49
1:C:3211:ASN:OD1	1:C:3212:GLU:N	2.46	0.49
1:A:869:ARG:HD2	1:A:870:ILE:N	2.28	0.49
1:A:2283:ASN:HB3	1:A:2286:LEU:HB2	1.93	0.49
1:A:2412:GLU:H	1:A:2412:GLU:CD	2.16	0.49
1:A:2792:ARG:HH21	1:A:2798:SER:H	1.59	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3434:LEU:O	1:A:3438:VAL:HG12	2.12	0.49
1:A:4543:GLU:HA	1:A:4546:VAL:HG12	1.93	0.49
1:B:886:ARG:HB3	1:B:891:TRP:HB2	1.93	0.49
1:B:1958:LEU:HD23	1:B:2138:LEU:HD21	1.94	0.49
1:B:2792:ARG:HH21	1:B:2798:SER:H	1.59	0.49
1:B:2825:LYS:HB3	1:B:2935:TYR:HA	1.95	0.49
1:D:1089:TYR:HD1	1:D:1152:MET:HG3	1.78	0.49
1:D:2920:ARG:O	1:D:2924:GLN:HG2	2.12	0.49
1:D:3235:SER:OG	1:D:3237:GLU:OE1	2.30	0.49
1:D:4063:ASP:OD1	1:D:4064:MET:N	2.46	0.49
1:C:15:ARG:HG3	1:C:98:HIS:HB3	1.93	0.49
1:C:20:VAL:HG12	1:C:204:PRO:HA	1.94	0.49
1:C:78:LEU:O	1:C:81:MET:HG3	2.13	0.49
1:C:2238:TYR:HD2	1:C:2241:ARG:HB2	1.77	0.49
1:C:3332:ALA:HB1	1:C:3334:TRP:CD1	2.48	0.49
1:A:78:LEU:O	1:A:81:MET:HG3	2.13	0.48
1:B:647:ASN:OD1	1:B:822:ARG:N	2.39	0.48
1:B:1742:THR:HA	1:B:1745:ILE:HD12	1.93	0.48
1:B:2340:PHE:CD1	1:B:2435:ARG:HD3	2.47	0.48
1:D:256:ALA:HB2	1:D:477:LEU:HD22	1.93	0.48
1:D:2010:LEU:HD12	1:D:3656:SER:HB3	1.94	0.48
1:D:3332:ALA:HB1	1:D:3334:TRP:CD1	2.48	0.48
1:D:3621:HIS:O	1:D:3622:LYS:HG3	2.13	0.48
1:C:4157:ASP:OD2	1:C:4160:LEU:N	2.39	0.48
1:C:4543:GLU:HA	1:C:4546:VAL:HG12	1.93	0.48
1:A:2138:LEU:HB3	1:A:3658:LYS:HE3	1.95	0.48
1:B:1228:ILE:HG22	1:B:1827:ARG:HH21	1.79	0.48
1:B:2157:GLU:O	1:B:2161:GLN:HG2	2.12	0.48
1:B:3707:ARG:O	1:B:3711:THR:HG23	2.13	0.48
1:D:234:SER:OG	1:D:238:SER:OG	2.24	0.48
1:D:323:LEU:HB3	1:D:325:THR:HG23	1.95	0.48
1:D:952:LYS:HE2	1:D:970:LEU:HG	1.94	0.48
1:D:1077:ALA:HB3	1:D:1189:LEU:HD22	1.94	0.48
1:D:1759:ARG:HA	1:D:1759:ARG:CZ	2.43	0.48
1:D:2138:LEU:HB3	1:D:3658:LYS:HE3	1.95	0.48
1:C:180:LEU:HD23	1:C:200:TRP:CE2	2.48	0.48
1:C:1994:ARG:CZ	1:C:1994:ARG:HA	2.43	0.48
1:C:3707:ARG:O	1:C:3711:THR:HG23	2.13	0.48
1:A:20:VAL:HG12	1:A:204:PRO:HA	1.94	0.48
1:A:965:TYR:HD1	1:A:966:LYS:N	2.11	0.48
1:A:1228:ILE:HG22	1:A:1827:ARG:HH21	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2123:LEU:O	1:A:2127:GLN:HG2	2.13	0.48
1:A:3529:ASP:OD2	1:A:3592:ILE:HG23	2.14	0.48
1:B:828:GLU:OE1	1:B:828:GLU:N	2.41	0.48
1:B:4063:ASP:OD1	1:B:4064:MET:N	2.46	0.48
1:B:4157:ASP:OD2	1:B:4160:LEU:N	2.39	0.48
1:D:20:VAL:HG12	1:D:204:PRO:HA	1.94	0.48
1:D:869:ARG:HD2	1:D:870:ILE:N	2.28	0.48
1:D:925:SER:O	1:D:928:THR:OG1	2.20	0.48
1:D:3211:ASN:OD1	1:D:3212:GLU:N	2.46	0.48
1:D:3244:PRO:HG2	1:D:3249:LEU:HD13	1.94	0.48
1:D:3405:LEU:HD21	1:D:3510:ILE:HG23	1.94	0.48
1:C:256:ALA:HB2	1:C:477:LEU:HD22	1.94	0.48
1:C:323:LEU:HB3	1:C:325:THR:HG23	1.96	0.48
1:C:965:TYR:HD1	1:C:966:LYS:N	2.11	0.48
1:C:1076:ARG:HB3	1:C:1191:VAL:HG23	1.95	0.48
1:C:1759:ARG:CZ	1:C:1759:ARG:HA	2.43	0.48
1:C:2965:ARG:HE	1:C:2969:ILE:HD11	1.78	0.48
1:C:3550:ARG:HG3	1:C:3597:GLN:HG3	1.94	0.48
1:C:4010:ILE:O	1:C:4014:LYS:HG3	2.12	0.48
1:A:644:ILE:HG12	1:A:783:PHE:HZ	1.77	0.48
1:A:772:ASN:HD21	1:A:1470:ARG:HA	1.79	0.48
1:A:1077:ALA:HB3	1:A:1189:LEU:HD22	1.94	0.48
1:A:2358:ILE:HB	1:B:195:PHE:CE1	2.48	0.48
1:A:3873:LYS:N	1:A:3873:LYS:HD3	2.27	0.48
1:A:4687:TYR:OH	1:A:4699:GLY:O	2.20	0.48
2:E:79:ASP:OD2	2:E:79:ASP:N	2.46	0.48
1:B:2123:LEU:O	1:B:2127:GLN:HG2	2.13	0.48
1:B:2412:GLU:H	1:B:2412:GLU:CD	2.16	0.48
1:B:2920:ARG:O	1:B:2924:GLN:HG2	2.12	0.48
1:B:3235:SER:OG	1:B:3237:GLU:OE1	2.30	0.48
1:D:2669:GLU:HA	1:D:2672:LEU:HB2	1.94	0.48
1:C:308:HIS:CE1	1:C:311:ALA:H	2.32	0.48
1:C:1228:ILE:HG22	1:C:1827:ARG:HH21	1.79	0.48
1:C:2019:GLU:OE1	1:C:2019:GLU:N	2.45	0.48
1:C:2716:ASP:OD1	1:C:2716:ASP:N	2.44	0.48
1:C:4063:ASP:OD1	1:C:4064:MET:N	2.46	0.48
1:A:925:SER:O	1:A:928:THR:OG1	2.20	0.48
1:A:1089:TYR:HD1	1:A:1152:MET:HG3	1.78	0.48
1:A:2825:LYS:HB3	1:A:2935:TYR:HA	1.95	0.48
1:A:2865:VAL:O	1:A:2928:LYS:NZ	2.41	0.48
1:A:3211:ASN:OD1	1:A:3212:GLU:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:23:VAL:HG12	2:E:104:LEU:HB2	1.96	0.48
1:B:1727:ARG:HD3	1:B:1727:ARG:HA	1.62	0.48
1:B:2288:LEU:O	1:B:3849:ARG:NH1	2.47	0.48
1:B:3357:HIS:O	1:B:3361:THR:HG23	2.12	0.48
1:B:3532:LEU:HB3	1:B:3596:VAL:HG11	1.95	0.48
1:B:3873:LYS:HD3	1:B:3873:LYS:N	2.27	0.48
1:D:3233:PRO:HB3	1:D:3238:GLU:HB3	1.95	0.48
1:D:3550:ARG:HG3	1:D:3597:GLN:HG3	1.94	0.48
1:D:4910:GLU:O	1:D:4914:VAL:HG13	2.14	0.48
1:C:78:LEU:O	1:C:82:LEU:HG	2.14	0.48
1:C:1062:GLN:NE2	1:C:1064:GLU:OE1	2.40	0.48
1:C:1089:TYR:HD1	1:C:1152:MET:HG3	1.78	0.48
1:C:2920:ARG:O	1:C:2924:GLN:HG2	2.12	0.48
1:C:3655:GLU:HA	1:C:3658:LYS:NZ	2.29	0.48
1:C:4131:ARG:HG2	1:C:4132:PHE:CE2	2.49	0.48
1:A:1759:ARG:CZ	1:A:1759:ARG:HA	2.43	0.48
1:A:3352:GLU:H	1:A:3352:GLU:CD	2.17	0.48
1:B:308:HIS:CE1	1:B:311:ALA:H	2.31	0.48
1:B:869:ARG:HD2	1:B:870:ILE:N	2.28	0.48
1:B:1753:LYS:NZ	1:B:1759:ARG:HG2	2.29	0.48
1:B:3089:LYS:O	1:B:3093:ARG:HG3	2.14	0.48
1:B:3352:GLU:H	1:B:3352:GLU:CD	2.17	0.48
1:B:3472:ALA:O	1:B:3476:SER:OG	2.25	0.48
1:B:3621:HIS:O	1:B:3622:LYS:HG3	2.13	0.48
1:B:3655:GLU:HA	1:B:3658:LYS:NZ	2.28	0.48
1:D:772:ASN:HD21	1:D:1470:ARG:HA	1.79	0.48
1:D:955:LEU:HD13	1:D:967:PRO:HD2	1.94	0.48
1:D:1228:ILE:HG22	1:D:1827:ARG:HH21	1.79	0.48
1:D:1270:LEU:HB2	1:D:1564:PHE:HB2	1.94	0.48
1:D:2865:VAL:O	1:D:2928:LYS:NZ	2.41	0.48
1:C:220:LEU:HD21	1:C:262:LEU:HD21	1.96	0.48
1:C:1077:ALA:HB3	1:C:1189:LEU:HD22	1.94	0.48
1:C:2495:VAL:HG12	1:C:2497:ASP:H	1.78	0.48
1:A:264:PRO:HB2	1:A:266:ARG:HG2	1.96	0.48
1:A:3621:HIS:O	1:A:3622:LYS:HG3	2.13	0.48
1:A:4885:PHE:O	1:A:4889:VAL:HG22	2.14	0.48
2:G:11:ASP:OD2	2:G:12:GLY:N	2.46	0.48
2:F:79:ASP:OD2	2:F:79:ASP:N	2.47	0.48
1:B:1062:GLN:NE2	1:B:1064:GLU:OE1	2.40	0.48
1:B:1994:ARG:HA	1:B:1994:ARG:CZ	2.43	0.48
1:B:4131:ARG:HG2	1:B:4132:PHE:CE2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4910:GLU:O	1:B:4914:VAL:HG13	2.14	0.48
1:D:1994:ARG:CZ	1:D:1994:ARG:HA	2.43	0.48
1:D:2755:ILE:HG22	1:D:2809:ILE:HG22	1.96	0.48
1:D:2825:LYS:HB2	1:D:2827:ARG:HE	1.79	0.48
1:D:2965:ARG:HE	1:D:2969:ILE:HD11	1.78	0.48
1:D:2967:MET:HE3	1:D:3049:LEU:HG	1.96	0.48
1:C:1109:LEU:HA	1:C:1120:LEU:HD13	1.95	0.48
1:C:2138:LEU:HB3	1:C:3658:LYS:HE3	1.95	0.48
1:C:4223:ASN:HB3	1:C:4224:GLU:CD	2.34	0.48
1:A:2019:GLU:OE1	1:A:2019:GLU:N	2.45	0.48
1:A:2825:LYS:HB2	1:A:2827:ARG:HE	1.79	0.48
1:A:3332:ALA:HB1	1:A:3334:TRP:CD1	2.48	0.48
1:A:3573:MET:HG3	1:A:3577:ARG:NH2	2.29	0.48
1:A:3707:ARG:O	1:A:3711:THR:HG23	2.13	0.48
1:A:4063:ASP:OD1	1:A:4064:MET:N	2.46	0.48
1:A:4223:ASN:HB3	1:A:4224:GLU:CD	2.34	0.48
1:B:234:SER:OG	1:B:238:SER:OG	2.24	0.48
1:B:772:ASN:HD21	1:B:1470:ARG:HA	1.79	0.48
1:B:3211:ASN:OD1	1:B:3212:GLU:N	2.46	0.48
1:B:4223:ASN:HB3	1:B:4224:GLU:CD	2.34	0.48
1:D:188:GLU:OE1	1:D:188:GLU:N	2.39	0.48
1:D:296:ASP:OD2	1:D:296:ASP:N	2.40	0.48
1:D:643:SER:OG	1:D:826:ILE:HD12	2.14	0.48
1:D:1163:THR:HG22	1:D:1168:VAL:HA	1.96	0.48
1:D:1422:ASP:OD1	1:D:1571:ASN:N	2.39	0.48
1:D:1585:LYS:HE2	1:D:1585:LYS:HA	1.96	0.48
1:D:2412:GLU:H	1:D:2412:GLU:CD	2.16	0.48
1:D:3089:LYS:O	1:D:3093:ARG:HG3	2.14	0.48
1:D:3262:ARG:HD3	1:D:3262:ARG:HA	1.66	0.48
1:D:3529:ASP:OD2	1:D:3592:ILE:HG23	2.14	0.48
1:C:2123:LEU:O	1:C:2127:GLN:HG2	2.14	0.48
1:C:2412:GLU:CD	1:C:2412:GLU:H	2.16	0.48
1:C:2527:LEU:HD21	1:C:2582:MET:HB2	1.96	0.48
1:C:2967:MET:HE3	1:C:3049:LEU:HG	1.95	0.48
1:C:3354:LEU:HD23	1:C:3415:TYR:CZ	2.49	0.48
1:A:78:LEU:O	1:A:82:LEU:HG	2.14	0.48
1:A:1112:ASP:N	1:A:1112:ASP:OD1	2.44	0.48
1:A:1270:LEU:HB2	1:A:1564:PHE:HB2	1.94	0.48
1:A:1448:VAL:HG22	1:A:1554:VAL:HG23	1.95	0.48
1:A:2740:VAL:HG21	1:A:2819:TRP:HE1	1.79	0.48
1:A:3532:LEU:HB3	1:A:3596:VAL:HG11	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:60:GLU:HA	2:G:60:GLU:OE2	2.14	0.48
1:B:784:SER:OG	1:B:785:ALA:N	2.47	0.48
1:B:1566:LEU:HD23	1:B:1575:LEU:HD23	1.96	0.48
1:B:3332:ALA:HB1	1:B:3334:TRP:CD1	2.48	0.48
1:D:308:HIS:CE1	1:D:311:ALA:H	2.32	0.48
1:D:1753:LYS:HD3	1:D:1753:LYS:N	2.24	0.48
1:D:1997:GLU:HB2	1:D:2008:MET:CE	2.44	0.48
1:D:2527:LEU:HD21	1:D:2582:MET:HB2	1.96	0.48
1:D:3655:GLU:HA	1:D:3658:LYS:NZ	2.29	0.48
1:D:4885:PHE:O	1:D:4889:VAL:HG22	2.14	0.48
1:C:772:ASN:HD21	1:C:1470:ARG:HA	1.79	0.48
1:C:869:ARG:HD2	1:C:870:ILE:N	2.28	0.48
1:C:3089:LYS:O	1:C:3093:ARG:HG3	2.14	0.48
1:C:3573:MET:HG3	1:C:3577:ARG:NH2	2.29	0.48
1:C:4581:LYS:HG2	1:C:4633:GLU:HB2	1.96	0.48
1:A:220:LEU:HD21	1:A:262:LEU:HD21	1.96	0.48
1:A:323:LEU:HB3	1:A:325:THR:HG23	1.95	0.48
1:A:2288:LEU:O	1:A:3849:ARG:NH1	2.47	0.48
2:G:90:ILE:HD12	1:C:1687:SER:CB	2.44	0.48
1:B:135:VAL:HG21	1:B:180:LEU:HD12	1.96	0.48
1:B:1089:TYR:HD1	1:B:1152:MET:HG3	1.78	0.48
1:B:3233:PRO:HB3	1:B:3238:GLU:HB3	1.95	0.48
1:B:3529:ASP:OD2	1:B:3592:ILE:HG23	2.14	0.48
1:D:76:ARG:NH2	1:C:3936:TYR:HA	2.24	0.48
1:D:78:LEU:O	1:D:81:MET:HG3	2.13	0.48
1:D:125:ARG:HD3	1:D:134:ASP:OD1	2.14	0.48
1:D:1109:LEU:HA	1:D:1120:LEU:HD13	1.95	0.48
1:D:3526:ALA:O	1:D:3529:ASP:HB2	2.14	0.48
1:D:4223:ASN:HB3	1:D:4224:GLU:CD	2.34	0.48
1:C:828:GLU:OE1	1:C:828:GLU:N	2.41	0.48
1:C:1422:ASP:OD1	1:C:1571:ASN:N	2.39	0.48
1:C:2218:GLY:HA3	1:C:2221:LYS:HE2	1.96	0.48
1:C:3621:HIS:O	1:C:3622:LYS:HG3	2.14	0.48
1:C:4910:GLU:O	1:C:4914:VAL:HG13	2.14	0.48
1:C:5000:GLU:OE1	1:C:5000:GLU:N	2.44	0.48
1:A:867:LEU:HD12	1:A:929:LEU:HD23	1.96	0.47
1:A:1566:LEU:HD23	1:A:1575:LEU:HD23	1.96	0.47
1:A:2004:GLU:N	1:A:2004:GLU:OE1	2.47	0.47
1:A:2715:VAL:HG13	1:A:2953:LYS:HB3	1.96	0.47
1:A:4101:LYS:HD3	1:B:4730:ASP:HB2	1.96	0.47
2:G:44:LYS:NZ	2:G:44:LYS:HB3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:264:PRO:HB2	1:B:266:ARG:HG2	1.96	0.47
1:B:1585:LYS:HA	1:B:1585:LYS:HE2	1.96	0.47
1:B:3475:LYS:HD3	1:B:3475:LYS:HA	1.74	0.47
1:B:4581:LYS:HG2	1:B:4633:GLU:HB2	1.96	0.47
1:D:3859:VAL:HG13	1:D:3864:THR:HG23	1.96	0.47
1:D:4131:ARG:HG2	1:D:4132:PHE:CE2	2.49	0.47
1:D:4769:MET:HE3	1:D:4769:MET:H	1.78	0.47
1:C:125:ARG:HD3	1:C:134:ASP:OD1	2.14	0.47
1:C:1448:VAL:HG22	1:C:1554:VAL:HG23	1.95	0.47
1:C:2004:GLU:OE1	1:C:2004:GLU:N	2.47	0.47
1:C:2755:ILE:HG22	1:C:2809:ILE:HG22	1.96	0.47
1:C:3532:LEU:HB3	1:C:3596:VAL:HG11	1.95	0.47
1:C:3843:ASP:H	1:C:3874:VAL:HG12	1.80	0.47
1:C:3859:VAL:HG13	1:C:3864:THR:HG23	1.96	0.47
1:C:4069:LYS:HD3	1:C:4133:GLN:HG3	1.96	0.47
1:A:643:SER:OG	1:A:826:ILE:HD12	2.14	0.47
1:A:1163:THR:HG22	1:A:1168:VAL:HA	1.96	0.47
1:A:2924:GLN:O	1:A:2928:LYS:HG2	2.14	0.47
1:A:3354:LEU:HD23	1:A:3415:TYR:CZ	2.49	0.47
1:A:3629:ARG:HG3	1:A:3630:ARG:N	2.30	0.47
1:A:3981:ALA:HB2	1:A:4040:ILE:HD11	1.97	0.47
2:H:41:ASP:N	2:H:41:ASP:OD1	2.47	0.47
1:B:2825:LYS:HB2	1:B:2827:ARG:HE	1.79	0.47
1:B:4056:GLU:OE1	1:B:4056:GLU:HA	2.14	0.47
1:B:4885:PHE:O	1:B:4889:VAL:HG22	2.14	0.47
1:D:110:ARG:HA	1:D:117:TYR:HA	1.97	0.47
1:D:2715:VAL:HG13	1:D:2953:LYS:HB3	1.96	0.47
1:D:2740:VAL:HG21	1:D:2819:TRP:HE1	1.79	0.47
1:D:3384:LYS:HB3	1:D:3384:LYS:HE2	1.66	0.47
1:D:3629:ARG:HA	1:D:3632:VAL:HG22	1.96	0.47
1:D:4581:LYS:HG2	1:D:4633:GLU:HB2	1.96	0.47
1:A:16:THR:OG1	1:A:99:ARG:N	2.48	0.47
1:A:135:VAL:HG21	1:A:180:LEU:HD12	1.96	0.47
1:A:784:SER:OG	1:A:785:ALA:N	2.47	0.47
1:A:1155:LEU:HD23	1:A:1184:ILE:HG12	1.97	0.47
1:A:4131:ARG:HG2	1:A:4132:PHE:CE2	2.49	0.47
1:A:4157:ASP:OD2	1:A:4160:LEU:N	2.39	0.47
1:A:4253:GLU:HG3	1:A:4557:ARG:HH21	1.79	0.47
2:E:11:ASP:OD2	2:E:12:GLY:N	2.47	0.47
1:B:78:LEU:O	1:B:81:MET:HG3	2.13	0.47
1:B:78:LEU:O	1:B:82:LEU:HG	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:273:HIS:O	1:B:275:ARG:NE	2.44	0.47
1:B:296:ASP:OD2	1:B:296:ASP:N	2.40	0.47
1:B:308:HIS:O	1:B:309:THR:HG22	2.15	0.47
1:B:1997:GLU:HB2	1:B:2008:MET:CE	2.44	0.47
1:B:2715:VAL:HG13	1:B:2953:LYS:HB3	1.96	0.47
1:B:3354:LEU:HD23	1:B:3415:TYR:CZ	2.49	0.47
1:B:4069:LYS:HD3	1:B:4133:GLN:HG3	1.96	0.47
1:D:2924:GLN:O	1:D:2928:LYS:HG2	2.15	0.47
1:C:73:LEU:O	1:C:106:ALA:N	2.28	0.47
1:C:234:SER:OG	1:C:238:SER:OG	2.24	0.47
1:C:2502:MET:HE3	1:C:2502:MET:HA	1.96	0.47
1:C:3460:VAL:HG12	1:C:3502:ARG:HH22	1.80	0.47
1:C:4885:PHE:O	1:C:4889:VAL:HG22	2.14	0.47
1:A:244:LEU:HB3	1:A:375:LYS:HZ3	1.79	0.47
1:A:273:HIS:O	1:A:275:ARG:NE	2.44	0.47
1:A:2965:ARG:HE	1:A:2969:ILE:HD11	1.78	0.47
1:B:247:TYR:CE1	1:B:359:TYR:HA	2.50	0.47
1:B:323:LEU:HB3	1:B:325:THR:HG23	1.95	0.47
1:B:867:LEU:HD12	1:B:929:LEU:HD23	1.96	0.47
1:B:1155:LEU:HD23	1:B:1184:ILE:HG12	1.97	0.47
1:B:1520:VAL:HG12	1:B:1527:MET:HG2	1.96	0.47
1:B:2000:SER:O	1:B:3638:MET:HE2	2.15	0.47
1:B:2218:GLY:HA3	1:B:2221:LYS:HE2	1.96	0.47
1:B:2301:TYR:HB3	1:B:2331:TYR:CE2	2.49	0.47
1:B:3571:TRP:CE2	1:C:1228:ILE:HG12	2.49	0.47
1:B:3629:ARG:HA	1:B:3632:VAL:HG22	1.96	0.47
1:B:3843:ASP:H	1:B:3874:VAL:HG12	1.79	0.47
1:D:784:SER:OG	1:D:785:ALA:N	2.47	0.47
1:D:2004:GLU:OE1	1:D:2004:GLU:N	2.47	0.47
1:D:2123:LEU:O	1:D:2127:GLN:HG2	2.13	0.47
1:D:2218:GLY:HA3	1:D:2221:LYS:HE2	1.96	0.47
1:D:2288:LEU:O	1:D:3849:ARG:NH1	2.47	0.47
1:D:3582:ARG:H	1:D:3582:ARG:HG2	1.43	0.47
1:D:4680:LYS:HE3	1:D:4686:LEU:HD22	1.97	0.47
1:C:939:VAL:HG12	1:C:1053:ILE:HG23	1.97	0.47
1:C:1155:LEU:HD23	1:C:1184:ILE:HG12	1.97	0.47
1:C:1566:LEU:HD23	1:C:1575:LEU:HD23	1.96	0.47
1:C:1585:LYS:HE2	1:C:1585:LYS:HA	1.96	0.47
1:C:2301:TYR:HB3	1:C:2331:TYR:CE2	2.50	0.47
1:C:3106:MET:CE	1:C:3132:THR:HB	2.40	0.47
1:C:3514:LEU:HD12	1:C:3606:LEU:HD13	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4069:LYS:HB2	1:C:4133:GLN:HE21	1.80	0.47
1:A:110:ARG:HA	1:A:117:TYR:HA	1.97	0.47
1:A:2799:GLU:O	1:A:2803:GLU:HG2	2.14	0.47
1:A:2985:ARG:HG3	1:A:2985:ARG:NH1	2.30	0.47
1:A:3391:GLU:OE2	1:A:3450:ASN:ND2	2.43	0.47
1:A:3526:ALA:O	1:A:3529:ASP:HB2	2.14	0.47
1:B:244:LEU:HB3	1:B:375:LYS:HZ3	1.78	0.47
1:B:1448:VAL:HG22	1:B:1554:VAL:HG23	1.95	0.47
1:B:2679:PHE:HB2	1:B:2706:ILE:HG21	1.97	0.47
1:B:2965:ARG:HE	1:B:2969:ILE:HD11	1.79	0.47
1:B:3981:ALA:HB2	1:B:4040:ILE:HD11	1.97	0.47
1:D:2301:TYR:HB3	1:D:2331:TYR:CE2	2.50	0.47
1:D:2874:MET:HE3	1:D:2939:ARG:HE	1.78	0.47
1:D:3354:LEU:HD23	1:D:3415:TYR:CZ	2.49	0.47
1:C:247:TYR:CE1	1:C:359:TYR:HA	2.50	0.47
1:C:421:PHE:CZ	1:C:507:ALA:HB2	2.50	0.47
1:C:2584[B]:HIS:HE1	1:C:2621:HIS:HB3	1.79	0.47
1:C:2715:VAL:HG13	1:C:2953:LYS:HB3	1.96	0.47
1:C:3233:PRO:HB3	1:C:3238:GLU:HB3	1.95	0.47
1:C:3526:ALA:O	1:C:3529:ASP:HB2	2.14	0.47
1:C:3529:ASP:OD2	1:C:3592:ILE:HG23	2.14	0.47
1:A:50:GLU:OE2	1:A:61:ASP:N	2.44	0.47
1:A:70:GLU:OE1	1:A:110:ARG:HB3	2.15	0.47
1:A:338:GLU:N	1:A:338:GLU:OE2	2.48	0.47
1:A:1773:PRO:HA	1:A:2153:MET:HE2	1.96	0.47
1:A:1997:GLU:HB2	1:A:2008:MET:CE	2.44	0.47
1:A:2679:PHE:HB2	1:A:2706:ILE:HG21	1.97	0.47
1:A:3089:LYS:O	1:A:3093:ARG:HG3	2.14	0.47
1:A:3460:VAL:HG12	1:A:3502:ARG:HH22	1.80	0.47
1:A:3477:LYS:HZ2	1:B:1141:ARG:HG3	1.69	0.47
1:A:4069:LYS:HD3	1:A:4133:GLN:HG3	1.96	0.47
1:B:70:GLU:OE1	1:B:110:ARG:HB3	2.15	0.47
1:B:1163:THR:HG22	1:B:1168:VAL:HA	1.96	0.47
1:B:2755:ILE:HG22	1:B:2809:ILE:HG22	1.96	0.47
1:B:3629:ARG:HG3	1:B:3630:ARG:N	2.30	0.47
1:D:4069:LYS:HD3	1:D:4133:GLN:HG3	1.97	0.47
1:C:135:VAL:HG21	1:C:180:LEU:HD12	1.97	0.47
1:C:2292:GLU:H	1:C:2292:GLU:CD	2.18	0.47
1:C:2886:TRP:CH2	1:C:2904:LEU:HB3	2.43	0.47
1:A:125:ARG:HD3	1:A:134:ASP:OD1	2.14	0.47
1:A:308:HIS:CE1	1:A:311:ALA:H	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1585:LYS:HE2	1:A:1585:LYS:HA	1.96	0.47
1:A:2005:GLN:O	1:A:2008:MET:HG2	2.14	0.47
1:A:3235:SER:OG	1:A:3237:GLU:OE1	2.30	0.47
1:A:3655:GLU:HA	1:A:3658:LYS:NZ	2.29	0.47
1:A:3843:ASP:H	1:A:3874:VAL:HG12	1.80	0.47
1:A:4680:LYS:HE3	1:A:4686:LEU:HD22	1.97	0.47
1:A:4910:GLU:O	1:A:4914:VAL:HG13	2.14	0.47
1:B:338:GLU:N	1:B:338:GLU:OE2	2.48	0.47
1:B:421:PHE:CZ	1:B:507:ALA:HB2	2.50	0.47
1:B:906:CYS:SG	1:B:913:LEU:HD22	2.55	0.47
1:B:1109:LEU:HA	1:B:1120:LEU:HD13	1.95	0.47
1:B:1421:ARG:H	1:B:1421:ARG:HE	1.62	0.47
1:B:2265:LEU:HD12	1:B:2265:LEU:HA	1.75	0.47
1:B:2351:ASN:O	1:B:2355:ARG:HG3	2.15	0.47
1:B:2358:ILE:HB	1:C:195:PHE:CE1	2.50	0.47
1:B:2584[B]:HIS:HE1	1:B:2621:HIS:HB3	1.79	0.47
1:B:2985:ARG:HG3	1:B:2985:ARG:NH1	2.30	0.47
1:B:3106:MET:CE	1:B:3132:THR:HB	2.40	0.47
1:B:3526:ALA:O	1:B:3529:ASP:HB2	2.14	0.47
1:B:3582:ARG:H	1:B:3582:ARG:HG2	1.42	0.47
1:B:5000:GLU:OE1	1:B:5000:GLU:N	2.44	0.47
1:D:16:THR:OG1	1:D:99:ARG:N	2.48	0.47
1:D:102:LEU:CD1	1:C:3984:ARG:HH22	2.28	0.47
1:D:220:LEU:HD21	1:D:262:LEU:HD21	1.96	0.47
1:D:264:PRO:HB2	1:D:266:ARG:HG2	1.96	0.47
1:D:1155:LEU:HD23	1:D:1184:ILE:HG12	1.96	0.47
1:D:1292:SER:OG	1:D:1596:GLU:O	2.26	0.47
1:D:1520:VAL:HG12	1:D:1527:MET:HG2	1.96	0.47
1:D:1566:LEU:HD23	1:D:1575:LEU:HD23	1.96	0.47
1:D:2005:GLN:O	1:D:2008:MET:HG2	2.14	0.47
1:D:2292:GLU:CD	1:D:2292:GLU:H	2.18	0.47
1:D:2799:GLU:O	1:D:2803:GLU:HG2	2.14	0.47
1:D:3352:GLU:H	1:D:3352:GLU:CD	2.17	0.47
1:D:3532:LEU:HB3	1:D:3596:VAL:HG11	1.96	0.47
1:C:784:SER:OG	1:C:785:ALA:N	2.47	0.47
1:C:2288:LEU:O	1:C:3849:ARG:NH1	2.47	0.47
1:C:2924:GLN:O	1:C:2928:LYS:HG2	2.14	0.47
1:C:3034:LYS:HZ1	1:C:3038:MET:HG3	1.80	0.47
1:C:3629:ARG:HG3	1:C:3630:ARG:N	2.30	0.47
1:C:4543:GLU:O	1:C:4547:GLN:HG2	2.15	0.47
1:A:308:HIS:O	1:A:309:THR:HG22	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:906:CYS:SG	1:A:913:LEU:HD22	2.55	0.47
1:A:2518:LEU:O	1:A:2521:VAL:HG12	2.15	0.47
1:A:2962:GLN:OE1	1:A:2965:ARG:NH1	2.48	0.47
1:A:4707:ASN:HB3	1:A:4774:LYS:HZ2	1.80	0.47
1:B:499:THR:OG1	1:B:500:ALA:N	2.48	0.47
1:B:3935:TRP:CE3	1:C:80:GLU:HG3	2.50	0.47
1:B:4680:LYS:HE3	1:B:4686:LEU:HD22	1.97	0.47
1:D:70:GLU:OE1	1:D:110:ARG:HB3	2.15	0.47
1:D:78:LEU:O	1:D:82:LEU:HG	2.14	0.47
1:D:273:HIS:O	1:D:275:ARG:NE	2.44	0.47
1:D:3573:MET:HG3	1:D:3577:ARG:NH2	2.29	0.47
1:D:4253:GLU:HG3	1:D:4557:ARG:HH21	1.79	0.47
1:C:16:THR:OG1	1:C:99:ARG:N	2.48	0.47
1:C:264:PRO:HB2	1:C:266:ARG:HG2	1.96	0.47
1:C:643:SER:OG	1:C:826:ILE:HD12	2.14	0.47
1:C:906:CYS:SG	1:C:913:LEU:HD22	2.55	0.47
1:C:2799:GLU:O	1:C:2803:GLU:HG2	2.14	0.47
1:C:3834:ALA:O	1:C:3838:THR:HG23	2.15	0.47
1:C:4748:LEU:HD12	1:C:4749:GLU:N	2.30	0.47
1:A:1109:LEU:HA	1:A:1120:LEU:HD13	1.95	0.47
1:A:1520:VAL:HG12	1:A:1527:MET:HG2	1.96	0.47
1:A:1703:LEU:HD23	1:A:1704:PRO:HD2	1.97	0.47
1:B:13:PHE:HE1	1:B:164:ARG:HG2	1.80	0.47
1:B:16:THR:OG1	1:B:99:ARG:N	2.48	0.47
1:B:643:SER:OG	1:B:826:ILE:HD12	2.14	0.47
1:B:730:VAL:HG23	1:B:1476:MET:HE1	1.97	0.47
1:B:2138:LEU:HB3	1:B:3658:LYS:HE3	1.95	0.47
1:B:4581:LYS:HE2	1:B:4581:LYS:HB2	1.64	0.47
1:D:308:HIS:O	1:D:309:THR:HG22	2.15	0.47
1:D:1421:ARG:HE	1:D:1421:ARG:H	1.62	0.47
1:D:2502:MET:HE3	1:D:2502:MET:HA	1.97	0.47
1:D:3384:LYS:HE3	1:D:3386:GLU:HB3	1.97	0.47
1:D:3834:ALA:O	1:D:3838:THR:HG23	2.15	0.47
1:D:4069:LYS:HB2	1:D:4133:GLN:HE21	1.80	0.47
1:C:867:LEU:HD12	1:C:929:LEU:HD23	1.96	0.47
1:C:1163:THR:HG22	1:C:1168:VAL:HA	1.96	0.47
1:C:2369[B]:ARG:HD3	1:C:2369[B]:ARG:HA	1.57	0.47
1:C:2962:GLN:OE1	1:C:2965:ARG:NH1	2.48	0.47
1:C:3384:LYS:HE3	1:C:3386:GLU:HB3	1.97	0.47
1:C:3629:ARG:HA	1:C:3632:VAL:HG22	1.96	0.47
1:A:247:TYR:CE1	1:A:359:TYR:HA	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3629:ARG:HA	1:A:3632:VAL:HG22	1.96	0.47
2:H:79:ASP:OD2	2:H:79:ASP:N	2.47	0.47
1:B:110:ARG:HA	1:B:117:TYR:HA	1.96	0.47
1:B:125:ARG:HD3	1:B:134:ASP:OD1	2.14	0.47
1:B:259:LEU:HD21	1:B:393:CYS:HB2	1.97	0.47
1:B:1260:MET:HE3	1:B:1269:CYS:HB2	1.97	0.47
1:B:1763:PRO:HG3	1:B:2094:LEU:HD22	1.97	0.47
1:B:2005:GLN:O	1:B:2008:MET:HG2	2.14	0.47
1:B:2672:LEU:HD23	1:B:2672:LEU:HA	1.81	0.47
1:B:2962:GLN:OE1	1:B:2965:ARG:NH1	2.48	0.47
1:B:3859:VAL:HG13	1:B:3864:THR:HG23	1.96	0.47
1:D:867:LEU:HD12	1:D:929:LEU:HD23	1.96	0.47
1:D:4230:LYS:HG2	1:D:4231:MET:CE	2.45	0.47
1:C:1260:MET:HE3	1:C:1269:CYS:HB2	1.97	0.47
1:A:1727:ARG:HD3	1:A:1727:ARG:HA	1.62	0.46
1:A:2218:GLY:HA3	1:A:2221:LYS:HE2	1.96	0.46
1:A:2292:GLU:H	1:A:2292:GLU:CD	2.18	0.46
1:A:2527:LEU:HD21	1:A:2582:MET:HB2	1.96	0.46
1:A:2584[B]:HIS:HE1	1:A:2621:HIS:HB3	1.79	0.46
1:A:2874:MET:HE3	1:A:2939:ARG:HE	1.79	0.46
1:A:3859:VAL:HG13	1:A:3864:THR:HG23	1.96	0.46
1:B:590:LEU:HB2	1:B:599:VAL:HG11	1.97	0.46
1:B:939:VAL:HG12	1:B:1053:ILE:HG23	1.97	0.46
1:B:2740:VAL:HG21	1:B:2819:TRP:HE1	1.79	0.46
1:D:135:VAL:HG21	1:D:180:LEU:HD12	1.96	0.46
1:D:906:CYS:SG	1:D:913:LEU:HD22	2.55	0.46
1:D:2294:ASP:O	1:D:2298:VAL:HG23	2.15	0.46
1:D:2584[B]:HIS:HE1	1:D:2621:HIS:HB3	1.79	0.46
1:D:2886:TRP:CH2	1:D:2904:LEU:HB3	2.43	0.46
1:D:4056:GLU:OE1	1:D:4056:GLU:HA	2.14	0.46
1:D:4543:GLU:O	1:D:4547:GLN:HG2	2.15	0.46
1:C:110:ARG:HA	1:C:117:TYR:HA	1.97	0.46
1:C:2351:ASN:O	1:C:2355:ARG:HG3	2.15	0.46
1:C:2825:LYS:HB2	1:C:2827:ARG:HE	1.79	0.46
1:C:4253:GLU:HG3	1:C:4557:ARG:HH21	1.79	0.46
1:A:2294:ASP:O	1:A:2298:VAL:HG23	2.15	0.46
1:A:3003:LEU:HB2	1:A:3004:PRO:HD3	1.97	0.46
1:A:4069:LYS:HB2	1:A:4133:GLN:HE21	1.80	0.46
2:G:41:ASP:OD1	2:G:41:ASP:N	2.47	0.46
1:B:1703:LEU:HD23	1:B:1704:PRO:HD2	1.97	0.46
1:B:1808:ARG:HG3	1:B:1809:ASP:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2292:GLU:H	1:B:2292:GLU:CD	2.18	0.46
1:B:2527:LEU:HD21	1:B:2582:MET:HB2	1.96	0.46
1:B:2653:LYS:HB2	1:B:2653:LYS:HE2	1.72	0.46
1:B:2770:LYS:HD2	1:B:2787:THR:HG22	1.98	0.46
1:B:4069:LYS:HB2	1:B:4133:GLN:HE21	1.80	0.46
1:D:247:TYR:CE1	1:D:359:TYR:HA	2.50	0.46
1:D:1703:LEU:HD23	1:D:1704:PRO:HD2	1.97	0.46
1:D:2481:LYS:HA	1:D:2481:LYS:HD3	1.78	0.46
1:D:2679:PHE:HB2	1:D:2706:ILE:HG21	1.97	0.46
1:D:4748:LEU:HD12	1:D:4749:GLU:N	2.30	0.46
1:C:1738:LEU:HD13	1:C:1963:GLU:HG3	1.97	0.46
1:C:2284:ASN:OD1	1:C:2342:ASN:ND2	2.49	0.46
1:C:3070:ILE:O	1:C:3074:SER:OG	2.28	0.46
1:A:2301:TYR:HB3	1:A:2331:TYR:CE2	2.49	0.46
1:A:3384:LYS:HE3	1:A:3386:GLU:HB3	1.97	0.46
1:A:4581:LYS:HG2	1:A:4633:GLU:HB2	1.96	0.46
2:H:90:ILE:HD12	1:D:1687:SER:CB	2.43	0.46
2:G:79:ASP:OD2	2:G:79:ASP:N	2.49	0.46
1:B:516:LYS:O	1:B:520:ASN:ND2	2.40	0.46
1:B:2799:GLU:O	1:B:2803:GLU:HG2	2.14	0.46
1:B:2924:GLN:O	1:B:2928:LYS:HG2	2.14	0.46
1:B:3003:LEU:HB2	1:B:3004:PRO:HD3	1.97	0.46
1:B:3573:MET:HG3	1:B:3577:ARG:NH2	2.29	0.46
1:B:4003:LEU:HA	1:B:4009:GLN:NE2	2.31	0.46
1:D:80:GLU:HG3	1:C:3935:TRP:CE3	2.51	0.46
1:D:262:LEU:HD12	1:D:262:LEU:O	2.16	0.46
1:D:2203:MET:HG3	1:D:2235:PHE:HZ	1.81	0.46
1:D:2351:ASN:O	1:D:2355:ARG:HG3	2.15	0.46
1:D:2518:LEU:HD22	1:D:2565:CYS:HB3	1.98	0.46
1:D:2977:LEU:HA	1:D:2980:VAL:HG22	1.97	0.46
1:D:5000:GLU:OE1	1:D:5000:GLU:N	2.44	0.46
1:C:472:ARG:NH1	1:C:475:GLN:OE1	2.49	0.46
1:C:669:ASP:OD2	1:C:788:LYS:NZ	2.49	0.46
1:C:1520:VAL:HG12	1:C:1527:MET:HG2	1.96	0.46
1:C:2000:SER:O	1:C:3638:MET:HE2	2.14	0.46
1:C:2005:GLN:O	1:C:2008:MET:HG2	2.14	0.46
1:C:2196:ASN:OD1	1:C:2199:ARG:NH2	2.48	0.46
1:C:2985:ARG:HG3	1:C:2985:ARG:NH1	2.29	0.46
1:A:2351:ASN:O	1:A:2355:ARG:HG3	2.15	0.46
1:A:3233:PRO:HB3	1:A:3238:GLU:HB3	1.95	0.46
1:A:4230:LYS:HG2	1:A:4231:MET:CE	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4543:GLU:O	1:A:4547:GLN:HG2	2.15	0.46
1:A:4748:LEU:HD12	1:A:4749:GLU:N	2.30	0.46
1:B:1248:VAL:HG22	1:B:1599:MET:HB3	1.97	0.46
1:B:1252:HIS:HD2	1:B:1255:TYR:HB2	1.80	0.46
1:B:1537:ASN:OD1	1:B:1537:ASN:N	2.40	0.46
1:B:2004:GLU:OE1	1:B:2004:GLU:N	2.47	0.46
1:B:4867:GLU:OE1	1:B:4867:GLU:N	2.36	0.46
1:D:1172:ASP:OD1	1:D:1172:ASP:N	2.35	0.46
1:D:1763:PRO:HG3	1:D:2094:LEU:HD22	1.97	0.46
1:D:1808:ARG:HG3	1:D:1809:ASP:N	2.31	0.46
1:D:2196:ASN:OD1	1:D:2199:ARG:NH2	2.48	0.46
1:D:2624:ARG:HD3	1:D:2910:THR:HB	1.97	0.46
1:D:3629:ARG:NH2	1:D:3633:VAL:HG21	2.30	0.46
1:D:3843:ASP:H	1:D:3874:VAL:HG12	1.80	0.46
1:C:70:GLU:OE1	1:C:110:ARG:HB3	2.15	0.46
1:C:308:HIS:O	1:C:309:THR:HG22	2.15	0.46
1:C:1537:ASN:OD1	1:C:1537:ASN:N	2.40	0.46
1:A:2518:LEU:HD22	1:A:2565:CYS:HB3	1.98	0.46
1:A:2755:ILE:HG22	1:A:2809:ILE:HG22	1.96	0.46
1:A:3378:GLN:HA	1:A:3381:LEU:HD23	1.98	0.46
1:A:3834:ALA:O	1:A:3838:THR:HG23	2.15	0.46
1:A:4056:GLU:OE1	1:A:4056:GLU:HA	2.14	0.46
1:A:5000:GLU:OE1	1:A:5000:GLU:N	2.44	0.46
2:E:44:LYS:HB3	2:E:44:LYS:NZ	2.30	0.46
1:B:2284:ASN:OD1	1:B:2342:ASN:ND2	2.49	0.46
1:B:3378:GLN:HA	1:B:3381:LEU:HD23	1.98	0.46
1:B:3460:VAL:HG12	1:B:3502:ARG:HH22	1.80	0.46
1:B:3984:ARG:HH22	1:C:102:LEU:CD1	2.29	0.46
1:B:4748:LEU:HD12	1:B:4749:GLU:N	2.30	0.46
1:D:50:GLU:OE2	1:D:61:ASP:N	2.44	0.46
1:D:883:ALA:O	1:D:887:ILE:HG23	2.16	0.46
1:D:1753:LYS:NZ	1:D:1759:ARG:HG2	2.29	0.46
1:D:2770:LYS:HD2	1:D:2787:THR:HG22	1.98	0.46
1:C:938:HIS:ND1	1:C:1054:GLU:OE2	2.45	0.46
1:C:1703:LEU:HD23	1:C:1704:PRO:HD2	1.97	0.46
1:C:1808:ARG:HG3	1:C:1809:ASP:N	2.31	0.46
1:C:2570:ALA:HB2	1:C:2613:TYR:HB3	1.98	0.46
1:C:3348:ARG:HA	1:C:3348:ARG:CZ	2.46	0.46
1:C:3981:ALA:HB2	1:C:4040:ILE:HD11	1.97	0.46
1:C:4230:LYS:HG2	1:C:4231:MET:CE	2.46	0.46
1:A:897:ARG:HG3	1:A:905:PRO:HD2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2310:CYS:H	1:A:2324:ASN:HB2	1.81	0.46
1:A:3348:ARG:CZ	1:A:3348:ARG:HA	2.46	0.46
1:A:3537:LYS:HE2	1:A:3537:LYS:HB3	1.70	0.46
1:B:171:LEU:O	1:B:179:TYR:HA	2.16	0.46
1:B:220:LEU:HD21	1:B:262:LEU:HD21	1.96	0.46
1:B:1738:LEU:HD13	1:B:1963:GLU:HG3	1.98	0.46
1:B:2294:ASP:O	1:B:2298:VAL:HG23	2.15	0.46
1:B:3384:LYS:HE3	1:B:3386:GLU:HB3	1.97	0.46
1:B:3514:LEU:HD12	1:B:3606:LEU:HD13	1.97	0.46
1:B:4543:GLU:O	1:B:4547:GLN:HG2	2.15	0.46
1:D:171:LEU:O	1:D:179:TYR:HA	2.16	0.46
1:D:195:PHE:CE1	1:C:2358:ILE:HB	2.51	0.46
1:D:2570:ALA:HB2	1:D:2613:TYR:HB3	1.98	0.46
1:D:3348:ARG:CZ	1:D:3348:ARG:HA	2.46	0.46
1:C:338:GLU:N	1:C:338:GLU:OE2	2.48	0.46
1:C:590:LEU:HB2	1:C:599:VAL:HG11	1.97	0.46
1:C:897:ARG:HG3	1:C:905:PRO:HD2	1.98	0.46
1:C:1974:ARG:NH1	1:C:3642:TYR:HB2	2.31	0.46
1:C:3354:LEU:HB3	1:C:3415:TYR:CZ	2.51	0.46
1:C:4680:LYS:HE3	1:C:4686:LEU:HD22	1.97	0.46
1:A:259:LEU:HD21	1:A:393:CYS:HB2	1.97	0.46
1:A:421:PHE:CZ	1:A:507:ALA:HB2	2.50	0.46
1:A:669:ASP:OD2	1:A:788:LYS:NZ	2.49	0.46
1:A:883:ALA:O	1:A:887:ILE:HG23	2.16	0.46
1:A:975:VAL:HG11	1:A:1044:ARG:HA	1.98	0.46
1:A:2284:ASN:OD1	1:A:2342:ASN:ND2	2.49	0.46
1:A:2477:PRO:HD2	1:A:2536:LEU:HD21	1.98	0.46
1:A:2816:MET:O	1:A:2821:TRP:HB2	2.16	0.46
1:A:3034:LYS:NZ	1:A:3038:MET:HG3	2.31	0.46
1:A:3514:LEU:HD12	1:A:3606:LEU:HD13	1.97	0.46
2:F:7:ILE:HA	1:B:719:LEU:HD11	1.97	0.46
1:B:476:SER:O	1:B:480:GLU:HG2	2.16	0.46
1:B:675:LEU:HD23	1:B:1633:PRO:HB3	1.98	0.46
1:B:2115:GLU:H	1:B:2115:GLU:CD	2.19	0.46
1:B:2226:PRO:HB2	1:B:2267:MET:CE	2.46	0.46
1:B:4253:GLU:HG3	1:B:4557:ARG:HH21	1.79	0.46
1:D:338:GLU:N	1:D:338:GLU:OE2	2.48	0.46
1:D:2204:HIS:HA	1:D:2235:PHE:HE1	1.81	0.46
1:D:3354:LEU:HB3	1:D:3415:TYR:CZ	2.51	0.46
1:D:3460:VAL:HG12	1:D:3502:ARG:HH22	1.80	0.46
1:C:476:SER:O	1:C:480:GLU:HG2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2204:HIS:HA	1:C:2235:PHE:HE1	1.81	0.46
1:C:2740:VAL:HG21	1:C:2819:TRP:HE1	1.79	0.46
1:C:4056:GLU:OE1	1:C:4056:GLU:HA	2.14	0.46
1:A:13:PHE:HE1	1:A:164:ARG:HG2	1.80	0.46
1:A:1421:ARG:HE	1:A:1421:ARG:H	1.62	0.46
1:A:1808:ARG:HG3	1:A:1809:ASP:N	2.31	0.46
1:A:2000:SER:O	1:A:3638:MET:HE2	2.16	0.46
1:A:2226:PRO:HB2	1:A:2267:MET:CE	2.46	0.46
1:A:2570:ALA:HB2	1:A:2613:TYR:HB3	1.98	0.46
1:A:2806:ARG:HG3	1:A:2810:LYS:HZ1	1.80	0.46
1:A:3629:ARG:NH2	1:A:3633:VAL:HG21	2.31	0.46
1:A:4003:LEU:HA	1:A:4009:GLN:NE2	2.31	0.46
2:H:44:LYS:NZ	2:H:44:LYS:HB3	2.31	0.46
1:B:244:LEU:HD13	1:B:375:LYS:HE2	1.98	0.46
1:B:1444:GLU:HA	1:B:1444:GLU:OE1	2.16	0.46
1:B:1581:LEU:O	1:B:1584:ARG:HG2	2.16	0.46
1:B:2204:HIS:HA	1:B:2235:PHE:HE1	1.81	0.46
1:B:2570:ALA:HB2	1:B:2613:TYR:HB3	1.98	0.46
1:B:3629:ARG:NH2	1:B:3633:VAL:HG21	2.31	0.46
1:B:4097:MET:HE2	1:B:4108:ILE:HG12	1.98	0.46
1:D:244:LEU:HD13	1:D:375:LYS:HE2	1.98	0.46
1:D:259:LEU:HD21	1:D:393:CYS:HB2	1.97	0.46
1:D:369:LEU:H	1:D:369:LEU:HD12	1.81	0.46
1:D:426:ARG:HH11	1:D:508:GLY:HA2	1.81	0.46
1:D:2310:CYS:H	1:D:2324:ASN:HB2	1.81	0.46
1:D:2816:MET:O	1:D:2821:TRP:HB2	2.16	0.46
1:D:4707:ASN:HB3	1:D:4774:LYS:HZ2	1.80	0.46
1:C:262:LEU:O	1:C:262:LEU:HD12	2.16	0.46
1:C:499:THR:OG1	1:C:500:ALA:N	2.48	0.46
1:C:1421:ARG:HE	1:C:1421:ARG:H	1.62	0.46
1:C:2679:PHE:HB2	1:C:2706:ILE:HG21	1.97	0.46
1:C:2913:ALA:O	1:C:2917:ALA:N	2.49	0.46
1:A:426:ARG:HH11	1:A:508:GLY:HA2	1.81	0.46
1:A:590:LEU:HB2	1:A:599:VAL:HG11	1.97	0.46
1:A:1248:VAL:HG22	1:A:1599:MET:HB3	1.97	0.46
1:A:1292:SER:OG	1:A:1596:GLU:O	2.26	0.46
1:A:1422:ASP:OD1	1:A:1571:ASN:N	2.39	0.46
1:A:2977:LEU:HA	1:A:2980:VAL:HG22	1.97	0.46
1:A:4860:ARG:HG3	1:A:4876:CYS:HB3	1.98	0.46
1:B:262:LEU:HD12	1:B:262:LEU:O	2.16	0.46
1:B:897:ARG:HG3	1:B:905:PRO:HD2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2477:PRO:HD2	1:B:2536:LEU:HD21	1.98	0.46
1:B:2518:LEU:O	1:B:2521:VAL:HG12	2.15	0.46
1:B:2977:LEU:HA	1:B:2980:VAL:HG22	1.97	0.46
1:B:3348:ARG:CZ	1:B:3348:ARG:HA	2.46	0.46
1:B:3354:LEU:HB3	1:B:3415:TYR:CZ	2.51	0.46
1:B:3834:ALA:O	1:B:3838:THR:HG23	2.15	0.46
1:B:4230:LYS:HG2	1:B:4231:MET:CE	2.46	0.46
1:D:13:PHE:HE1	1:D:164:ARG:HG2	1.80	0.46
1:D:421:PHE:CZ	1:D:507:ALA:HB2	2.50	0.46
1:D:472:ARG:NH1	1:D:475:GLN:OE1	2.49	0.46
1:D:476:SER:O	1:D:480:GLU:HG2	2.16	0.46
1:D:1226:PHE:O	1:D:1827:ARG:NH2	2.42	0.46
1:D:1252:HIS:HD2	1:D:1255:TYR:HB2	1.81	0.46
1:D:1974:ARG:NH1	1:D:3642:TYR:HB2	2.31	0.46
1:D:2518:LEU:O	1:D:2521:VAL:HG12	2.15	0.46
1:D:2962:GLN:OE1	1:D:2965:ARG:NH1	2.48	0.46
1:C:345:LEU:HA	1:C:345:LEU:HD23	1.74	0.46
1:C:1581:LEU:O	1:C:1584:ARG:HG2	2.16	0.46
1:C:2310:CYS:H	1:C:2324:ASN:HB2	1.81	0.46
1:C:2874:MET:HE3	1:C:2939:ARG:HE	1.79	0.46
1:C:3629:ARG:NH2	1:C:3633:VAL:HG21	2.30	0.46
1:A:472:ARG:NH1	1:A:475:GLN:OE1	2.49	0.46
1:A:894:GLY:HA3	1:A:903:LEU:HD13	1.98	0.46
1:A:2115:GLU:H	1:A:2115:GLU:CD	2.19	0.46
1:B:369:LEU:H	1:B:369:LEU:HD12	1.81	0.46
1:B:975:VAL:HG11	1:B:1044:ARG:HA	1.98	0.46
1:B:2805:TYR:O	1:B:2808:PRO:HD2	2.16	0.46
1:B:2816:MET:O	1:B:2821:TRP:HB2	2.16	0.46
1:B:4067:LYS:HE3	1:B:4102:GLN:HB3	1.98	0.46
1:D:345:LEU:HD23	1:D:345:LEU:HA	1.74	0.46
1:D:2477:PRO:HD2	1:D:2536:LEU:HD21	1.98	0.46
1:D:2805:TYR:O	1:D:2808:PRO:HD2	2.16	0.46
1:D:2913:ALA:O	1:D:2917:ALA:N	2.49	0.46
1:C:45:ARG:HA	1:C:45:ARG:HD3	1.74	0.46
1:C:76:ARG:NH2	1:C:80:GLU:OE2	2.49	0.46
1:C:883:ALA:O	1:C:887:ILE:HG23	2.16	0.46
1:C:1248:VAL:HG22	1:C:1599:MET:HB3	1.97	0.46
1:C:1763:PRO:HG3	1:C:2094:LEU:HD22	1.97	0.46
1:C:2226:PRO:HB2	1:C:2267:MET:CE	2.46	0.46
1:C:2518:LEU:O	1:C:2521:VAL:HG12	2.15	0.46
1:C:2770:LYS:HD2	1:C:2787:THR:HG22	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3352:GLU:H	1:C:3352:GLU:CD	2.17	0.46
1:C:3716:LEU:HD13	1:C:3785:ALA:HB1	1.98	0.46
1:C:4003:LEU:HA	1:C:4009:GLN:NE2	2.31	0.46
1:A:476:SER:O	1:A:480:GLU:HG2	2.16	0.45
1:A:499:THR:OG1	1:A:500:ALA:N	2.48	0.45
1:A:675:LEU:HD23	1:A:1633:PRO:HB3	1.98	0.45
1:A:939:VAL:HG12	1:A:1053:ILE:HG23	1.97	0.45
1:A:1815:LEU:HD22	1:A:1845:VAL:HG21	1.98	0.45
1:A:2196:ASN:OD1	1:A:2199:ARG:NH2	2.48	0.45
1:A:2239:PHE:HA	1:A:2242:ILE:HD12	1.98	0.45
1:A:3935:TRP:CE3	1:B:80:GLU:HG3	2.51	0.45
1:B:255:HIS:CD2	1:B:480:GLU:HG3	2.52	0.45
1:B:472:ARG:NH1	1:B:475:GLN:OE1	2.49	0.45
1:B:632:LEU:O	1:B:634:GLN:NE2	2.46	0.45
1:B:669:ASP:OD2	1:B:788:LYS:NZ	2.49	0.45
1:B:2803:GLU:HB3	1:B:2806:ARG:HE	1.81	0.45
1:D:170:ILE:HD12	1:D:170:ILE:HA	1.79	0.45
1:D:897:ARG:HG3	1:D:905:PRO:HD2	1.98	0.45
1:D:1126:GLY:HA3	1:D:1143:TRP:CD2	2.51	0.45
1:D:2724:GLU:HB2	1:D:2725:LYS:HD2	1.99	0.45
1:D:2827:ARG:NE	1:D:2827:ARG:O	2.49	0.45
1:D:3716:LEU:HD13	1:D:3785:ALA:HB1	1.98	0.45
1:C:534:ARG:HE	1:C:534:ARG:HB3	1.47	0.45
1:C:1444:GLU:OE1	1:C:1444:GLU:HA	2.16	0.45
1:C:2294:ASP:O	1:C:2298:VAL:HG23	2.15	0.45
1:C:2977:LEU:HA	1:C:2980:VAL:HG22	1.97	0.45
1:A:1763:PRO:HG3	1:A:2094:LEU:HD22	1.97	0.45
1:A:2624:ARG:HD3	1:A:2910:THR:HB	1.97	0.45
1:A:2827:ARG:NE	1:A:2827:ARG:O	2.49	0.45
1:A:4730:ASP:HB2	1:D:4101:LYS:HD3	1.97	0.45
1:B:1974:ARG:NH1	1:B:3642:TYR:HB2	2.31	0.45
1:B:2330:ARG:HA	1:B:2333:ASP:OD2	2.16	0.45
1:B:2724:GLU:HB2	1:B:2725:LYS:HD2	1.99	0.45
1:B:4184:MET:HE1	1:B:4188:ARG:HA	1.98	0.45
1:D:1045:THR:HG22	1:D:1049:TYR:CZ	2.52	0.45
1:D:1581:LEU:O	1:D:1584:ARG:HG2	2.16	0.45
1:D:2284:ASN:OD1	1:D:2342:ASN:ND2	2.49	0.45
1:D:2330:ARG:HA	1:D:2333:ASP:OD2	2.16	0.45
1:D:2788:HIS:CD2	1:D:2789:PRO:HD2	2.51	0.45
1:D:2985:ARG:HG3	1:D:2985:ARG:NH1	2.30	0.45
1:D:3003:LEU:HB2	1:D:3004:PRO:HD3	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:171:LEU:O	1:C:179:TYR:HA	2.16	0.45
1:C:255:HIS:CD2	1:C:480:GLU:HG3	2.52	0.45
1:C:626:LEU:HB3	1:C:1688:HIS:NE2	2.32	0.45
1:C:1997:GLU:HB2	1:C:2008:MET:CE	2.44	0.45
1:C:2805:TYR:O	1:C:2808:PRO:HD2	2.16	0.45
1:C:3659:ALA:HA	1:C:3663:LEU:HD12	1.97	0.45
1:A:255:HIS:CD2	1:A:480:GLU:HG3	2.52	0.45
1:A:262:LEU:HD12	1:A:262:LEU:O	2.16	0.45
1:A:369:LEU:HD12	1:A:369:LEU:H	1.81	0.45
1:A:2512:ILE:HG13	1:A:2565:CYS:SG	2.56	0.45
1:B:16:THR:HG1	1:B:99:ARG:N	2.14	0.45
1:B:76:ARG:NH2	1:B:80:GLU:OE2	2.49	0.45
1:B:883:ALA:O	1:B:887:ILE:HG23	2.16	0.45
1:B:1815:LEU:HD22	1:B:1845:VAL:HG21	1.99	0.45
1:B:2755:ILE:HG12	1:B:2813:LEU:HG	1.99	0.45
1:B:2913:ALA:O	1:B:2917:ALA:N	2.49	0.45
1:B:3788:GLY:HA3	1:B:3834:ALA:HB3	1.98	0.45
1:B:4860:ARG:HG3	1:B:4876:CYS:HB3	1.98	0.45
1:D:590:LEU:HB2	1:D:599:VAL:HG11	1.97	0.45
1:D:1444:GLU:OE1	1:D:1444:GLU:HA	2.16	0.45
1:D:2355:ARG:HG3	1:D:2355:ARG:HH11	1.82	0.45
1:D:3629:ARG:HG3	1:D:3630:ARG:N	2.30	0.45
1:D:3996:PHE:CD2	1:D:4020:GLN:HG2	2.52	0.45
1:D:4673:ARG:O	1:D:4676:GLU:HG3	2.17	0.45
1:C:244:LEU:HD13	1:C:375:LYS:HE2	1.98	0.45
1:C:259:LEU:HD21	1:C:393:CYS:HB2	1.97	0.45
1:C:675:LEU:HD23	1:C:1633:PRO:HB3	1.98	0.45
1:C:2203:MET:HG3	1:C:2235:PHE:HZ	1.80	0.45
1:C:2239:PHE:HA	1:C:2242:ILE:HD12	1.99	0.45
1:A:1260:MET:HE3	1:A:1269:CYS:HB2	1.98	0.45
1:A:1444:GLU:OE1	1:A:1444:GLU:HA	2.16	0.45
1:A:1581:LEU:O	1:A:1584:ARG:HG2	2.16	0.45
1:A:1747:LEU:HD13	1:A:1957:SER:HB2	1.99	0.45
1:A:2203:MET:HG3	1:A:2235:PHE:HZ	1.81	0.45
1:A:2913:ALA:O	1:A:2917:ALA:N	2.49	0.45
1:B:426:ARG:HH11	1:B:508:GLY:HA2	1.81	0.45
1:B:2310:CYS:H	1:B:2324:ASN:HB2	1.81	0.45
1:B:2756:ASN:O	1:B:2760:GLU:HG2	2.17	0.45
1:B:4015:GLU:HA	1:B:4018:ASP:OD2	2.17	0.45
1:D:1747:LEU:HD13	1:D:1957:SER:HB2	1.99	0.45
1:D:2756:ASN:O	1:D:2760:GLU:HG2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3034:LYS:NZ	1:D:3038:MET:HG3	2.31	0.45
1:C:13:PHE:HE1	1:C:164:ARG:HG2	1.80	0.45
1:C:369:LEU:H	1:C:369:LEU:HD12	1.81	0.45
1:C:975:VAL:HG11	1:C:1044:ARG:HA	1.97	0.45
1:C:1126:GLY:HA3	1:C:1143:TRP:CD2	2.51	0.45
1:C:2265:LEU:HD12	1:C:2265:LEU:HA	1.75	0.45
1:C:2355:ARG:HG3	1:C:2355:ARG:HH11	1.81	0.45
1:C:2803:GLU:HB3	1:C:2806:ARG:HE	1.81	0.45
1:C:2827:ARG:NE	1:C:2827:ARG:O	2.49	0.45
1:C:3034:LYS:NZ	1:C:3038:MET:HG3	2.31	0.45
1:C:3147:ILE:HG13	1:C:3152:PHE:HB2	1.99	0.45
1:C:3469:PHE:CE2	1:C:3509:LEU:HD21	2.52	0.45
1:C:4097:MET:HE2	1:C:4108:ILE:HG12	1.98	0.45
1:A:3147:ILE:HG13	1:A:3152:PHE:HB2	1.99	0.45
1:A:3659:ALA:HA	1:A:3663:LEU:HD12	1.97	0.45
1:A:3996:PHE:CD2	1:A:4020:GLN:HG2	2.52	0.45
2:G:7:ILE:HA	1:C:719:LEU:HD11	1.98	0.45
2:G:35:LYS:NZ	2:G:38:SER:HB3	2.31	0.45
1:B:894:GLY:HA3	1:B:903:LEU:HD13	1.98	0.45
1:B:1747:LEU:HD13	1:B:1957:SER:HB2	1.99	0.45
1:B:3070:ILE:O	1:B:3074:SER:OG	2.28	0.45
1:B:3384:LYS:HB3	1:B:3384:LYS:HE2	1.66	0.45
1:B:4929:LEU:HD23	1:B:4929:LEU:HA	1.84	0.45
1:D:499:THR:OG1	1:D:500:ALA:N	2.48	0.45
1:D:626:LEU:HB3	1:D:1688:HIS:NE2	2.32	0.45
1:D:669:ASP:OD2	1:D:788:LYS:NZ	2.49	0.45
1:D:1128:ARG:HB3	1:D:1130:GLN:NE2	2.32	0.45
1:D:1248:VAL:HG22	1:D:1599:MET:HB3	1.97	0.45
1:D:1260:MET:HE3	1:D:1269:CYS:HB2	1.98	0.45
1:D:1634:LEU:HD23	1:D:1634:LEU:HA	1.84	0.45
1:D:2226:PRO:HB2	1:D:2267:MET:CE	2.46	0.45
1:D:4003:LEU:HA	1:D:4009:GLN:NE2	2.31	0.45
1:D:4184:MET:HE1	1:D:4188:ARG:HA	1.97	0.45
1:C:426:ARG:HH11	1:C:508:GLY:HA2	1.81	0.45
1:C:1252:HIS:HD2	1:C:1255:TYR:HB2	1.81	0.45
1:C:2116:LEU:O	1:C:2120:MET:HG2	2.17	0.45
1:C:2755:ILE:HG12	1:C:2813:LEU:HG	1.99	0.45
1:C:2756:ASN:O	1:C:2760:GLU:HG2	2.17	0.45
1:A:1990:GLU:HA	1:A:1993:ARG:NH2	2.29	0.45
1:A:2369[B]:ARG:HD3	1:A:2369[B]:ARG:HA	1.56	0.45
1:A:2770:LYS:HD2	1:A:2787:THR:HG22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4015:GLU:HA	1:A:4018:ASP:OD2	2.17	0.45
1:B:1996:ARG:HA	1:B:1996:ARG:NE	2.32	0.45
1:B:2512:ILE:HG13	1:B:2565:CYS:SG	2.56	0.45
1:B:2518:LEU:HD22	1:B:2565:CYS:HB3	1.98	0.45
1:B:2624:ARG:CZ	1:B:2910:THR:HA	2.47	0.45
1:B:2827:ARG:O	1:B:2827:ARG:NE	2.49	0.45
1:B:3061:ALA:O	1:B:3065:VAL:HG13	2.17	0.45
1:B:3576:TYR:CE1	1:B:3582:ARG:HD3	2.52	0.45
1:D:255:HIS:CD2	1:D:480:GLU:HG3	2.52	0.45
1:D:894:GLY:HA3	1:D:903:LEU:HD13	1.98	0.45
1:D:939:VAL:HG12	1:D:1053:ILE:HG23	1.97	0.45
1:D:1449:TRP:N	1:D:1553:PHE:O	2.50	0.45
1:D:1613:LEU:HG	1:D:1630:CYS:SG	2.57	0.45
1:D:1738:LEU:HD13	1:D:1963:GLU:HG3	1.97	0.45
1:D:2042:CYS:HB2	1:D:2044:ILE:HG22	1.99	0.45
1:D:2116:LEU:O	1:D:2120:MET:HG2	2.17	0.45
1:D:3378:GLN:HA	1:D:3381:LEU:HD23	1.98	0.45
1:D:3391:GLU:O	1:D:3394:VAL:HG12	2.17	0.45
1:D:3514:LEU:HD12	1:D:3606:LEU:HD13	1.97	0.45
1:D:3537:LYS:NZ	1:D:3607:GLU:HG2	2.32	0.45
1:D:3981:ALA:HB2	1:D:4040:ILE:HD11	1.97	0.45
1:D:4015:GLU:HA	1:D:4018:ASP:OD2	2.17	0.45
1:C:2001:PRO:O	1:C:2005:GLN:HG3	2.17	0.45
1:C:2512:ILE:HG13	1:C:2565:CYS:SG	2.56	0.45
1:C:2816:MET:O	1:C:2821:TRP:HB2	2.16	0.45
1:C:3378:GLN:HA	1:C:3381:LEU:HD23	1.98	0.45
1:C:3788:GLY:HA3	1:C:3834:ALA:HB3	1.98	0.45
1:C:3802:ILE:HD11	1:C:3883:ASP:O	2.16	0.45
1:C:3996:PHE:CD2	1:C:4020:GLN:HG2	2.52	0.45
1:A:244:LEU:HD13	1:A:375:LYS:HE2	1.98	0.45
1:A:1208:VAL:HG21	1:D:3575:LEU:HD11	1.95	0.45
1:A:1226:PHE:O	1:A:1827:ARG:NH2	2.42	0.45
1:A:1277:TRP:HD1	1:A:1559:GLN:HG3	1.82	0.45
1:A:2355:ARG:HG3	1:A:2355:ARG:HH11	1.82	0.45
1:A:2803:GLU:HB3	1:A:2806:ARG:HE	1.81	0.45
1:A:3537:LYS:NZ	1:A:3607:GLU:HG2	2.32	0.45
1:A:3576:TYR:CE1	1:A:3582:ARG:HD3	2.52	0.45
1:A:3576:TYR:OH	1:A:3582:ARG:NH1	2.50	0.45
2:F:44:LYS:NZ	2:F:44:LYS:HB3	2.31	0.45
1:B:214:VAL:HG13	1:B:341:TYR:HE2	1.82	0.45
1:B:1128:ARG:HB3	1:B:1130:GLN:NE2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2788:HIS:CD2	1:B:2789:PRO:HD2	2.51	0.45
1:B:3469:PHE:CE2	1:B:3509:LEU:HD21	2.52	0.45
1:B:3537:LYS:NZ	1:B:3607:GLU:HG2	2.32	0.45
1:B:3576:TYR:OH	1:B:3582:ARG:NH1	2.50	0.45
1:B:4769:MET:HE3	1:B:4769:MET:H	1.81	0.45
1:D:76:ARG:NH2	1:D:80:GLU:OE2	2.49	0.45
1:D:76:ARG:HH11	1:D:76:ARG:HG3	1.82	0.45
1:D:534:ARG:HE	1:D:534:ARG:HB3	1.47	0.45
1:D:1815:LEU:HD22	1:D:1845:VAL:HG21	1.99	0.45
1:D:2044:ILE:HD13	1:D:2131:LEU:HD22	1.99	0.45
1:D:2512:ILE:HG13	1:D:2565:CYS:SG	2.56	0.45
1:D:2960:LEU:HB3	1:D:3038:MET:HE3	1.99	0.45
1:D:3535:LEU:O	1:D:3538:THR:OG1	2.25	0.45
1:D:3659:ALA:HA	1:D:3663:LEU:HD12	1.97	0.45
1:D:4826:ILE:O	1:D:4829:SER:OG	2.31	0.45
1:D:4911:LEU:HD23	1:D:4911:LEU:HA	1.77	0.45
1:C:273:HIS:O	1:C:275:ARG:NE	2.44	0.45
1:C:1128:ARG:HB3	1:C:1130:GLN:NE2	2.32	0.45
1:C:1996:ARG:NE	1:C:1996:ARG:HA	2.32	0.45
1:C:4015:GLU:HA	1:C:4018:ASP:OD2	2.17	0.45
1:A:171:LEU:O	1:A:179:TYR:HA	2.16	0.45
1:A:938:HIS:ND1	1:A:1054:GLU:OE2	2.45	0.45
1:A:1126:GLY:HA3	1:A:1143:TRP:CD2	2.51	0.45
1:A:1738:LEU:HD13	1:A:1963:GLU:HG3	1.97	0.45
1:A:2204:HIS:HA	1:A:2235:PHE:HE1	1.81	0.45
1:A:2330:ARG:HA	1:A:2333:ASP:OD2	2.16	0.45
1:A:3391:GLU:O	1:A:3394:VAL:HG12	2.17	0.45
1:A:3716:LEU:HD13	1:A:3785:ALA:HB1	1.98	0.45
1:B:188:GLU:OE1	1:B:188:GLU:N	2.39	0.45
1:B:1126:GLY:HA3	1:B:1143:TRP:CD2	2.51	0.45
1:B:1613:LEU:HG	1:B:1630:CYS:SG	2.57	0.45
1:B:2974:ILE:HG13	1:B:2975:ALA:N	2.32	0.45
1:B:3034:LYS:NZ	1:B:3038:MET:HG3	2.31	0.45
1:B:3147:ILE:HG13	1:B:3152:PHE:HB2	1.99	0.45
1:B:3802:ILE:HD11	1:B:3883:ASP:O	2.16	0.45
1:B:4956:THR:O	1:B:4965:SER:N	2.50	0.45
1:D:214:VAL:HG13	1:D:341:TYR:HE2	1.82	0.45
1:D:975:VAL:HG11	1:D:1044:ARG:HA	1.98	0.45
1:D:2001:PRO:O	1:D:2005:GLN:HG3	2.17	0.45
1:D:2226:PRO:HB2	1:D:2267:MET:HE3	1.98	0.45
1:D:3371:LYS:HE2	1:D:3371:LYS:HB2	1.78	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:384:MET:CE	1:C:384:MET:H	2.29	0.45
1:C:1045:THR:HG22	1:C:1049:TYR:CZ	2.52	0.45
1:C:2518:LEU:HD22	1:C:2565:CYS:HB3	1.98	0.45
1:C:2624:ARG:HD3	1:C:2910:THR:HB	1.97	0.45
1:C:2624:ARG:CZ	1:C:2910:THR:HA	2.47	0.45
1:C:2974:ILE:HG13	1:C:2975:ALA:N	2.32	0.45
1:C:3003:LEU:HB2	1:C:3004:PRO:HD3	1.97	0.45
1:C:3756:LYS:HG2	1:C:3760:LYS:HE2	1.99	0.45
1:A:1974:ARG:NH1	1:A:3642:TYR:HB2	2.31	0.45
1:A:2788:HIS:CD2	1:A:2789:PRO:HD2	2.51	0.45
1:A:3469:PHE:CE2	1:A:3509:LEU:HD21	2.52	0.45
1:B:76:ARG:HG3	1:B:76:ARG:HH11	1.82	0.45
1:B:626:LEU:HB3	1:B:1688:HIS:NE2	2.32	0.45
1:B:978:THR:O	1:B:982:THR:HG23	2.17	0.45
1:B:2203:MET:HG3	1:B:2235:PHE:HZ	1.81	0.45
1:B:2355:ARG:HG3	1:B:2355:ARG:HH11	1.82	0.45
1:B:3269:VAL:HA	1:B:3273:THR:HB	1.99	0.45
1:B:3337:ARG:HA	1:B:3340:VAL:HG22	1.99	0.45
1:D:1005:TRP:HA	1:D:1016:ARG:HG2	1.99	0.45
1:D:1728:ARG:HA	1:D:1731:LEU:HD12	1.99	0.45
1:D:2095:GLN:HA	1:D:2127:GLN:HE21	1.82	0.45
1:D:2115:GLU:H	1:D:2115:GLU:CD	2.19	0.45
1:D:3469:PHE:CE2	1:D:3509:LEU:HD21	2.52	0.45
1:D:4067:LYS:HE3	1:D:4102:GLN:HB3	1.98	0.45
1:C:1613:LEU:HG	1:C:1630:CYS:SG	2.57	0.45
1:C:1962:ALA:O	1:C:1966:VAL:HG22	2.17	0.45
1:C:3269:VAL:HA	1:C:3273:THR:HB	1.99	0.45
1:C:4680:LYS:HE2	1:C:4680:LYS:HB2	1.73	0.45
1:C:4860:ARG:HG3	1:C:4876:CYS:HB3	1.98	0.45
1:A:214:VAL:HG13	1:A:341:TYR:HE2	1.82	0.45
1:A:384:MET:CE	1:A:384:MET:H	2.29	0.45
1:A:978:THR:O	1:A:982:THR:HG23	2.17	0.45
1:A:1045:THR:HG22	1:A:1049:TYR:CZ	2.52	0.45
1:A:1128:ARG:HB3	1:A:1130:GLN:NE2	2.32	0.45
1:A:1252:HIS:HD2	1:A:1255:TYR:HB2	1.80	0.45
1:A:1263:THR:OG1	1:A:1265:ASP:OD1	2.25	0.45
1:A:1613:LEU:HG	1:A:1630:CYS:SG	2.57	0.45
1:A:1753:LYS:NZ	1:A:1759:ARG:HG2	2.29	0.45
1:A:1996:ARG:NE	1:A:1996:ARG:HA	2.32	0.45
1:A:2044:ILE:HD13	1:A:2131:LEU:HD22	1.99	0.45
1:A:2653:LYS:HB2	1:A:2653:LYS:HE2	1.72	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2671:GLU:H	1:A:2671:GLU:HG2	1.61	0.45
1:A:2755:ILE:HG12	1:A:2813:LEU:HG	1.99	0.45
1:A:2805:TYR:O	1:A:2808:PRO:HD2	2.16	0.45
1:A:2974:ILE:HG13	1:A:2975:ALA:N	2.32	0.45
1:A:3788:GLY:HA3	1:A:3834:ALA:HB3	1.99	0.45
2:H:7:ILE:HA	1:D:719:LEU:HD11	1.98	0.45
2:H:35:LYS:NZ	2:H:38:SER:HB3	2.32	0.45
1:B:257:ARG:O	1:B:284:HIS:NE2	2.28	0.45
1:B:2502:MET:HE3	1:B:2502:MET:HA	1.99	0.45
1:B:3390:GLY:O	1:B:3393:LEU:HG	2.17	0.45
1:B:3477:LYS:O	1:B:3478:MET:HB2	2.17	0.45
1:B:4074:SER:O	1:B:4078:GLN:HG2	2.17	0.45
1:B:4673:ARG:HH12	1:B:4698:LYS:HD2	1.82	0.45
1:D:848:HIS:O	1:D:852:VAL:HG23	2.17	0.45
1:C:730:VAL:HG23	1:C:1476:MET:HE1	1.99	0.45
1:C:4673:ARG:HH12	1:C:4698:LYS:HD2	1.82	0.45
1:A:76:ARG:NH2	1:A:80:GLU:OE2	2.49	0.44
1:A:2116:LEU:O	1:A:2120:MET:HG2	2.17	0.44
1:A:3390:GLY:O	1:A:3393:LEU:HG	2.17	0.44
1:A:4067:LYS:HE3	1:A:4102:GLN:HB3	1.98	0.44
1:A:4077:PHE:HE1	1:A:4125:PHE:CD2	2.35	0.44
1:B:2044:ILE:HD13	1:B:2131:LEU:HD22	1.99	0.44
1:B:2116:LEU:O	1:B:2120:MET:HG2	2.17	0.44
1:B:2369[B]:ARG:HA	1:B:2369[B]:ARG:HD3	1.57	0.44
1:B:2874:MET:HE3	1:B:2939:ARG:HE	1.80	0.44
1:B:3260:GLY:HA2	1:B:3325:ASN:ND2	2.33	0.44
1:B:3716:LEU:HD13	1:B:3785:ALA:HB1	1.98	0.44
1:B:4077:PHE:HE1	1:B:4125:PHE:CD2	2.35	0.44
1:D:828:GLU:OE1	1:D:828:GLU:N	2.41	0.44
1:D:872:GLU:O	1:D:876:GLU:HG3	2.18	0.44
1:D:3756:LYS:HG2	1:D:3760:LYS:HE2	1.99	0.44
1:D:3802:ILE:HD11	1:D:3883:ASP:O	2.17	0.44
1:C:683:ARG:NH1	1:C:709:ASP:OD1	2.45	0.44
1:C:1005:TRP:HA	1:C:1016:ARG:HG2	1.99	0.44
1:C:2330:ARG:HA	1:C:2333:ASP:OD2	2.16	0.44
1:C:2477:PRO:HD2	1:C:2536:LEU:HD21	1.98	0.44
1:C:2788:HIS:CD2	1:C:2789:PRO:HD2	2.51	0.44
1:C:3061:ALA:O	1:C:3065:VAL:HG13	2.17	0.44
1:C:3535:LEU:O	1:C:3538:THR:OG1	2.25	0.44
1:A:76:ARG:HH11	1:A:76:ARG:HG3	1.82	0.44
1:A:3061:ALA:O	1:A:3065:VAL:HG13	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3206:LEU:HB3	1:A:3246:LEU:HB2	2.00	0.44
1:A:4911:LEU:HD23	1:A:4911:LEU:HA	1.77	0.44
1:A:4956:THR:O	1:A:4965:SER:N	2.50	0.44
1:B:164:ARG:NH1	1:B:164:ARG:HG3	2.32	0.44
1:B:887:ILE:HG21	1:B:955:LEU:HD11	2.00	0.44
1:B:1180:ARG:O	1:B:1181:GLU:HG3	2.17	0.44
1:B:2624:ARG:HD3	1:B:2910:THR:HB	1.97	0.44
1:B:3391:GLU:O	1:B:3394:VAL:HG12	2.17	0.44
1:B:3936:TYR:HA	1:C:76:ARG:NH2	2.28	0.44
1:D:392:ARG:HE	1:D:393:CYS:H	1.65	0.44
1:D:1996:ARG:NE	1:D:1996:ARG:HA	2.31	0.44
1:D:2755:ILE:HG12	1:D:2813:LEU:HG	1.99	0.44
1:C:76:ARG:HH11	1:C:76:ARG:HG3	1.82	0.44
1:C:796:ARG:HA	1:C:796:ARG:CZ	2.48	0.44
1:C:872:GLU:O	1:C:876:GLU:HG3	2.18	0.44
1:C:887:ILE:HG21	1:C:955:LEU:HD11	2.00	0.44
1:C:1180:ARG:O	1:C:1181:GLU:HG3	2.17	0.44
1:C:1277:TRP:HD1	1:C:1559:GLN:HG3	1.82	0.44
1:C:1547:LYS:HB2	1:C:1547:LYS:HE2	1.80	0.44
1:C:1747:LEU:HD13	1:C:1957:SER:HB2	1.99	0.44
1:C:3477:LYS:O	1:C:3478:MET:HB2	2.17	0.44
1:A:266:ARG:O	1:A:270:SER:OG	2.32	0.44
1:A:828:GLU:OE1	1:A:828:GLU:N	2.41	0.44
1:A:1962:ALA:O	1:A:1966:VAL:HG22	2.17	0.44
1:A:2756:ASN:O	1:A:2760:GLU:HG2	2.17	0.44
1:A:2986:VAL:HG22	1:A:2989:SER:H	1.82	0.44
1:A:4097:MET:HE2	1:A:4108:ILE:HG12	1.98	0.44
1:B:796:ARG:CZ	1:B:796:ARG:HA	2.48	0.44
1:B:1653:LEU:HD11	1:B:1659:LEU:HB3	2.00	0.44
1:B:2239:PHE:HA	1:B:2242:ILE:HD12	1.98	0.44
1:B:3206:LEU:HB3	1:B:3246:LEU:HB2	2.00	0.44
1:B:3249:LEU:HD12	1:B:3249:LEU:HA	1.87	0.44
1:B:3403:ARG:HA	1:B:3458:PHE:CE2	2.53	0.44
1:B:3659:ALA:HA	1:B:3663:LEU:HD12	1.98	0.44
1:D:384:MET:H	1:D:384:MET:CE	2.30	0.44
1:D:675:LEU:HD23	1:D:1633:PRO:HB3	1.98	0.44
1:D:1112:ASP:OD1	1:D:1112:ASP:N	2.44	0.44
1:D:1180:ARG:O	1:D:1181:GLU:HG3	2.17	0.44
1:D:1962:ALA:O	1:D:1966:VAL:HG22	2.17	0.44
1:D:2239:PHE:HA	1:D:2242:ILE:HD12	1.98	0.44
1:D:2974:ILE:HG13	1:D:2975:ALA:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3147:ILE:HG13	1:D:3152:PHE:HB2	1.99	0.44
1:D:3403:ARG:HA	1:D:3458:PHE:CE2	2.52	0.44
1:D:4860:ARG:HG3	1:D:4876:CYS:HB3	1.98	0.44
1:C:1449:TRP:N	1:C:1553:PHE:O	2.50	0.44
1:C:2865:VAL:O	1:C:2928:LYS:NZ	2.41	0.44
1:C:3391:GLU:O	1:C:3394:VAL:HG12	2.17	0.44
1:C:4673:ARG:O	1:C:4676:GLU:HG3	2.17	0.44
1:A:626:LEU:HB3	1:A:1688:HIS:NE2	2.32	0.44
1:A:796:ARG:HA	1:A:796:ARG:CZ	2.48	0.44
1:A:2207:VAL:HA	1:A:2210:VAL:HG22	1.99	0.44
1:A:2960:LEU:HB3	1:A:3038:MET:HE3	1.99	0.44
1:A:3260:GLY:HA2	1:A:3325:ASN:ND2	2.33	0.44
1:A:3354:LEU:HB3	1:A:3415:TYR:CZ	2.51	0.44
1:A:3802:ILE:HD11	1:A:3883:ASP:O	2.17	0.44
1:A:4673:ARG:O	1:A:4676:GLU:HG3	2.17	0.44
2:F:90:ILE:HD13	1:B:1782:PHE:CD1	2.52	0.44
1:B:265:LEU:HD23	1:B:265:LEU:H	1.83	0.44
1:B:384:MET:CE	1:B:384:MET:H	2.29	0.44
1:B:848:HIS:O	1:B:852:VAL:HG23	2.17	0.44
1:B:951:LYS:HG3	1:B:971:ASP:HB3	2.00	0.44
1:B:1045:THR:HG22	1:B:1049:TYR:CZ	2.52	0.44
1:B:2986:VAL:HG22	1:B:2989:SER:H	1.82	0.44
1:B:3535:LEU:O	1:B:3538:THR:OG1	2.25	0.44
1:D:280:LEU:HD21	1:D:316:PHE:HD1	1.83	0.44
1:D:3043:PHE:HA	1:D:3071:LEU:HD23	2.00	0.44
1:D:3061:ALA:O	1:D:3065:VAL:HG13	2.17	0.44
1:D:3596:VAL:O	1:D:3600:SER:OG	2.26	0.44
1:D:4071:ILE:HD13	1:D:4071:ILE:HA	1.79	0.44
1:D:4673:ARG:HH12	1:D:4698:LYS:HD2	1.82	0.44
1:C:214:VAL:HG13	1:C:341:TYR:HE2	1.82	0.44
1:C:317:ARG:NE	1:C:349:GLN:OE1	2.51	0.44
1:C:392:ARG:HE	1:C:393:CYS:H	1.65	0.44
1:C:1451:GLY:HA3	1:C:1494:MET:HA	2.00	0.44
1:C:1634:LEU:HD23	1:C:1634:LEU:HA	1.84	0.44
1:C:1815:LEU:HD22	1:C:1845:VAL:HG21	1.98	0.44
1:C:2044:ILE:HD13	1:C:2131:LEU:HD22	1.99	0.44
1:C:2892:GLN:HA	1:C:2895:GLU:HG2	2.00	0.44
1:C:3576:TYR:CE1	1:C:3582:ARG:HD3	2.52	0.44
1:C:4077:PHE:HE1	1:C:4125:PHE:CD2	2.35	0.44
1:A:872:GLU:O	1:A:876:GLU:HG3	2.18	0.44
1:A:2724:GLU:HB2	1:A:2725:LYS:HD2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3262:ARG:HA	1:A:3262:ARG:HD3	1.66	0.44
1:A:3791:GLY:O	1:A:3794:VAL:HG12	2.17	0.44
1:A:4074:SER:O	1:A:4078:GLN:HG2	2.17	0.44
1:B:2477:PRO:HD3	1:B:2546:MET:HG2	2.00	0.44
1:B:2865:VAL:O	1:B:2928:LYS:NZ	2.41	0.44
1:D:632:LEU:O	1:D:634:GLN:NE2	2.46	0.44
1:D:2395:PRO:HB2	1:D:2397:VAL:HG23	2.00	0.44
1:D:2638:LYS:O	1:D:2641:LEU:HG	2.18	0.44
1:D:2788:HIS:HB3	1:D:2791:LEU:HG	2.00	0.44
1:D:3206:LEU:HB3	1:D:3246:LEU:HB2	2.00	0.44
1:D:4730:ASP:HB2	1:C:4101:LYS:HD3	1.99	0.44
1:C:349:GLN:HB3	1:C:356:TRP:CE3	2.53	0.44
1:C:848:HIS:O	1:C:852:VAL:HG23	2.17	0.44
1:C:894:GLY:HA3	1:C:903:LEU:HD13	1.98	0.44
1:C:2042:CYS:HB2	1:C:2044:ILE:HG22	1.99	0.44
1:C:2638:LYS:O	1:C:2641:LEU:HG	2.18	0.44
1:C:3206:LEU:HB3	1:C:3246:LEU:HB2	2.00	0.44
1:C:3390:GLY:O	1:C:3393:LEU:HG	2.17	0.44
1:C:4067:LYS:HE3	1:C:4102:GLN:HB3	1.98	0.44
1:C:4184:MET:HE1	1:C:4188:ARG:HA	1.99	0.44
1:A:78:LEU:HD22	1:A:106:ALA:CB	2.48	0.44
1:A:234:SER:OG	1:A:238:SER:OG	2.24	0.44
1:A:921:ASN:OD1	1:A:921:ASN:N	2.51	0.44
1:A:1180:ARG:O	1:A:1181:GLU:HG3	2.17	0.44
1:A:1653:LEU:HD11	1:A:1659:LEU:HB3	2.00	0.44
1:A:2477:PRO:HD3	1:A:2546:MET:HG2	2.00	0.44
1:A:3269:VAL:HA	1:A:3273:THR:HB	1.99	0.44
1:A:3498:ARG:HB2	1:A:3499:ARG:H	1.58	0.44
1:A:4673:ARG:HH12	1:A:4698:LYS:HD2	1.82	0.44
1:A:4943:LEU:O	1:A:4947:GLN:HG2	2.17	0.44
2:F:89:GLY:HA2	1:B:627:PRO:HD3	1.98	0.44
1:B:708:GLY:HA3	1:B:722:TRP:HB3	1.99	0.44
1:B:1066:GLN:HG3	1:B:1070:ASP:OD1	2.18	0.44
1:B:1451:GLY:HA3	1:B:1494:MET:HA	2.00	0.44
1:B:1962:ALA:O	1:B:1966:VAL:HG22	2.17	0.44
1:B:2001:PRO:O	1:B:2005:GLN:HG3	2.17	0.44
1:B:2638:LYS:O	1:B:2641:LEU:HG	2.18	0.44
1:B:3479:ALA:HA	1:C:1141:ARG:HB2	2.00	0.44
1:B:3996:PHE:CD2	1:B:4020:GLN:HG2	2.52	0.44
1:D:796:ARG:CZ	1:D:796:ARG:HA	2.48	0.44
1:D:1277:TRP:HD1	1:D:1559:GLN:HG3	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1759:ARG:HA	1:D:1759:ARG:NH1	2.33	0.44
1:D:2624:ARG:CZ	1:D:2910:THR:HA	2.47	0.44
1:D:2707:ALA:HB1	1:D:3009:TYR:CD1	2.53	0.44
1:D:4097:MET:HE2	1:D:4108:ILE:HG12	1.99	0.44
1:D:4926:VAL:CG1	1:C:4933:GLN:HG3	2.48	0.44
1:C:78:LEU:HD22	1:C:106:ALA:CB	2.48	0.44
1:C:164:ARG:NH1	1:C:164:ARG:HG3	2.32	0.44
1:C:265:LEU:HD23	1:C:265:LEU:H	1.83	0.44
1:C:951:LYS:HG3	1:C:971:ASP:HB3	2.00	0.44
1:C:1066:GLN:HG3	1:C:1070:ASP:OD1	2.18	0.44
1:C:1728:ARG:HA	1:C:1731:LEU:HD12	1.99	0.44
1:C:3043:PHE:HA	1:C:3071:LEU:HD23	2.00	0.44
1:C:3337:ARG:HA	1:C:3340:VAL:HG22	1.99	0.44
1:C:4943:LEU:O	1:C:4947:GLN:HG2	2.17	0.44
1:A:280:LEU:HD21	1:A:316:PHE:HD1	1.83	0.44
1:A:392:ARG:HE	1:A:393:CYS:H	1.65	0.44
1:A:1005:TRP:HA	1:A:1016:ARG:HG2	1.99	0.44
1:A:1066:GLN:HG3	1:A:1070:ASP:OD1	2.18	0.44
1:A:2788:HIS:HB3	1:A:2791:LEU:HG	2.00	0.44
1:A:2907:PRO:HB2	1:A:2910:THR:HG23	2.00	0.44
1:A:3182:TYR:HA	1:A:3185:LYS:HG2	2.00	0.44
1:A:3337:ARG:HA	1:A:3340:VAL:HG22	1.99	0.44
1:A:3477:LYS:NZ	1:B:1141:ARG:HG3	2.18	0.44
1:A:3477:LYS:HZ3	1:B:1141:ARG:HD3	1.08	0.44
1:A:3805:LEU:HB3	1:A:3890:LEU:HB3	1.99	0.44
1:A:4184:MET:HE1	1:A:4188:ARG:HA	1.98	0.44
1:B:45:ARG:HA	1:B:45:ARG:HD3	1.74	0.44
1:B:426:ARG:HG3	1:B:431:PRO:HA	2.00	0.44
1:B:688:LEU:HD12	1:B:776:LEU:O	2.18	0.44
1:B:872:GLU:O	1:B:876:GLU:HG3	2.18	0.44
1:B:1277:TRP:HD1	1:B:1559:GLN:HG3	1.82	0.44
1:B:2240:CYS:SG	1:B:2250:MET:HG3	2.58	0.44
1:B:2892:GLN:HA	1:B:2895:GLU:HG2	2.00	0.44
1:B:2960:LEU:HB3	1:B:3038:MET:HE3	2.00	0.44
1:B:2967:MET:HE3	1:B:3049:LEU:HG	1.99	0.44
1:B:3805:LEU:HB3	1:B:3890:LEU:HB3	1.99	0.44
1:D:164:ARG:NH1	1:D:164:ARG:HG3	2.32	0.44
1:D:317:ARG:NE	1:D:349:GLN:OE1	2.51	0.44
1:D:978:THR:O	1:D:982:THR:HG23	2.17	0.44
1:D:1302:ARG:HH21	1:D:1523:ALA:HB3	1.83	0.44
1:D:3576:TYR:CE1	1:D:3582:ARG:HD3	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3805:LEU:HB3	1:D:3890:LEU:HB3	1.99	0.44
1:D:4077:PHE:HE1	1:D:4125:PHE:CD2	2.35	0.44
1:C:886:ARG:HD3	1:C:904:HIS:CD2	2.53	0.44
1:C:1000:ARG:HB3	1:C:1005:TRP:HB2	2.00	0.44
1:C:2348:GLU:O	1:C:2352:VAL:HG23	2.18	0.44
1:C:2672:LEU:HA	1:C:2672:LEU:HD23	1.81	0.44
1:C:3260:GLY:HA2	1:C:3325:ASN:ND2	2.33	0.44
1:C:4074:SER:O	1:C:4078:GLN:HG2	2.17	0.44
1:A:170:ILE:HD12	1:A:170:ILE:HA	1.80	0.44
1:A:317:ARG:NE	1:A:349:GLN:OE1	2.51	0.44
1:A:951:LYS:HG3	1:A:971:ASP:HB3	2.00	0.44
1:A:1449:TRP:N	1:A:1553:PHE:O	2.50	0.44
1:A:2001:PRO:O	1:A:2005:GLN:HG3	2.17	0.44
1:A:2458:ARG:HG2	1:A:2510:TYR:CE1	2.53	0.44
1:A:3230:LEU:HD23	1:A:3230:LEU:H	1.83	0.44
1:A:4628:VAL:HG21	1:B:4860:ARG:HH22	1.83	0.44
2:G:82:TYR:OH	1:C:1782:PHE:O	2.32	0.44
1:B:214:VAL:HG13	1:B:341:TYR:CE2	2.53	0.44
1:B:392:ARG:HE	1:B:393:CYS:H	1.65	0.44
1:B:1005:TRP:HA	1:B:1016:ARG:HG2	1.99	0.44
1:B:1828:ASP:OD1	1:B:1828:ASP:N	2.51	0.44
1:B:2207:VAL:HA	1:B:2210:VAL:HG22	1.99	0.44
1:B:2907:PRO:HB2	1:B:2910:THR:HG23	2.00	0.44
1:B:3182:TYR:HA	1:B:3185:LYS:HG2	2.00	0.44
1:D:887:ILE:HG21	1:D:955:LEU:HD11	2.00	0.44
1:D:951:LYS:HG3	1:D:971:ASP:HB3	2.00	0.44
1:D:1466:LEU:HA	1:D:1469:VAL:HG23	2.00	0.44
1:D:2803:GLU:HB3	1:D:2806:ARG:HE	1.81	0.44
1:D:2986:VAL:HG22	1:D:2989:SER:H	1.82	0.44
1:D:3269:VAL:HA	1:D:3273:THR:HB	1.99	0.44
1:D:4956:THR:O	1:D:4965:SER:N	2.50	0.44
1:C:688:LEU:HD12	1:C:776:LEU:O	2.18	0.44
1:C:978:THR:O	1:C:982:THR:HG23	2.17	0.44
1:C:1773:PRO:HA	1:C:1774:PRO:HD3	1.91	0.44
1:C:3805:LEU:HB3	1:C:3890:LEU:HB3	1.99	0.44
1:C:4904:PRO:HB3	1:C:4913:ARG:HG2	2.00	0.44
1:A:14:LEU:HD13	1:A:163:VAL:HG12	2.00	0.44
1:A:110:ARG:NH2	1:A:117:TYR:OH	2.51	0.44
1:A:1728:ARG:HA	1:A:1731:LEU:HD12	1.99	0.44
1:A:2224:ARG:HB2	1:A:2224:ARG:HH11	1.83	0.44
1:A:2265:LEU:HD12	1:A:2265:LEU:HA	1.75	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2321:ILE:HG22	1:A:2322:GLY:H	1.83	0.44
1:A:2395:PRO:HB2	1:A:2397:VAL:HG23	2.00	0.44
1:A:2624:ARG:CZ	1:A:2910:THR:HA	2.47	0.44
1:A:2638:LYS:O	1:A:2641:LEU:HG	2.18	0.44
1:A:2707:ALA:HB1	1:A:3009:TYR:CD1	2.53	0.44
1:A:2886:TRP:NE1	1:A:2890:LYS:HD3	2.33	0.44
1:A:3043:PHE:HA	1:A:3071:LEU:HD23	2.00	0.44
1:A:3284:TRP:HB3	1:A:3305:THR:HG21	2.00	0.44
1:A:3403:ARG:HA	1:A:3458:PHE:CE2	2.53	0.44
1:A:3477:LYS:O	1:A:3478:MET:HB2	2.17	0.44
1:A:3756:LYS:HG2	1:A:3760:LYS:HE2	1.99	0.44
2:E:35:LYS:HZ1	2:E:38:SER:HB3	1.82	0.44
1:B:2095:GLN:HA	1:B:2127:GLN:HE21	1.82	0.44
1:B:2321:ILE:HG22	1:B:2322:GLY:H	1.83	0.44
1:B:3534:MET:O	1:B:3538:THR:HG23	2.18	0.44
1:B:3791:GLY:O	1:B:3794:VAL:HG12	2.17	0.44
1:B:3875:MET:HB2	1:B:3953:LYS:HZ3	1.83	0.44
1:B:4673:ARG:O	1:B:4676:GLU:HG3	2.17	0.44
1:B:4933:GLN:HG3	1:C:4926:VAL:CG1	2.47	0.44
1:D:2886:TRP:NE1	1:D:2890:LYS:HD3	2.33	0.44
1:D:3390:GLY:O	1:D:3393:LEU:HG	2.17	0.44
1:D:3576:TYR:OH	1:D:3582:ARG:NH1	2.50	0.44
1:C:1263:THR:OG1	1:C:1265:ASP:OD1	2.25	0.44
1:C:2724:GLU:HB2	1:C:2725:LYS:HD2	1.99	0.44
1:C:2907:PRO:HB2	1:C:2910:THR:HG23	2.00	0.44
1:C:3537:LYS:NZ	1:C:3607:GLU:HG2	2.32	0.44
1:C:4769:MET:H	1:C:4769:MET:HE3	1.82	0.44
1:A:214:VAL:HG13	1:A:341:TYR:CE2	2.53	0.43
1:A:632:LEU:O	1:A:634:GLN:NE2	2.46	0.43
1:A:848:HIS:O	1:A:852:VAL:HG23	2.17	0.43
1:A:1451:GLY:HA3	1:A:1494:MET:HA	2.00	0.43
1:A:2318:TYR:CZ	1:A:2395:PRO:HD3	2.53	0.43
2:H:23:VAL:HG12	2:H:104:LEU:HB2	2.00	0.43
1:B:280:LEU:HD21	1:B:316:PHE:HD1	1.83	0.43
1:B:460:GLN:HB2	1:B:463:GLU:OE2	2.18	0.43
1:B:1819:VAL:HG22	1:B:1929:MET:HE3	2.00	0.43
1:B:3043:PHE:HA	1:B:3071:LEU:HD23	2.00	0.43
1:D:110:ARG:NH2	1:D:117:TYR:OH	2.51	0.43
1:D:460:GLN:HB2	1:D:463:GLU:OE2	2.18	0.43
1:D:886:ARG:HD3	1:D:904:HIS:CD2	2.53	0.43
1:D:3260:GLY:HA2	1:D:3325:ASN:ND2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3477:LYS:O	1:D:3478:MET:HB2	2.17	0.43
1:D:3499:ARG:HH22	1:D:3503:TYR:HB3	1.83	0.43
1:D:4943:LEU:O	1:D:4947:GLN:HG2	2.17	0.43
1:C:1653:LEU:HD11	1:C:1659:LEU:HB3	2.00	0.43
1:C:2207:VAL:HA	1:C:2210:VAL:HG22	1.99	0.43
1:C:2224:ARG:HB2	1:C:2224:ARG:HH11	1.83	0.43
1:C:2597:LYS:O	1:C:2597:LYS:HD3	2.18	0.43
1:C:3384:LYS:HB3	1:C:3384:LYS:HE2	1.66	0.43
1:C:3403:ARG:HA	1:C:3458:PHE:CE2	2.53	0.43
1:C:3499:ARG:HH22	1:C:3503:TYR:HB3	1.83	0.43
1:A:265:LEU:H	1:A:265:LEU:HD23	1.83	0.43
1:A:1466:LEU:HA	1:A:1469:VAL:HG23	2.00	0.43
1:A:2095:GLN:HA	1:A:2127:GLN:HE21	1.82	0.43
1:A:3617:LYS:HA	1:A:3617:LYS:HD3	1.84	0.43
1:A:4802:GLY:HA2	1:A:4808:PHE:HB2	2.01	0.43
1:B:170:ILE:HD12	1:B:170:ILE:HA	1.80	0.43
1:B:921:ASN:N	1:B:921:ASN:OD1	2.51	0.43
1:B:1759:ARG:HA	1:B:1759:ARG:NH1	2.33	0.43
1:B:2707:ALA:HB1	1:B:3009:TYR:CD1	2.53	0.43
1:B:2788:HIS:HB3	1:B:2791:LEU:HG	2.00	0.43
1:B:2985:ARG:NH1	1:B:2987:GLU:OE2	2.52	0.43
1:B:3676:ASP:HA	1:B:3679:LYS:NZ	2.34	0.43
1:B:4904:PRO:HB3	1:B:4913:ARG:HG2	2.00	0.43
1:D:862:VAL:O	1:D:863:LEU:HD23	2.18	0.43
1:D:938:HIS:ND1	1:D:1054:GLU:OE2	2.45	0.43
1:D:1141:ARG:HB2	1:C:3479:ALA:HA	2.00	0.43
1:D:1730:MET:HG3	1:D:1773:PRO:HD2	2.00	0.43
1:D:2369[B]:ARG:HD3	1:D:2369[B]:ARG:HA	1.57	0.43
1:D:2477:PRO:HD3	1:D:2546:MET:HG2	2.00	0.43
1:D:3158:LEU:HG	1:D:3159:ASP:N	2.33	0.43
1:D:3534:MET:O	1:D:3538:THR:HG23	2.18	0.43
1:D:4003:LEU:HA	1:D:4009:GLN:HE21	1.82	0.43
1:D:4680:LYS:HB2	1:D:4680:LYS:HE2	1.73	0.43
1:C:708:GLY:HA3	1:C:722:TRP:HB3	1.99	0.43
1:C:1929:MET:O	1:C:1930:LYS:HG3	2.18	0.43
1:C:2240:CYS:SG	1:C:2250:MET:HG3	2.58	0.43
1:C:2431:ASP:O	1:C:2435:ARG:HG3	2.18	0.43
1:C:2489:LYS:HB2	1:C:2489:LYS:HE3	1.75	0.43
1:C:2788:HIS:HB3	1:C:2791:LEU:HG	2.00	0.43
1:C:2986:VAL:HG22	1:C:2989:SER:H	1.82	0.43
1:A:349:GLN:HB3	1:A:356:TRP:CE3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:460:GLN:HB2	1:A:463:GLU:OE2	2.18	0.43
1:A:887:ILE:HG21	1:A:955:LEU:HD11	2.00	0.43
1:A:2597:LYS:O	1:A:2597:LYS:HD3	2.18	0.43
1:A:3499:ARG:HH22	1:A:3503:TYR:HB3	1.83	0.43
1:A:3875:MET:HB2	1:A:3953:LYS:HZ3	1.83	0.43
1:B:78:LEU:HD22	1:B:106:ALA:CB	2.48	0.43
1:B:862:VAL:O	1:B:863:LEU:HD23	2.18	0.43
1:B:1000:ARG:HB3	1:B:1005:TRP:HB2	2.00	0.43
1:B:1466:LEU:HA	1:B:1469:VAL:HG23	2.00	0.43
1:B:1973:GLN:HG2	1:B:1998:PHE:CE1	2.53	0.43
1:B:2042:CYS:HB2	1:B:2044:ILE:HG22	1.99	0.43
1:B:2751:LEU:HD13	1:B:2823:ILE:HG12	2.00	0.43
1:B:2763:HIS:CE1	1:B:2802:LYS:HD2	2.54	0.43
1:B:3158:LEU:HG	1:B:3159:ASP:N	2.33	0.43
1:B:4148:THR:O	1:B:4152:GLU:HG3	2.19	0.43
1:B:4943:LEU:O	1:B:4947:GLN:HG2	2.17	0.43
1:D:14:LEU:HD13	1:D:163:VAL:HG12	2.00	0.43
1:D:1000:ARG:HB3	1:D:1005:TRP:HB2	2.00	0.43
1:D:2240:CYS:SG	1:D:2250:MET:HG3	2.58	0.43
1:D:3230:LEU:HD23	1:D:3230:LEU:H	1.83	0.43
1:D:4074:SER:O	1:D:4078:GLN:HG2	2.17	0.43
1:C:15:ARG:HD3	1:C:100:THR:HA	2.00	0.43
1:C:50:GLU:OE2	1:C:61:ASP:N	2.44	0.43
1:C:426:ARG:HG3	1:C:431:PRO:HA	2.00	0.43
1:C:1425:GLU:H	1:C:1425:GLU:HG3	1.65	0.43
1:C:1466:LEU:HA	1:C:1469:VAL:HG23	2.00	0.43
1:C:3534:MET:O	1:C:3538:THR:HG23	2.18	0.43
1:C:3676:ASP:HA	1:C:3679:LYS:NZ	2.34	0.43
1:C:4956:THR:O	1:C:4965:SER:N	2.50	0.43
1:A:15:ARG:HD3	1:A:100:THR:HA	2.01	0.43
1:A:708:GLY:HA3	1:A:722:TRP:HB3	1.99	0.43
1:A:1759:ARG:HA	1:A:1759:ARG:NH1	2.33	0.43
1:A:3676:ASP:HA	1:A:3679:LYS:NZ	2.33	0.43
1:A:4148:THR:O	1:A:4152:GLU:HG3	2.19	0.43
1:B:1226:PHE:O	1:B:1827:ARG:NH2	2.42	0.43
1:B:1302:ARG:HH21	1:B:1523:ALA:HB3	1.83	0.43
1:B:1929:MET:O	1:B:1930:LYS:HG3	2.18	0.43
1:B:3230:LEU:HD23	1:B:3230:LEU:H	1.83	0.43
1:B:3284:TRP:HB3	1:B:3305:THR:HG21	2.00	0.43
1:B:4101:LYS:HD3	1:C:4730:ASP:HB2	1.98	0.43
1:B:4707:ASN:HB3	1:B:4774:LYS:HZ2	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4708:THR:HB	1:B:4772:ASP:OD2	2.19	0.43
1:B:4897:ILE:HD12	1:B:4897:ILE:HA	1.91	0.43
1:D:78:LEU:HD22	1:D:106:ALA:CB	2.48	0.43
1:D:921:ASN:OD1	1:D:921:ASN:N	2.51	0.43
1:D:1451:GLY:HA3	1:D:1494:MET:HA	2.00	0.43
1:D:2564:LYS:HB3	1:D:2564:LYS:HE3	1.85	0.43
1:D:2907:PRO:HB2	1:D:2910:THR:HG23	2.00	0.43
1:D:3788:GLY:HA3	1:D:3834:ALA:HB3	1.99	0.43
1:C:921:ASN:N	1:C:921:ASN:OD1	2.51	0.43
1:C:1730:MET:HG3	1:C:1773:PRO:HD2	2.00	0.43
1:C:2285:GLU:H	1:C:2285:GLU:CD	2.18	0.43
1:C:2707:ALA:HB1	1:C:3009:TYR:CD1	2.53	0.43
1:A:534:ARG:HE	1:A:534:ARG:HB3	1.47	0.43
1:A:862:VAL:O	1:A:863:LEU:HD23	2.18	0.43
1:A:2042:CYS:HB2	1:A:2044:ILE:HG22	1.99	0.43
1:A:2431:ASP:O	1:A:2435:ARG:HG3	2.18	0.43
1:A:2763:HIS:CE1	1:A:2802:LYS:HD2	2.54	0.43
1:A:3408:LEU:HD23	1:A:3408:LEU:HA	1.92	0.43
1:A:3472:ALA:O	1:A:3476:SER:OG	2.25	0.43
1:A:4060:LYS:HA	1:A:4060:LYS:HD2	1.81	0.43
2:E:13:ARG:NH1	2:E:13:ARG:HB2	2.34	0.43
1:B:15:ARG:HD3	1:B:100:THR:HA	2.01	0.43
1:B:470:SER:O	1:B:474:ARG:HG3	2.18	0.43
1:B:2431:ASP:O	1:B:2435:ARG:HG3	2.18	0.43
1:B:3756:LYS:HG2	1:B:3760:LYS:HE2	1.99	0.43
1:D:1973:GLN:HG2	1:D:1998:PHE:CE1	2.53	0.43
1:D:2000:SER:O	1:D:3638:MET:HE2	2.17	0.43
1:D:2224:ARG:HB2	1:D:2224:ARG:HH11	1.83	0.43
1:D:2318:TYR:CZ	1:D:2395:PRO:HD3	2.53	0.43
1:D:2348:GLU:O	1:D:2352:VAL:HG23	2.18	0.43
1:D:3182:TYR:HA	1:D:3185:LYS:HG2	2.00	0.43
1:D:3358:PHE:CZ	1:D:3415:TYR:HD2	2.37	0.43
1:D:3475:LYS:HA	1:D:3475:LYS:HD3	1.74	0.43
1:C:181:HIS:HA	1:C:198:THR:HB	2.01	0.43
1:C:689:THR:HA	1:C:778:PHE:HE2	1.84	0.43
1:C:954:LYS:HD3	1:C:954:LYS:HA	1.74	0.43
1:C:2224:ARG:HG2	1:C:2225:PHE:CE2	2.54	0.43
1:C:3158:LEU:HG	1:C:3159:ASP:N	2.33	0.43
1:C:3182:TYR:HA	1:C:3185:LYS:HG2	2.00	0.43
1:C:3230:LEU:HD23	1:C:3230:LEU:H	1.83	0.43
1:C:3371:LYS:HE2	1:C:3371:LYS:HB2	1.78	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4148:THR:O	1:C:4152:GLU:HG3	2.19	0.43
1:A:80:GLU:HG3	1:D:3935:TRP:CE3	2.53	0.43
1:A:164:ARG:NH1	1:A:164:ARG:HG3	2.32	0.43
1:A:1929:MET:O	1:A:1930:LYS:HG3	2.19	0.43
1:A:2240:CYS:SG	1:A:2250:MET:HG3	2.58	0.43
1:A:2348:GLU:O	1:A:2352:VAL:HG23	2.18	0.43
1:A:2502:MET:HE3	1:A:2502:MET:HA	2.00	0.43
1:A:4907:ASP:OD2	1:A:4908:GLU:N	2.52	0.43
1:B:349:GLN:HB3	1:B:356:TRP:CE3	2.53	0.43
1:B:796:ARG:HA	1:B:796:ARG:NH1	2.34	0.43
1:B:2597:LYS:O	1:B:2597:LYS:HD3	2.18	0.43
1:D:15:ARG:HD3	1:D:100:THR:HA	2.00	0.43
1:D:181:HIS:HA	1:D:198:THR:HB	2.01	0.43
1:D:265:LEU:H	1:D:265:LEU:HD23	1.83	0.43
1:D:708:GLY:HA3	1:D:722:TRP:HB3	1.99	0.43
1:D:2431:ASP:O	1:D:2435:ARG:HG3	2.18	0.43
1:D:4006:ASP:OD2	1:D:4007:SER:N	2.52	0.43
1:C:110:ARG:NH2	1:C:117:TYR:OH	2.51	0.43
1:C:470:SER:O	1:C:474:ARG:HG3	2.18	0.43
1:C:862:VAL:O	1:C:863:LEU:HD23	2.18	0.43
1:C:2095:GLN:HA	1:C:2127:GLN:HE21	1.82	0.43
1:C:2115:GLU:H	1:C:2115:GLU:CD	2.19	0.43
1:C:2906:VAL:CG2	1:C:2911:LEU:HB3	2.49	0.43
1:C:3576:TYR:OH	1:C:3582:ARG:NH1	2.50	0.43
1:C:4836:GLN:O	1:C:4840:THR:HG22	2.19	0.43
1:C:4890:GLY:O	1:C:4925:ILE:HD11	2.19	0.43
1:A:470:SER:O	1:A:474:ARG:HG3	2.18	0.43
1:A:526:LEU:HD12	1:A:526:LEU:HA	1.86	0.43
1:A:1062:GLN:NE2	1:A:1064:GLU:OE1	2.40	0.43
1:A:1479:GLU:H	1:A:1479:GLU:CD	2.22	0.43
1:A:1973:GLN:HG2	1:A:1998:PHE:CE1	2.53	0.43
1:A:2005:GLN:O	1:A:2009:LEU:HG	2.19	0.43
1:A:2751:LEU:HD13	1:A:2823:ILE:HG12	2.00	0.43
1:A:2810:LYS:HA	1:A:2810:LYS:HD3	1.76	0.43
1:A:4006:ASP:OD2	1:A:4007:SER:N	2.52	0.43
1:A:4895:GLY:O	1:D:4892:ARG:HD2	2.18	0.43
1:B:317:ARG:NE	1:B:349:GLN:OE1	2.51	0.43
1:B:952:LYS:HB3	1:B:968:ALA:HB1	2.00	0.43
1:B:954:LYS:HD3	1:B:954:LYS:HA	1.74	0.43
1:B:1231[B]:GLN:NE2	1:B:1828:ASP:O	2.48	0.43
1:B:1691:GLN:O	1:B:1695:LEU:HG	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1728:ARG:HA	1:B:1731:LEU:HD12	1.99	0.43
1:B:2005:GLN:O	1:B:2009:LEU:HG	2.19	0.43
1:B:2318:TYR:CZ	1:B:2395:PRO:HD3	2.54	0.43
1:B:2395:PRO:HB2	1:B:2397:VAL:HG23	2.00	0.43
1:B:3409:TYR:N	1:B:3410:PRO:HD2	2.34	0.43
1:D:13:PHE:HB2	1:D:15:ARG:HH21	1.83	0.43
1:D:426:ARG:HG3	1:D:431:PRO:HA	2.00	0.43
1:D:1062:GLN:NE2	1:D:1064:GLU:OE1	2.40	0.43
1:D:1653:LEU:HD11	1:D:1659:LEU:HB3	2.00	0.43
1:D:3676:ASP:HA	1:D:3679:LYS:NZ	2.34	0.43
1:D:3791:GLY:O	1:D:3794:VAL:HG12	2.18	0.43
1:D:4148:THR:O	1:D:4152:GLU:HG3	2.19	0.43
1:D:4757:LYS:O	1:D:4757:LYS:HD3	2.19	0.43
1:C:113:HIS:CE1	1:C:402:ARG:HB3	2.54	0.43
1:C:280:LEU:HD21	1:C:316:PHE:HD1	1.83	0.43
1:C:460:GLN:HB2	1:C:463:GLU:OE2	2.18	0.43
1:C:1226:PHE:O	1:C:1827:ARG:NH2	2.42	0.43
1:C:1759:ARG:HA	1:C:1759:ARG:NH1	2.33	0.43
1:C:2477:PRO:HD3	1:C:2546:MET:HG2	2.00	0.43
1:C:3051:ARG:HA	1:C:3131:TYR:CE1	2.54	0.43
1:C:3284:TRP:HB3	1:C:3305:THR:HG21	2.00	0.43
1:C:3527:PRO:HD3	1:C:3576:TYR:CD1	2.54	0.43
1:C:4757:LYS:O	1:C:4757:LYS:HD3	2.19	0.43
1:A:181:HIS:HA	1:A:198:THR:HB	2.01	0.43
1:A:426:ARG:HG3	1:A:431:PRO:HA	2.00	0.43
1:A:1302:ARG:HH21	1:A:1523:ALA:HB3	1.83	0.43
1:A:2000:SER:O	1:A:2005:GLN:NE2	2.51	0.43
1:A:2256:TYR:O	1:A:2259:GLU:HG3	2.18	0.43
1:A:2892:GLN:HA	1:A:2895:GLU:HG2	2.00	0.43
1:A:2967:MET:HE3	1:A:3049:LEU:HG	2.00	0.43
1:A:3158:LEU:HG	1:A:3159:ASP:N	2.33	0.43
1:A:3182:TYR:O	1:A:3185:LYS:HG3	2.19	0.43
1:A:3255:GLY:O	1:A:3258:GLU:HG3	2.19	0.43
1:A:3582:ARG:H	1:A:3582:ARG:HG2	1.43	0.43
1:A:3696:ASP:OD2	1:A:3773:ARG:NH2	2.52	0.43
1:A:4133:GLN:OE1	1:A:4133:GLN:HA	2.19	0.43
2:G:13:ARG:NH1	2:G:13:ARG:HB2	2.34	0.43
1:B:113:HIS:CE1	1:B:402:ARG:HB3	2.54	0.43
1:B:1449:TRP:N	1:B:1553:PHE:O	2.50	0.43
1:B:1965:TYR:CE1	1:B:2027:ILE:HG23	2.54	0.43
1:B:2244:ARG:HB2	1:B:2244:ARG:CZ	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2906:VAL:CG2	1:B:2911:LEU:HB3	2.49	0.43
1:B:4003:LEU:HA	1:B:4009:GLN:HE21	1.82	0.43
1:B:4006:ASP:OD2	1:B:4007:SER:N	2.52	0.43
1:B:4802:GLY:HA2	1:B:4808:PHE:HB2	2.01	0.43
1:D:1066:GLN:HG3	1:D:1070:ASP:OD1	2.18	0.43
1:D:1147:ASP:HB3	1:D:1164:LEU:HD11	2.01	0.43
1:D:2224:ARG:HG2	1:D:2225:PHE:CE2	2.54	0.43
1:D:2597:LYS:O	1:D:2597:LYS:HD3	2.18	0.43
1:D:3051:ARG:HA	1:D:3131:TYR:CE1	2.54	0.43
1:D:3337:ARG:HA	1:D:3340:VAL:HG22	1.99	0.43
1:D:4186:ALA:O	1:D:4188:ARG:NH1	2.52	0.43
1:C:2256:TYR:O	1:C:2259:GLU:HG3	2.18	0.43
1:C:2318:TYR:CZ	1:C:2395:PRO:HD3	2.53	0.43
1:C:3262:ARG:HA	1:C:3262:ARG:HD3	1.66	0.43
1:C:3359:ILE:HG13	1:C:3437:MET:HE3	2.00	0.43
1:C:4133:GLN:OE1	1:C:4133:GLN:HA	2.19	0.43
1:C:4708:THR:HB	1:C:4772:ASP:OD2	2.19	0.43
1:C:4911:LEU:HD23	1:C:4911:LEU:HA	1.77	0.43
1:A:28:VAL:O	1:A:31:GLU:HG3	2.19	0.43
1:A:273:HIS:HB3	1:A:337:PRO:HB3	2.01	0.43
1:A:1265:ASP:OD1	1:A:1265:ASP:N	2.38	0.43
1:A:4708:THR:HB	1:A:4772:ASP:OD2	2.19	0.43
1:A:4757:LYS:O	1:A:4757:LYS:HD3	2.19	0.43
1:B:14:LEU:HD13	1:B:163:VAL:HG12	2.00	0.43
1:B:1753:LYS:NZ	1:B:1759:ARG:H	2.16	0.43
1:B:2256:TYR:O	1:B:2259:GLU:HG3	2.18	0.43
1:B:2671:GLU:H	1:B:2671:GLU:HG2	1.61	0.43
1:B:3374:ALA:O	1:B:3377:GLU:HG3	2.19	0.43
1:B:3499:ARG:HH22	1:B:3503:TYR:HB3	1.83	0.43
1:D:113:HIS:CE1	1:D:402:ARG:HB3	2.54	0.43
1:D:219:VAL:HG22	1:D:261:ARG:HB2	2.01	0.43
1:D:663:TYR:CD2	1:D:804:PRO:HB3	2.54	0.43
1:D:689:THR:HA	1:D:778:PHE:HE2	1.84	0.43
1:D:2321:ILE:HG22	1:D:2322:GLY:H	1.83	0.43
1:D:2927:LEU:HA	1:D:2927:LEU:HD13	1.92	0.43
1:D:2985:ARG:NH1	1:D:2987:GLU:OE2	2.52	0.43
1:D:3182:TYR:O	1:D:3185:LYS:HG3	2.19	0.43
1:D:4708:THR:HB	1:D:4772:ASP:OD2	2.19	0.43
1:C:13:PHE:HB2	1:C:15:ARG:HH21	1.83	0.43
1:C:14:LEU:HD13	1:C:163:VAL:HG12	2.00	0.43
1:C:1071:ARG:HD2	1:C:1071:ARG:HA	1.74	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1147:ASP:HB3	1:C:1164:LEU:HD11	2.01	0.43
1:C:1727:ARG:HD3	1:C:1727:ARG:HA	1.62	0.43
1:C:1965:TYR:CE1	1:C:2027:ILE:HG23	2.54	0.43
1:C:2395:PRO:HB2	1:C:2397:VAL:HG23	2.00	0.43
1:C:2653:LYS:HB2	1:C:2653:LYS:HE2	1.72	0.43
1:C:2686:LEU:HD12	1:C:2686:LEU:HA	1.90	0.43
1:C:3082:LYS:HD3	1:C:3082:LYS:HA	1.86	0.43
1:C:4003:LEU:HA	1:C:4009:GLN:HE21	1.82	0.43
1:A:13:PHE:HB2	1:A:15:ARG:HH21	1.83	0.43
1:A:426:ARG:NH1	1:A:508:GLY:HA2	2.34	0.43
1:A:688:LEU:HD12	1:A:776:LEU:O	2.18	0.43
1:A:796:ARG:HA	1:A:796:ARG:NH1	2.34	0.43
1:A:1753:LYS:NZ	1:A:1759:ARG:H	2.16	0.43
1:A:3762:ARG:CZ	1:A:4755:GLU:HB2	2.49	0.43
1:A:4003:LEU:HA	1:A:4009:GLN:HE21	1.82	0.43
1:A:4090:LYS:HG3	1:A:4121:GLU:HB3	2.00	0.43
1:A:4929:LEU:HD23	1:A:4929:LEU:HA	1.84	0.43
1:B:110:ARG:NH2	1:B:117:TYR:OH	2.51	0.43
1:B:886:ARG:HD3	1:B:904:HIS:CD2	2.53	0.43
1:B:2196:ASN:OD1	1:B:2199:ARG:NH2	2.48	0.43
1:B:2224:ARG:HG2	1:B:2225:PHE:CE2	2.54	0.43
1:B:2515:GLN:CD	1:B:2572:THR:HG23	2.39	0.43
1:B:3051:ARG:HA	1:B:3131:TYR:CE1	2.54	0.43
1:B:3359:ILE:HG13	1:B:3437:MET:HE3	2.00	0.43
1:B:3537:LYS:HE2	1:B:3537:LYS:HB3	1.70	0.43
1:D:1991:THR:O	1:D:1995:THR:OG1	2.23	0.43
1:D:2170:MET:HG3	1:D:2225:PHE:CE2	2.54	0.43
1:D:2207:VAL:HA	1:D:2210:VAL:HG22	1.99	0.43
1:D:2821:TRP:HB3	1:D:2937:VAL:CG2	2.49	0.43
1:D:4133:GLN:OE1	1:D:4133:GLN:HA	2.19	0.43
1:D:4890:GLY:O	1:D:4925:ILE:HD11	2.19	0.43
1:C:214:VAL:HG13	1:C:341:TYR:CE2	2.53	0.43
1:C:663:TYR:CD2	1:C:804:PRO:HB3	2.54	0.43
1:C:820:ARG:CZ	1:C:820:ARG:HA	2.49	0.43
1:C:1973:GLN:HG2	1:C:1998:PHE:CE1	2.53	0.43
1:C:2000:SER:O	1:C:2005:GLN:NE2	2.51	0.43
1:C:2751:LEU:HD13	1:C:2823:ILE:HG12	2.01	0.43
1:C:3137:LEU:HD12	1:C:3137:LEU:HA	1.90	0.43
1:C:3194:LEU:HD12	1:C:3194:LEU:HA	1.72	0.43
1:C:3409:TYR:N	1:C:3410:PRO:HD2	2.34	0.43
1:C:3791:GLY:O	1:C:3794:VAL:HG12	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:663:TYR:CD2	1:A:804:PRO:HB3	2.54	0.42
1:A:2515:GLN:CD	1:A:2572:THR:HG23	2.39	0.42
1:A:3571:TRP:HZ3	1:A:3575:LEU:HD12	1.84	0.42
2:H:13:ARG:NH1	2:H:13:ARG:HB2	2.34	0.42
2:G:50:LEU:H	2:G:50:LEU:HD12	1.84	0.42
1:B:28:VAL:O	1:B:31:GLU:HG3	2.19	0.42
1:B:336:PRO:HA	1:B:337:PRO:HD3	1.83	0.42
1:B:1204:LEU:HD12	1:B:1226:PHE:CD2	2.54	0.42
1:B:1479:GLU:H	1:B:1479:GLU:CD	2.22	0.42
1:B:2000:SER:O	1:B:2005:GLN:NE2	2.51	0.42
1:B:2481:LYS:HA	1:B:2481:LYS:HD3	1.78	0.42
1:B:2885:THR:O	1:B:2889:LYS:HE3	2.19	0.42
1:B:3255:GLY:O	1:B:3258:GLU:HG3	2.19	0.42
1:B:4090:LYS:HG3	1:B:4121:GLU:HB3	2.00	0.42
1:D:170:ILE:HG13	1:D:179:TYR:CD1	2.54	0.42
1:D:273:HIS:HB3	1:D:337:PRO:HB3	2.01	0.42
1:D:648:ILE:HG23	1:D:814:ALA:HB3	2.01	0.42
1:D:688:LEU:HD12	1:D:776:LEU:O	2.18	0.42
1:D:818:ARG:NH2	1:D:1029:GLU:OE2	2.52	0.42
1:D:1105:ALA:HB1	1:D:1109:LEU:HD13	2.01	0.42
1:D:1204:LEU:HD12	1:D:1226:PHE:CD2	2.54	0.42
1:D:2013:LYS:NZ	1:D:3665:GLU:HB2	2.34	0.42
1:D:2013:LYS:HZ1	1:D:3665:GLU:HB2	1.84	0.42
1:D:2248:ARG:HE	1:D:2248:ARG:HB2	1.66	0.42
1:D:2458:ARG:HG2	1:D:2510:TYR:CE1	2.53	0.42
1:D:2751:LEU:HD13	1:D:2823:ILE:HG12	2.01	0.42
1:D:2757:LYS:HD2	1:D:2761:TYR:CE1	2.54	0.42
1:D:2763:HIS:CE1	1:D:2802:LYS:HD2	2.54	0.42
1:D:2906:VAL:CG2	1:D:2911:LEU:HB3	2.49	0.42
1:D:3284:TRP:HB3	1:D:3305:THR:HG21	1.99	0.42
1:D:3292:PRO:HA	1:D:3293:PRO:HD3	1.93	0.42
1:D:4802:GLY:HA2	1:D:4808:PHE:HB2	2.01	0.42
1:C:64:ILE:H	1:C:64:ILE:HG12	1.66	0.42
1:C:341:TYR:CE1	1:C:392:ARG:HB2	2.54	0.42
1:C:1105:ALA:HB1	1:C:1109:LEU:HD13	2.01	0.42
1:C:1204:LEU:HD12	1:C:1226:PHE:CD2	2.54	0.42
1:C:2985:ARG:NH1	1:C:2987:GLU:OE2	2.52	0.42
1:C:4655:PHE:CE2	1:C:4659:ILE:HD11	2.54	0.42
1:A:993:HIS:NE2	1:A:1022:VAL:O	2.50	0.42
1:A:2884:ASN:OD1	1:A:2885:THR:N	2.52	0.42
1:A:3051:ARG:HA	1:A:3131:TYR:CE1	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3243:ILE:HD12	1:A:3243:ILE:O	2.19	0.42
1:A:3374:ALA:O	1:A:3377:GLU:HG3	2.19	0.42
1:A:3409:TYR:N	1:A:3410:PRO:HD2	2.34	0.42
1:A:3527:PRO:HD3	1:A:3576:TYR:CD1	2.54	0.42
1:A:3534:MET:O	1:A:3538:THR:HG23	2.18	0.42
1:A:4067:LYS:HA	1:A:4070:ASP:OD2	2.19	0.42
1:A:4933:GLN:HG3	1:B:4926:VAL:HG13	2.00	0.42
1:B:1105:ALA:HB1	1:B:1109:LEU:HD13	2.01	0.42
1:B:2458:ARG:HG2	1:B:2510:TYR:CE1	2.53	0.42
1:B:2886:TRP:NE1	1:B:2890:LYS:HD3	2.33	0.42
1:B:3182:TYR:O	1:B:3185:LYS:HG3	2.19	0.42
1:B:3210:LEU:HB2	1:B:3304:CYS:O	2.19	0.42
1:B:3762:ARG:CZ	1:B:4755:GLU:HB2	2.49	0.42
1:B:4890:GLY:O	1:B:4925:ILE:HD11	2.19	0.42
1:D:169:LEU:HD12	1:D:170:ILE:H	1.85	0.42
1:D:341:TYR:CE1	1:D:392:ARG:HB2	2.54	0.42
1:D:349:GLN:HB3	1:D:356:TRP:CE3	2.53	0.42
1:D:426:ARG:NH1	1:D:508:GLY:HA2	2.34	0.42
1:D:820:ARG:HA	1:D:820:ARG:CZ	2.49	0.42
1:D:1929:MET:O	1:D:1930:LYS:HG3	2.19	0.42
1:D:1965:TYR:CE1	1:D:2027:ILE:HG23	2.54	0.42
1:D:2000:SER:O	1:D:2005:GLN:NE2	2.51	0.42
1:D:2005:GLN:O	1:D:2009:LEU:HG	2.19	0.42
1:D:2010:LEU:HD23	1:D:2010:LEU:HA	1.83	0.42
1:D:3255:GLY:O	1:D:3258:GLU:HG3	2.19	0.42
1:D:3527:PRO:HD3	1:D:3576:TYR:CD1	2.54	0.42
1:D:3940:LYS:HE2	1:D:3940:LYS:HB2	1.86	0.42
1:D:4836:GLN:O	1:D:4840:THR:HG22	2.19	0.42
1:C:1819:VAL:HG22	1:C:1929:MET:HE3	2.01	0.42
1:C:3182:TYR:O	1:C:3185:LYS:HG3	2.19	0.42
1:C:3498:ARG:HB2	1:C:3499:ARG:H	1.58	0.42
1:A:45:ARG:HD3	1:A:45:ARG:HA	1.74	0.42
1:A:169:LEU:HD12	1:A:170:ILE:H	1.85	0.42
1:A:170:ILE:HG13	1:A:179:TYR:CD1	2.54	0.42
1:A:516:LYS:O	1:A:520:ASN:ND2	2.40	0.42
1:A:820:ARG:HA	1:A:820:ARG:CZ	2.49	0.42
1:A:985:VAL:HG11	1:A:1040:CYS:HB2	2.01	0.42
1:A:1000:ARG:HB3	1:A:1005:TRP:HB2	2.00	0.42
1:A:1025:ARG:HD3	1:A:1025:ARG:H	1.85	0.42
1:A:1071:ARG:HA	1:A:1071:ARG:HD2	1.74	0.42
1:A:1105:ALA:HB1	1:A:1109:LEU:HD13	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2156:LEU:HD23	1:A:2156:LEU:HA	1.88	0.42
1:A:2226:PRO:HB2	1:A:2267:MET:HE3	2.01	0.42
1:A:2500:ALA:HB2	1:A:2553:TYR:HD2	1.84	0.42
1:A:2821:TRP:HB3	1:A:2937:VAL:CG2	2.49	0.42
1:A:2906:VAL:CG2	1:A:2911:LEU:HB3	2.49	0.42
1:A:3358:PHE:CZ	1:A:3415:TYR:HD2	2.37	0.42
1:A:4582:VAL:HG11	1:B:4860:ARG:HD2	2.01	0.42
2:H:18:ARG:HG3	2:H:18:ARG:NH1	2.33	0.42
1:B:50:GLU:OE2	1:B:61:ASP:N	2.44	0.42
1:B:219:VAL:HG22	1:B:261:ARG:HB2	2.01	0.42
1:B:818:ARG:NH2	1:B:1029:GLU:OE2	2.52	0.42
1:B:1025:ARG:H	1:B:1025:ARG:HD3	1.84	0.42
1:B:2224:ARG:HB2	1:B:2224:ARG:HH11	1.83	0.42
1:B:2757:LYS:HD2	1:B:2761:TYR:CE1	2.54	0.42
1:B:2884:ASN:OD1	1:B:2885:THR:N	2.52	0.42
1:B:3527:PRO:HD3	1:B:3576:TYR:CD1	2.54	0.42
1:B:4836:GLN:O	1:B:4840:THR:HG22	2.19	0.42
1:D:796:ARG:HA	1:D:796:ARG:NH1	2.34	0.42
1:D:1819:VAL:HG22	1:D:1929:MET:HE3	2.00	0.42
1:D:3307:VAL:HA	1:D:3311:HIS:ND1	2.34	0.42
1:C:137:LEU:HD23	1:C:137:LEU:HA	1.90	0.42
1:C:364:PRO:O	1:C:365:LYS:HB3	2.19	0.42
1:C:1112:ASP:OD1	1:C:1112:ASP:N	2.44	0.42
1:C:2013:LYS:NZ	1:C:3665:GLU:HB2	2.34	0.42
1:C:2458:ARG:HG2	1:C:2510:TYR:CE1	2.53	0.42
1:C:2810:LYS:HA	1:C:2810:LYS:HD3	1.76	0.42
1:C:4186:ALA:O	1:C:4188:ARG:NH1	2.52	0.42
1:A:722:TRP:CZ2	1:A:727:ALA:HB2	2.54	0.42
1:A:846:LEU:HD23	1:A:846:LEU:HA	1.90	0.42
1:A:952:LYS:HB3	1:A:968:ALA:HB1	2.01	0.42
1:A:2170:MET:HG3	1:A:2225:PHE:CE2	2.54	0.42
1:A:2346:VAL:HG23	1:A:2349:ASN:HB2	2.01	0.42
1:A:2703:LEU:HD23	1:A:2703:LEU:HA	1.88	0.42
1:A:3103:ILE:HD13	1:A:3168:THR:HG23	2.02	0.42
1:A:3157:ILE:O	1:A:3202:PRO:HG3	2.20	0.42
1:A:3208:PRO:O	1:A:3236:VAL:HG11	2.20	0.42
1:A:4186:ALA:O	1:A:4188:ARG:NH1	2.52	0.42
2:H:48:PHE:HZ	2:H:63:VAL:HG21	1.84	0.42
1:B:2348:GLU:O	1:B:2352:VAL:HG23	2.18	0.42
1:B:4006:ASP:OD1	1:B:4008:SER:OG	2.35	0.42
1:B:4757:LYS:O	1:B:4757:LYS:HD3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:28:VAL:O	1:D:31:GLU:HG3	2.19	0.42
1:D:175:SER:O	1:C:2452:ARG:HD3	2.19	0.42
1:D:470:SER:O	1:D:474:ARG:HG3	2.18	0.42
1:D:722:TRP:CZ2	1:D:727:ALA:HB2	2.54	0.42
1:D:971:ASP:HB3	1:D:974:HIS:HE1	1.84	0.42
1:D:1076:ARG:NH2	1:D:1655:GLU:OE1	2.33	0.42
1:D:1547:LYS:HB2	1:D:1547:LYS:HE2	1.80	0.42
1:D:1691:GLN:O	1:D:1695:LEU:HG	2.19	0.42
1:D:2244:ARG:HB2	1:D:2244:ARG:CZ	2.49	0.42
1:D:2256:TYR:O	1:D:2259:GLU:HG3	2.18	0.42
1:D:2500:ALA:HB2	1:D:2553:TYR:HD2	1.84	0.42
1:D:3617:LYS:HD3	1:D:3617:LYS:HA	1.84	0.42
1:D:3762:ARG:CZ	1:D:4755:GLU:HB2	2.49	0.42
1:D:4655:PHE:CE2	1:D:4659:ILE:HD11	2.54	0.42
1:D:4930:ALA:HB1	1:C:4937:ILE:HD11	2.01	0.42
1:C:170:ILE:HD12	1:C:170:ILE:HA	1.80	0.42
1:C:426:ARG:NH1	1:C:508:GLY:HA2	2.34	0.42
1:C:468:LEU:O	1:C:472:ARG:HG2	2.20	0.42
1:C:985:VAL:HG11	1:C:1040:CYS:HB2	2.01	0.42
1:C:1280:GLN:CD	1:C:1281:ASN:H	2.23	0.42
1:C:1302:ARG:HH21	1:C:1523:ALA:HB3	1.83	0.42
1:C:2763:HIS:CE1	1:C:2802:LYS:HD2	2.54	0.42
1:C:2886:TRP:NE1	1:C:2890:LYS:HD3	2.33	0.42
1:C:3255:GLY:O	1:C:3258:GLU:HG3	2.19	0.42
1:C:4090:LYS:HG3	1:C:4121:GLU:HB3	2.00	0.42
1:A:195:PHE:CE1	1:D:2358:ILE:HB	2.55	0.42
1:A:648:ILE:HG23	1:A:814:ALA:HB3	2.01	0.42
1:A:744:VAL:HG22	1:A:759:ILE:HD13	2.01	0.42
1:A:1691:GLN:O	1:A:1695:LEU:HG	2.19	0.42
1:A:1965:TYR:CE1	1:A:2027:ILE:HG23	2.54	0.42
1:A:2224:ARG:HG2	1:A:2225:PHE:CE2	2.54	0.42
1:A:4836:GLN:O	1:A:4840:THR:HG22	2.19	0.42
1:B:273:HIS:HB3	1:B:337:PRO:HB3	2.01	0.42
1:B:534:ARG:HE	1:B:534:ARG:HB3	1.47	0.42
1:B:722:TRP:CZ2	1:B:727:ALA:HB2	2.54	0.42
1:B:860:GLN:HE22	1:B:862:VAL:CG2	2.33	0.42
1:B:1027:LEU:HD23	1:B:1032:LYS:HB3	2.01	0.42
1:B:2013:LYS:NZ	1:B:3665:GLU:HB2	2.34	0.42
1:B:2437:ALA:HB2	1:B:2509:VAL:HG12	2.01	0.42
1:B:3262:ARG:HD3	1:B:3262:ARG:HA	1.66	0.42
1:B:3696:ASP:OD2	1:B:3773:ARG:NH2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3758:MET:CE	1:B:3758:MET:HA	2.50	0.42
1:B:4907:ASP:OD2	1:B:4908:GLU:N	2.52	0.42
1:D:1479:GLU:H	1:D:1479:GLU:CD	2.22	0.42
1:D:2346:VAL:HG23	1:D:2349:ASN:HB2	2.01	0.42
1:D:2527:LEU:HD12	1:D:2531:ARG:HH12	1.85	0.42
1:D:3405:LEU:HG	1:D:3409:TYR:CD1	2.55	0.42
1:D:3499:ARG:NH2	1:D:3503:TYR:HB3	2.35	0.42
1:D:3758:MET:HA	1:D:3758:MET:CE	2.50	0.42
1:D:4085:ARG:HE	1:D:4085:ARG:HB2	1.63	0.42
1:D:4090:LYS:HG3	1:D:4121:GLU:HB3	2.00	0.42
1:D:4907:ASP:OD2	1:D:4908:GLU:N	2.52	0.42
1:C:1224:GLU:OE1	1:C:1228:ILE:HG21	2.20	0.42
1:C:2005:GLN:O	1:C:2009:LEU:HG	2.19	0.42
1:C:2321:ILE:HG22	1:C:2322:GLY:H	1.83	0.42
1:C:2527:LEU:HD12	1:C:2531:ARG:HH12	1.85	0.42
1:C:2885:THR:O	1:C:2889:LYS:HE3	2.19	0.42
1:C:2959:PHE:O	1:C:2963:LEU:HG	2.20	0.42
1:C:3157:ILE:O	1:C:3202:PRO:HG3	2.20	0.42
1:C:3208:PRO:O	1:C:3236:VAL:HG11	2.20	0.42
1:C:3696:ASP:OD2	1:C:3773:ARG:NH2	2.52	0.42
1:C:4707:ASN:HB3	1:C:4774:LYS:HZ2	1.84	0.42
1:C:4802:GLY:HA2	1:C:4808:PHE:HB2	2.01	0.42
1:A:73:LEU:HD23	1:A:73:LEU:HA	1.84	0.42
1:A:113:HIS:CE1	1:A:402:ARG:HB3	2.54	0.42
1:A:737:LEU:HD12	1:A:737:LEU:HA	1.84	0.42
1:A:886:ARG:HD3	1:A:904:HIS:CD2	2.53	0.42
1:A:1027:LEU:HD23	1:A:1032:LYS:HB3	2.01	0.42
1:A:1634:LEU:HD23	1:A:1634:LEU:HA	1.84	0.42
1:A:1819:VAL:HG22	1:A:1929:MET:HE3	2.01	0.42
1:A:2122:SER:O	1:A:2126:ARG:HG3	2.20	0.42
1:A:2244:ARG:HB2	1:A:2244:ARG:CZ	2.49	0.42
1:A:2757:LYS:HD2	1:A:2761:TYR:CE1	2.54	0.42
1:A:2977:LEU:HD13	1:A:3056:LEU:HD21	2.02	0.42
1:A:3082:LYS:HA	1:A:3082:LYS:HD3	1.86	0.42
1:A:3210:LEU:HB2	1:A:3304:CYS:O	2.19	0.42
1:A:3477:LYS:HG3	1:B:1141:ARG:HH12	1.83	0.42
1:A:3499:ARG:NH2	1:A:3503:TYR:HB3	2.35	0.42
1:A:3758:MET:HA	1:A:3758:MET:CE	2.50	0.42
1:A:4890:GLY:O	1:A:4925:ILE:HD11	2.19	0.42
1:A:4904:PRO:HB3	1:A:4913:ARG:HG2	2.00	0.42
1:B:341:TYR:CE1	1:B:392:ARG:HB2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:737:LEU:HD12	1:B:737:LEU:HA	1.84	0.42
1:B:1211:LEU:H	1:B:1211:LEU:HD12	1.85	0.42
1:B:2346:VAL:HG23	1:B:2349:ASN:HB2	2.01	0.42
1:B:3307:VAL:HA	1:B:3311:HIS:ND1	2.34	0.42
1:B:4655:PHE:CE2	1:B:4659:ILE:HD11	2.54	0.42
1:B:4937:ILE:HD11	1:C:4930:ALA:HB1	2.00	0.42
1:D:364:PRO:O	1:D:365:LYS:HB3	2.19	0.42
1:D:2644:LEU:HD13	1:D:2678:LEU:HD21	2.02	0.42
1:D:3103:ILE:HD13	1:D:3168:THR:HG23	2.02	0.42
1:D:3571:TRP:HZ3	1:D:3575:LEU:HD12	1.84	0.42
1:D:4851:TYR:HD1	1:D:4916:PHE:CE1	2.38	0.42
1:C:28:VAL:O	1:C:31:GLU:HG3	2.19	0.42
1:C:365:LYS:HB3	1:C:365:LYS:HE3	1.80	0.42
1:C:818:ARG:NH2	1:C:1029:GLU:OE2	2.52	0.42
1:C:2500:ALA:HB2	1:C:2553:TYR:HD2	1.84	0.42
1:C:3571:TRP:HZ3	1:C:3575:LEU:HD12	1.84	0.42
1:C:4067:LYS:HA	1:C:4070:ASP:OD2	2.19	0.42
1:C:4907:ASP:OD2	1:C:4908:GLU:N	2.52	0.42
1:A:818:ARG:NH2	1:A:1029:GLU:OE2	2.52	0.42
1:A:2013:LYS:NZ	1:A:3665:GLU:HB2	2.34	0.42
1:A:2985:ARG:NH1	1:A:2987:GLU:OE2	2.52	0.42
1:A:3405:LEU:HG	1:A:3409:TYR:CD1	2.55	0.42
1:A:3540:TYR:CZ	1:A:3549:VAL:HG11	2.55	0.42
1:A:4096:ALA:O	1:A:4099:SER:OG	2.28	0.42
1:A:4122:MET:HE2	1:A:4122:MET:HA	2.01	0.42
1:B:169:LEU:HD12	1:B:170:ILE:H	1.85	0.42
1:B:689:THR:HA	1:B:778:PHE:HE2	1.84	0.42
1:B:1730:MET:HG3	1:B:1773:PRO:HD2	2.00	0.42
1:B:2520:HIS:O	1:B:2524:VAL:HG22	2.20	0.42
1:B:3154:ASP:OD1	1:B:3283:ARG:NH2	2.53	0.42
1:B:3499:ARG:NH2	1:B:3503:TYR:HB3	2.35	0.42
1:B:3571:TRP:HZ3	1:B:3575:LEU:HD12	1.84	0.42
1:B:3842:LEU:HD23	1:B:3842:LEU:HA	1.89	0.42
1:B:4648:LEU:HD12	1:B:4803:HIS:CE1	2.55	0.42
1:B:4911:LEU:HA	1:B:4911:LEU:HD23	1.77	0.42
1:D:860:GLN:HE22	1:D:862:VAL:CG2	2.33	0.42
1:D:1476:MET:O	1:D:1484:HIS:N	2.52	0.42
1:D:1786:LEU:HD22	1:D:1787:PRO:HD2	2.01	0.42
1:D:2885:THR:O	1:D:2889:LYS:HE3	2.19	0.42
1:D:3023:LYS:HB3	1:D:3023:LYS:HE3	1.89	0.42
1:D:4064:MET:SD	1:D:4107:GLU:HG2	2.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:219:VAL:HG22	1:C:261:ARG:HB2	2.01	0.42
1:C:2170:MET:HG3	1:C:2225:PHE:CE2	2.54	0.42
1:C:2244:ARG:HB2	1:C:2244:ARG:CZ	2.49	0.42
1:C:2515:GLN:CD	1:C:2572:THR:HG23	2.40	0.42
1:C:3256:LEU:HD13	1:C:3269:VAL:HG21	2.01	0.42
1:C:3358:PHE:CZ	1:C:3415:TYR:HD2	2.37	0.42
1:C:3758:MET:HA	1:C:3758:MET:CE	2.50	0.42
1:C:3762:ARG:CZ	1:C:4755:GLU:HB2	2.49	0.42
1:A:971:ASP:HB3	1:A:974:HIS:HE1	1.84	0.42
1:A:1224:GLU:OE1	1:A:1228:ILE:HG21	2.20	0.42
1:A:1613:LEU:HD13	1:A:1634:LEU:HB2	2.02	0.42
1:A:3263:TYR:N	1:A:3326:ASN:OD1	2.47	0.42
1:A:4769:MET:HE3	1:A:4769:MET:H	1.83	0.42
1:A:4897:ILE:O	1:A:4901:ILE:HG12	2.20	0.42
2:E:18:ARG:HA	2:E:18:ARG:HD3	1.83	0.42
1:B:426:ARG:NH1	1:B:508:GLY:HA2	2.34	0.42
1:B:754:SER:HA	1:B:768:PHE:O	2.20	0.42
1:B:860:GLN:HE22	1:B:862:VAL:HG23	1.85	0.42
1:B:1573:MET:CE	1:B:1574:PRO:HD2	2.48	0.42
1:B:1754:GLY:O	1:B:1758:ARG:HG3	2.20	0.42
1:B:2244:ARG:NH2	1:B:3860:ASN:HA	2.24	0.42
1:B:3103:ILE:HD13	1:B:3168:THR:HG23	2.02	0.42
1:B:3358:PHE:CZ	1:B:3415:TYR:HD2	2.37	0.42
1:B:3971:GLY:N	1:B:3972:PRO:HA	2.35	0.42
1:D:468:LEU:O	1:D:472:ARG:HG2	2.20	0.42
1:D:998:ARG:HG2	1:D:998:ARG:HH11	1.85	0.42
1:D:1027:LEU:HD23	1:D:1032:LYS:HB3	2.01	0.42
1:D:2437:ALA:HB2	1:D:2509:VAL:HG12	2.01	0.42
1:D:2702:CYS:O	1:D:2706:ILE:HG13	2.20	0.42
1:D:2742:THR:HB	1:D:2814:LYS:HB3	2.02	0.42
1:D:2884:ASN:OD1	1:D:2885:THR:N	2.53	0.42
1:D:2977:LEU:HD13	1:D:3056:LEU:HD21	2.02	0.42
1:D:3256:LEU:HD13	1:D:3269:VAL:HG21	2.01	0.42
1:D:3498:ARG:HB2	1:D:3499:ARG:H	1.58	0.42
1:D:4097:MET:HE1	1:D:4108:ILE:HG23	2.02	0.42
1:C:860:GLN:HE22	1:C:862:VAL:CG2	2.33	0.42
1:C:1691:GLN:O	1:C:1695:LEU:HG	2.19	0.42
1:C:2437:ALA:HB2	1:C:2509:VAL:HG12	2.01	0.42
1:C:2702:CYS:O	1:C:2706:ILE:HG13	2.20	0.42
1:C:2821:TRP:HB3	1:C:2937:VAL:CG2	2.49	0.42
1:C:2960:LEU:HB3	1:C:3038:MET:HE3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3103:ILE:HD13	1:C:3168:THR:HG23	2.02	0.42
1:C:3145:GLN:CD	1:C:3196:ARG:HE	2.23	0.42
1:C:3243:ILE:O	1:C:3243:ILE:HD12	2.19	0.42
1:C:3767:GLN:O	1:C:3771:HIS:ND1	2.53	0.42
1:C:4851:TYR:HD1	1:C:4916:PHE:CE1	2.38	0.42
1:C:4897:ILE:O	1:C:4901:ILE:HG12	2.20	0.42
1:A:293:LEU:HD13	1:A:378:LEU:HD12	2.02	0.42
1:A:689:THR:HA	1:A:778:PHE:HE2	1.84	0.42
1:A:1547:LYS:HB2	1:A:1547:LYS:HE2	1.80	0.42
1:A:1730:MET:HG3	1:A:1773:PRO:HD2	2.00	0.42
1:A:1754:GLY:O	1:A:1758:ARG:HG3	2.20	0.42
1:A:2527:LEU:HD12	1:A:2531:ARG:HH12	1.85	0.42
1:A:2885:THR:O	1:A:2889:LYS:HE3	2.19	0.42
1:A:3767:GLN:O	1:A:3771:HIS:ND1	2.53	0.42
1:A:3842:LEU:HD23	1:A:3842:LEU:HA	1.89	0.42
1:A:3971:GLY:N	1:A:3972:PRO:HA	2.35	0.42
1:A:4648:LEU:HD12	1:A:4803:HIS:CE1	2.55	0.42
1:A:4655:PHE:CE2	1:A:4659:ILE:HD11	2.54	0.42
1:B:13:PHE:HB2	1:B:15:ARG:HH21	1.83	0.42
1:B:744:VAL:HG22	1:B:759:ILE:HD13	2.01	0.42
1:B:1147:ASP:HB3	1:B:1164:LEU:HD11	2.01	0.42
1:B:1224:GLU:OE1	1:B:1228:ILE:HG21	2.20	0.42
1:B:1280:GLN:CD	1:B:1281:ASN:H	2.23	0.42
1:B:1786:LEU:HD22	1:B:1787:PRO:HD2	2.01	0.42
1:B:2757:LYS:HD2	1:B:2761:TYR:CD1	2.55	0.42
1:B:2977:LEU:HD13	1:B:3056:LEU:HD21	2.02	0.42
1:B:3767:GLN:O	1:B:3771:HIS:ND1	2.53	0.42
1:D:214:VAL:HG13	1:D:341:TYR:CE2	2.53	0.42
1:D:243:ARG:NH2	1:D:302:VAL:HA	2.35	0.42
1:D:257:ARG:O	1:D:284:HIS:NE2	2.28	0.42
1:D:869:ARG:HE	1:D:1051:TYR:HH	1.68	0.42
1:D:1025:ARG:H	1:D:1025:ARG:HD3	1.85	0.42
1:D:1280:GLN:CD	1:D:1281:ASN:H	2.23	0.42
1:D:2892:GLN:HA	1:D:2895:GLU:HG2	2.00	0.42
1:D:3696:ASP:OD2	1:D:3773:ARG:NH2	2.52	0.42
1:D:4122:MET:HE2	1:D:4122:MET:HA	2.02	0.42
1:D:4648:LEU:HD12	1:D:4803:HIS:CE1	2.55	0.42
1:C:866:HIS:HB2	1:C:1051:TYR:OH	2.20	0.42
1:C:869:ARG:HD2	1:C:870:ILE:HG12	2.02	0.42
1:C:1027:LEU:HD23	1:C:1032:LYS:HB3	2.01	0.42
1:C:1753:LYS:NZ	1:C:1759:ARG:H	2.16	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1753:LYS:NZ	1:C:1759:ARG:HG2	2.29	0.42
1:C:2644:LEU:HD13	1:C:2678:LEU:HD21	2.02	0.42
1:C:2884:ASN:OD1	1:C:2885:THR:N	2.52	0.42
1:C:2977:LEU:HD13	1:C:3056:LEU:HD21	2.02	0.42
1:C:3210:LEU:HB2	1:C:3304:CYS:O	2.19	0.42
1:A:341:TYR:CE1	1:A:392:ARG:HB2	2.54	0.42
1:A:860:GLN:HE22	1:A:862:VAL:HG23	1.85	0.42
1:A:2520:HIS:O	1:A:2524:VAL:HG22	2.20	0.42
1:A:2644:LEU:HD13	1:A:2678:LEU:HD21	2.02	0.42
1:A:3256:LEU:HD13	1:A:3269:VAL:HG21	2.01	0.42
1:A:3359:ILE:HG13	1:A:3437:MET:HE3	2.01	0.42
1:A:3384:LYS:HB3	1:A:3384:LYS:HE2	1.67	0.42
1:A:3846:ALA:HB1	1:A:3873:LYS:HB2	2.02	0.42
1:A:4047:MET:HE2	1:A:4048:LEU:HD23	2.02	0.42
1:A:4064:MET:SD	1:A:4107:GLU:HG2	2.60	0.42
2:H:35:LYS:HZ1	2:H:38:SER:HB3	1.85	0.42
1:B:73:LEU:HD23	1:B:73:LEU:HA	1.84	0.42
1:B:181:HIS:HA	1:B:198:THR:HB	2.01	0.42
1:B:492:ASP:O	1:B:496:VAL:HG13	2.20	0.42
1:B:1288:PHE:CE2	1:B:1460:HIS:HA	2.55	0.42
1:B:2527:LEU:HD12	1:B:2531:ARG:HH12	1.85	0.42
1:B:2644:LEU:HD13	1:B:2678:LEU:HD21	2.02	0.42
1:B:2821:TRP:HB3	1:B:2937:VAL:CG2	2.49	0.42
1:B:2881:ASN:O	1:B:2885:THR:HG23	2.20	0.42
1:B:3137:LEU:HD12	1:B:3137:LEU:HA	1.90	0.42
1:B:3145:GLN:CD	1:B:3196:ARG:HE	2.23	0.42
1:B:3208:PRO:O	1:B:3236:VAL:HG11	2.20	0.42
1:D:866:HIS:HB2	1:D:1051:TYR:OH	2.20	0.42
1:D:985:VAL:HG11	1:D:1040:CYS:HB2	2.01	0.42
1:D:3157:ILE:O	1:D:3202:PRO:HG3	2.20	0.42
1:D:3208:PRO:O	1:D:3236:VAL:HG11	2.20	0.42
1:D:3374:ALA:O	1:D:3377:GLU:HG3	2.19	0.42
1:D:3462:ASN:HB3	1:D:3464:ILE:HG23	2.02	0.42
1:D:3767:GLN:O	1:D:3771:HIS:ND1	2.53	0.42
1:D:4067:LYS:HA	1:D:4070:ASP:OD2	2.20	0.42
1:D:4646:LEU:HD23	1:D:4646:LEU:HA	1.86	0.42
1:D:4866:SER:OG	1:D:4871:GLU:O	2.35	0.42
1:C:244:LEU:HB3	1:C:375:LYS:HZ3	1.84	0.42
1:C:632:LEU:O	1:C:634:GLN:NE2	2.46	0.42
1:C:648:ILE:HG23	1:C:814:ALA:HB3	2.01	0.42
1:C:796:ARG:HA	1:C:796:ARG:NH1	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2318:TYR:CE2	1:C:2394:GLY:HA2	2.55	0.42
1:C:2881:ASN:O	1:C:2885:THR:HG23	2.20	0.42
1:C:3576:TYR:O	1:C:3582:ARG:HG3	2.20	0.42
1:C:3940:LYS:HB2	1:C:3940:LYS:HE2	1.86	0.42
1:C:3971:GLY:N	1:C:3972:PRO:HA	2.35	0.42
1:C:4006:ASP:OD2	1:C:4007:SER:N	2.52	0.42
1:A:730:VAL:HG23	1:A:1476:MET:HE1	2.02	0.41
1:A:904:HIS:CE1	1:A:906:CYS:HB3	2.55	0.41
1:A:1147:ASP:HB3	1:A:1164:LEU:HD11	2.01	0.41
1:A:1573:MET:CE	1:A:1574:PRO:HD2	2.48	0.41
1:A:1982:ARG:H	1:A:1982:ARG:HG2	1.73	0.41
1:A:2881:ASN:O	1:A:2885:THR:HG23	2.20	0.41
1:A:3462:ASN:HB3	1:A:3464:ILE:HG23	2.02	0.41
1:B:364:PRO:O	1:B:365:LYS:HB3	2.19	0.41
1:B:820:ARG:CZ	1:B:820:ARG:HA	2.49	0.41
1:B:904:HIS:CE1	1:B:906:CYS:HB3	2.55	0.41
1:B:998:ARG:HG2	1:B:998:ARG:HH11	1.85	0.41
1:B:2122:SER:O	1:B:2126:ARG:HG3	2.20	0.41
1:B:2890:LYS:HD2	1:B:2890:LYS:N	2.35	0.41
1:B:4064:MET:HE2	1:B:4064:MET:HB2	1.89	0.41
1:B:4067:LYS:HA	1:B:4070:ASP:OD2	2.19	0.41
1:B:4186:ALA:O	1:B:4188:ARG:NH1	2.52	0.41
1:D:76:ARG:HB3	1:C:3935:TRP:HB3	2.01	0.41
1:D:640:TYR:CE1	1:D:1636:MET:HB3	2.55	0.41
1:D:683:ARG:NH1	1:D:709:ASP:OD1	2.45	0.41
1:D:1211:LEU:H	1:D:1211:LEU:HD12	1.84	0.41
1:D:1613:LEU:HD13	1:D:1634:LEU:HB2	2.02	0.41
1:D:2122:SER:O	1:D:2126:ARG:HG3	2.20	0.41
1:D:2265:LEU:HD12	1:D:2265:LEU:HA	1.75	0.41
1:D:2703:LEU:HD23	1:D:2703:LEU:HA	1.88	0.41
1:D:3070:ILE:O	1:D:3074:SER:OG	2.28	0.41
1:D:3194:LEU:HD12	1:D:3194:LEU:HA	1.72	0.41
1:D:3210:LEU:HB2	1:D:3304:CYS:O	2.19	0.41
1:D:3263:TYR:N	1:D:3326:ASN:OD1	2.46	0.41
1:D:3846:ALA:HB1	1:D:3873:LYS:HB2	2.02	0.41
1:C:169:LEU:HD12	1:C:170:ILE:H	1.85	0.41
1:C:170:ILE:HG13	1:C:179:TYR:CD1	2.54	0.41
1:C:492:ASP:O	1:C:496:VAL:HG13	2.20	0.41
1:C:998:ARG:HG2	1:C:998:ARG:HH11	1.85	0.41
1:C:1025:ARG:HD3	1:C:1025:ARG:H	1.85	0.41
1:C:3307:VAL:HA	1:C:3311:HIS:ND1	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3374:ALA:O	1:C:3377:GLU:HG3	2.19	0.41
1:C:3405:LEU:HG	1:C:3409:TYR:CD1	2.55	0.41
1:C:3462:ASN:HB3	1:C:3464:ILE:HG23	2.02	0.41
1:A:869:ARG:HD2	1:A:870:ILE:HG12	2.02	0.41
1:A:1204:LEU:HD12	1:A:1226:PHE:CD2	2.54	0.41
1:A:2010:LEU:HD23	1:A:2010:LEU:HA	1.83	0.41
1:A:2238:TYR:HA	1:A:2241:ARG:NE	2.36	0.41
1:A:2959:PHE:O	1:A:2963:LEU:HG	2.20	0.41
1:A:3576:TYR:O	1:A:3582:ARG:HG3	2.20	0.41
2:E:53:GLN:OE1	2:E:53:GLN:N	2.53	0.41
1:B:293:LEU:HD13	1:B:378:LEU:HD12	2.02	0.41
1:B:553:ARG:O	1:B:557:SER:OG	2.36	0.41
1:B:1076:ARG:NH2	1:B:1655:GLU:OE1	2.33	0.41
1:B:2170:MET:HG3	1:B:2225:PHE:CE2	2.54	0.41
1:B:2500:ALA:HB2	1:B:2553:TYR:HD2	1.84	0.41
1:B:2959:PHE:O	1:B:2963:LEU:HG	2.20	0.41
1:B:3157:ILE:O	1:B:3202:PRO:HG3	2.20	0.41
1:B:3243:ILE:HD12	1:B:3243:ILE:O	2.19	0.41
1:B:3462:ASN:HB3	1:B:3464:ILE:HG23	2.02	0.41
1:B:4133:GLN:OE1	1:B:4133:GLN:HA	2.19	0.41
1:B:4897:ILE:O	1:B:4901:ILE:HG12	2.20	0.41
1:D:2515:GLN:CD	1:D:2572:THR:HG23	2.39	0.41
1:D:2520:HIS:O	1:D:2524:VAL:HG22	2.20	0.41
1:D:2697:ARG:HD2	1:D:2697:ARG:C	2.41	0.41
1:D:3368:ARG:HA	1:D:3371:LYS:HE2	2.03	0.41
1:D:3842:LEU:HD23	1:D:3842:LEU:HA	1.89	0.41
1:D:4904:PRO:HB3	1:D:4913:ARG:HG2	2.00	0.41
1:C:952:LYS:HB3	1:C:968:ALA:HB1	2.01	0.41
1:C:971:ASP:HB3	1:C:974:HIS:HE1	1.84	0.41
1:C:1288:PHE:CE2	1:C:1460:HIS:HA	2.55	0.41
1:C:1931:LEU:H	1:C:1931:LEU:HG	1.65	0.41
1:C:2520:HIS:O	1:C:2524:VAL:HG22	2.20	0.41
1:C:2757:LYS:HD2	1:C:2761:TYR:CE1	2.54	0.41
1:C:3249:LEU:HD12	1:C:3249:LEU:HA	1.87	0.41
1:C:3540:TYR:CZ	1:C:3549:VAL:HG11	2.55	0.41
1:C:3846:ALA:HB1	1:C:3873:LYS:HB2	2.02	0.41
1:A:364:PRO:O	1:A:365:LYS:HB3	2.19	0.41
1:A:860:GLN:HE22	1:A:862:VAL:CG2	2.33	0.41
1:A:1288:PHE:CE2	1:A:1460:HIS:HA	2.55	0.41
1:A:1786:LEU:HD22	1:A:1787:PRO:HD2	2.01	0.41
1:A:2013:LYS:HZ1	1:A:3665:GLU:HB2	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2437:ALA:HB2	1:A:2509:VAL:HG12	2.01	0.41
1:A:3307:VAL:HA	1:A:3311:HIS:ND1	2.34	0.41
1:B:1425:GLU:H	1:B:1425:GLU:HG3	1.65	0.41
1:B:2452:ARG:HD3	1:C:175:SER:O	2.19	0.41
1:B:3145:GLN:NE2	1:B:3196:ARG:HH21	2.18	0.41
1:B:3535:LEU:HD12	1:B:3536:ALA:N	2.36	0.41
1:D:102:LEU:HB3	1:D:105:HIS:HD2	1.85	0.41
1:D:744:VAL:HG22	1:D:759:ILE:HD13	2.01	0.41
1:D:869:ARG:HD2	1:D:870:ILE:HG12	2.02	0.41
1:D:1071:ARG:HA	1:D:1071:ARG:HD2	1.74	0.41
1:D:1265:ASP:OD1	1:D:1265:ASP:N	2.38	0.41
1:D:1600:LEU:HD12	1:D:1600:LEU:HA	1.92	0.41
1:D:2495:VAL:O	1:D:2498:HIS:HB2	2.20	0.41
1:D:2805:TYR:O	1:D:2805:TYR:HD1	2.04	0.41
1:D:2890:LYS:N	1:D:2890:LYS:HD2	2.35	0.41
1:D:3145:GLN:CD	1:D:3196:ARG:HE	2.23	0.41
1:D:3145:GLN:NE2	1:D:3196:ARG:HH21	2.18	0.41
1:D:3409:TYR:N	1:D:3410:PRO:HD2	2.34	0.41
1:D:4698:LYS:HA	1:D:4698:LYS:HD3	1.88	0.41
1:D:4897:ILE:O	1:D:4901:ILE:HG12	2.20	0.41
1:D:4995:LEU:HD23	1:D:4995:LEU:HA	1.89	0.41
1:C:414:PHE:CE2	1:C:418:LEU:HD11	2.55	0.41
1:C:993:HIS:NE2	1:C:1022:VAL:O	2.50	0.41
1:C:1527:MET:HE3	1:C:1527:MET:HB3	1.94	0.41
1:C:1786:LEU:HD22	1:C:1787:PRO:HD2	2.01	0.41
1:C:3154:ASP:OD1	1:C:3283:ARG:NH2	2.53	0.41
1:C:3263:TYR:N	1:C:3326:ASN:OD1	2.47	0.41
1:C:4980:LEU:HD12	1:C:4980:LEU:HA	1.86	0.41
1:A:69:LEU:HD22	1:A:101:LEU:HD11	2.01	0.41
1:A:418:LEU:HA	1:A:421:PHE:CE1	2.56	0.41
1:A:468:LEU:O	1:A:472:ARG:HG2	2.20	0.41
1:A:640:TYR:CE1	1:A:1636:MET:HB3	2.55	0.41
1:A:1476:MET:O	1:A:1484:HIS:N	2.52	0.41
1:A:2757:LYS:HD2	1:A:2761:TYR:CD1	2.55	0.41
1:A:2765:LYS:HD3	1:A:2765:LYS:HA	1.92	0.41
1:A:3984:ARG:HH22	1:B:102:LEU:CD1	2.32	0.41
1:B:468:LEU:O	1:B:472:ARG:HG2	2.20	0.41
1:B:2013:LYS:HZ1	1:B:3665:GLU:HB2	1.85	0.41
1:B:2719:TYR:HB2	1:B:2953:LYS:HE2	2.03	0.41
1:B:3371:LYS:HE2	1:B:3371:LYS:HB2	1.78	0.41
1:B:3405:LEU:HG	1:B:3409:TYR:CD1	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3540:TYR:CZ	1:B:3549:VAL:HG11	2.55	0.41
1:B:3974:THR:O	1:B:3978:GLN:HG2	2.21	0.41
1:B:4851:TYR:HD1	1:B:4916:PHE:CE1	2.38	0.41
1:B:4980:LEU:HD12	1:B:4980:LEU:HA	1.86	0.41
1:D:293:LEU:HD13	1:D:378:LEU:HD12	2.02	0.41
1:D:418:LEU:HA	1:D:421:PHE:CE1	2.56	0.41
1:D:952:LYS:HB3	1:D:968:ALA:HB1	2.01	0.41
1:D:1753:LYS:HE2	1:D:1758:ARG:HA	2.02	0.41
1:D:2238:TYR:HA	1:D:2241:ARG:NE	2.36	0.41
1:D:2757:LYS:HD2	1:D:2761:TYR:CD1	2.55	0.41
1:D:2888:ARG:O	1:D:2892:GLN:HG2	2.20	0.41
1:D:3243:ILE:HD12	1:D:3243:ILE:O	2.19	0.41
1:D:3296:LEU:HB3	1:D:3297:PRO:HD3	2.03	0.41
1:D:3424:LEU:HD23	1:D:3424:LEU:HA	1.84	0.41
1:D:3540:TYR:CZ	1:D:3549:VAL:HG11	2.55	0.41
1:D:3576:TYR:O	1:D:3582:ARG:HG3	2.20	0.41
1:C:860:GLN:HE22	1:C:862:VAL:HG23	1.85	0.41
1:C:904:HIS:CE1	1:C:906:CYS:HB3	2.55	0.41
1:C:1211:LEU:H	1:C:1211:LEU:HD12	1.85	0.41
1:C:1754:GLY:O	1:C:1758:ARG:HG3	2.20	0.41
1:C:2248:ARG:HE	1:C:2248:ARG:HB2	1.66	0.41
1:C:2757:LYS:HD2	1:C:2761:TYR:CD1	2.55	0.41
1:C:2805:TYR:O	1:C:2805:TYR:HD1	2.04	0.41
1:C:3587:ASP:HB2	1:C:3592:ILE:HD11	2.03	0.41
1:C:4648:LEU:HD12	1:C:4803:HIS:CE1	2.55	0.41
1:C:4722:ARG:HE	1:C:4748:LEU:HB2	1.86	0.41
1:A:219:VAL:HG22	1:A:261:ARG:HB2	2.01	0.41
1:A:1433:TYR:CD1	1:A:1578:ALA:HB2	2.56	0.41
1:A:3145:GLN:NE2	1:A:3196:ARG:HH21	2.18	0.41
1:A:3180:ASN:HB2	1:A:3183:VAL:HG23	2.03	0.41
1:A:3274:LEU:HD23	1:A:3274:LEU:HA	1.94	0.41
1:A:3940:LYS:HB2	1:A:3940:LYS:HE2	1.86	0.41
1:A:4071:ILE:HA	1:A:4071:ILE:HD13	1.79	0.41
1:A:4722:ARG:HE	1:A:4748:LEU:HB2	1.86	0.41
1:B:278:GLN:HB2	1:B:328:LYS:HE2	2.03	0.41
1:B:648:ILE:HG23	1:B:814:ALA:HB3	2.01	0.41
1:B:663:TYR:CD2	1:B:804:PRO:HB3	2.54	0.41
1:B:866:HIS:HB2	1:B:1051:TYR:OH	2.20	0.41
1:B:971:ASP:HB3	1:B:974:HIS:HE1	1.84	0.41
1:B:1126:GLY:O	1:B:1142:PRO:HA	2.20	0.41
1:B:1613:LEU:HD13	1:B:1634:LEU:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2318:TYR:CE2	1:B:2394:GLY:HA2	2.55	0.41
1:B:3256:LEU:HD13	1:B:3269:VAL:HG21	2.01	0.41
1:B:3263:TYR:N	1:B:3326:ASN:OD1	2.47	0.41
1:D:81:MET:SD	1:D:82:LEU:HD23	2.61	0.41
1:D:278:GLN:HB2	1:D:328:LYS:HE2	2.03	0.41
1:D:516:LYS:O	1:D:520:ASN:ND2	2.40	0.41
1:D:860:GLN:HE22	1:D:862:VAL:HG23	1.85	0.41
1:D:1224:GLU:OE1	1:D:1228:ILE:HG21	2.20	0.41
1:D:1671:ARG:HH12	1:D:1710:GLY:HA2	1.86	0.41
1:D:1753:LYS:NZ	1:D:1759:ARG:H	2.16	0.41
1:D:1754:GLY:O	1:D:1758:ARG:HG3	2.20	0.41
1:D:2347:GLU:OE2	1:D:3852:LYS:NZ	2.53	0.41
1:D:2742:THR:HB	1:D:2814:LYS:HD2	2.03	0.41
1:D:2810:LYS:HA	1:D:2810:LYS:HD3	1.76	0.41
1:D:2959:PHE:O	1:D:2963:LEU:HG	2.20	0.41
1:D:3154:ASP:OD1	1:D:3283:ARG:NH2	2.53	0.41
1:D:4863:TYR:HH	1:D:4886:HIS:CE1	2.38	0.41
1:C:273:HIS:HB3	1:C:337:PRO:HB3	2.01	0.41
1:C:1126:GLY:O	1:C:1142:PRO:HA	2.21	0.41
1:C:1613:LEU:HD13	1:C:1634:LEU:HB2	2.02	0.41
1:C:1990:GLU:HA	1:C:1993:ARG:NH2	2.29	0.41
1:C:2719:TYR:HB2	1:C:2953:LYS:HE2	2.03	0.41
1:C:2764:GLU:HB3	1:C:2857:PRO:HD3	2.03	0.41
1:C:3023:LYS:HE3	1:C:3023:LYS:HB3	1.89	0.41
1:C:3145:GLN:NE2	1:C:3196:ARG:HH21	2.18	0.41
1:C:4064:MET:SD	1:C:4107:GLU:HG2	2.60	0.41
1:C:4725:LEU:HD11	1:C:4734:ARG:HE	1.85	0.41
1:A:754:SER:HA	1:A:768:PHE:O	2.20	0.41
1:A:866:HIS:HB2	1:A:1051:TYR:OH	2.20	0.41
1:A:998:ARG:HG2	1:A:998:ARG:HH11	1.85	0.41
1:A:2481:LYS:HA	1:A:2481:LYS:HD3	1.78	0.41
1:A:2637:ALA:C	1:A:2640:PRO:HD2	2.41	0.41
1:A:2697:ARG:HD2	1:A:2697:ARG:C	2.41	0.41
1:A:2764:GLU:HB3	1:A:2857:PRO:HD3	2.03	0.41
1:A:3145:GLN:CD	1:A:3196:ARG:HE	2.24	0.41
1:A:4851:TYR:HD1	1:A:4916:PHE:CE1	2.38	0.41
2:G:25:HIS:CD2	2:G:104:LEU:HD11	2.56	0.41
1:B:869:ARG:HD2	1:B:870:ILE:HG12	2.02	0.41
1:B:1671:ARG:HH12	1:B:1710:GLY:HA2	1.86	0.41
1:B:2191:PHE:CD1	1:B:2198:MET:HG3	2.56	0.41
1:B:2238:TYR:HA	1:B:2241:ARG:NE	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2489:LYS:HB2	1:B:2489:LYS:HE3	1.75	0.41
1:B:3180:ASN:HB2	1:B:3183:VAL:HG23	2.03	0.41
1:D:1208:VAL:HG21	1:C:3575:LEU:HD11	2.02	0.41
1:D:1990:GLU:HA	1:D:1993:ARG:NH2	2.29	0.41
1:D:2138:LEU:HD23	1:D:2138:LEU:HA	1.83	0.41
1:D:2191:PHE:CD1	1:D:2198:MET:HG3	2.56	0.41
1:D:2410:PRO:HB3	1:D:2415:ARG:HB3	2.02	0.41
1:D:4753:HIS:CE1	1:D:4754:ASN:HB2	2.56	0.41
1:C:278:GLN:HB2	1:C:328:LYS:HE2	2.03	0.41
1:C:2191:PHE:CD1	1:C:2198:MET:HG3	2.56	0.41
1:C:2742:THR:HB	1:C:2814:LYS:HB3	2.02	0.41
1:C:2811:GLU:HA	1:C:2814:LYS:HZ3	1.86	0.41
1:C:3499:ARG:NH2	1:C:3503:TYR:HB3	2.35	0.41
1:C:3974:THR:O	1:C:3978:GLN:HG2	2.21	0.41
1:C:4753:HIS:CE1	1:C:4754:ASN:HB2	2.56	0.41
1:C:4897:ILE:HD12	1:C:4897:ILE:HA	1.91	0.41
1:A:103:TYR:HB3	1:A:152:PRO:HD3	2.03	0.41
1:A:414:PHE:CE2	1:A:418:LEU:HD11	2.55	0.41
1:A:469:ARG:HG3	1:A:470:SER:N	2.36	0.41
1:A:1126:GLY:O	1:A:1142:PRO:HA	2.21	0.41
1:A:2318:TYR:CE2	1:A:2394:GLY:HA2	2.55	0.41
1:A:2805:TYR:O	1:A:2805:TYR:HD1	2.04	0.41
1:A:2888:ARG:O	1:A:2892:GLN:HG2	2.20	0.41
1:A:2909:ASP:OD1	1:A:2909:ASP:N	2.54	0.41
1:A:3368:ARG:HA	1:A:3371:LYS:HE2	2.03	0.41
2:F:55:VAL:HA	1:B:1784:ALA:HA	2.02	0.41
1:B:69:LEU:HD22	1:B:101:LEU:HD11	2.01	0.41
1:B:81:MET:SD	1:B:82:LEU:HD23	2.61	0.41
1:B:640:TYR:CE1	1:B:1636:MET:HB3	2.55	0.41
1:B:1297:PHE:CD2	1:B:1522:LEU:HA	2.56	0.41
1:B:1433:TYR:CD1	1:B:1578:ALA:HB2	2.56	0.41
1:B:1839:VAL:HG12	1:B:1843:LYS:HD2	2.03	0.41
1:B:2697:ARG:HD2	1:B:2697:ARG:C	2.41	0.41
1:B:2909:ASP:N	1:B:2909:ASP:OD1	2.54	0.41
1:B:2996:LYS:O	1:B:3000:LYS:HG2	2.21	0.41
1:B:3296:LEU:HB3	1:B:3297:PRO:HD3	2.03	0.41
1:B:4064:MET:SD	1:B:4107:GLU:HG2	2.60	0.41
1:B:4725:LEU:HD11	1:B:4734:ARG:HE	1.85	0.41
1:D:479:GLN:HG3	1:D:480:GLU:OE2	2.21	0.41
1:D:870:ILE:HD13	1:D:870:ILE:HA	1.90	0.41
1:D:1671:ARG:NH1	1:D:1710:GLY:O	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1839:VAL:HG12	1:D:1843:LYS:HD2	2.03	0.41
1:D:2686:LEU:HD12	1:D:2686:LEU:HA	1.90	0.41
1:D:2719:TYR:HB2	1:D:2953:LYS:HE2	2.03	0.41
1:D:4159:ARG:HE	1:D:4159:ARG:HB2	1.72	0.41
1:D:4722:ARG:HE	1:D:4748:LEU:HB2	1.86	0.41
1:C:81:MET:SD	1:C:82:LEU:HD23	2.61	0.41
1:C:722:TRP:CZ2	1:C:727:ALA:HB2	2.54	0.41
1:C:1297:PHE:CD2	1:C:1522:LEU:HA	2.56	0.41
1:C:2010:LEU:HD23	1:C:2010:LEU:HA	1.83	0.41
1:C:2346:VAL:HG23	1:C:2349:ASN:HB2	2.01	0.41
1:C:2410:PRO:HB3	1:C:2415:ARG:HB3	2.02	0.41
1:C:2890:LYS:HD2	1:C:2890:LYS:N	2.35	0.41
1:C:2927:LEU:HA	1:C:2927:LEU:HD13	1.92	0.41
1:C:2996:LYS:O	1:C:3000:LYS:HG2	2.21	0.41
1:C:3368:ARG:HA	1:C:3371:LYS:HE2	2.03	0.41
1:C:3535:LEU:HD12	1:C:3536:ALA:N	2.35	0.41
1:C:3539:ARG:HB3	1:C:3544:ASP:OD1	2.21	0.41
1:C:4061:PHE:CE2	1:C:4065:PHE:HE2	2.39	0.41
1:A:233:ILE:H	1:A:233:ILE:HG13	1.64	0.41
1:A:1739:THR:HG23	1:A:1742:THR:H	1.86	0.41
1:A:2221:LYS:H	1:A:2221:LYS:HG2	1.69	0.41
1:A:2495:VAL:HG13	1:A:2496:PRO:HD2	2.03	0.41
1:A:2702:CYS:O	1:A:2706:ILE:HG13	2.20	0.41
1:A:2719:TYR:HB2	1:A:2953:LYS:HE2	2.03	0.41
1:A:2742:THR:HB	1:A:2814:LYS:HB3	2.02	0.41
1:A:2890:LYS:N	1:A:2890:LYS:HD2	2.35	0.41
1:A:3154:ASP:OD1	1:A:3283:ARG:NH2	2.53	0.41
1:B:414:PHE:CE2	1:B:418:LEU:HD11	2.55	0.41
1:B:2928:LYS:HA	1:B:2928:LYS:HD3	1.87	0.41
1:B:3023:LYS:HB3	1:B:3023:LYS:HE3	1.89	0.41
1:D:754:SER:HA	1:D:768:PHE:O	2.20	0.41
1:D:2021:CYS:HA	1:D:2022:PRO:HD3	1.94	0.41
1:D:2909:ASP:OD1	1:D:2909:ASP:N	2.54	0.41
1:D:4061:PHE:CE2	1:D:4065:PHE:HE2	2.39	0.41
1:D:4202:ARG:O	1:D:4206:GLU:HG2	2.21	0.41
1:C:418:LEU:HA	1:C:421:PHE:CE1	2.56	0.41
1:C:688:LEU:HD12	1:C:688:LEU:HA	1.95	0.41
1:C:744:VAL:HG22	1:C:759:ILE:HD13	2.01	0.41
1:C:754:SER:HA	1:C:768:PHE:O	2.20	0.41
1:C:2888:ARG:O	1:C:2892:GLN:HG2	2.20	0.41
1:C:3408:LEU:HD23	1:C:3408:LEU:HA	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:81:MET:SD	1:A:82:LEU:HD23	2.61	0.41
1:A:274:LEU:HD22	1:A:280:LEU:HD23	2.03	0.41
1:A:479:GLN:HG3	1:A:480:GLU:OE2	2.21	0.41
1:A:604:CYS:SG	1:A:1668:ARG:NH1	2.94	0.41
1:A:683:ARG:NH1	1:A:709:ASP:OD1	2.45	0.41
1:A:1079:LYS:HD2	1:A:1655:GLU:HG3	2.03	0.41
1:A:1211:LEU:HD12	1:A:1211:LEU:H	1.84	0.41
1:A:1231[B]:GLN:NE2	1:A:1828:ASP:O	2.48	0.41
1:A:1619:ARG:HE	1:A:1619:ARG:HB2	1.72	0.41
1:A:1839:VAL:HG12	1:A:1843:LYS:HD2	2.03	0.41
1:A:2191:PHE:CD1	1:A:2198:MET:HG3	2.56	0.41
1:A:2410:PRO:HB3	1:A:2415:ARG:HB3	2.02	0.41
1:A:2737:PRO:O	1:A:2888:ARG:NH2	2.47	0.41
1:A:2742:THR:HB	1:A:2814:LYS:HD2	2.03	0.41
1:A:3292:PRO:HA	1:A:3293:PRO:HD3	1.93	0.41
1:A:3296:LEU:HB3	1:A:3297:PRO:HD3	2.03	0.41
1:A:3535:LEU:HD12	1:A:3536:ALA:N	2.36	0.41
1:A:3539:ARG:HB3	1:A:3544:ASP:OD1	2.21	0.41
1:A:3644:LEU:HD23	1:A:3645:PRO:O	2.21	0.41
1:A:3974:THR:O	1:A:3978:GLN:HG2	2.21	0.41
1:A:4753:HIS:CE1	1:A:4754:ASN:HB2	2.56	0.41
1:A:4985:LEU:HD23	3:A:5301:ATP:N1	2.36	0.41
1:B:604:CYS:SG	1:B:1668:ARG:NH1	2.94	0.41
1:B:985:VAL:HG11	1:B:1040:CYS:HB2	2.01	0.41
1:B:1134:LEU:HD12	1:B:1134:LEU:HA	1.91	0.41
1:B:1658:ASP:N	1:B:1658:ASP:OD1	2.54	0.41
1:B:2410:PRO:HB3	1:B:2415:ARG:HB3	2.02	0.41
1:B:2495:VAL:HG13	1:B:2496:PRO:HD2	2.03	0.41
1:B:2505:PHE:CE1	1:B:2509:VAL:HG21	2.56	0.41
1:B:2702:CYS:O	1:B:2706:ILE:HG13	2.20	0.41
1:B:2742:THR:HB	1:B:2814:LYS:HB3	2.02	0.41
1:B:2764:GLU:HB3	1:B:2857:PRO:HD3	2.03	0.41
1:B:2805:TYR:O	1:B:2805:TYR:HD1	2.04	0.41
1:B:2888:ARG:O	1:B:2892:GLN:HG2	2.20	0.41
1:B:3516:LYS:O	1:B:3519:PRO:HD2	2.21	0.41
1:B:3846:ALA:HB1	1:B:3873:LYS:HB2	2.02	0.41
1:B:3930:ILE:HG22	1:B:3995:VAL:HG11	2.03	0.41
1:B:3940:LYS:HE2	1:B:3940:LYS:HB2	1.86	0.41
1:B:4753:HIS:CE1	1:B:4754:ASN:HB2	2.56	0.41
1:D:73:LEU:HD23	1:D:73:LEU:HA	1.84	0.41
1:D:244:LEU:HD22	1:D:375:LYS:HZ3	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:604:CYS:SG	1:D:1668:ARG:NH1	2.94	0.41
1:D:904:HIS:CE1	1:D:906:CYS:HB3	2.55	0.41
1:D:1141:ARG:HH12	1:C:3477:LYS:HG3	1.50	0.41
1:D:1931:LEU:HD22	1:D:1935:VAL:CG1	2.51	0.41
1:D:2244:ARG:NH2	1:D:3860:ASN:HA	2.24	0.41
1:D:2318:TYR:CE2	1:D:2394:GLY:HA2	2.55	0.41
1:D:2495:VAL:HG13	1:D:2496:PRO:HD2	2.03	0.41
1:D:2639:MET:CE	1:D:2640:PRO:HD3	2.51	0.41
1:D:2764:GLU:HB3	1:D:2857:PRO:HD3	2.03	0.41
1:D:3335:MET:HE3	1:D:3407:ALA:CB	2.51	0.41
1:D:3359:ILE:HG13	1:D:3437:MET:HE3	2.01	0.41
1:D:3539:ARG:HB3	1:D:3544:ASP:OD1	2.21	0.41
1:D:3587:ASP:HB2	1:D:3592:ILE:HD11	2.03	0.41
1:D:3798:LEU:HD22	1:D:3884:LEU:HA	2.03	0.41
1:D:3996:PHE:HE2	1:D:4023:MET:HE2	1.86	0.41
1:D:4651:THR:HG1	1:D:4803:HIS:CD2	2.34	0.41
1:C:275:ARG:HA	1:C:275:ARG:HD3	1.96	0.41
1:C:604:CYS:SG	1:C:1668:ARG:NH1	2.94	0.41
1:C:640:TYR:CE1	1:C:1636:MET:HB3	2.56	0.41
1:C:1433:TYR:CD1	1:C:1578:ALA:HB2	2.56	0.41
1:C:1479:GLU:H	1:C:1479:GLU:CD	2.22	0.41
1:C:1658:ASP:N	1:C:1658:ASP:OD1	2.54	0.41
1:C:1671:ARG:HH12	1:C:1710:GLY:HA2	1.86	0.41
1:C:2481:LYS:HA	1:C:2481:LYS:HD3	1.78	0.41
1:C:2495:VAL:O	1:C:2498:HIS:HB2	2.21	0.41
1:C:2615:ARG:HB2	1:C:2618:MET:SD	2.61	0.41
1:C:2770:LYS:HD3	1:C:2770:LYS:HA	1.89	0.41
1:C:3114:LYS:CE	1:C:3125:VAL:HG11	2.51	0.41
1:C:3335:MET:HE3	1:C:3407:ALA:CB	2.50	0.41
1:C:3644:LEU:HD23	1:C:3645:PRO:O	2.21	0.41
1:C:3778:MET:O	1:C:3782:MET:HG2	2.21	0.41
1:C:4202:ARG:O	1:C:4206:GLU:HG2	2.21	0.41
1:A:213:TYR:CE2	1:A:337:PRO:HG2	2.56	0.41
1:A:1225:PRO:HG2	1:A:1228:ILE:HD13	2.03	0.41
1:A:2347:GLU:OE2	1:A:3852:LYS:NZ	2.53	0.41
1:A:2505:PHE:CE1	1:A:2509:VAL:HG21	2.56	0.41
1:A:2679:PHE:HB2	1:A:2706:ILE:CG2	2.51	0.41
1:A:2878:LEU:HA	1:A:2881:ASN:ND2	2.36	0.41
1:A:3798:LEU:HD22	1:A:3884:LEU:HA	2.03	0.41
1:A:4202:ARG:O	1:A:4206:GLU:HG2	2.21	0.41
1:B:170:ILE:HG13	1:B:179:TYR:CD1	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:479:GLN:HG3	1:B:480:GLU:OE2	2.21	0.41
1:B:1225:PRO:HG2	1:B:1228:ILE:HD13	2.03	0.41
1:B:1653:LEU:HD12	1:B:1653:LEU:HA	1.92	0.41
1:B:2418:LEU:HD23	1:B:2418:LEU:HA	1.91	0.41
1:B:2615:ARG:HB2	1:B:2618:MET:SD	2.61	0.41
1:B:3335:MET:HE3	1:B:3407:ALA:CB	2.51	0.41
1:B:3368:ARG:HA	1:B:3371:LYS:HE2	2.03	0.41
1:B:4697:VAL:HG13	1:B:4698:LYS:HE2	2.03	0.41
1:D:137:LEU:HD23	1:D:137:LEU:HA	1.90	0.41
1:D:213:TYR:CE2	1:D:337:PRO:HG2	2.56	0.41
1:D:530:ILE:HG21	1:D:540:PHE:HE1	1.86	0.41
1:D:737:LEU:HD12	1:D:737:LEU:HA	1.84	0.41
1:D:1115:LEU:HD23	1:D:1115:LEU:HA	1.90	0.41
1:D:1225:PRO:HG2	1:D:1228:ILE:HD13	2.03	0.41
1:D:2221:LYS:H	1:D:2221:LYS:HG2	1.69	0.41
1:D:2825:LYS:HD3	1:D:2827:ARG:HH21	1.86	0.41
1:D:3093:ARG:O	1:D:3097:GLU:HG2	2.21	0.41
1:D:3180:ASN:HB2	1:D:3183:VAL:HG23	2.03	0.41
1:C:553:ARG:O	1:C:557:SER:OG	2.36	0.41
1:C:1024:TYR:CZ	1:C:1032:LYS:HB2	2.57	0.41
1:C:1839:VAL:HG12	1:C:1843:LYS:HD2	2.03	0.41
1:C:2122:SER:O	1:C:2126:ARG:HG3	2.20	0.41
1:C:2505:PHE:CE1	1:C:2509:VAL:HG21	2.56	0.41
1:C:3093:ARG:O	1:C:3097:GLU:HG2	2.21	0.41
1:C:3180:ASN:HB2	1:C:3183:VAL:HG23	2.03	0.41
1:C:3821:LYS:O	1:C:3824:LYS:HG3	2.22	0.41
1:C:3936:TYR:O	1:C:3940:LYS:NZ	2.38	0.41
1:C:4122:MET:HE2	1:C:4122:MET:HA	2.02	0.41
1:C:4248:ALA:HA	1:C:4251:ILE:HG12	2.04	0.41
1:C:4985:LEU:HD23	3:C:5301:ATP:N1	2.36	0.41
1:A:102:LEU:HB3	1:A:105:HIS:HD2	1.85	0.40
1:A:188:GLU:OE1	1:A:188:GLU:N	2.39	0.40
1:A:418:LEU:HD23	1:A:421:PHE:CE1	2.56	0.40
1:A:1154:ASP:O	1:A:1158:ASN:N	2.54	0.40
1:A:2639:MET:CE	1:A:2640:PRO:HD3	2.51	0.40
1:A:3326:ASN:HB2	1:A:3334:TRP:HZ2	1.86	0.40
1:A:4628:VAL:HG21	1:B:4860:ARG:NH2	2.36	0.40
1:A:4646:LEU:HD23	1:A:4646:LEU:HA	1.86	0.40
2:G:23:VAL:HG12	2:G:104:LEU:HB2	2.02	0.40
1:B:213:TYR:CE2	1:B:337:PRO:HG2	2.57	0.40
1:B:469:ARG:HG3	1:B:470:SER:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1842:LEU:HD23	1:B:1842:LEU:HA	1.87	0.40
1:B:2637:ALA:C	1:B:2640:PRO:HD2	2.41	0.40
1:B:2679:PHE:HB2	1:B:2706:ILE:CG2	2.51	0.40
1:B:2878:LEU:HA	1:B:2881:ASN:ND2	2.36	0.40
1:B:3587:ASP:HB2	1:B:3592:ILE:HD11	2.03	0.40
1:B:4753:HIS:ND1	1:B:4754:ASN:HB2	2.37	0.40
1:D:103:TYR:HB3	1:D:152:PRO:HD3	2.03	0.40
1:D:790:ARG:HG3	1:D:1626:TRP:O	2.22	0.40
1:D:1126:GLY:O	1:D:1142:PRO:HA	2.20	0.40
1:D:1433:TYR:CD1	1:D:1578:ALA:HB2	2.56	0.40
1:D:2637:ALA:C	1:D:2640:PRO:HD2	2.41	0.40
1:D:2871:LEU:HD23	1:D:2871:LEU:HA	1.88	0.40
1:D:2881:ASN:O	1:D:2885:THR:HG23	2.20	0.40
1:D:2996:LYS:O	1:D:3000:LYS:HG2	2.21	0.40
1:D:3509:LEU:HD23	1:D:3509:LEU:HA	1.89	0.40
1:C:188:GLU:OE1	1:C:188:GLU:N	2.39	0.40
1:C:479:GLN:HG3	1:C:480:GLU:OE2	2.21	0.40
1:C:631:LEU:HD23	1:C:631:LEU:HA	1.85	0.40
1:C:1753:LYS:HE2	1:C:1758:ARG:HA	2.03	0.40
1:C:2230:THR:O	1:C:2234:ARG:HG2	2.22	0.40
1:C:2765:LYS:HD3	1:C:2765:LYS:HA	1.92	0.40
1:C:2909:ASP:OD1	1:C:2909:ASP:N	2.54	0.40
1:A:278:GLN:HB2	1:A:328:LYS:HE2	2.03	0.40
1:A:492:ASP:O	1:A:496:VAL:HG13	2.20	0.40
1:A:688:LEU:HD12	1:A:688:LEU:HA	1.95	0.40
1:A:2092:GLN:HE21	1:A:2092:GLN:HB3	1.61	0.40
1:A:3093:ARG:O	1:A:3097:GLU:HG2	2.21	0.40
1:A:4697:VAL:HG13	1:A:4698:LYS:HE2	2.03	0.40
1:B:418:LEU:HD23	1:B:421:PHE:CE1	2.56	0.40
1:B:869:ARG:HE	1:B:1051:TYR:HH	1.68	0.40
1:B:2347:GLU:OE2	1:B:3852:LYS:NZ	2.53	0.40
1:B:2412:GLU:OE2	1:B:2412:GLU:N	2.51	0.40
1:B:3093:ARG:O	1:B:3097:GLU:HG2	2.21	0.40
1:B:3821:LYS:O	1:B:3824:LYS:HG3	2.22	0.40
1:B:4061:PHE:CE2	1:B:4065:PHE:HE2	2.39	0.40
1:B:4096:ALA:O	1:B:4099:SER:OG	2.28	0.40
1:B:4549:VAL:O	1:B:4553:ASN:ND2	2.54	0.40
1:B:4722:ARG:HE	1:B:4748:LEU:HB2	1.86	0.40
1:B:5006:GLN:H	1:B:5006:GLN:HG3	1.57	0.40
1:D:214:VAL:HG21	1:D:390:LEU:HD12	2.03	0.40
1:D:645:ARG:HG2	1:D:826:ILE:HG12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1231[B]:GLN:NE2	1:D:1828:ASP:O	2.48	0.40
1:D:1653:LEU:HD12	1:D:1653:LEU:HA	1.92	0.40
1:D:1739:THR:HG23	1:D:1742:THR:H	1.86	0.40
1:D:1931:LEU:HD22	1:D:1935:VAL:HG12	2.03	0.40
1:D:2615:ARG:HB2	1:D:2618:MET:SD	2.61	0.40
1:D:2794:TYR:HA	1:D:2794:TYR:HD1	1.80	0.40
1:D:3018:LEU:HD23	1:D:3018:LEU:HA	1.93	0.40
1:D:3537:LYS:HE2	1:D:3537:LYS:HB3	1.70	0.40
1:D:3778:MET:O	1:D:3782:MET:HG2	2.21	0.40
1:C:469:ARG:HG3	1:C:470:SER:N	2.36	0.40
1:C:1033:ARG:HA	1:C:1036:ARG:HH11	1.86	0.40
1:C:1476:MET:O	1:C:1484:HIS:N	2.52	0.40
1:C:1573:MET:CE	1:C:1574:PRO:HD2	2.48	0.40
1:C:2286:LEU:HD23	1:C:2286:LEU:HA	1.89	0.40
1:C:2347:GLU:OE2	1:C:3852:LYS:NZ	2.53	0.40
1:C:3248:ARG:NH1	1:C:3252:ASP:OD1	2.55	0.40
1:C:4746:ALA:O	1:C:4750:ILE:HG22	2.21	0.40
1:A:530:ILE:HG21	1:A:540:PHE:HE1	1.87	0.40
1:A:954:LYS:HA	1:A:954:LYS:HD3	1.74	0.40
1:A:1433:TYR:CG	1:A:1578:ALA:HB2	2.56	0.40
1:A:2489:LYS:HB2	1:A:2489:LYS:HE3	1.75	0.40
1:A:2615:ARG:HB2	1:A:2618:MET:SD	2.61	0.40
1:A:2825:LYS:HD3	1:A:2827:ARG:HH21	1.86	0.40
1:A:2996:LYS:O	1:A:3000:LYS:HG2	2.21	0.40
1:A:4069:LYS:O	1:A:4072:VAL:HG22	2.22	0.40
1:A:4746:ALA:O	1:A:4750:ILE:HG22	2.21	0.40
1:B:103:TYR:HB3	1:B:152:PRO:HD3	2.03	0.40
1:B:345:LEU:HD23	1:B:345:LEU:HA	1.74	0.40
1:B:1433:TYR:CG	1:B:1578:ALA:HB2	2.56	0.40
1:B:1931:LEU:HD22	1:B:1935:VAL:CG1	2.51	0.40
1:B:2286:LEU:HD23	1:B:2286:LEU:HA	1.89	0.40
1:B:2495:VAL:O	1:B:2498:HIS:HB2	2.20	0.40
1:B:2793:PRO:O	1:B:2797:PHE:N	2.55	0.40
1:B:3576:TYR:O	1:B:3582:ARG:HG3	2.20	0.40
1:B:3644:LEU:HD23	1:B:3645:PRO:O	2.21	0.40
1:B:4010:ILE:HA	1:B:4013:LEU:HB3	2.03	0.40
1:B:4060:LYS:HA	1:B:4063:ASP:OD2	2.22	0.40
1:D:414:PHE:CE2	1:D:418:LEU:HD11	2.55	0.40
1:D:1297:PHE:CD2	1:D:1522:LEU:HA	2.56	0.40
1:D:1460:HIS:HB3	1:D:1600:LEU:HD23	2.03	0.40
1:D:4060:LYS:HA	1:D:4063:ASP:OD2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4697:VAL:HG13	1:D:4698:LYS:HE2	2.03	0.40
1:C:69:LEU:HD22	1:C:101:LEU:HD11	2.01	0.40
1:C:418:LEU:HD23	1:C:421:PHE:CE1	2.56	0.40
1:C:1433:TYR:CG	1:C:1578:ALA:HB2	2.56	0.40
1:C:1671:ARG:NH1	1:C:1710:GLY:O	2.54	0.40
1:C:2697:ARG:HD2	1:C:2697:ARG:C	2.41	0.40
1:C:3296:LEU:HB3	1:C:3297:PRO:HD3	2.03	0.40
1:C:3930:ILE:HG22	1:C:3995:VAL:HG11	2.03	0.40
1:A:1280:GLN:CD	1:A:1281:ASN:H	2.23	0.40
1:A:1753:LYS:HE2	1:A:1758:ARG:HA	2.02	0.40
1:A:1828:ASP:OD1	1:A:1828:ASP:N	2.50	0.40
1:A:1931:LEU:HD22	1:A:1935:VAL:CG1	2.51	0.40
1:A:2138:LEU:HD23	1:A:2138:LEU:HA	1.83	0.40
1:A:2495:VAL:O	1:A:2498:HIS:HB2	2.20	0.40
1:A:3475:LYS:HA	1:A:3475:LYS:HD3	1.74	0.40
1:A:3969:ILE:HG21	1:A:3980:LEU:HD12	2.03	0.40
1:A:4549:VAL:O	1:A:4553:ASN:ND2	2.54	0.40
2:E:2:VAL:HG11	2:E:61:GLU:HB2	2.04	0.40
1:B:64:ILE:H	1:B:64:ILE:HG12	1.66	0.40
1:B:280:LEU:N	1:B:314:PHE:O	2.49	0.40
1:B:2226:PRO:HB2	1:B:2267:MET:HE3	2.03	0.40
1:B:2825:LYS:HD3	1:B:2827:ARG:HH21	1.86	0.40
1:B:3784:SER:O	1:B:3787:LYS:HG3	2.21	0.40
1:B:4122:MET:HA	1:B:4122:MET:HE2	2.02	0.40
1:D:2505:PHE:CE1	1:D:2509:VAL:HG21	2.56	0.40
1:D:3936:TYR:O	1:D:3940:LYS:NZ	2.38	0.40
1:D:3971:GLY:N	1:D:3972:PRO:HA	2.35	0.40
1:D:4711:PHE:CD2	1:D:4712:PRO:HD3	2.57	0.40
1:C:790:ARG:HG3	1:C:1626:TRP:O	2.22	0.40
1:C:901:LYS:HA	1:C:901:LYS:HD2	1.91	0.40
1:C:1079:LYS:HD2	1:C:1655:GLU:HG3	2.03	0.40
1:C:1225:PRO:HG2	1:C:1228:ILE:HD13	2.03	0.40
1:C:1739:THR:HG23	1:C:1742:THR:H	1.86	0.40
1:C:2637:ALA:C	1:C:2640:PRO:HD2	2.41	0.40
1:C:2793:PRO:O	1:C:2797:PHE:N	2.55	0.40
1:C:2878:LEU:HA	1:C:2881:ASN:ND2	2.36	0.40
1:C:3333:THR:HA	1:C:3336:LYS:NZ	2.37	0.40
1:C:3516:LYS:O	1:C:3519:PRO:HD2	2.21	0.40
1:C:3551:GLU:HA	1:C:3551:GLU:OE2	2.22	0.40
1:C:3617:LYS:HA	1:C:3617:LYS:HD3	1.84	0.40
1:C:3784:SER:O	1:C:3787:LYS:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4064:MET:HE2	1:C:4064:MET:HB2	1.94	0.40
1:C:4217:PHE:CZ	1:C:4234:PHE:HA	2.57	0.40
1:A:1658:ASP:OD1	1:A:1658:ASP:N	2.54	0.40
1:A:1671:ARG:HH12	1:A:1710:GLY:HA2	1.86	0.40
1:A:3249:LEU:HD12	1:A:3249:LEU:HA	1.87	0.40
1:A:3532:LEU:HD23	1:A:3532:LEU:HA	1.87	0.40
1:A:3551:GLU:HA	1:A:3551:GLU:OE2	2.22	0.40
1:A:3969:ILE:HD12	1:A:4030:LEU:HG	2.04	0.40
1:A:4060:LYS:HA	1:A:4063:ASP:OD2	2.22	0.40
1:A:4061:PHE:CE2	1:A:4065:PHE:HE2	2.39	0.40
1:A:4217:PHE:CZ	1:A:4234:PHE:HA	2.57	0.40
2:G:105:LYS:HZ1	2:G:107:GLU:HB3	1.86	0.40
1:B:418:LEU:HA	1:B:421:PHE:CE1	2.56	0.40
1:B:790:ARG:HG3	1:B:1626:TRP:O	2.22	0.40
1:B:1033:ARG:HA	1:B:1036:ARG:HH11	1.86	0.40
1:B:1079:LYS:HD2	1:B:1655:GLU:HG3	2.03	0.40
1:B:1476:MET:O	1:B:1484:HIS:N	2.52	0.40
1:B:1671:ARG:NH1	1:B:1710:GLY:O	2.54	0.40
1:B:1990:GLU:HA	1:B:1993:ARG:NH2	2.29	0.40
1:B:2151:ASP:OD1	1:B:2189:LYS:HG2	2.22	0.40
1:B:2632:ILE:H	1:B:2632:ILE:HD12	1.87	0.40
1:B:3034:LYS:HZ1	1:B:3038:MET:HG3	1.86	0.40
1:B:4985:LEU:HD23	3:B:5301:ATP:N1	2.36	0.40
1:D:69:LEU:HD22	1:D:101:LEU:HD11	2.02	0.40
1:D:233:ILE:H	1:D:233:ILE:HG13	1.64	0.40
1:D:492:ASP:O	1:D:496:VAL:HG13	2.20	0.40
1:D:2765:LYS:HD3	1:D:2765:LYS:HA	1.92	0.40
1:D:3104:GLU:HA	1:D:3107:VAL:HG22	2.03	0.40
1:D:3516:LYS:O	1:D:3519:PRO:HD2	2.21	0.40
1:D:4248:ALA:HA	1:D:4251:ILE:HG12	2.04	0.40
1:D:4549:VAL:O	1:D:4553:ASN:ND2	2.54	0.40
1:D:4581:LYS:HE2	1:D:4581:LYS:HB2	1.64	0.40
1:C:73:LEU:HD23	1:C:73:LEU:HA	1.84	0.40
1:C:289:ARG:HH11	1:C:301:VAL:HG23	1.87	0.40
1:C:2513:GLU:H	1:C:2513:GLU:CD	2.25	0.40
1:C:2742:THR:HB	1:C:2814:LYS:HD2	2.03	0.40
1:C:2794:TYR:HA	1:C:2794:TYR:HD1	1.80	0.40
1:C:3848:GLU:OE2	1:C:3849:ARG:HD2	2.21	0.40
1:C:3969:ILE:HG21	1:C:3980:LEU:HD12	2.03	0.40

There are no symmetry-related clashes.



## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	4385/5037 (87%)	4306 (98%)	79 (2%)	0	100	100
1	B	4385/5037 (87%)	4305 (98%)	80 (2%)	0	100	100
1	C	4385/5037 (87%)	4307 (98%)	78 (2%)	0	100	100
1	D	4385/5037 (87%)	4304 (98%)	81 (2%)	0	100	100
2	E	105/108 (97%)	103 (98%)	2 (2%)	0	100	100
2	F	105/108 (97%)	103 (98%)	2 (2%)	0	100	100
2	G	105/108 (97%)	103 (98%)	2 (2%)	0	100	100
2	H	105/108 (97%)	104 (99%)	1 (1%)	0	100	100
All	All	17960/20580 (87%)	17635 (98%)	325 (2%)	0	100	100

There are no Ramachandran outliers to report.

### 5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3836/4276 (90%)	3577 (93%)	259 (7%)	13	43
1	B	3836/4276 (90%)	3575 (93%)	261 (7%)	13	43
1	C	3836/4276 (90%)	3577 (93%)	259 (7%)	13	43
1	D	3836/4276 (90%)	3577 (93%)	259 (7%)	13	43
2	E	89/90 (99%)	83 (93%)	6 (7%)	13	44
2	F	89/90 (99%)	83 (93%)	6 (7%)	13	44

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	G	89/90 (99%)	81 (91%)	8 (9%)	8 30
2	H	89/90 (99%)	84 (94%)	5 (6%)	17 50
All	All	15700/17464 (90%)	14637 (93%)	1063 (7%)	16 43

All (1063) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	23	GLN
1	A	24	CYS
1	A	30	LYS
1	A	69	LEU
1	A	99	ARG
1	A	113	HIS
1	A	125	ARG
1	A	127	MET
1	A	154	SER
1	A	155	LYS
1	A	158	SER
1	A	162	LYS
1	A	194	SER
1	A	222	LEU
1	A	227	MET
1	A	257	ARG
1	A	265	LEU
1	A	295	GLU
1	A	306	LYS
1	A	328	LYS
1	A	365	LYS
1	A	373	LYS
1	A	384	MET
1	A	389	PHE
1	A	392	ARG
1	A	393	CYS
1	A	402	ARG
1	A	421	PHE
1	A	424	LYS
1	A	439	GLU
1	A	469	ARG
1	A	545	ASP
1	A	550	LYS
1	A	592	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	645	ARG
1	A	667	MET
1	A	772	ASN
1	A	790	ARG
1	A	791	PHE
1	A	820	ARG
1	A	827	LYS
1	A	830	ARG
1	A	835	ARG
1	A	850	ASP
1	A	869	ARG
1	A	877	ASN
1	A	897	ARG
1	A	902	ARG
1	A	921	ASN
1	A	945	LYS
1	A	950	LEU
1	A	955	LEU
1	A	959	TYR
1	A	960	MET
1	A	961	MET
1	A	965	TYR
1	A	976	ARG
1	A	984	LEU
1	A	1025	ARG
1	A	1028	ASP
1	A	1044	ARG
1	A	1068	ARG
1	A	1128	ARG
1	A	1143	TRP
1	A	1144	GLN
1	A	1155	LEU
1	A	1172	ASP
1	A	1209	SER
1	A	1231[A]	GLN
1	A	1231[B]	GLN
1	A	1421	ARG
1	A	1425	GLU
1	A	1435	TYR
1	A	1460	HIS
1	A	1462	MET
1	A	1468	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	1492	CYS
1	A	1511	HIS
1	A	1534	LYS
1	A	1538	THR
1	A	1560	ASN
1	A	1576	SER
1	A	1636	MET
1	A	1661	ARG
1	A	1691	GLN
1	A	1753	LYS
1	A	1810	LYS
1	A	1835	GLU
1	A	1923	GLU
1	A	1930	LYS
1	A	1931	LEU
1	A	1994	ARG
1	A	1996	ARG
1	A	2000	SER
1	A	2011	HIS
1	A	2022	PRO
1	A	2093	SER
1	A	2140	ARG
1	A	2169	GLN
1	A	2186	MET
1	A	2189	LYS
1	A	2208	MET
1	A	2256	TYR
1	A	2267	MET
1	A	2268[A]	GLN
1	A	2268[B]	GLN
1	A	2292	GLU
1	A	2310	CYS
1	A	2312	MET
1	A	2314	LEU
1	A	2316	LYS
1	A	2336	ARG
1	A	2340	PHE
1	A	2344	GLU
1	A	2392	ARG
1	A	2414	ASN
1	A	2440	MET
1	A	2447	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	2482	ASP
1	A	2553	TYR
1	A	2569	PHE
1	A	2578	MET
1	A	2582	MET
1	A	2596	THR
1	A	2612[A]	ARG
1	A	2612[B]	ARG
1	A	2624	ARG
1	A	2628	PHE
1	A	2639	MET
1	A	2661	TRP
1	A	2663	ASN
1	A	2676	ARG
1	A	2700	MET
1	A	2719	TYR
1	A	2722	LYS
1	A	2725	LYS
1	A	2738	ARG
1	A	2744	ASN
1	A	2754	PHE
1	A	2765	LYS
1	A	2776	SER
1	A	2779	GLU
1	A	2782	ASP
1	A	2784	GLU
1	A	2790	MET
1	A	2794	TYR
1	A	2797	PHE
1	A	2805	TYR
1	A	2806	ARG
1	A	2825	LYS
1	A	2827	ARG
1	A	2890	LYS
1	A	2891	LYS
1	A	2897	LYS
1	A	2905	LEU
1	A	2914	LYS
1	A	2931	GLN
1	A	2939	ARG
1	A	2985	ARG
1	A	3016	TYR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	3023	LYS
1	A	3060	ASP
1	A	3081	MET
1	A	3123	LYS
1	A	3128	ASN
1	A	3131	TYR
1	A	3137	LEU
1	A	3160	ASP
1	A	3162	GLN
1	A	3166	TYR
1	A	3182	TYR
1	A	3185	LYS
1	A	3192	GLU
1	A	3201	MET
1	A	3213	TYR
1	A	3222	LYS
1	A	3225	ARG
1	A	3263	TYR
1	A	3266	MET
1	A	3276	MET
1	A	3283	ARG
1	A	3331	GLU
1	A	3384	LYS
1	A	3394	VAL
1	A	3419	ASN
1	A	3426	GLU
1	A	3449	HIS
1	A	3451	PHE
1	A	3452	LYS
1	A	3498	ARG
1	A	3499	ARG
1	A	3501	ASP
1	A	3502	ARG
1	A	3511	VAL
1	A	3515	LYS
1	A	3535	LEU
1	A	3544	ASP
1	A	3582	ARG
1	A	3585	ASP
1	A	3587	ASP
1	A	3607	GLU
1	A	3622	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	3623	LEU
1	A	3628	ARG
1	A	3629	ARG
1	A	3637	ARG
1	A	3638	MET
1	A	3652	MET
1	A	3658	LYS
1	A	3715	LYS
1	A	3720	TYR
1	A	3734	HIS
1	A	3757	GLU
1	A	3766	GLN
1	A	3793	MET
1	A	3825	GLU
1	A	3849	ARG
1	A	3868	ARG
1	A	3874	VAL
1	A	3899	PHE
1	A	3931	SER
1	A	3933	PHE
1	A	3940	LYS
1	A	3944	GLU
1	A	3945	GLU
1	A	3970	GLN
1	A	3987	ASP
1	A	3999	MET
1	A	4039	MET
1	A	4070	ASP
1	A	4103	PHE
1	A	4125	PHE
1	A	4131	ARG
1	A	4153	HIS
1	A	4188	ARG
1	A	4540	PHE
1	A	4541	TRP
1	A	4580	TYR
1	A	4583	SER
1	A	4584	ASP
1	A	4585	SER
1	A	4665	LYS
1	A	4676	GLU
1	A	4694	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	4711	PHE
1	A	4718	LYS
1	A	4732	PHE
1	A	4735	GLU
1	A	4743	MET
1	A	4753	HIS
1	A	4756	ARG
1	A	4769	MET
1	A	4816	ILE
1	A	4871	GLU
1	A	4876	CYS
1	A	4880	MET
1	A	4951	LYS
1	A	4985	LEU
1	A	5013	MET
2	E	14	THR
2	E	18	ARG
2	E	29	MET
2	E	31	GLU
2	E	38	SER
2	E	102	GLU
2	H	14	THR
2	H	29	MET
2	H	38	SER
2	H	41	ASP
2	H	102	GLU
2	G	14	THR
2	G	29	MET
2	G	32	ASP
2	G	38	SER
2	G	41	ASP
2	G	43	ASN
2	G	102	GLU
2	G	105	LYS
2	F	13	ARG
2	F	14	THR
2	F	29	MET
2	F	38	SER
2	F	41	ASP
2	F	102	GLU
1	B	23	GLN
1	B	24	CYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	30	LYS
1	B	69	LEU
1	B	99	ARG
1	B	113	HIS
1	B	125	ARG
1	B	127	MET
1	B	154	SER
1	B	155	LYS
1	B	158	SER
1	B	162	LYS
1	B	194	SER
1	B	222	LEU
1	B	227	MET
1	B	257	ARG
1	B	265	LEU
1	B	295	GLU
1	B	306	LYS
1	B	309	THR
1	B	328	LYS
1	B	365	LYS
1	B	373	LYS
1	B	384	MET
1	B	389	PHE
1	B	392	ARG
1	B	393	CYS
1	B	402	ARG
1	B	421	PHE
1	B	424	LYS
1	B	439	GLU
1	B	469	ARG
1	B	545	ASP
1	B	550	LYS
1	B	592	LYS
1	B	645	ARG
1	B	667	MET
1	B	714	TYR
1	B	772	ASN
1	B	790	ARG
1	B	791	PHE
1	B	820	ARG
1	B	827	LYS
1	B	830	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	835	ARG
1	B	850	ASP
1	B	869	ARG
1	B	877	ASN
1	B	897	ARG
1	B	902	ARG
1	B	921	ASN
1	B	945	LYS
1	B	950	LEU
1	B	955	LEU
1	B	959	TYR
1	B	960	MET
1	B	961	MET
1	B	965	TYR
1	B	976	ARG
1	B	984	LEU
1	B	1025	ARG
1	B	1028	ASP
1	B	1044	ARG
1	B	1068	ARG
1	B	1128	ARG
1	B	1143	TRP
1	B	1144	GLN
1	B	1155	LEU
1	B	1172	ASP
1	B	1209	SER
1	B	1231[A]	GLN
1	B	1231[B]	GLN
1	B	1421	ARG
1	B	1425	GLU
1	B	1435	TYR
1	B	1460	HIS
1	B	1462	MET
1	B	1468	LYS
1	B	1492	CYS
1	B	1511	HIS
1	B	1534	LYS
1	B	1538	THR
1	B	1560	ASN
1	B	1576	SER
1	B	1636	MET
1	B	1661	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	1691	GLN
1	B	1753	LYS
1	B	1810	LYS
1	B	1835	GLU
1	B	1923	GLU
1	B	1930	LYS
1	B	1931	LEU
1	B	1994	ARG
1	B	1996	ARG
1	B	2000	SER
1	B	2011	HIS
1	B	2022	PRO
1	B	2093	SER
1	B	2140	ARG
1	B	2169	GLN
1	B	2186	MET
1	B	2189	LYS
1	B	2208	MET
1	B	2256	TYR
1	B	2267	MET
1	B	2268[A]	GLN
1	B	2268[B]	GLN
1	B	2292	GLU
1	B	2310	CYS
1	B	2312	MET
1	B	2314	LEU
1	B	2316	LYS
1	B	2336	ARG
1	B	2340	PHE
1	B	2344	GLU
1	B	2392	ARG
1	B	2414	ASN
1	B	2440	MET
1	B	2447	LYS
1	B	2482	ASP
1	B	2553	TYR
1	B	2569	PHE
1	B	2578	MET
1	B	2582	MET
1	B	2596	THR
1	B	2612[A]	ARG
1	B	2612[B]	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	2624	ARG
1	B	2628	PHE
1	B	2639	MET
1	B	2661	TRP
1	B	2663	ASN
1	B	2676	ARG
1	B	2700	MET
1	B	2719	TYR
1	B	2722	LYS
1	B	2725	LYS
1	B	2738	ARG
1	B	2744	ASN
1	B	2754	PHE
1	B	2765	LYS
1	B	2776	SER
1	B	2779	GLU
1	B	2782	ASP
1	B	2784	GLU
1	B	2790	MET
1	B	2794	TYR
1	B	2797	PHE
1	B	2805	TYR
1	B	2806	ARG
1	B	2825	LYS
1	B	2827	ARG
1	B	2890	LYS
1	B	2891	LYS
1	B	2897	LYS
1	B	2905	LEU
1	B	2914	LYS
1	B	2931	GLN
1	B	2939	ARG
1	B	2985	ARG
1	B	3016	TYR
1	B	3023	LYS
1	B	3060	ASP
1	B	3081	MET
1	B	3123	LYS
1	B	3128	ASN
1	B	3131	TYR
1	B	3137	LEU
1	B	3160	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	3162	GLN
1	B	3166	TYR
1	B	3182	TYR
1	B	3185	LYS
1	B	3192	GLU
1	B	3201	MET
1	B	3213	TYR
1	B	3222	LYS
1	B	3225	ARG
1	B	3263	TYR
1	B	3266	MET
1	B	3276	MET
1	B	3283	ARG
1	B	3331	GLU
1	B	3384	LYS
1	B	3394	VAL
1	B	3419	ASN
1	B	3426	GLU
1	B	3449	HIS
1	B	3451	PHE
1	B	3452	LYS
1	B	3498	ARG
1	B	3499	ARG
1	B	3501	ASP
1	B	3502	ARG
1	B	3511	VAL
1	B	3515	LYS
1	B	3535	LEU
1	B	3544	ASP
1	B	3582	ARG
1	B	3585	ASP
1	B	3587	ASP
1	B	3607	GLU
1	B	3622	LYS
1	B	3623	LEU
1	B	3628	ARG
1	B	3629	ARG
1	B	3637	ARG
1	B	3638	MET
1	B	3652	MET
1	B	3658	LYS
1	B	3715	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	3720	TYR
1	B	3734	HIS
1	B	3757	GLU
1	B	3766	GLN
1	B	3793	MET
1	B	3825	GLU
1	B	3849	ARG
1	B	3868	ARG
1	B	3874	VAL
1	B	3899	PHE
1	B	3931	SER
1	B	3933	PHE
1	B	3940	LYS
1	B	3944	GLU
1	B	3945	GLU
1	B	3970	GLN
1	B	3987	ASP
1	B	3999	MET
1	B	4039	MET
1	B	4070	ASP
1	B	4103	PHE
1	B	4125	PHE
1	B	4131	ARG
1	B	4153	HIS
1	B	4188	ARG
1	B	4540	PHE
1	B	4541	TRP
1	B	4580	TYR
1	B	4583	SER
1	B	4584	ASP
1	B	4585	SER
1	B	4665	LYS
1	B	4676	GLU
1	B	4694	ASP
1	B	4711	PHE
1	B	4718	LYS
1	B	4732	PHE
1	B	4735	GLU
1	B	4743	MET
1	B	4753	HIS
1	B	4756	ARG
1	B	4769	MET

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	4816	ILE
1	B	4871	GLU
1	B	4876	CYS
1	B	4880	MET
1	B	4951	LYS
1	B	4985	LEU
1	B	5013	MET
1	D	23	GLN
1	D	24	CYS
1	D	30	LYS
1	D	69	LEU
1	D	99	ARG
1	D	113	HIS
1	D	125	ARG
1	D	127	MET
1	D	154	SER
1	D	155	LYS
1	D	158	SER
1	D	162	LYS
1	D	194	SER
1	D	222	LEU
1	D	227	MET
1	D	257	ARG
1	D	265	LEU
1	D	295	GLU
1	D	306	LYS
1	D	328	LYS
1	D	365	LYS
1	D	373	LYS
1	D	384	MET
1	D	389	PHE
1	D	392	ARG
1	D	393	CYS
1	D	402	ARG
1	D	421	PHE
1	D	424	LYS
1	D	439	GLU
1	D	469	ARG
1	D	545	ASP
1	D	550	LYS
1	D	592	LYS
1	D	645	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	667	MET
1	D	772	ASN
1	D	790	ARG
1	D	791	PHE
1	D	820	ARG
1	D	827	LYS
1	D	830	ARG
1	D	835	ARG
1	D	850	ASP
1	D	869	ARG
1	D	877	ASN
1	D	897	ARG
1	D	902	ARG
1	D	921	ASN
1	D	945	LYS
1	D	950	LEU
1	D	955	LEU
1	D	959	TYR
1	D	960	MET
1	D	961	MET
1	D	965	TYR
1	D	976	ARG
1	D	984	LEU
1	D	1025	ARG
1	D	1028	ASP
1	D	1044	ARG
1	D	1068	ARG
1	D	1128	ARG
1	D	1143	TRP
1	D	1144	GLN
1	D	1155	LEU
1	D	1172	ASP
1	D	1209	SER
1	D	1231[A]	GLN
1	D	1231[B]	GLN
1	D	1421	ARG
1	D	1425	GLU
1	D	1435	TYR
1	D	1460	HIS
1	D	1462	MET
1	D	1468	LYS
1	D	1492	CYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	1511	HIS
1	D	1534	LYS
1	D	1538	THR
1	D	1560	ASN
1	D	1576	SER
1	D	1636	MET
1	D	1661	ARG
1	D	1691	GLN
1	D	1753	LYS
1	D	1810	LYS
1	D	1835	GLU
1	D	1923	GLU
1	D	1930	LYS
1	D	1931	LEU
1	D	1994	ARG
1	D	1996	ARG
1	D	2000	SER
1	D	2011	HIS
1	D	2022	PRO
1	D	2093	SER
1	D	2140	ARG
1	D	2169	GLN
1	D	2186	MET
1	D	2189	LYS
1	D	2208	MET
1	D	2256	TYR
1	D	2267	MET
1	D	2268[A]	GLN
1	D	2268[B]	GLN
1	D	2292	GLU
1	D	2310	CYS
1	D	2312	MET
1	D	2314	LEU
1	D	2316	LYS
1	D	2336	ARG
1	D	2340	PHE
1	D	2344	GLU
1	D	2392	ARG
1	D	2414	ASN
1	D	2440	MET
1	D	2447	LYS
1	D	2482	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	2553	TYR
1	D	2569	PHE
1	D	2578	MET
1	D	2582	MET
1	D	2596	THR
1	D	2612[A]	ARG
1	D	2612[B]	ARG
1	D	2624	ARG
1	D	2628	PHE
1	D	2639	MET
1	D	2661	TRP
1	D	2663	ASN
1	D	2676	ARG
1	D	2700	MET
1	D	2719	TYR
1	D	2722	LYS
1	D	2725	LYS
1	D	2738	ARG
1	D	2744	ASN
1	D	2754	PHE
1	D	2765	LYS
1	D	2776	SER
1	D	2779	GLU
1	D	2782	ASP
1	D	2784	GLU
1	D	2790	MET
1	D	2794	TYR
1	D	2797	PHE
1	D	2805	TYR
1	D	2806	ARG
1	D	2825	LYS
1	D	2827	ARG
1	D	2890	LYS
1	D	2891	LYS
1	D	2897	LYS
1	D	2905	LEU
1	D	2914	LYS
1	D	2931	GLN
1	D	2939	ARG
1	D	2985	ARG
1	D	3016	TYR
1	D	3023	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	3060	ASP
1	D	3081	MET
1	D	3123	LYS
1	D	3128	ASN
1	D	3131	TYR
1	D	3137	LEU
1	D	3160	ASP
1	D	3162	GLN
1	D	3166	TYR
1	D	3182	TYR
1	D	3185	LYS
1	D	3192	GLU
1	D	3201	MET
1	D	3213	TYR
1	D	3222	LYS
1	D	3225	ARG
1	D	3263	TYR
1	D	3266	MET
1	D	3276	MET
1	D	3283	ARG
1	D	3331	GLU
1	D	3384	LYS
1	D	3394	VAL
1	D	3419	ASN
1	D	3426	GLU
1	D	3449	HIS
1	D	3451	PHE
1	D	3452	LYS
1	D	3498	ARG
1	D	3499	ARG
1	D	3501	ASP
1	D	3502	ARG
1	D	3511	VAL
1	D	3515	LYS
1	D	3535	LEU
1	D	3544	ASP
1	D	3582	ARG
1	D	3585	ASP
1	D	3587	ASP
1	D	3607	GLU
1	D	3622	LYS
1	D	3623	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	3628	ARG
1	D	3629	ARG
1	D	3637	ARG
1	D	3638	MET
1	D	3652	MET
1	D	3658	LYS
1	D	3715	LYS
1	D	3720	TYR
1	D	3734	HIS
1	D	3757	GLU
1	D	3766	GLN
1	D	3793	MET
1	D	3825	GLU
1	D	3849	ARG
1	D	3868	ARG
1	D	3874	VAL
1	D	3899	PHE
1	D	3931	SER
1	D	3933	PHE
1	D	3940	LYS
1	D	3944	GLU
1	D	3945	GLU
1	D	3970	GLN
1	D	3987	ASP
1	D	3999	MET
1	D	4039	MET
1	D	4070	ASP
1	D	4103	PHE
1	D	4125	PHE
1	D	4131	ARG
1	D	4153	HIS
1	D	4188	ARG
1	D	4540	PHE
1	D	4541	TRP
1	D	4580	TYR
1	D	4583	SER
1	D	4584	ASP
1	D	4585	SER
1	D	4665	LYS
1	D	4676	GLU
1	D	4694	ASP
1	D	4711	PHE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	4718	LYS
1	D	4732	PHE
1	D	4735	GLU
1	D	4743	MET
1	D	4753	HIS
1	D	4756	ARG
1	D	4769	MET
1	D	4816	ILE
1	D	4871	GLU
1	D	4876	CYS
1	D	4880	MET
1	D	4951	LYS
1	D	4985	LEU
1	D	5013	MET
1	C	23	GLN
1	C	24	CYS
1	C	30	LYS
1	C	69	LEU
1	C	99	ARG
1	C	113	HIS
1	C	125	ARG
1	C	127	MET
1	C	154	SER
1	C	155	LYS
1	C	158	SER
1	C	162	LYS
1	C	194	SER
1	C	222	LEU
1	C	227	MET
1	C	257	ARG
1	C	265	LEU
1	C	295	GLU
1	C	306	LYS
1	C	328	LYS
1	C	365	LYS
1	C	373	LYS
1	C	384	MET
1	C	389	PHE
1	C	392	ARG
1	C	393	CYS
1	C	402	ARG
1	C	421	PHE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	424	LYS
1	C	439	GLU
1	C	469	ARG
1	C	545	ASP
1	C	550	LYS
1	C	592	LYS
1	C	645	ARG
1	C	667	MET
1	C	772	ASN
1	C	790	ARG
1	C	791	PHE
1	C	820	ARG
1	C	827	LYS
1	C	830	ARG
1	C	835	ARG
1	C	850	ASP
1	C	869	ARG
1	C	877	ASN
1	C	897	ARG
1	C	902	ARG
1	C	921	ASN
1	C	945	LYS
1	C	950	LEU
1	C	955	LEU
1	C	959	TYR
1	C	960	MET
1	C	961	MET
1	C	965	TYR
1	C	976	ARG
1	C	984	LEU
1	C	1025	ARG
1	C	1028	ASP
1	C	1044	ARG
1	C	1068	ARG
1	C	1128	ARG
1	C	1143	TRP
1	C	1144	GLN
1	C	1155	LEU
1	C	1172	ASP
1	C	1209	SER
1	C	1231[A]	GLN
1	C	1231[B]	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	1421	ARG
1	C	1425	GLU
1	C	1435	TYR
1	C	1460	HIS
1	C	1462	MET
1	C	1468	LYS
1	C	1492	CYS
1	C	1511	HIS
1	C	1534	LYS
1	C	1538	THR
1	C	1560	ASN
1	C	1576	SER
1	C	1636	MET
1	C	1661	ARG
1	C	1691	GLN
1	C	1753	LYS
1	C	1810	LYS
1	C	1835	GLU
1	C	1923	GLU
1	C	1930	LYS
1	C	1931	LEU
1	C	1994	ARG
1	C	1996	ARG
1	C	2000	SER
1	C	2011	HIS
1	C	2022	PRO
1	C	2093	SER
1	C	2140	ARG
1	C	2169	GLN
1	C	2186	MET
1	C	2189	LYS
1	C	2208	MET
1	C	2256	TYR
1	C	2267	MET
1	C	2268[A]	GLN
1	C	2268[B]	GLN
1	C	2292	GLU
1	C	2310	CYS
1	C	2312	MET
1	C	2314	LEU
1	C	2316	LYS
1	C	2336	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	2340	PHE
1	C	2344	GLU
1	C	2392	ARG
1	C	2414	ASN
1	C	2440	MET
1	C	2447	LYS
1	C	2482	ASP
1	C	2553	TYR
1	C	2569	PHE
1	C	2578	MET
1	C	2582	MET
1	C	2596	THR
1	C	2612[A]	ARG
1	C	2612[B]	ARG
1	C	2624	ARG
1	C	2628	PHE
1	C	2639	MET
1	C	2661	TRP
1	C	2663	ASN
1	C	2676	ARG
1	C	2700	MET
1	C	2719	TYR
1	C	2722	LYS
1	C	2725	LYS
1	C	2738	ARG
1	C	2744	ASN
1	C	2754	PHE
1	C	2765	LYS
1	C	2776	SER
1	C	2779	GLU
1	C	2782	ASP
1	C	2784	GLU
1	C	2790	MET
1	C	2794	TYR
1	C	2797	PHE
1	C	2805	TYR
1	C	2806	ARG
1	C	2825	LYS
1	C	2827	ARG
1	C	2890	LYS
1	C	2891	LYS
1	C	2897	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	2905	LEU
1	C	2914	LYS
1	C	2931	GLN
1	C	2939	ARG
1	C	2985	ARG
1	C	3016	TYR
1	C	3023	LYS
1	C	3060	ASP
1	C	3081	MET
1	C	3123	LYS
1	C	3128	ASN
1	C	3131	TYR
1	C	3137	LEU
1	C	3160	ASP
1	C	3162	GLN
1	C	3166	TYR
1	C	3182	TYR
1	C	3185	LYS
1	C	3192	GLU
1	C	3201	MET
1	C	3213	TYR
1	C	3222	LYS
1	C	3225	ARG
1	C	3263	TYR
1	C	3266	MET
1	C	3276	MET
1	C	3283	ARG
1	C	3331	GLU
1	C	3384	LYS
1	C	3394	VAL
1	C	3419	ASN
1	C	3426	GLU
1	C	3449	HIS
1	C	3451	PHE
1	C	3452	LYS
1	C	3498	ARG
1	C	3499	ARG
1	C	3501	ASP
1	C	3502	ARG
1	C	3511	VAL
1	C	3515	LYS
1	C	3535	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	3544	ASP
1	C	3582	ARG
1	C	3585	ASP
1	C	3587	ASP
1	C	3607	GLU
1	C	3622	LYS
1	C	3623	LEU
1	C	3628	ARG
1	C	3629	ARG
1	C	3637	ARG
1	C	3638	MET
1	C	3652	MET
1	C	3658	LYS
1	C	3715	LYS
1	C	3720	TYR
1	C	3734	HIS
1	C	3757	GLU
1	C	3766	GLN
1	C	3793	MET
1	C	3825	GLU
1	C	3849	ARG
1	C	3868	ARG
1	C	3874	VAL
1	C	3899	PHE
1	C	3931	SER
1	C	3933	PHE
1	C	3940	LYS
1	C	3944	GLU
1	C	3945	GLU
1	C	3970	GLN
1	C	3987	ASP
1	C	3999	MET
1	C	4039	MET
1	C	4070	ASP
1	C	4103	PHE
1	C	4125	PHE
1	C	4131	ARG
1	C	4153	HIS
1	C	4188	ARG
1	C	4540	PHE
1	C	4541	TRP
1	C	4580	TYR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	4583	SER
1	C	4584	ASP
1	C	4585	SER
1	C	4665	LYS
1	C	4676	GLU
1	C	4694	ASP
1	C	4711	PHE
1	C	4718	LYS
1	C	4732	PHE
1	C	4735	GLU
1	C	4743	MET
1	C	4753	HIS
1	C	4756	ARG
1	C	4769	MET
1	C	4816	ILE
1	C	4871	GLU
1	C	4876	CYS
1	C	4880	MET
1	C	4951	LYS
1	C	4985	LEU
1	C	5013	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (35) such sidechains are listed below:

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	138	GLN
1	A	2092	GLN
1	A	2260	ASN
1	A	2284	ASN
1	A	2342	ASN
1	A	3180	ASN
1	A	3325	ASN
1	A	4009	GLN
1	B	138	GLN
1	B	2092	GLN
1	B	2260	ASN
1	B	2284	ASN
1	B	2324	ASN
1	B	2342	ASN
1	B	3180	ASN
1	B	4009	GLN
1	D	138	GLN

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Mol	Chain	Res	Type
1	D	1035	ASN
1	D	2092	GLN
1	D	2260	ASN
1	D	2284	ASN
1	D	2342	ASN
1	D	3180	ASN
1	D	4009	GLN
1	C	138	GLN
1	C	1035	ASN
1	C	2092	GLN
1	C	2260	ASN
1	C	2284	ASN
1	C	2324	ASN
1	C	2342	ASN
1	C	3180	ASN
1	C	3325	ASN
1	C	3781	GLN
1	C	4009	GLN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

Of 16 ligands modelled in this entry, 8 are monoatomic - leaving 8 for Mogul analysis.

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
6	A1BD5	D	5304	-	16,16,16	0.93	1 (6%)	21,23,23	0.76	0
3	ATP	D	5301	-	28,33,33	0.63	0	34,52,52	0.81	2 (5%)
6	A1BD5	B	5304	-	16,16,16	0.94	1 (6%)	21,23,23	0.77	0
3	ATP	B	5301	-	28,33,33	0.63	0	34,52,52	0.82	2 (5%)
6	A1BD5	A	5304	-	16,16,16	0.96	1 (6%)	21,23,23	0.77	0
3	ATP	A	5301	-	28,33,33	0.63	0	34,52,52	0.81	2 (5%)
3	ATP	C	5301	-	28,33,33	0.63	0	34,52,52	0.81	2 (5%)
6	A1BD5	C	5304	-	16,16,16	0.94	1 (6%)	21,23,23	0.76	0

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
6	A1BD5	D	5304	-	-	4/4/4/4	0/2/2/2
3	ATP	D	5301	-	-	2/18/38/38	0/3/3/3
6	A1BD5	B	5304	-	-	4/4/4/4	0/2/2/2
3	ATP	B	5301	-	-	2/18/38/38	0/3/3/3
6	A1BD5	A	5304	-	-	4/4/4/4	0/2/2/2
3	ATP	A	5301	-	-	2/18/38/38	0/3/3/3
3	ATP	C	5301	-	-	2/18/38/38	0/3/3/3
6	A1BD5	C	5304	-	-	4/4/4/4	0/2/2/2

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	A	5304	A1BD5	C1-C2	-2.21	1.36	1.39
6	B	5304	A1BD5	C1-C2	-2.18	1.36	1.39
6	D	5304	A1BD5	C1-C2	-2.14	1.36	1.39
6	C	5304	A1BD5	C1-C2	-2.14	1.36	1.39

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	B	5301	ATP	C4'-O4'-C1'	-3.22	106.97	109.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	5301	ATP	C4'-O4'-C1'	-3.18	107.02	109.92
3	C	5301	ATP	C4'-O4'-C1'	-3.15	107.04	109.92
3	D	5301	ATP	C4'-O4'-C1'	-3.13	107.05	109.92
3	C	5301	ATP	C5-C6-N6	2.34	123.87	120.31
3	B	5301	ATP	C5-C6-N6	2.33	123.87	120.31
3	D	5301	ATP	C5-C6-N6	2.33	123.86	120.31
3	A	5301	ATP	C5-C6-N6	2.33	123.86	120.31

There are no chirality outliers.

All (24) torsion outliers are listed below:

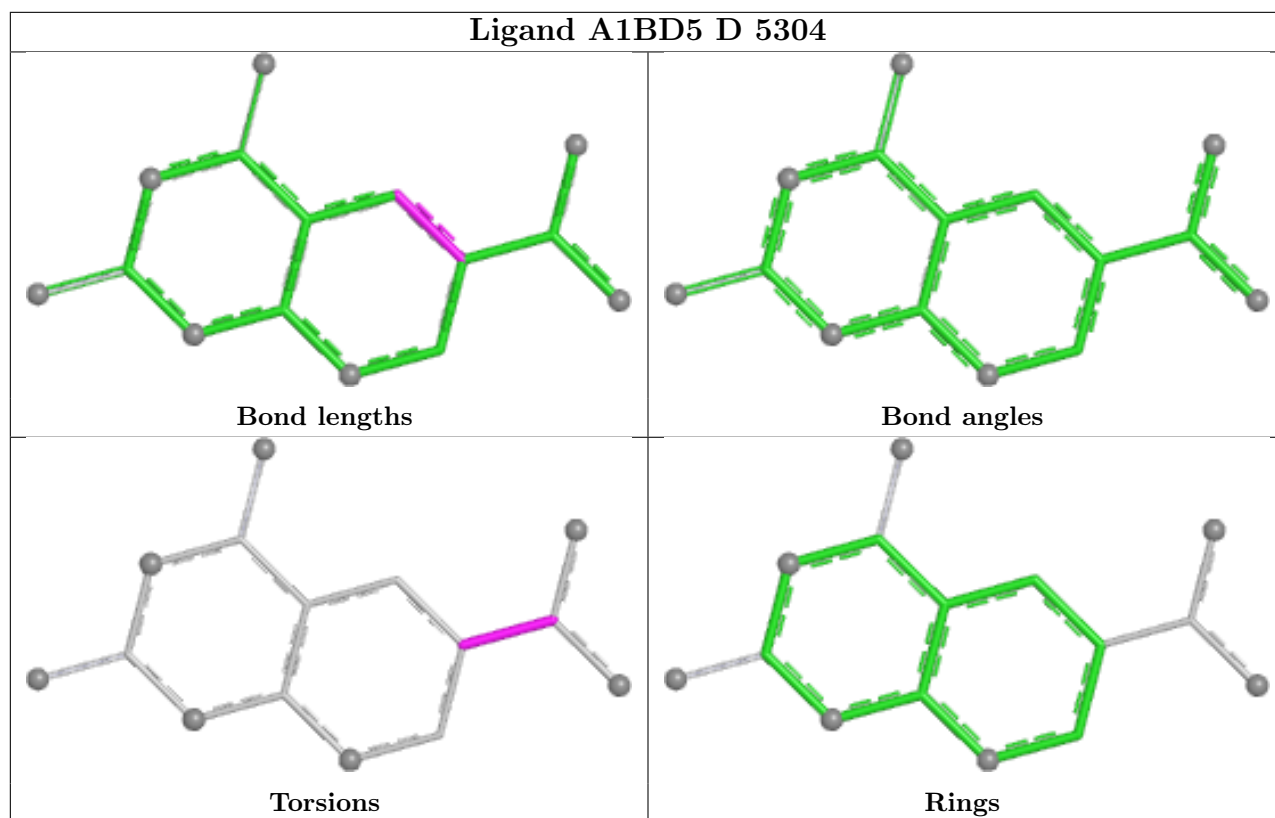
Mol	Chain	Res	Type	Atoms
6	A	5304	A1BD5	C3-C2-C8-O3
6	A	5304	A1BD5	C3-C2-C8-O4
6	B	5304	A1BD5	C3-C2-C8-O3
6	B	5304	A1BD5	C3-C2-C8-O4
6	D	5304	A1BD5	C3-C2-C8-O3
6	D	5304	A1BD5	C3-C2-C8-O4
6	C	5304	A1BD5	C3-C2-C8-O3
6	C	5304	A1BD5	C3-C2-C8-O4
6	A	5304	A1BD5	C1-C2-C8-O3
6	B	5304	A1BD5	C1-C2-C8-O3
6	D	5304	A1BD5	C1-C2-C8-O3
6	C	5304	A1BD5	C1-C2-C8-O3
6	A	5304	A1BD5	C1-C2-C8-O4
6	B	5304	A1BD5	C1-C2-C8-O4
6	D	5304	A1BD5	C1-C2-C8-O4
6	C	5304	A1BD5	C1-C2-C8-O4
3	A	5301	ATP	O4'-C4'-C5'-O5'
3	B	5301	ATP	O4'-C4'-C5'-O5'
3	D	5301	ATP	O4'-C4'-C5'-O5'
3	C	5301	ATP	O4'-C4'-C5'-O5'
3	A	5301	ATP	C3'-C4'-C5'-O5'
3	B	5301	ATP	C3'-C4'-C5'-O5'
3	D	5301	ATP	C3'-C4'-C5'-O5'
3	C	5301	ATP	C3'-C4'-C5'-O5'

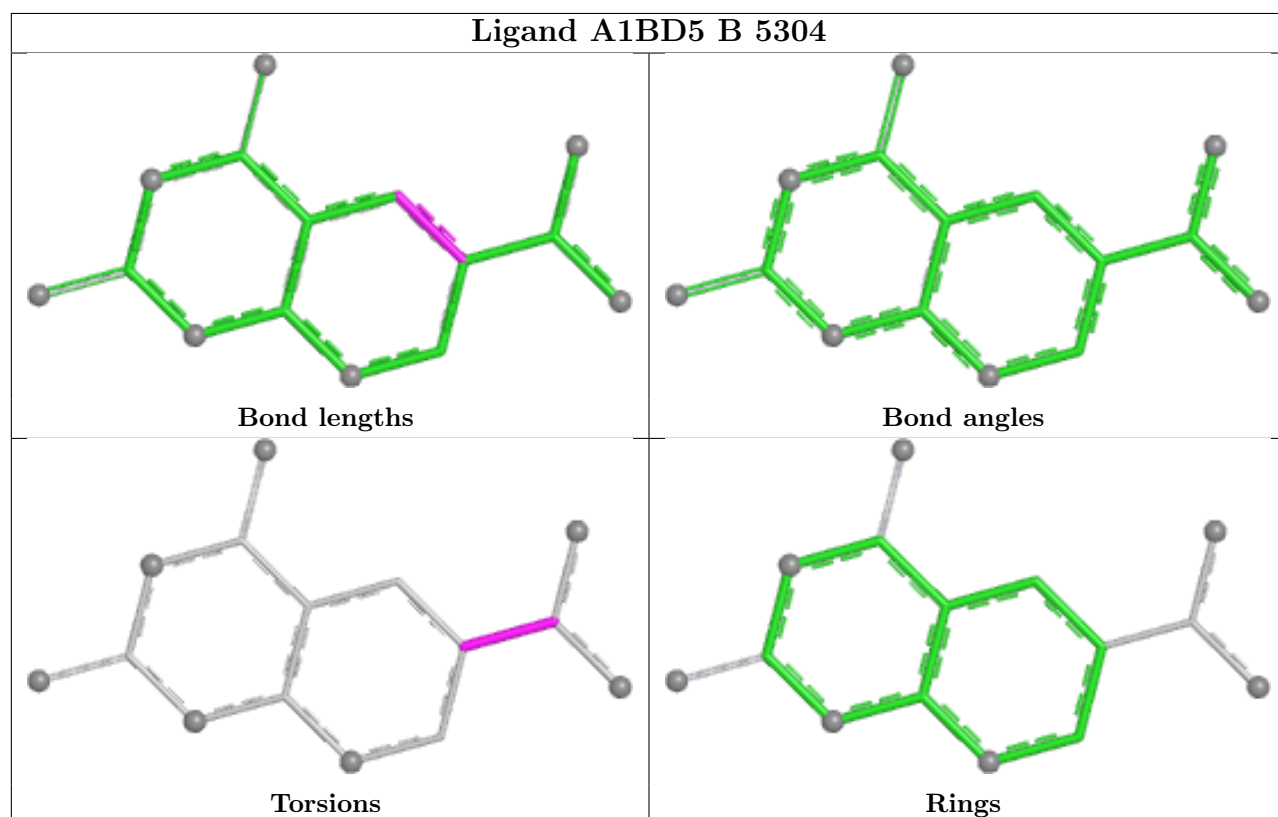
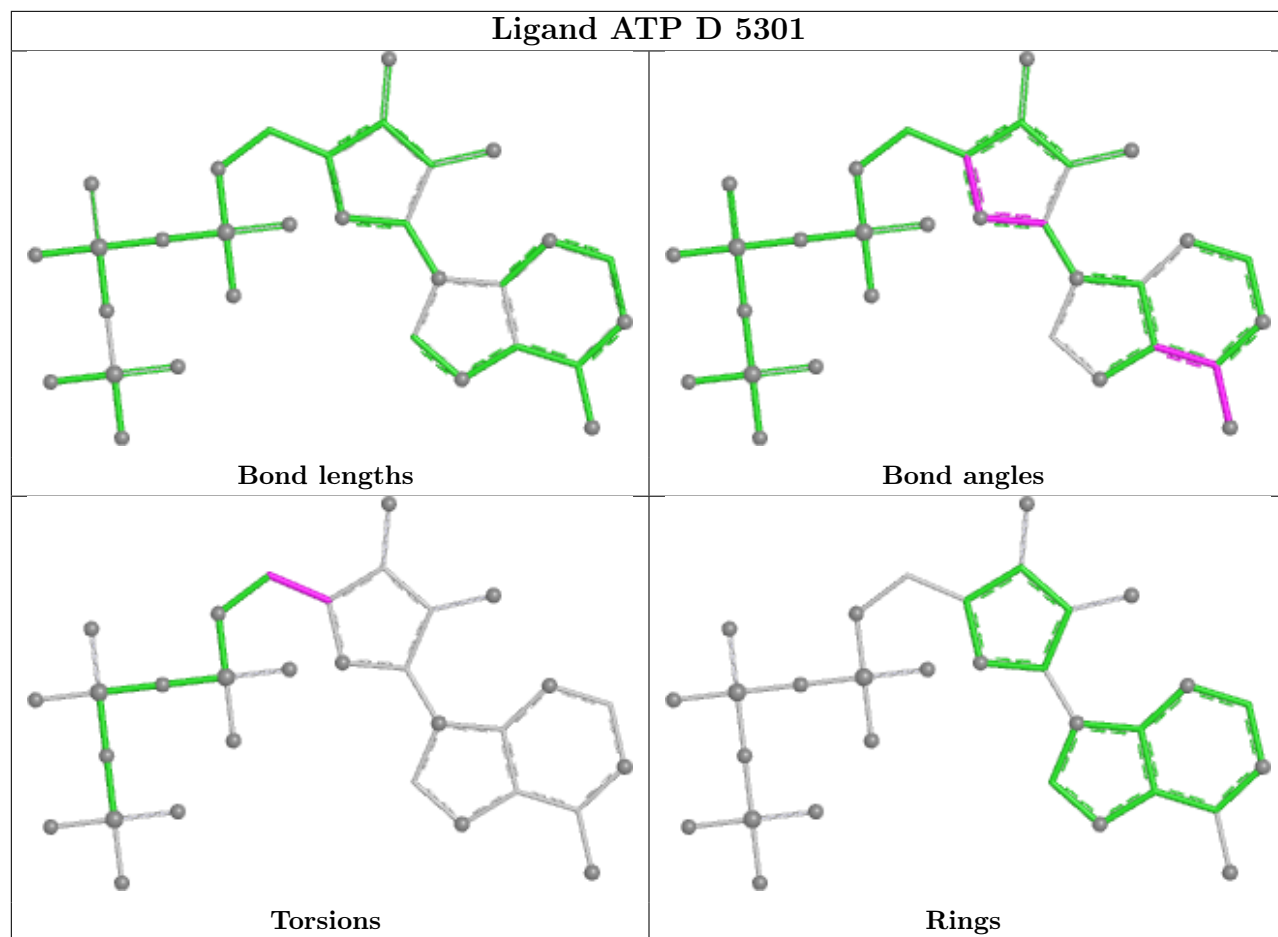
There are no ring outliers.

3 monomers are involved in 3 short contacts:

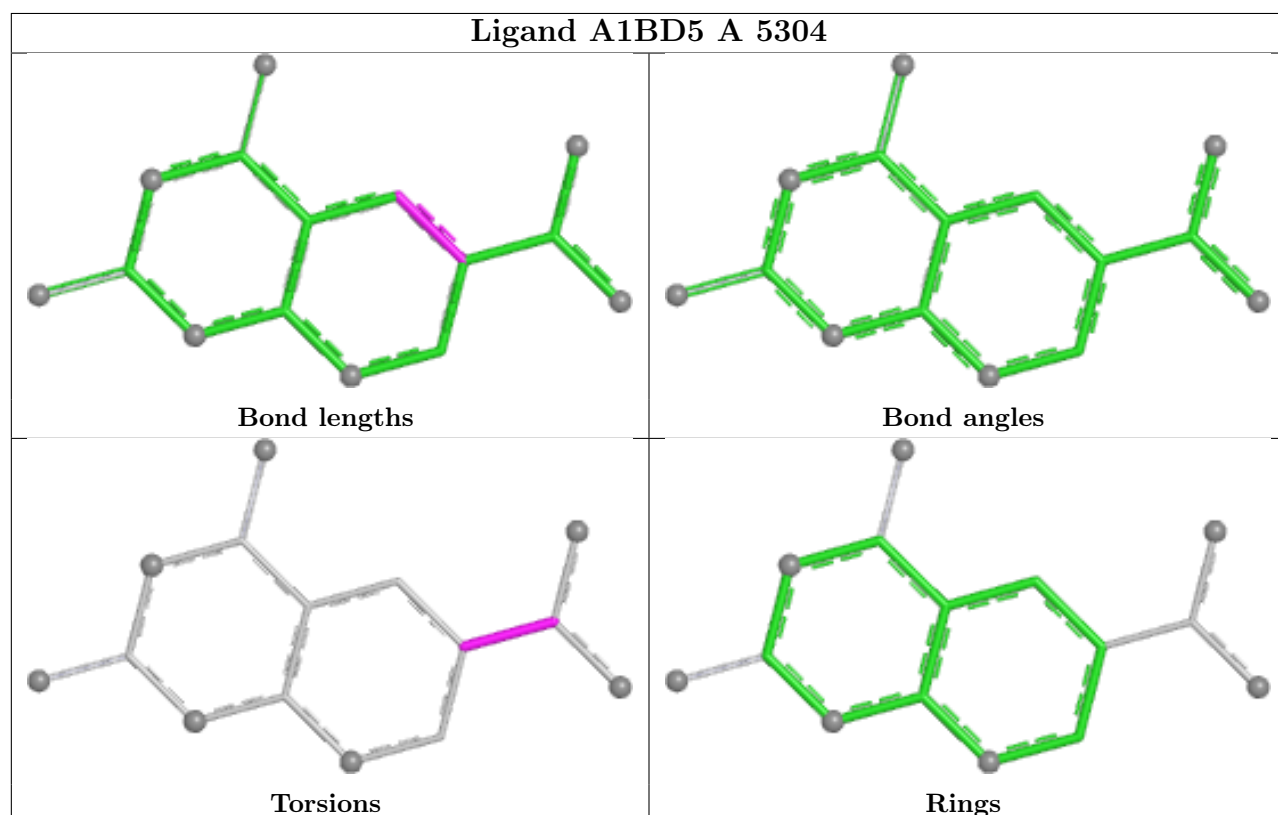
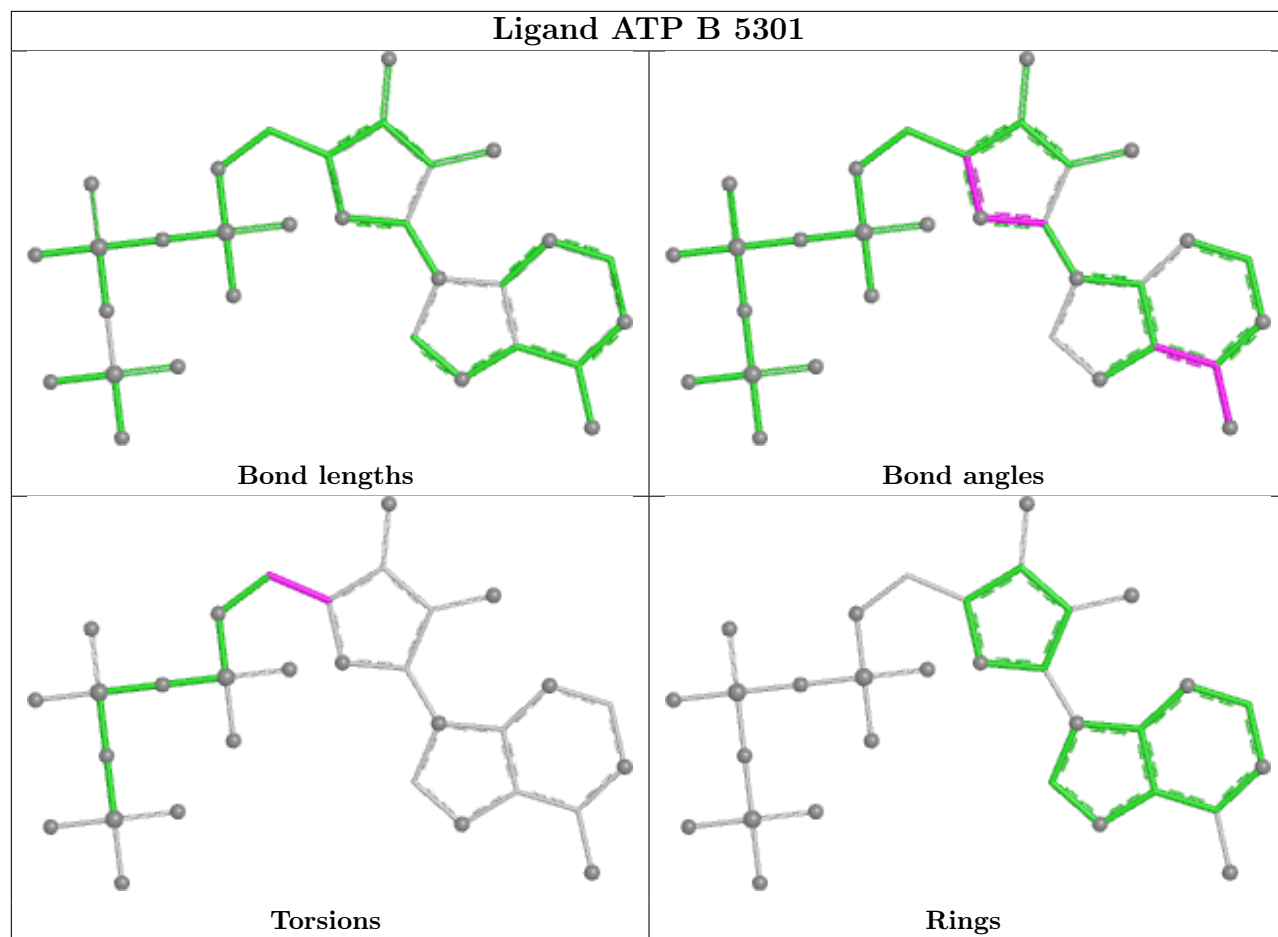
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	B	5301	ATP	1	0
3	A	5301	ATP	1	0
3	C	5301	ATP	1	0

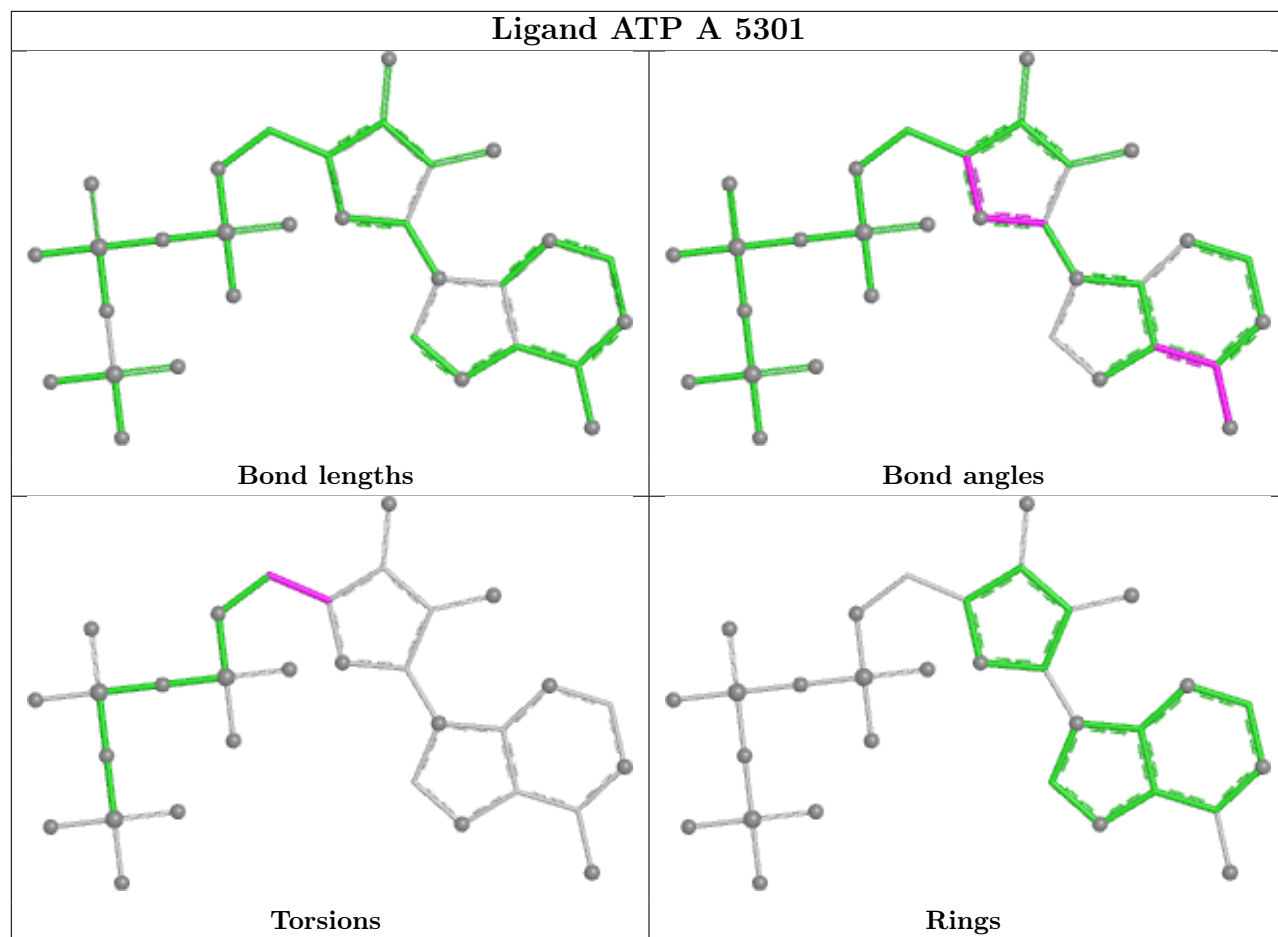
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

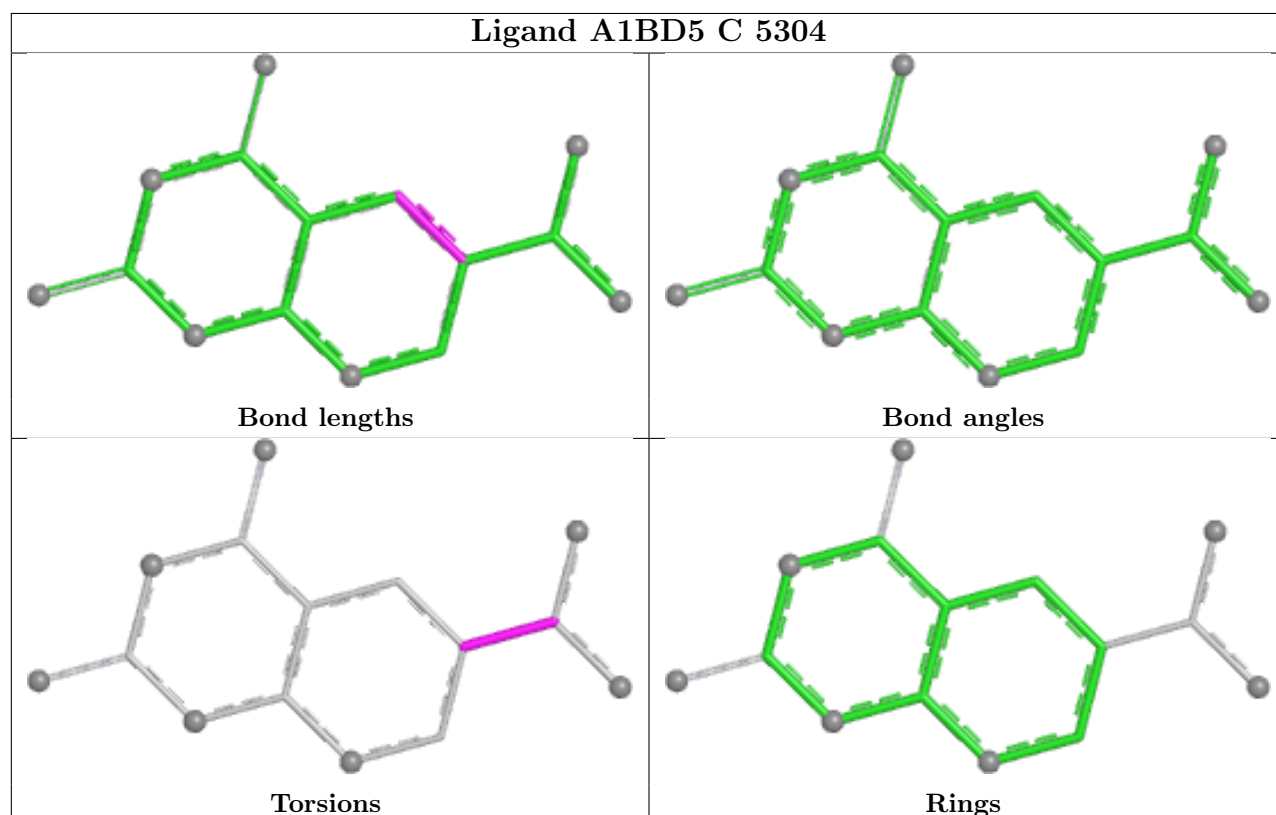
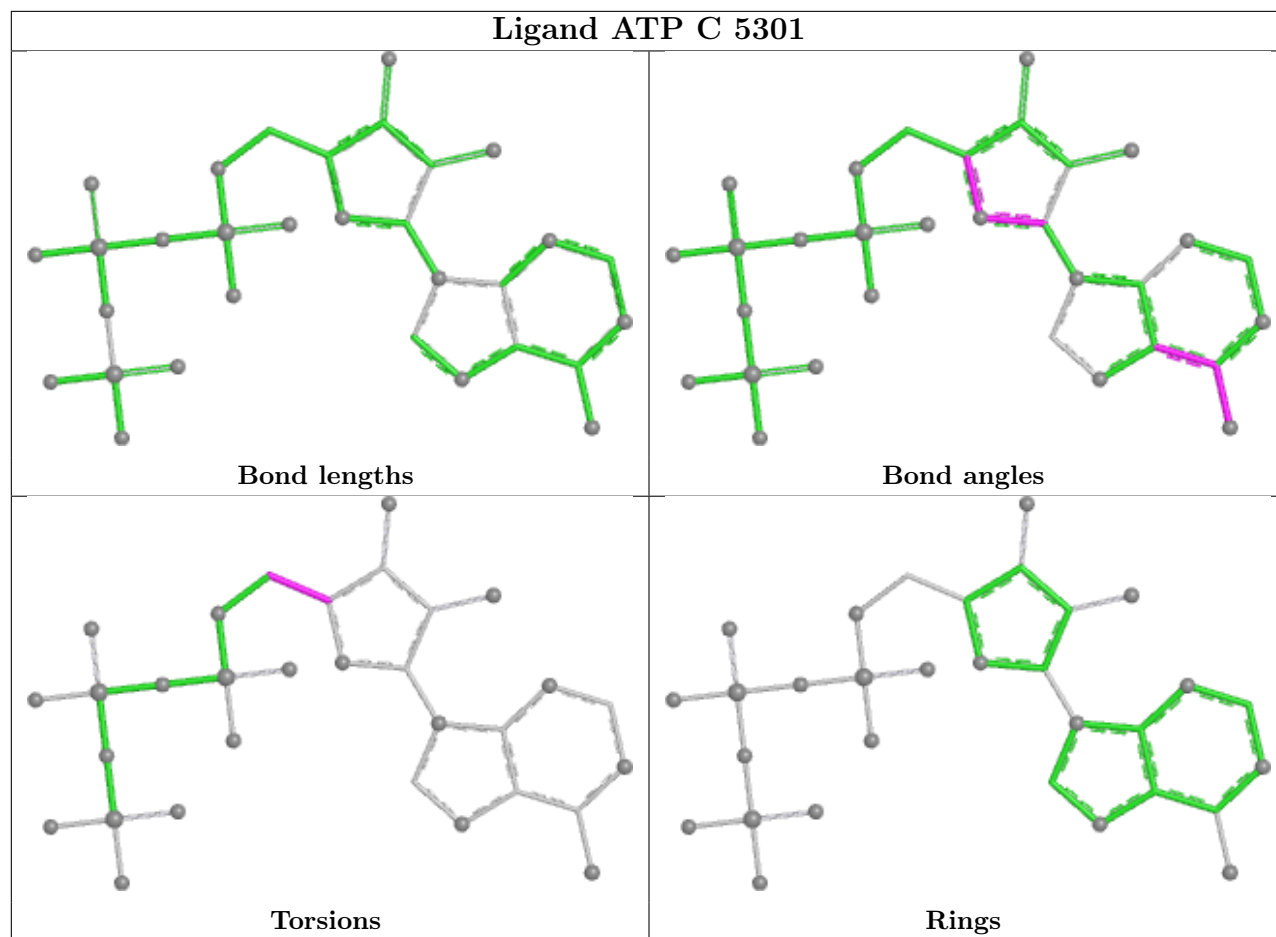












## 5.7 Other polymers

There are no such residues in this entry.

## 5.8 Polymer linkage issues

There are no chain breaks in this entry.

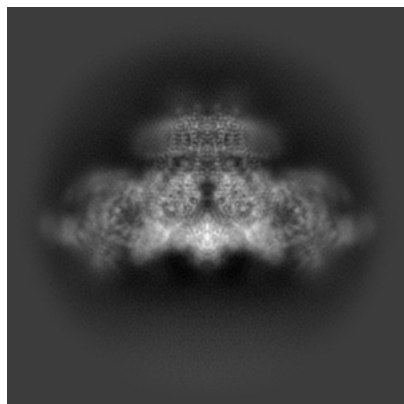
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-47395. These allow visual inspection of the internal detail of the map and identification of artifacts.

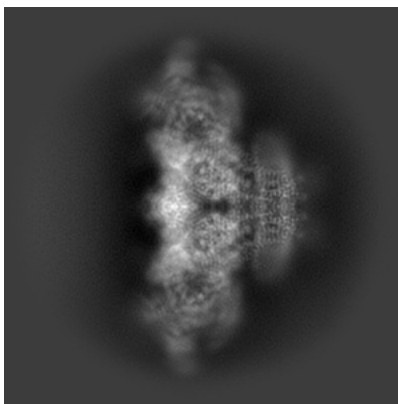
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

### 6.1 Orthogonal projections [i](#)

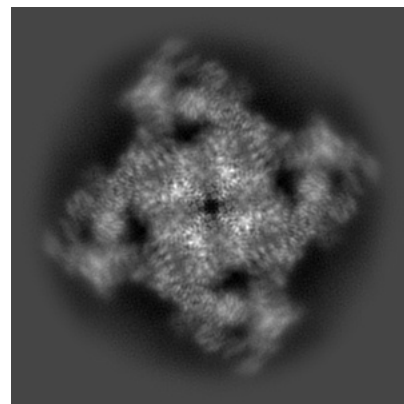
#### 6.1.1 Primary map



X

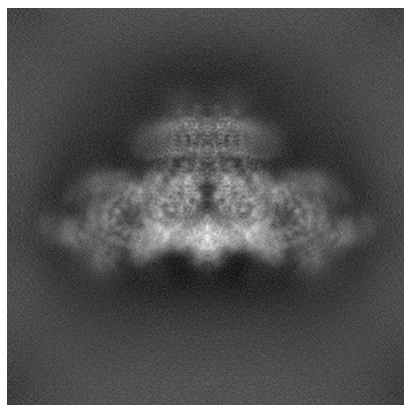


Y

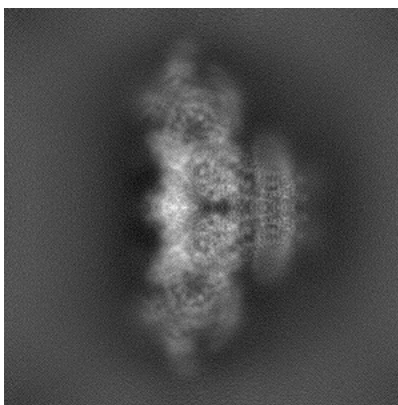


Z

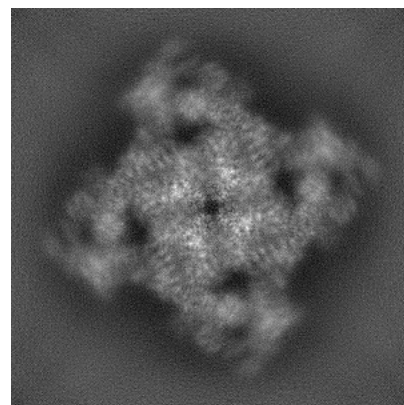
#### 6.1.2 Raw map



X



Y

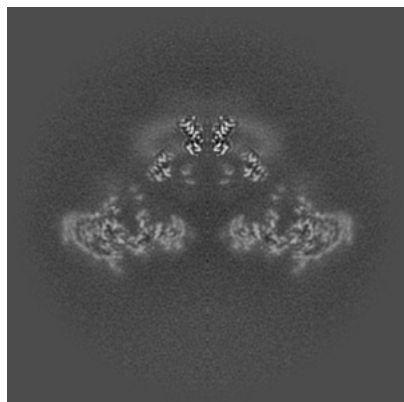


Z

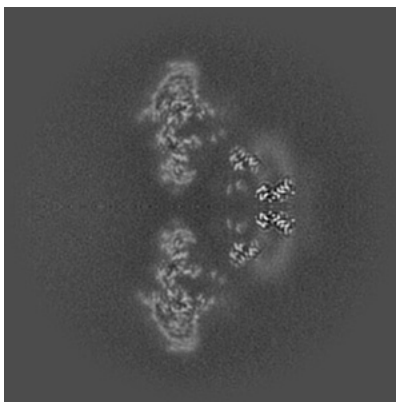
The images above show the map projected in three orthogonal directions.

## 6.2 Central slices [i](#)

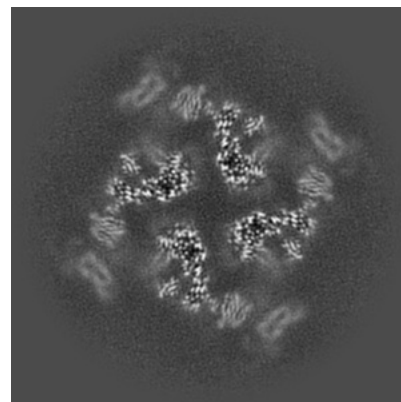
### 6.2.1 Primary map



X Index: 256

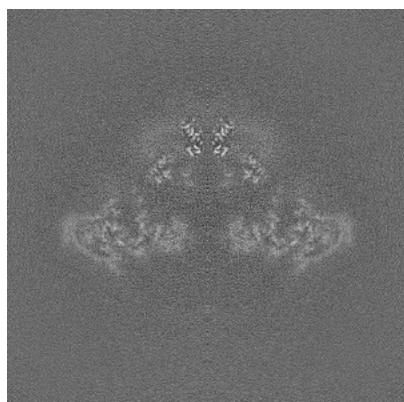


Y Index: 256

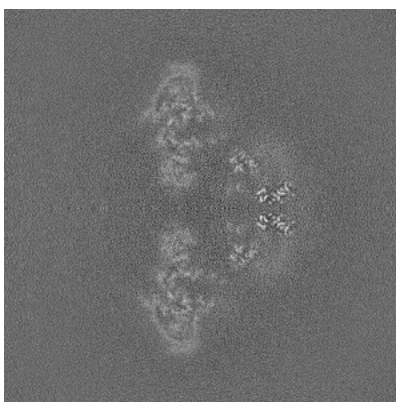


Z Index: 256

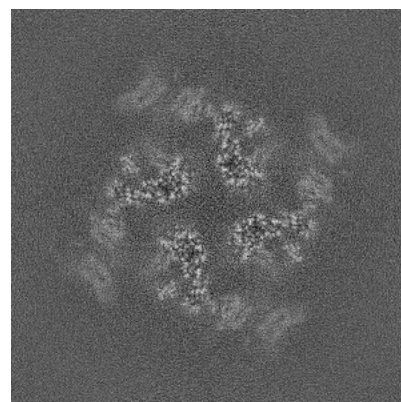
### 6.2.2 Raw map



X Index: 256



Y Index: 256

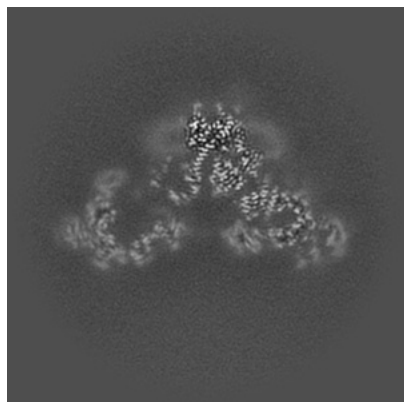


Z Index: 256

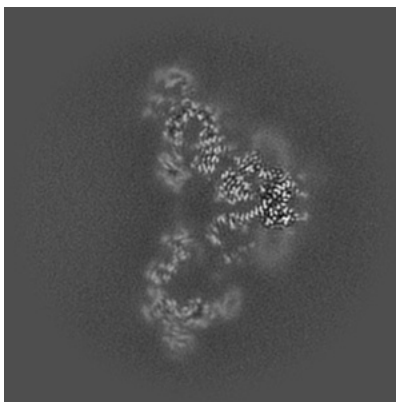
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

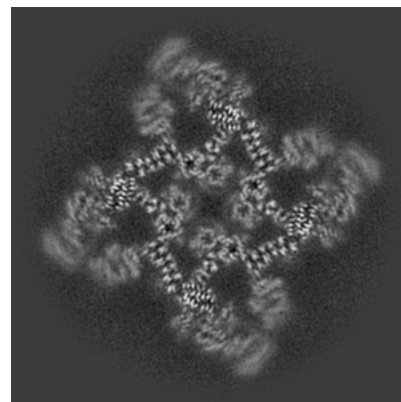
### 6.3.1 Primary map



X Index: 270

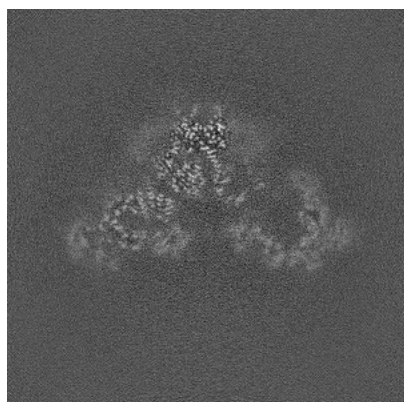


Y Index: 242

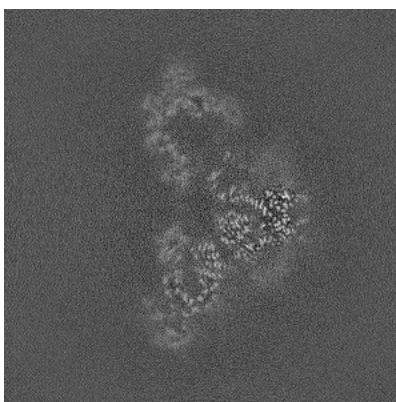


Z Index: 227

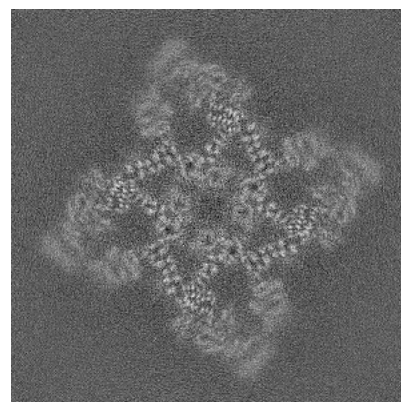
### 6.3.2 Raw map



X Index: 242



Y Index: 270

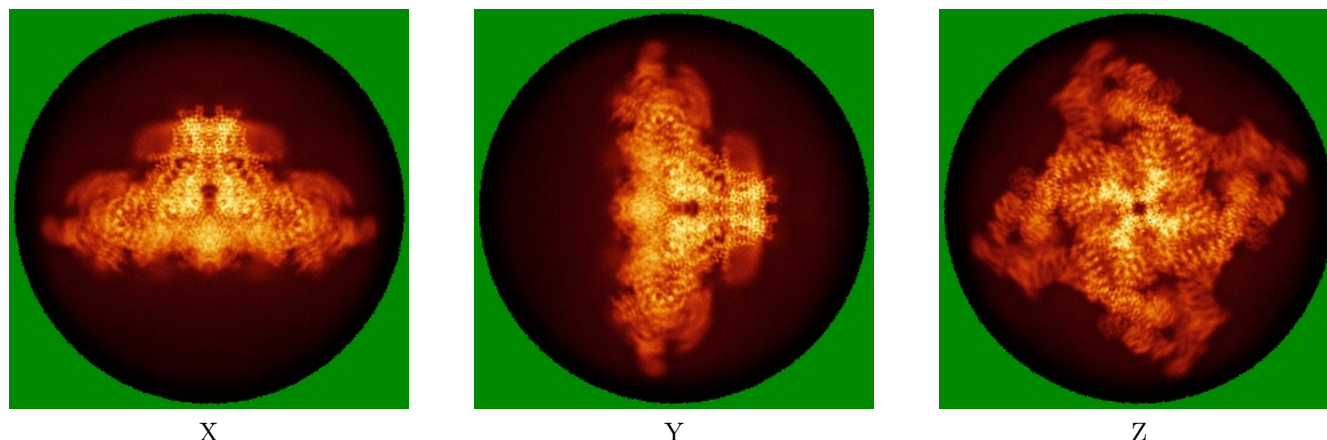


Z Index: 227

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

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

### 6.4.1 Primary map

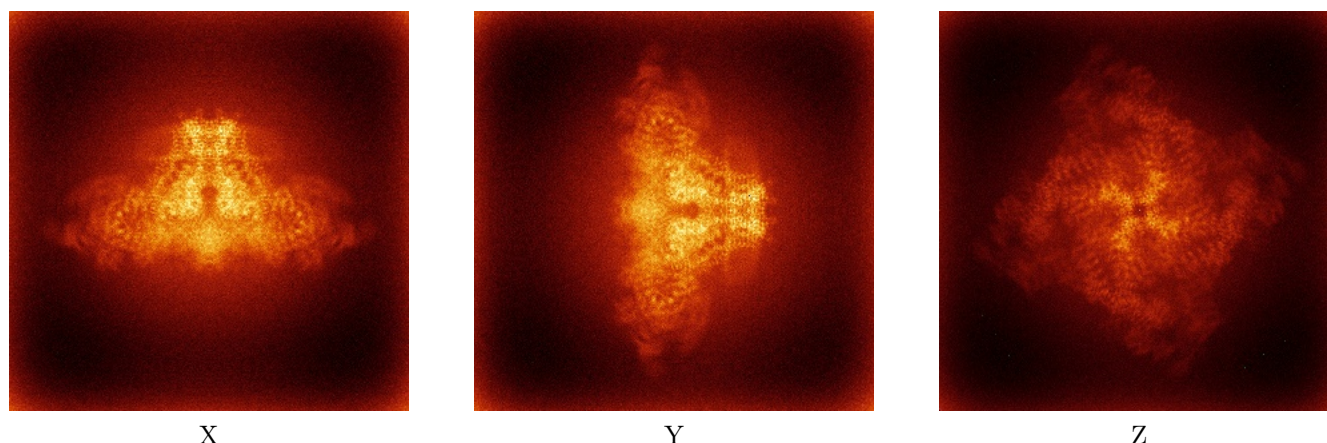


X

Y

Z

### 6.4.2 Raw map



X

Y

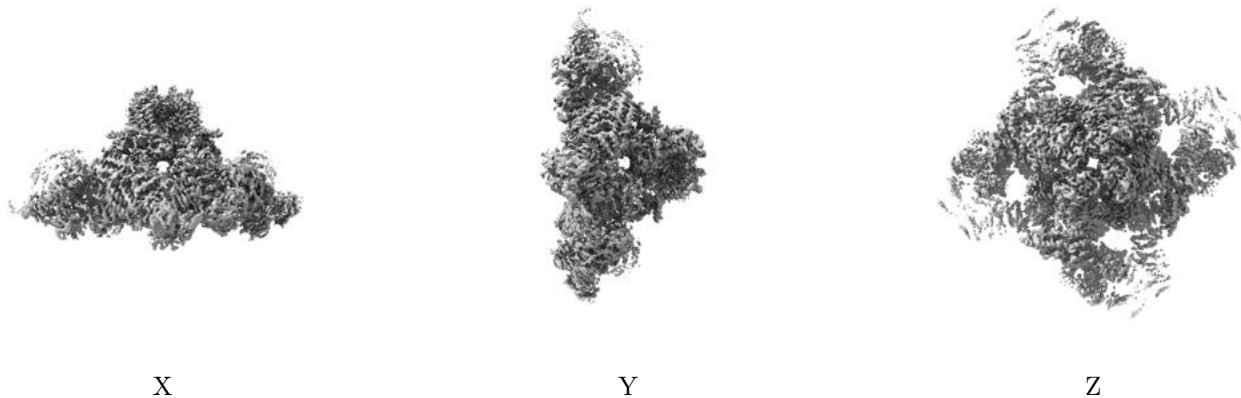
Z

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



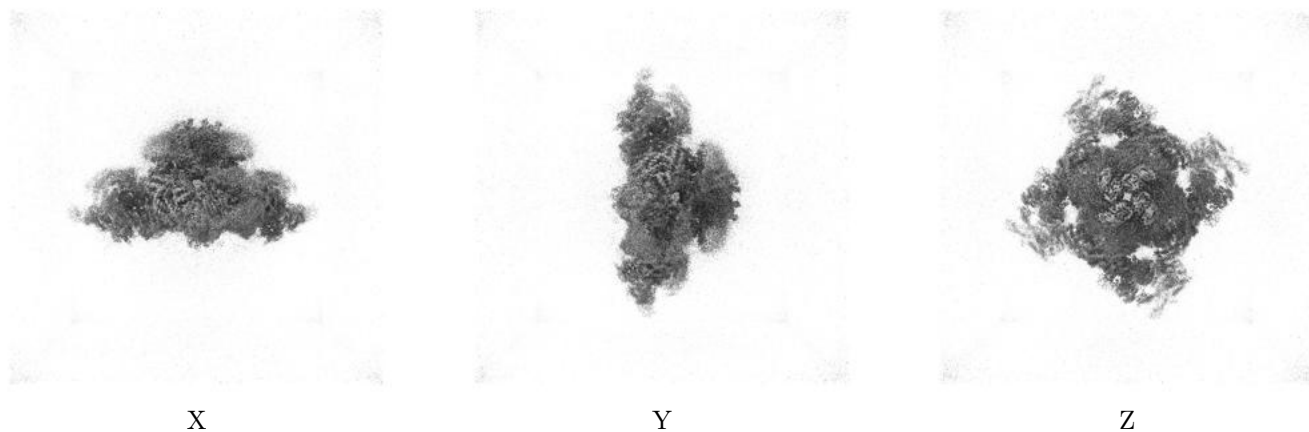
## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.1. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

### 6.5.2 Raw map



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

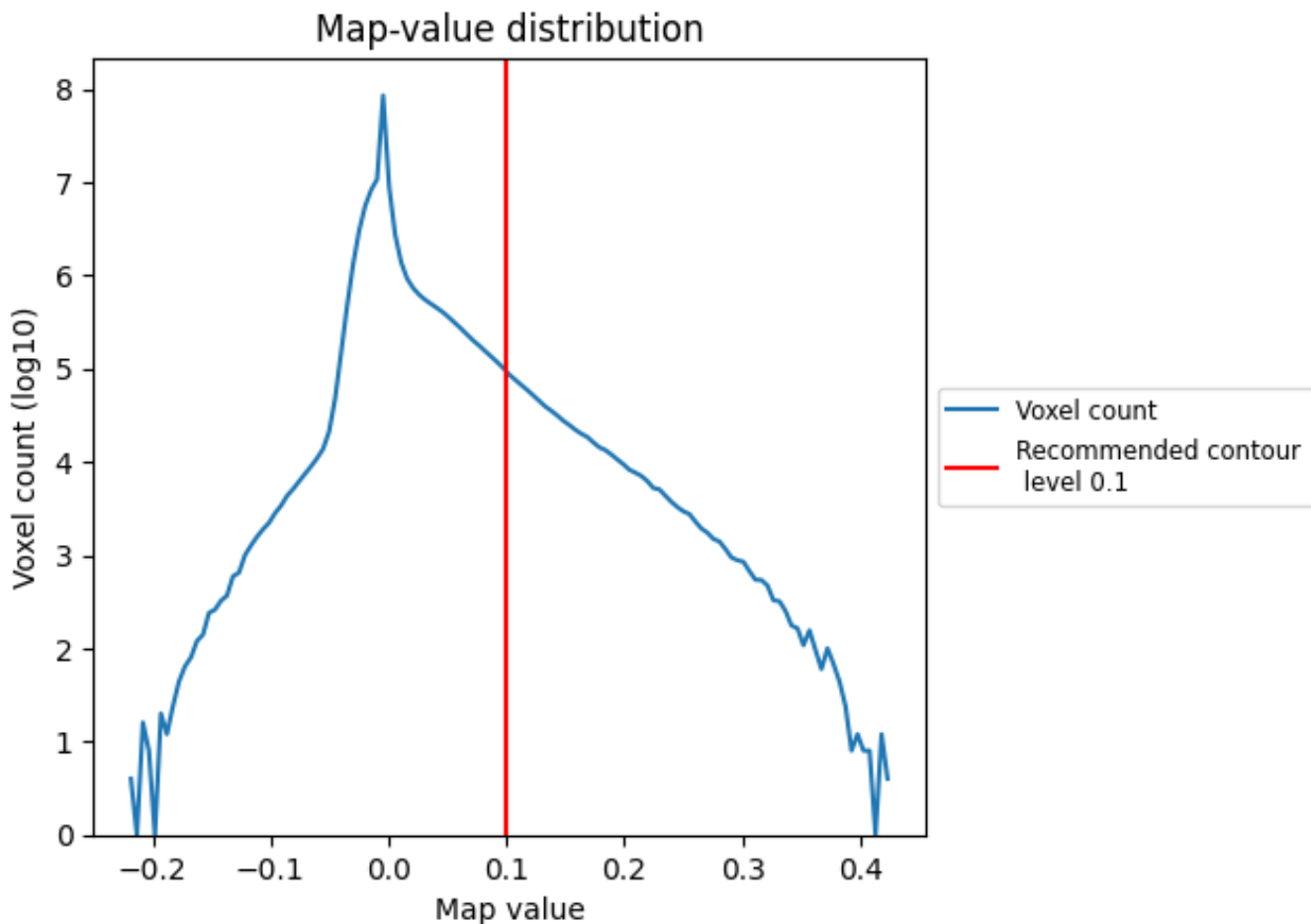
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

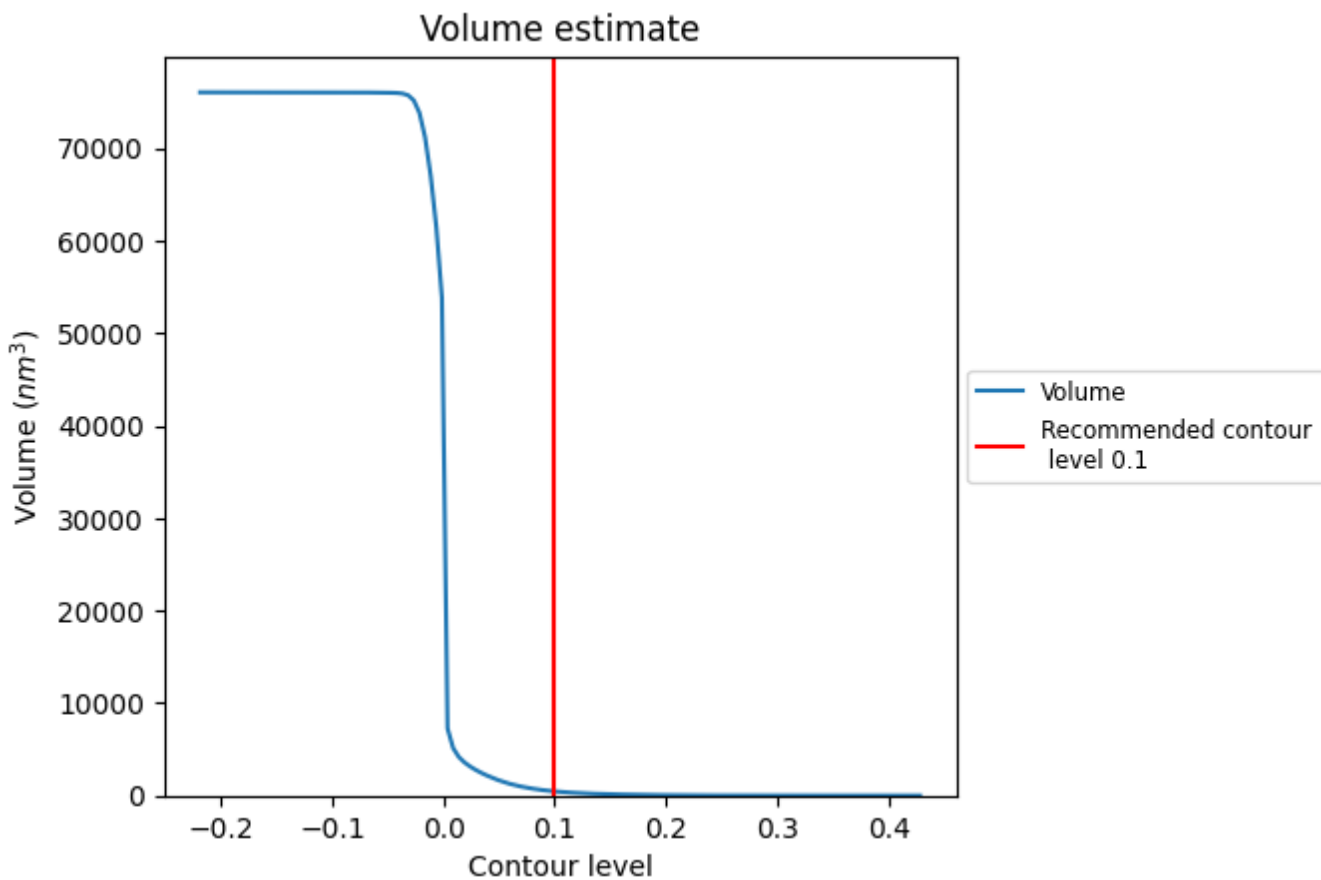
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



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

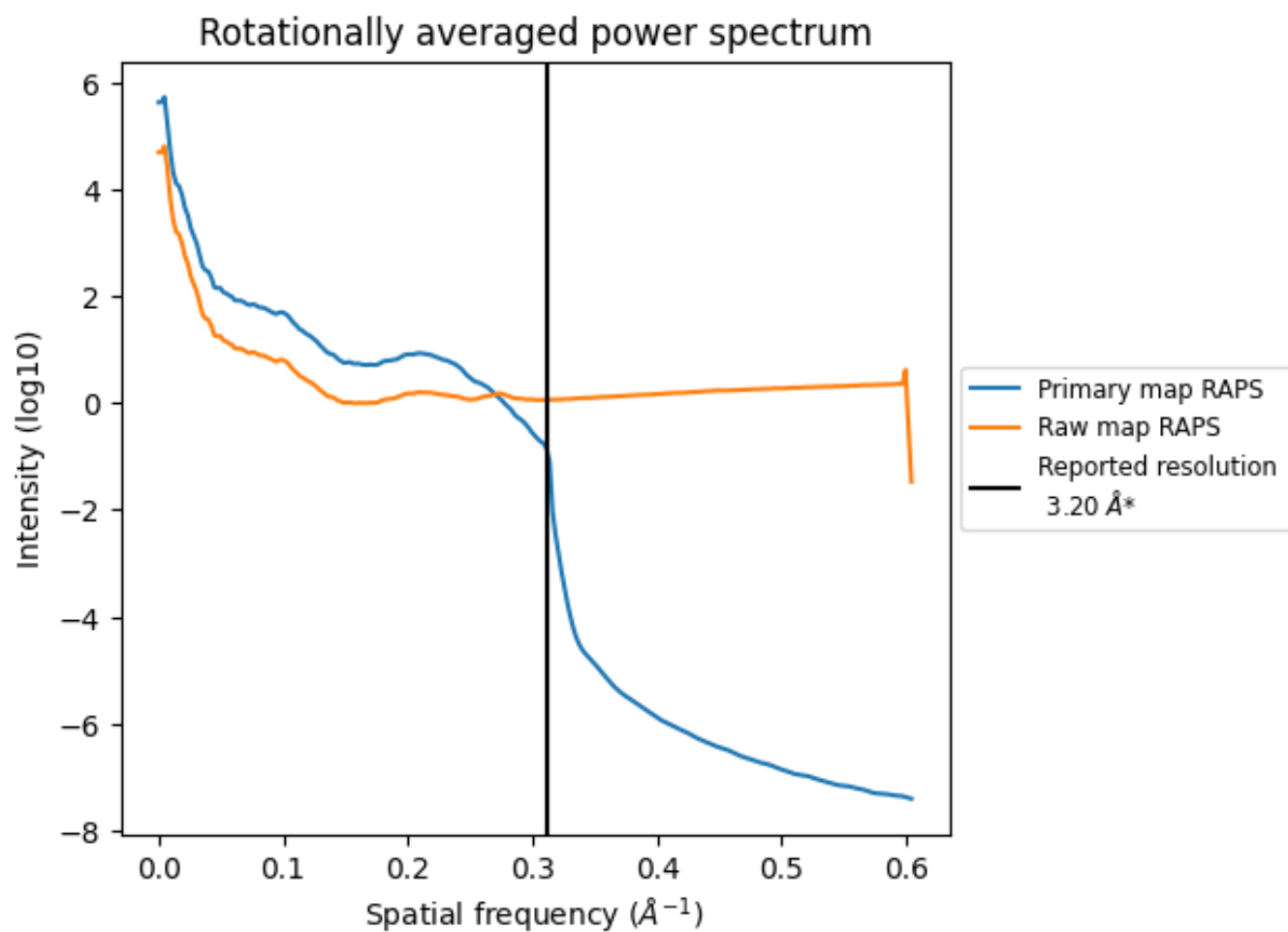
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 452 nm<sup>3</sup>; this corresponds to an approximate mass of 409 kDa.

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

### 7.3 Rotationally averaged power spectrum i

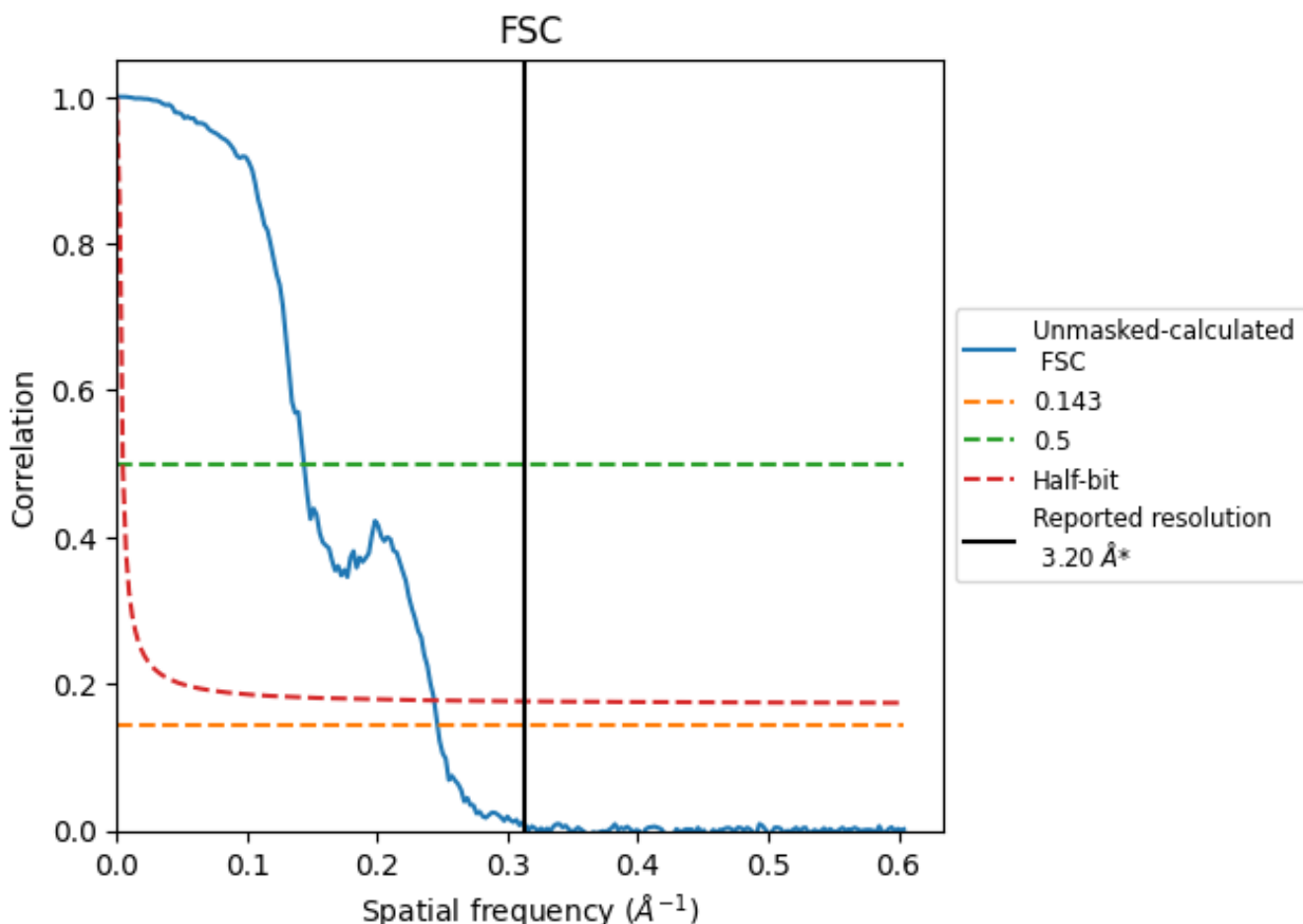


\*Reported resolution corresponds to spatial frequency of 0.312 Å<sup>-1</sup>

## 8 Fourier-Shell correlation [i](#)

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

### 8.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.312 Å<sup>-1</sup>

## 8.2 Resolution estimates [i](#)

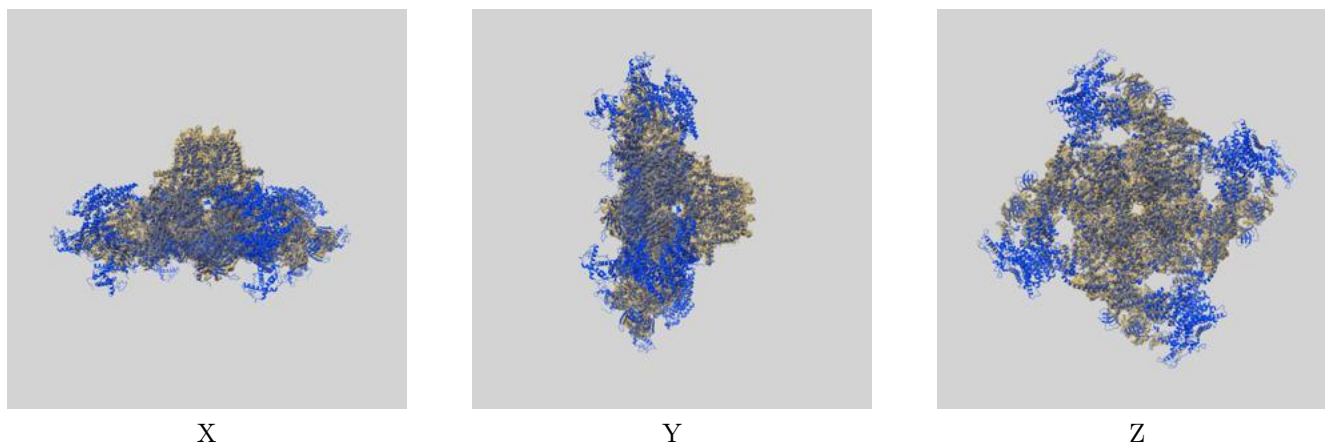
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.20	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	4.06	6.96	4.11

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.06 differs from the reported value 3.2 by more than 10 %

## 9 Map-model fit [i](#)

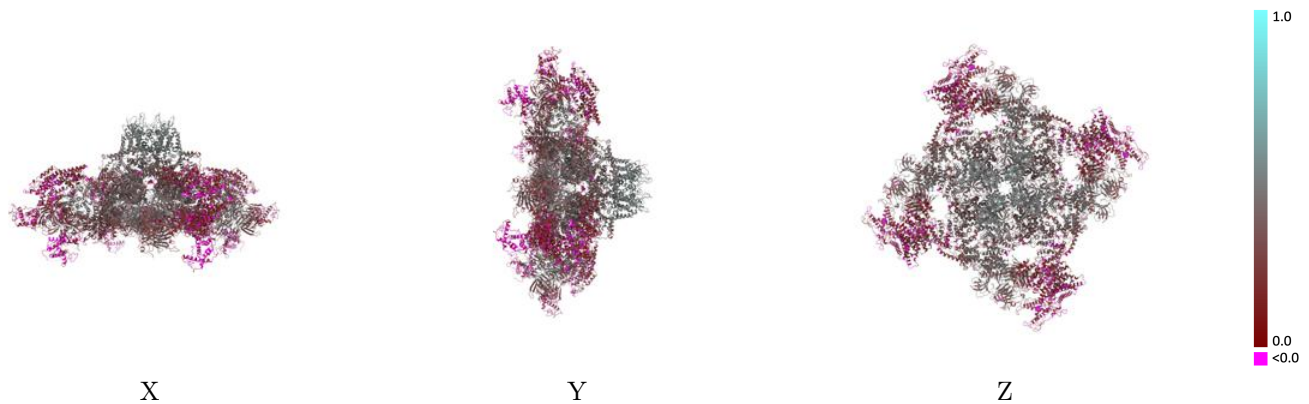
This section contains information regarding the fit between EMDB map EMD-47395 and PDB model 9E1I. Per-residue inclusion information can be found in section 3 on page 7.

### 9.1 Map-model overlay [i](#)



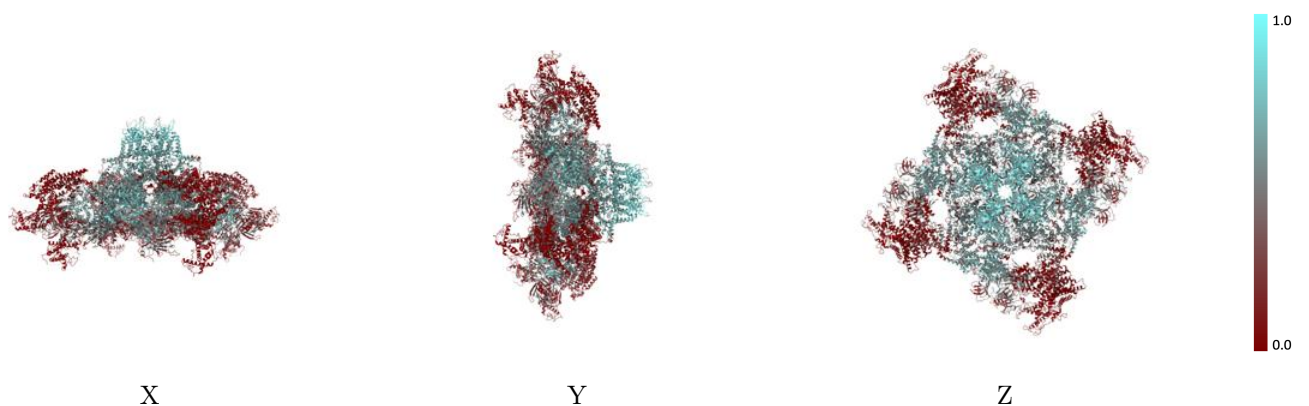
The images above show the 3D surface view of the map at the recommended contour level 0.1 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



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

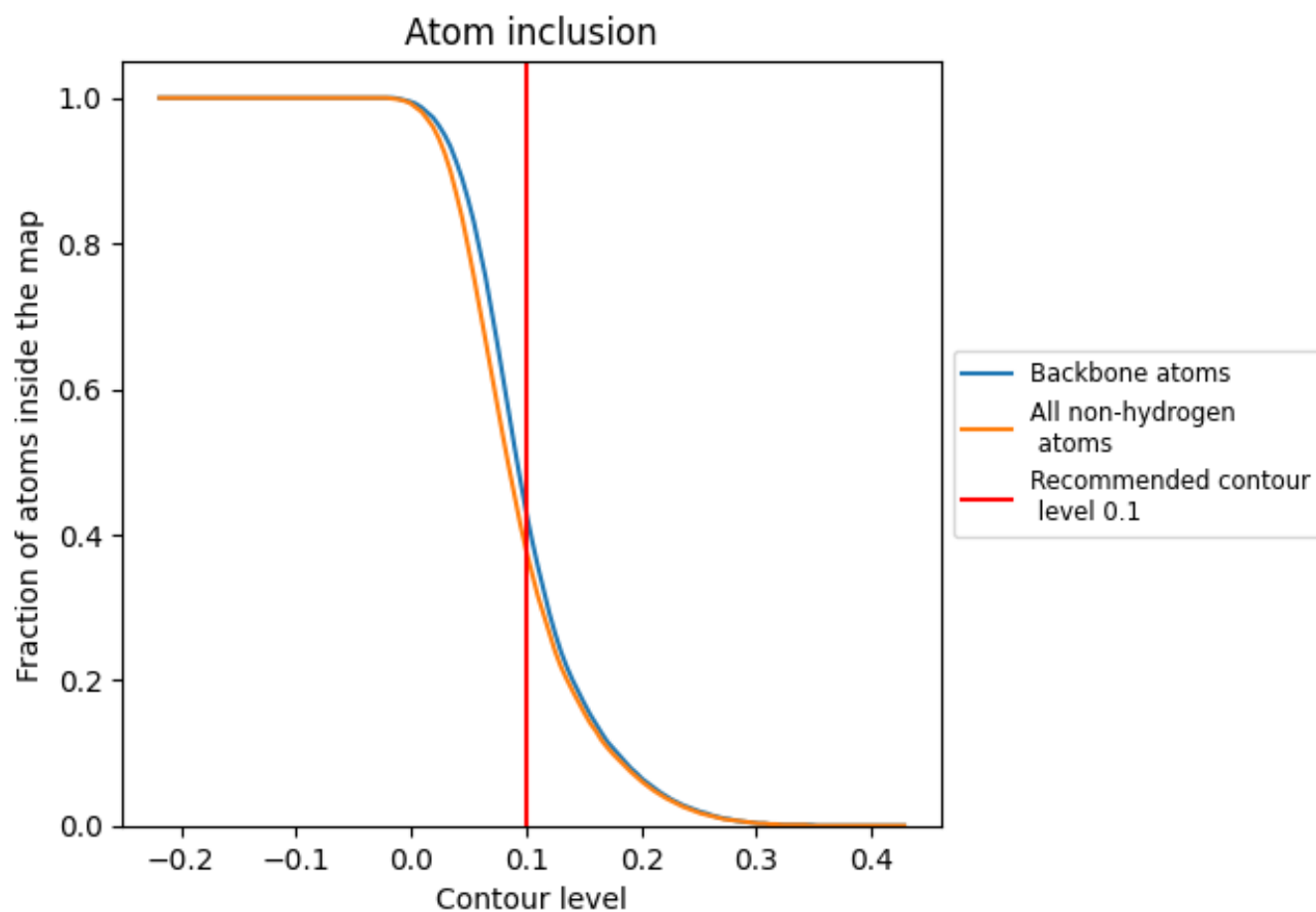
## 9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.1).



## 9.4 Atom inclusion [i](#)



At the recommended contour level, 43% of all backbone atoms, 38% of all non-hydrogen atoms, are inside the map.

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

The table lists the average atom inclusion at the recommended contour level (0.1) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.3780	0.3000
A	0.3910	0.2990
B	0.3900	0.2980
C	0.3890	0.2970
D	0.3890	0.2980
E	0.2210	0.3870
F	0.2250	0.3860
G	0.2250	0.3850
H	0.2250	0.3880

