



Full wwPDB EM Validation Report ⓘ

Mar 10, 2026 – 12:41 AM UTC

PDB ID : 8BHV / pdb_00008bhv
EMDB ID : EMD-16070
Title : DNA-PK XLF mediated dimer bound to PAXX
Authors : Hardwick, S.W.; Chaplin, A.K.
Deposited on : 2022-11-01
Resolution : 4.51 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

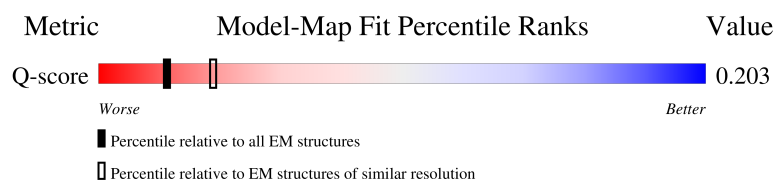
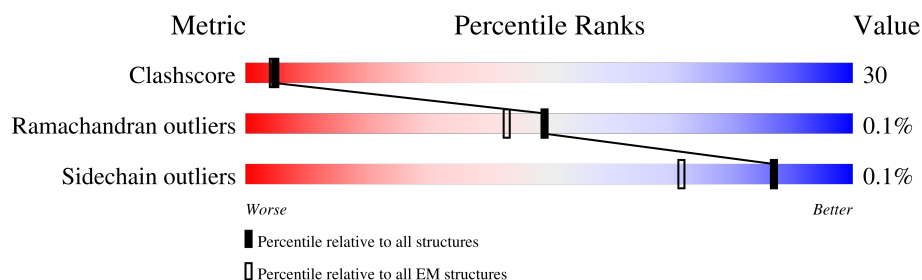
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.51 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	2518 (4.01 - 5.01)

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

Mol	Chain	Length	Quality of chain
1	A	4128	
1	F	4128	
2	K	336	
2	L	336	

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Mol	Chain	Length	Quality of chain
2	N	336	
2	O	336	
3	M	911	
3	P	911	
4	Q	299	
4	R	299	
5	a	609	
5	h	609	
6	b	732	
6	j	732	
7	c	204	
7	i	204	
8	D	27	
9	E	28	
10	I	24	
11	J	24	

2 Entry composition

There are 11 unique types of molecules in this entry. The entry contains 91357 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 DNA-dependent protein kinase catalytic subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	3549	Total	C	N	O	S	0	0
			28250	18146	4783	5134	187		
1	F	3543	Total	C	N	O	S	0	0
			28263	18162	4780	5132	189		

- Molecule 2 is a protein called DNA repair protein XRCC4.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	K	201	Total	C	N	O	S	0	0
			1628	1031	278	312	7		
2	L	195	Total	C	N	O	S	0	0
			1589	1009	271	302	7		
2	N	201	Total	C	N	O	S	0	0
			1625	1030	278	310	7		
2	O	194	Total	C	N	O	S	0	0
			1589	1009	271	302	7		

- Molecule 3 is a protein called DNA ligase 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	M	258	Total	C	N	O	S	0	0
			2085	1327	349	396	13		
3	P	246	Total	C	N	O	S	0	0
			1983	1261	339	371	12		

- Molecule 4 is a protein called Non-homologous end-joining factor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	Q	218	Total	C	N	O	S	0	0
			1745	1119	294	319	13		
4	R	225	Total	C	N	O	S	0	0
			1796	1150	301	330	15		

- Molecule 5 is a protein called X-ray repair cross-complementing protein 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	a	505	Total	C	N	O	S	0	0
			4038	2583	691	747	17		
5	h	505	Total	C	N	O	S	0	0
			4026	2578	681	750	17		

- Molecule 6 is a protein called X-ray repair cross-complementing protein 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	b	650	Total	C	N	O	S	0	0
			5214	3328	876	985	25		
6	j	636	Total	C	N	O	S	0	0
			5082	3252	854	951	25		

- Molecule 7 is a protein called Protein PAXX.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	c	23	Total	C	N	O	S	0	0
			165	105	27	32	1		
7	i	23	Total	C	N	O	S	0	0
			162	102	27	32	1		

- Molecule 8 is a DNA chain called DNA (26-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
8	D	27	Total	C	N	O	P	0	0
			556	268	95	166	27		

- Molecule 9 is a DNA chain called DNA (27-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
9	E	28	Total	C	N	O	P	0	0
			576	277	107	164	28		

- Molecule 10 is a DNA chain called DNA (28-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
10	I	24	Total	C	N	O	P	0	0
			494	238	92	140	24		

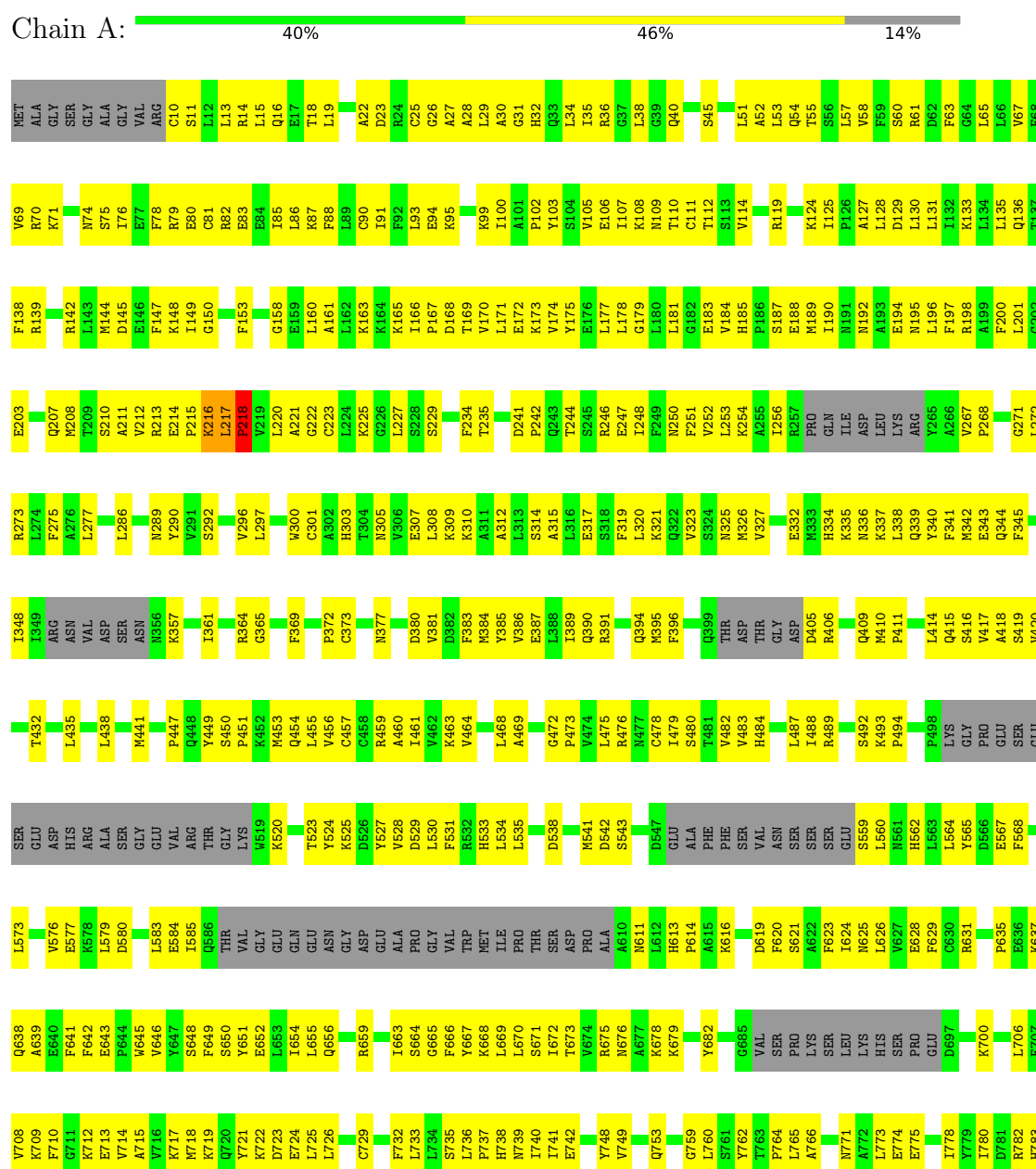
- Molecule 11 is a DNA chain called DNA (24-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
11	J	24	Total 491	C 239	N 79	O 149	P 24	0	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.

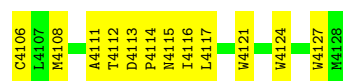
- Molecule 1: DNA-dependent protein kinase catalytic subunit



F1839	G1767	LEU	L1623	SER	V1389	THR	D1167	Y1086	A1012	R924	M858	V784
F1840	R1768	THR	Q1624	GLN	Q1390	GLY	L1168	R1087	A1013	Q925	M785	
V1844	E1769	GLY	H1625	GLY	V1391	LEU	V1169	R1090	I1014	R926	L859	
A1847	Q1770	VAL	W1626	SER	M1392	ALA	W1170	G1095	D1015	V928	G860	
D1849	Q1771	ILE	K1627	ASP	D1397	ASN	L1172	L1096	G1016		G864	
L1851	E1778				V1398	ARG	L1173	V1096	I1017	L933	Q865	D791
L1852	F1778				C1399	PHE	H1174	E1097	V1018	L934	Q866	L792
SER	F1782				V1400	S1249	H1175	Q1098	D1019	H935	N867	
ARG	F1783					Q1251	R1178	F1100	P1020	S936	K868	P794
PHE	R1784				M1403	T1253	Q1179	F1101	V1021	N937	N869	
THR	A1785				K1407	L1254	P1180	E1102	D1022	G943	L870	G798
LYS	F1786				Y1411	L1257	T1181	I1106	S1023		L871	Y799
LEU	A1786				K1412	D1258	C1183	I1106	T1024	P949	THR	L800
ASN	R1787				D1413	L1259	C1184	E1109	L1025	Q953	VAL	K801
GLU	R1788				L1414	V1338	H1185	S1110	D1027	Q954	SER	S803
SER	G1789				L1415	L1260	K1186	L1111	F1028	G955	ASP	ALA
THR	C1790				E1416	L1261	S1187	L1112	R1031	P956	LEU	
ASP	Q1791				L1417	A1263		L1113		P957	ASP	SER
LEU	S1792				H1418	L1264	L1190	A1114	F1036	N958	GLU	THR
GLN	R1793				L1419	E1265	K1193	H1115	W1039	Q960	LYS	LYS
VAL	E1794				D1504	F1344		D1117	K1042	L961	ASN	ASN
ASP	L1795				L1505	T1269	L1197	E1118	Q1043	R964	TRP	TRP
LYS	F1796				S1506	G1272	L1198	K1119	Q1043	R965	GLU	GLU
GLY	L1797				C1507	E1273	P1199	L1121	Q1047	K890	VAL	VAL
ASP	V1801				K1508	A1278	N1201	S1124	G1049	R891	SER	SER
LEU	E1802				Q1509	L1279	M1205	C1127	E1050	F894	ALA	ALA
GLN	R1803				L1510	L1279	P1204	A1130	R1062	A895	LYS	LYS
ASP	F1805				E1511	E1354	S1203	E1139	L1063	N901	GLN	GLN
LYS	R1806				S1512	L1282	P1204	H1133	K1061	K902	LYS	LYS
ASP	N1807				P1513	E1285	M1205	L1134	R1062	K902	GLY	GLY
GLY	L1808				L1514	E1285	D1210	C1135	L1064	P903	ALA	ALA
ASP	F1809				L1517	S1289	E1214	R1136	Y1064	V904	ALA	ALA
VAL	E1810				A1518			E1139	A1067	V829	VAL	VAL
LEU	L1811				L1524	F1296	V1217	H1142	L1068	P906	VAL	VAL
GLN	R1812				C1525	L1297	L1220	H1145	H1069	L907	GLU	GLU
ASP	F1813				E1526	L1298	I1221	L1145	P1070	D908	ASP	ASP
LYS	L1814				L1527	E1299	M1221	K1149	N1071	L991	LYS	LYS
GLY	R1815				L1528	S1300	T1223	K1150	A1072	V909	GLY	GLY
ASP	F1816				L1530	I1301	F1224	K1151	F1073	H993	ASP	ASP
VAL	E1817				L1532	M1303	E1225	R1152	K1074	L911	VAL	VAL
GLN	L1818				L1533	H1304	G1226	R1153	R1075	T996	GLN	GLN
ASP	R1819				A1536	I1307	G1227	L1153	L1076	N997	ASP	ASP
VAL	F1820				VAL	A1308	C1228	P1154	G1077	N998	VAL	VAL
HIS	D1821				LEU	A1309	C1229	R1154	L1080	K1000	LYS	LYS
ALA	R1822				SER	E1309	G1230	G1156	L1081	F1001	GLY	GLY
LYS	S1823				THR	A1310	S1233	L1163	A1081	L919	GLY	GLY
GLY	L1824				ALA	K1311	T1240	C1164	F1082	T920	GLY	GLY
SER	Q1754				LEU	F1384		L1165	D1005	R852	GLY	GLY
ASP	S1755				SER	N1385		L1166	N1083	R853	GLY	GLY
ASP	P1756				THR	I1386			M1084	S922	GLY	GLY
VAL	M1757				LEU	I1387			S922	R854	GLY	GLY
VAL	L1758				GLY	F1313			L1009	R855	GLY	GLY
HIS	L1759				SER	D1388						
ASN	W1829				SER							
GLN	S1832				SER							
VAL	L1833				SER							
PHE	D1834				GLY							
HIS					THR							
GLY												
SER												

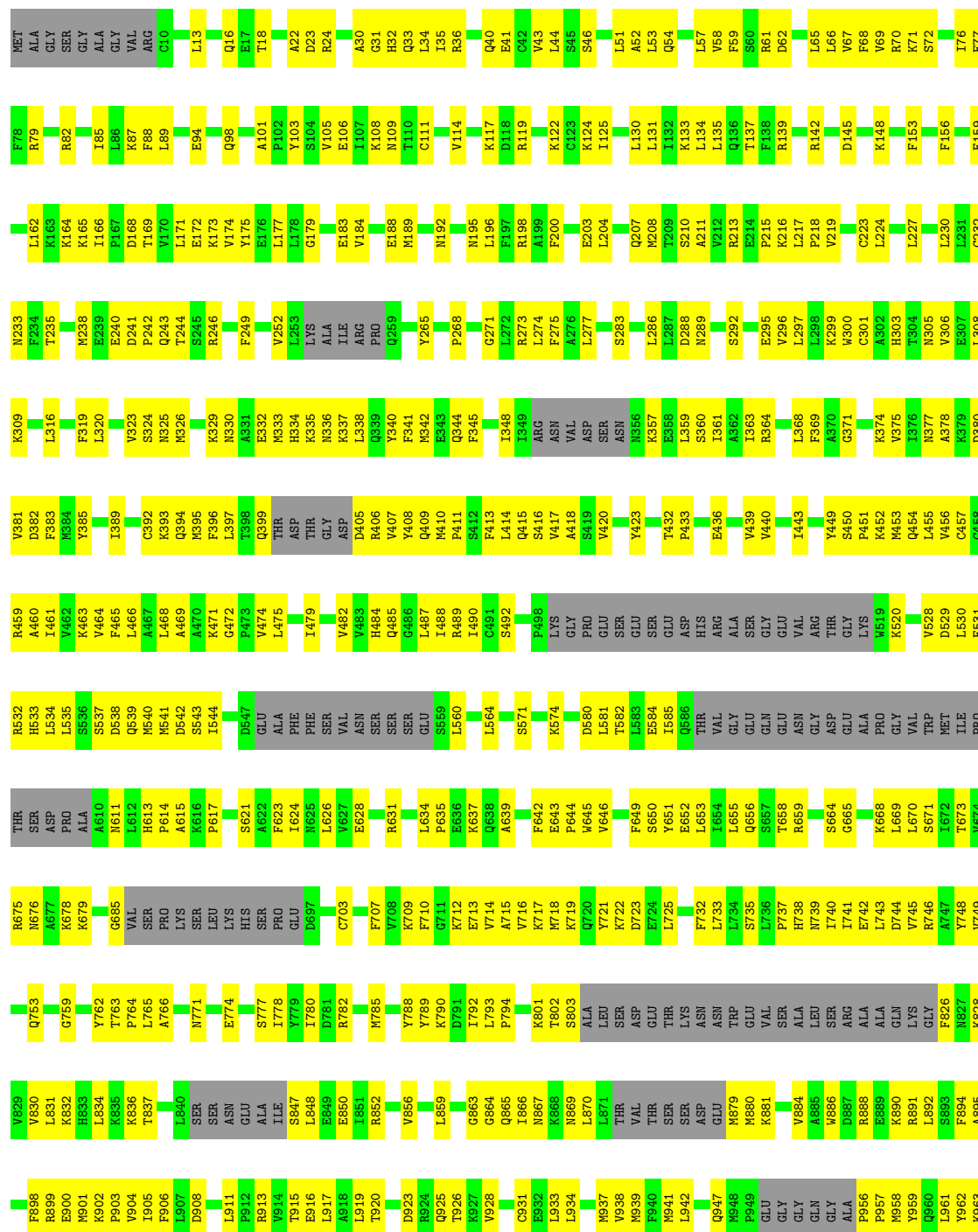


ILE	L3958	K3873	S3798	D3723	L3578	I3499	K3426	D3354	R282	GLY	L3145	K3074	Y2994
GLN	M3959	V3878	R3799	E3724	S3579	S3500	E3429	R3357	L3283	ASP	Q3148	K3075	A2997
GLU	L3963	P3879	L3800	R3725	N3580	M3502	ASN	R3358	ASN	PRD	Q3149	A3076	S2998
ILE	L3963	P3879	G3801	P3879	P3581	M3502	ALA	R3359	ASN	SER	N3150	L3077	
ASN	T3964	A3880	L3802	M3728	E3582	V3503	SER	L3360	S3287	ARG	N3151	L3078	C3001
VAL	T3965	D3881	L3803	V3729	L3583	A3504	VAL	L3361	R3288	MET	L3152	L3080	Y3002
ALA	Q3966	R3885	E3804	A3730	L3584	L3505	ILE	L3362	S3289	GLU	S3156	H3081	
GLU	F3967	R3885	W3805	S3731	F3585	D3509	ASP	L3363	Q3291	VAL	P3157	Y3082	W3008
ASN	L3970	R3889	L3806	L3732	K3586	Q3510	SER	G3364	C3292	GLN	L3157	Q3083	K3009
ASN	M3971	M3890	E3807	R3733	W3587	Q3511	ALA	SER	C3293	GLU	L3158	Q3084	S3010
GLN	L3972	R3894	T3809	R3734	W3588	V3512	GLU	SER	S3294	GLN	L3159	L3011	L3011
GLN	L3972	R3894	T3809	R3735	S3589	A3513	LEU	SER	E3295	GLU	R3160	L3085	E3012
GLN	L3972	R3894	T3809	R3736	L3589	V3514	GLN	E3368	Q3296	GLU	L3161	Q3087	L3013
GLN	L3972	R3894	T3809	R3737	V3592	V3514	GLN	E3369	V3297	GLU	L3162	L3088	C3014
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GLN	L3972	R3894	T3809	R3739	R3594	H3515	GLN	S3371	T3299	GLU	L3164	Y3090	
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GLN	L3972	R3894	T3809	R3742	A3597	V3518	GLN	I3374	L3301	GLU	L3167	L3093	ASN
GLN	L3972	R3894	T3809	R3743	L3597	V3518	GLN	I3374	L3301	GLU	L3168	Q3094	PRD
GLN	L3972	R3894	T3809	R3744	THR	I3521	GLN	I3374	L3301	GLU	L3169	Q3097	ASP
GLN	L3972	R3894	T3809	R3745	PRD	Y3525	GLN	I3374	L3301	GLU	L3170	LEU	R3098
GLN	L3972	R3894	T3809	R3746	V3601	Y3525	GLN	I3374	L3301	GLU	L3171	ASN	
GLN	L3972	R3894	T3809	R3747	N3602	V3530	GLN	I3374	L3301	GLU	L3172	K3029	
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GLN	L3972	R3894	T3809	R3749	N3679	V3530	GLN	I3374	L3301	GLU	L3174	S3033	
GLN	L3972	R3894	T3809	R3750	L3680	V3530	GLN	I3374	L3301	GLU	L3175	P3034	P3034
GLN	L3972	R3894	T3809	R3751	K3681	V3530	GLN	I3374	L3301	GLU	L3176	F3035	F3035
GLN	L3972	R3894	T3809	R3752	E3682	V3530	GLN	I3374	L3301	GLU	L3177	L3110	L3110
GLN	L3972	R3894	T3809	R3753	C3683	V3530	GLN	I3374	L3301	GLU	L3178	M3112	M3112
GLN	L3972	R3894	T3809	R3754	K3684	V3530	GLN	I3374	L3301	GLU	L3179	N3113	N3113
GLN	L3972	R3894	T3809	R3755	P3685	V3530	GLN	I3374	L3301	GLU	L3180	Q3037	Q3037
GLN	L3972	R3894	T3809	R3756	W3686	V3530	GLN	I3374	L3301	GLU	L3181	F3036	F3036
GLN	L3972	R3894	T3809	R3757	M3686	V3530	GLN	I3374	L3301	GLU	L3182	E3038	E3038
GLN	L3972	R3894	T3809	R3758	E3611	V3530	GLN	I3374	L3301	GLU	L3183	Y3114	Y3114
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GLN	L3972	R3894	T3809	R3762	F3628	V3530	GLN	I3374	L3301	GLU	L3187	L3045	L3045
GLN	L3972	R3894	T3809	R3763	R3629	V3530	GLN	I3374	L3301	GLU	L3188	R3046	R3046
GLN	L3972	R3894	T3809	R3764	K3631	V3530	GLN	I3374	L3301	GLU	L3189	V3119	V3119
GLN	L3972	R3894	T3809	R3765	F3632	V3530	GLN	I3374	L3301	GLU	L3190	S3047	S3047
GLN	L3972	R3894	T3809	R3766	L3633	V3530	GLN	I3374	L3301	GLU	L3191	L3120	L3120
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GLN	L3972	R3894	T3809	R3769	K3638	V3530	GLN	I3374	L3301	GLU	L3194	S3124	S3124
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GLN	L3972	R3894	T3809	R3771	K3642	V3530	GLN	I3374	L3301	GLU	L3196	L3126	L3126
GLN	L3972	R3894	T3809	R3772	H3643	V3530	GLN	I3374	L3301	GLU	L3197	Q3059	Q3059
GLN	L3972	R3894	T3809	R3773	E3714	V3530	GLN	I3374	L3301	GLU	L3198	S3060	S3060
GLN	L3972	R3894	T3809	R3774	Y3715	V3530	GLN	I3374	L3301	GLU	L3199	L3061	L3061
GLN	L3972	R3894	T3809	R3775	H3716	V3530	GLN	I3374	L3301	GLU	L3200	T3062	T3062
GLN	L3972	R3894	T3809	R3776	V3717	V3530	GLN	I3374	L3301	GLU	L3201	L3127	L3127
GLN	L3972	R3894	T3809	R3777	R3718	V3530	GLN	I3374	L3301	GLU	L3202	K3128	K3128
GLN	L3972	R3894	T3809	R3778	I3719	V3530	GLN	I3374	L3301	GLU	L3203	PRD	PRD
GLN	L3972	R3894	T3809	R3779	I3719	V3530	GLN	I3374	L3301	GLU	L3204	GLU	GLU
GLN	L3972	R3894	T3809	R3780	L3722	V3530	GLN	I3374	L3301	GLU	L3205	ASN	ASN
GLN	L3972	R3894	T3809	R3781	F3722	V3530	GLN	I3374	L3301	GLU	L3206	F3064	F3064
GLN	L3972	R3894	T3809	R3782		V3530	GLN	I3374	L3301	GLU	L3207	MET	MET
GLN	L3972	R3894	T3809	R3783		V3530	GLN	I3374	L3301	GLU	L3208	L3135	L3135
GLN	L3972	R3894	T3809	R3784		V3530	GLN	I3374	L3301	GLU	L3209	T3136	T3136
GLN	L3972	R3894	T3809	R3785		V3530	GLN	I3374	L3301	GLU	L3210	E3137	E3137
GLN	L3972	R3894	T3809	R3786		V3530	GLN	I3374	L3301	GLU	L3211	I3138	I3138
GLN	L3972	R3894	T3809	R3787		V3530	GLN	I3374	L3301	GLU	L3212	ASP	ASP
GLN	L3972	R3894	T3809	R3788		V3530	GLN	I3374	L3301	GLU	L3213	L3142	L3142
GLN	L3972	R3894	T3809	R3789		V3530	GLN	I3374	L3301	GLU	L3214		
GLN	L3972	R3894	T3809	R3790		V3530	GLN	I3374	L3301	GLU	L3215		
GLN	L3972	R3894	T3809	R3791		V3530	GLN	I3374	L3301	GLU	L3216		
GLN	L3972	R3894	T3809	R3792		V3530	GLN	I3374	L3301	GLU	L3217		
GLN	L3972	R3894	T3809	R3793		V3530	GLN	I3374	L3301	GLU	L3218		
GLN	L3972	R3894	T3809	R3794		V3530	GLN	I3374	L3301	GLU	L3219		
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GLN	L3972	R3894	T3809	R3797		V3530	GLN	I3374	L3301	GLU	L3222		
GLN	L3972	R3894	T3809	R3798		V3530	GLN	I3374	L3301	GLU	L3223		
GLN	L3972	R3894	T3809	R3799		V3530	GLN	I3374	L3301	GLU	L3224		
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GLN	L3972	R3894	T3809	R3802		V3530	GLN	I3374	L3301	GLU	L3227		
GLN	L3972	R3894	T3809	R3803		V3530	GLN	I3374	L3301	GLU	L3228		
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GLN	L3972	R3894	T3809	R3809		V3530	GLN	I3374	L3301	GLU	L3234		
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GLN	L3972	R3894	T3809	R3822		V3530	GLN	I3374	L3301	GLU	L3247		
GLN	L3972	R3894	T3809	R3823		V3530	GLN	I3374	L3301	GLU	L3248		
GLN	L3972	R3894	T3809	R3824		V3530	GLN	I3374	L3301	GLU	L3249		
GLN	L3972	R3894	T3809	R3825		V3530	GLN	I3374	L3301	GLU	L3250		
GLN	L3972	R3894	T3809	R3826		V3530	GLN</						



● Molecule 1: DNA-dependent protein kinase catalytic subunit

Chain F: 40% 46% 14%

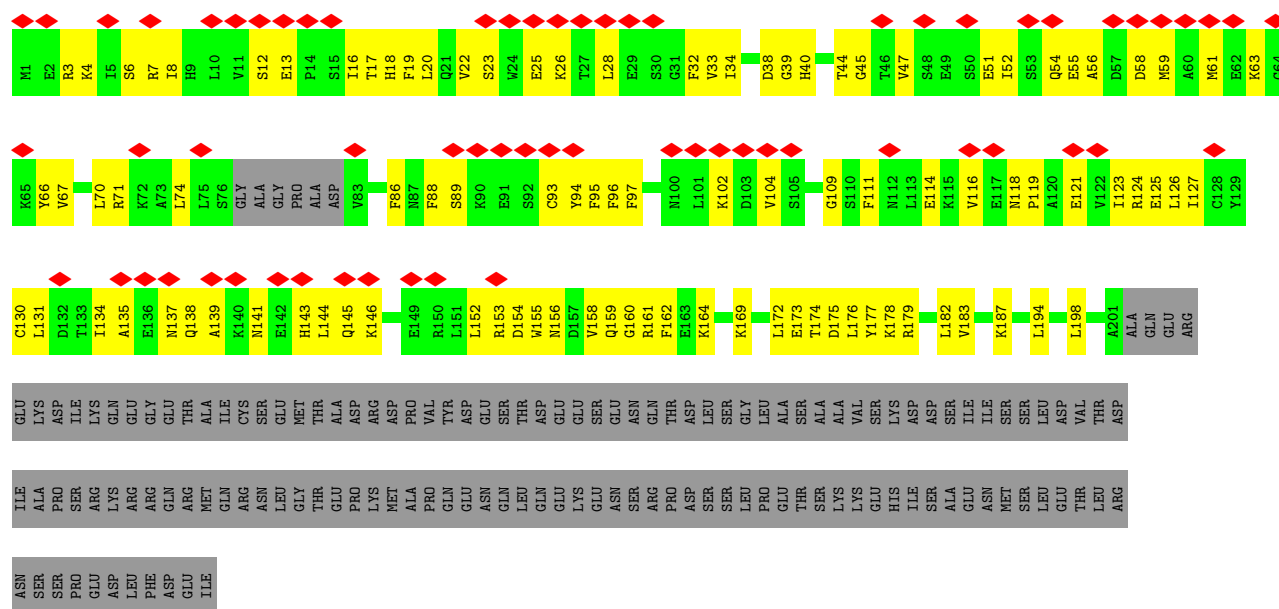
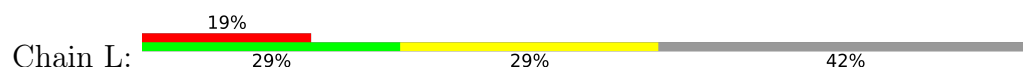




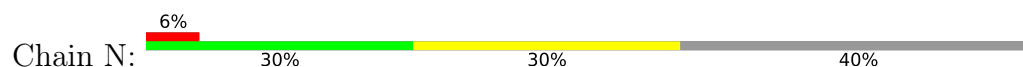
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K3075	E2988	LYS	E2750	I2550	G2407	I2336		S2195	R2120	GLN
A3081	K2829	SER	R2763	E2551	M2408		K2268	W2196		ASP
K2991	E2830	GLU	R2763	V2552		E2339	D2269		P2123	PRO
K2992	K2834	ARG	K2755	H2553	L2411	C2342	D2270	L2199	S2124	ARG
F2993	Q2834	LEU	E2756	L2555	F2413	A2346	S2271	T2201	W2125	PRO
F2994	F2840	GLN	E2757	L2556	F2413		V2272	P2202	M2126	ALA
E2995	F2840	ARG	I2757	S2556	Q2414	K2347	G2273			THR
	F2843	ALA	K2758	L2557	L2415		I2274	P2206	H2130	GLY
L2999	E2760	PRO	S2759	F2561	K2416	L2348	Q2275		L2133	ARG
D3000	L2926	LEU	L2761		S2417	L2349	K2276		G2134	PHE
C3001	L2761	GLN		E2564	K2418	K2350	L2277	E2209	N2135	ARG
		SER		K2565	F2419	Q2351	G2278			ARG
L3004	V2769	VAL		S2567	F2420	H2352	I2279	R2214		ARG
L3088	R2773	GLY		T2567	M2424	Q2353	V2280		L2140	GLU
L3089	S2774	PRO		S2568		N2354		F2218		GLN
Y3090	Y2775	ASP		H2569	R2427	T2355	N2283	L2219	R2143	ARG
W308	R2776	PHE		P2570	D2428	M2356	M2220	M2220		ASP
K309	H2777	GLY		D2571	D2429	E2357	K2221	K2221	L2149	PRO
S3010	G2778	LYS		E2572	E2430	D2358	V2222	V2222	V2150	VAL
L3011	L2778	ASP		H2573	R2431	K2359	F2224	H2224	L2151	VAL
C3014	D2779	ARG		N2574	Q2432	F2360	C2292	H2225	T2152	HIS
	L2780	LEU		P2575	K2433	T2361	G2293	K2226	T2163	ASP
E3022	P2781	GLY		M2576	V2434	C2363	G2294	P2227	E2154	ASP
ASN	D2782	LEU		F2577	C2435	L2364	I2294	R2228	E2155	VAL
K3029	I2783	PRO		E2578	D2436		I2296	A2229	L2156	LEU
PRO	Q2784	GLY		H2579	D2437	M2365	S2297	V2230	F2157	GLU
PRD	I2785	ASP		P2580	I2438	K2366	E2298	F2231	L2158	LEU
L3016	R2786	GLU		L2581	L2439	T2367	E2299	F2231	P2159	GLU
N3105	H2787	VAL		S2582	Q2441	V2368	F2300	H2233	Y2160	MET
		ASP		E2583	K2441		Q2301	N2234	A2161	ASP
I3107	I2791	ASN		C2584	M2442	P2372		L2235	K2162	GLU
Q3108	T2792	LYS		E2585	M2443		V2304	E2236	H2163	LEU
S3109	P2793	VAL		F2586	L2446	D2376	N2305	I2237	W2164	ASN
F3110	L2794	GLY			K2447	N2379	N2306	L2237	L2165	
Y3034	Q2795	ASP		Y2589	E2450	K2380	M2307	L2238	S2166	
F3035	A2796	GLY		L2590	L2451	A2381	S2308		L2168	
Y3036	V2797	ALA			R2452	F2383	F2309	L2241	L2169	
Q3037		ALA		T2603	E2450		R2310	V2242	Q2170	
F3038	G2721	GLY			L2451		R2311	E2243	L2171	
T3039	T2722	SER		PRO	R2452		R2312	C2244	A2172	
Y3040	T2723	THR		NET	L2455	L2386	Q2313	D2247		
L3041	D2724	ASP		PHE	K2456	P2387	E2314	K2246	W2176	
	L2725	PRO		VAL	P2457	K2388	V2315		ASN	
K3044	L2726	LEU		GLU	V2458	F2389	Y2316	L2249	GLY	
I3045	R2727	VAL		THR	F2461	G2391	A2317	I2251	H2104	
K3046	L2728	ASP		GLN	H2464	V2392		P2252	G2181	
S3047	R2729	HIS		ALA	F2465	L2393	A2320	P2252	E2180	
K3048	R2730	SER		SER	S2466	T2395	E2321	Y2253	L2182	
L3049	R2731	PRO		GLN	F2467	L2396		R2294	H2183	
K3050	F2731	THR		THR	T2467	L2397	L2325	L2255	Y2184	
D2973	F2732	SER		GLY	T2468	C2397	I2326	I2256	M2185	
E2974	K2733	PRO		THR	K2541	L2398	L2327	F2257	V2186	
A2975	R2734	ASP		LEU	L2542	K2469	R2328	K2258	V2187	
		GLY		THR	N2543	E2470	Y2329	E2259	GLY	
L3051	E2737	LEU		ARG	S2544	V2400	V2330	F2260	I2189	
L3052	L2812	PHE		THR						
Q3128	F2813	THR		GLU	S2547	R2404	R2333	K2263	T2192	
K3129	L2817	ALA		GLN		V2405	K2334		I2193	
L3122	L2817	LYS		THR						
Q3123	L2817	LYS		GLU						
S3124	L2817	LYS		GLU						
R3125	L2817	LYS		GLU						
L3126	L2817	LYS		GLU						
	L2817	LYS		GLU						
K3127	L2817	LYS		GLU						
L3128	L2817	LYS		GLU						
K3129	L2817	LYS		GLU						
L3130	L2817	LYS		GLU						
Q3131	L2817	LYS		GLU						
	L2817	LYS		GLU						
L3135	L2817	LYS		GLU						
	L2817	LYS		GLU						
I3138	L2817	LYS		GLU						
S3060	L2817	LYS		GLU						
Q3139	L2817	LYS		GLU						
E3140	L2817	LYS		GLU						



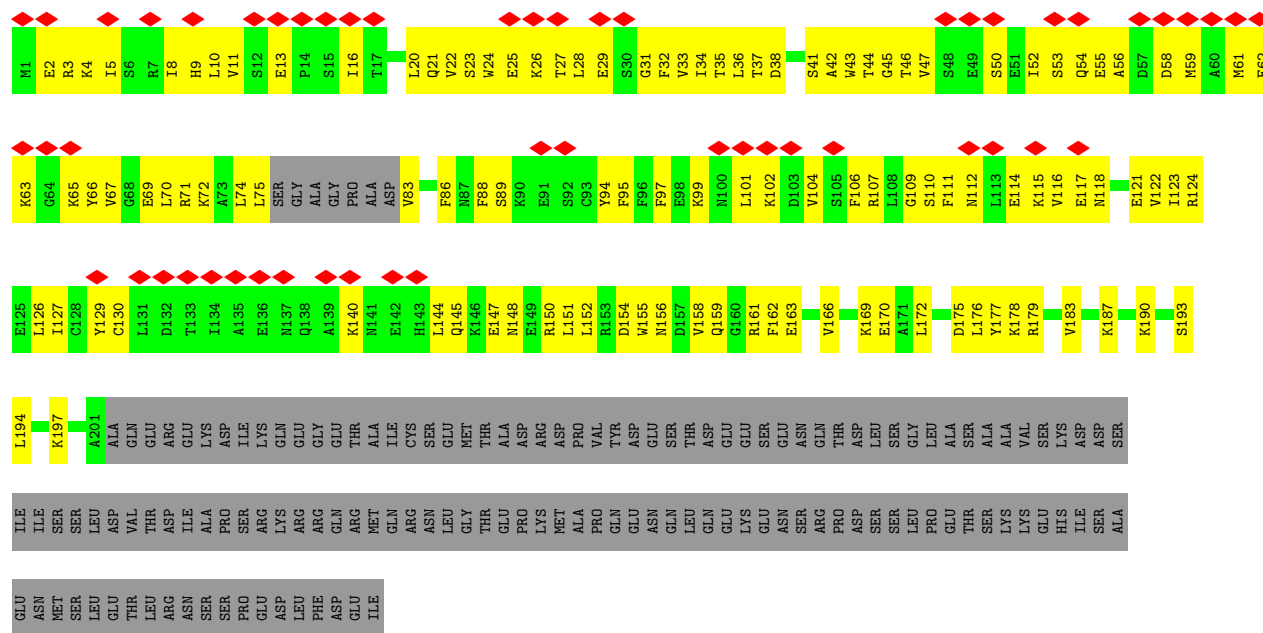
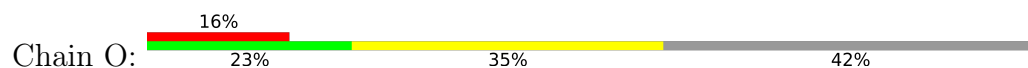
- Molecule 2: DNA repair protein XRCC4



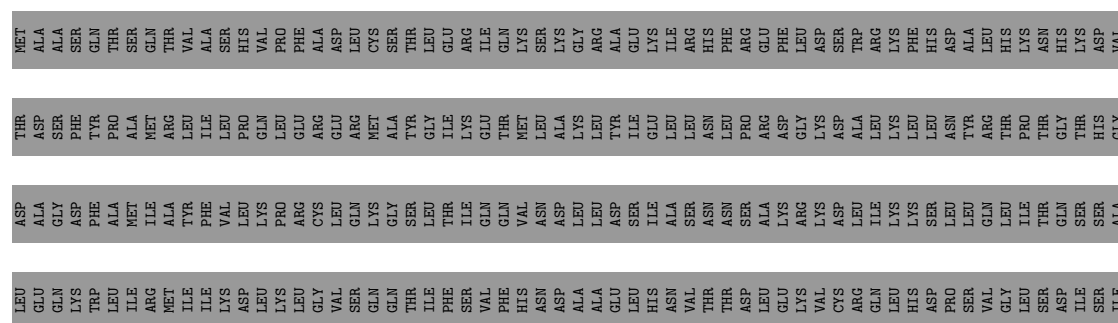
- Molecule 2: DNA repair protein XRCC4

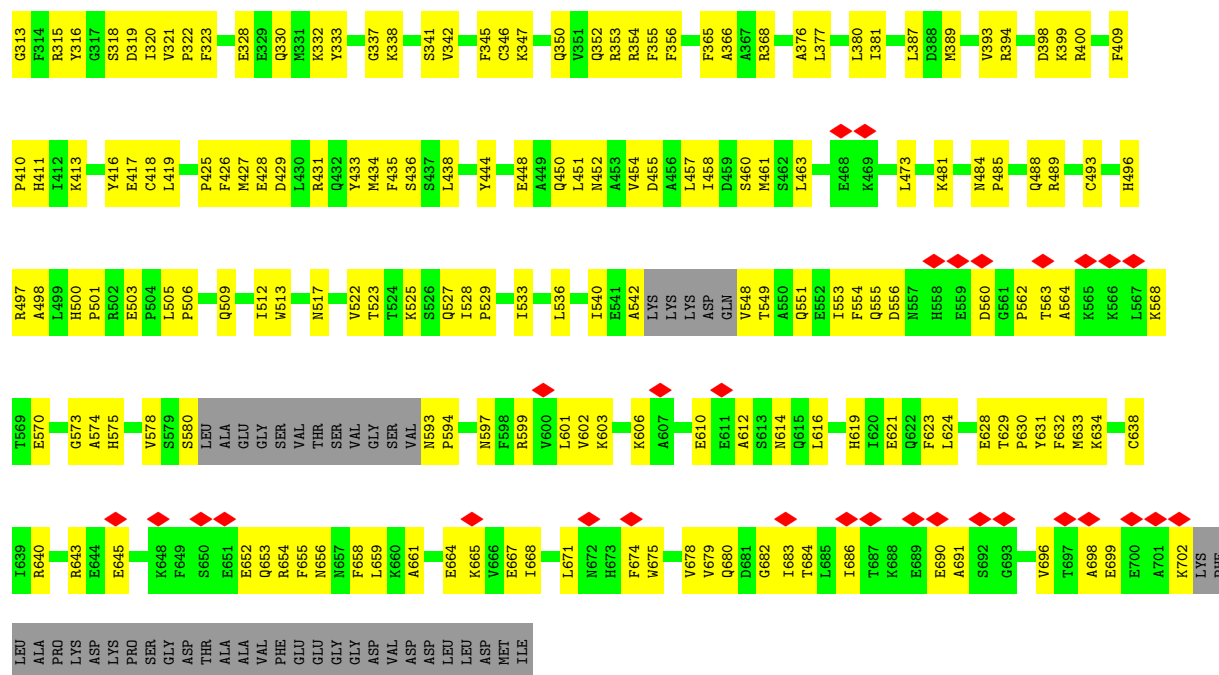


- Molecule 2: DNA repair protein XRCC4

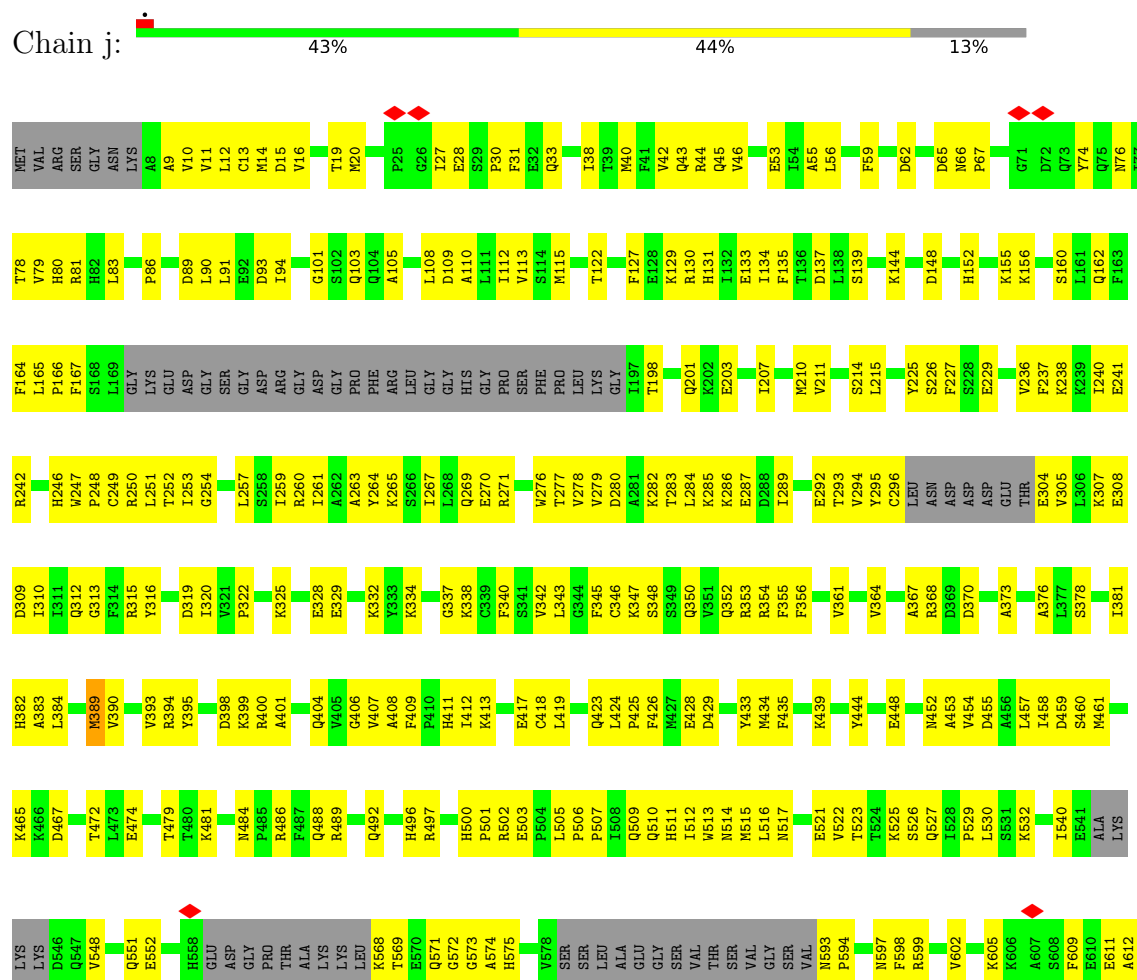


- Molecule 3: DNA ligase 4



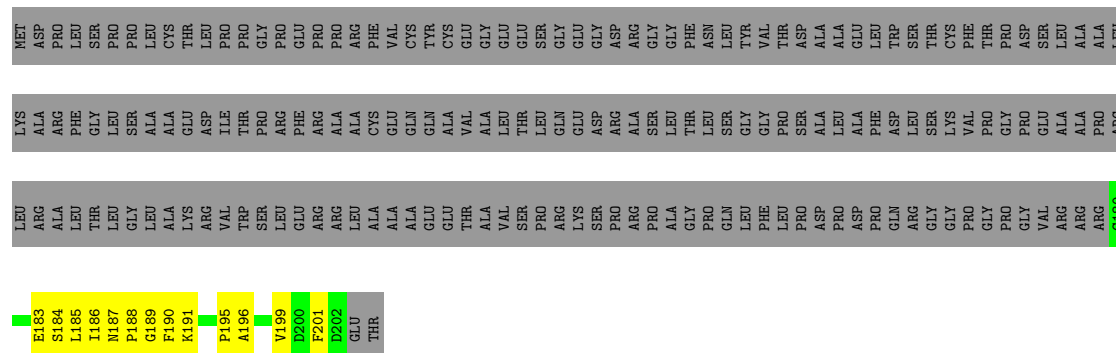


Molecule 6: X-ray repair cross-complementing protein 5



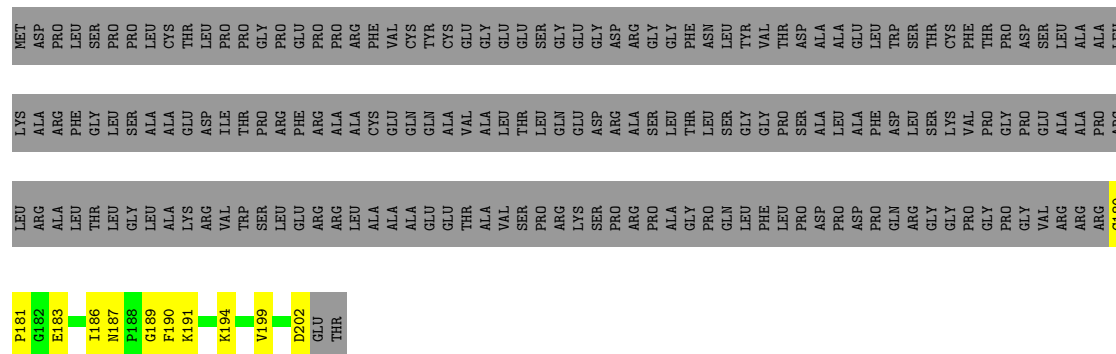
- Molecule 7: Protein PAXX

Chain c: 5% 6% 89%



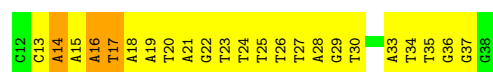
- Molecule 7: Protein PAXX

Chain i:  6% 5% 89%



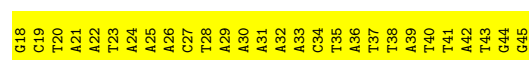
- Molecule 8: DNA (26-MER)

Chain D:  15% 74% 11%



- Molecule 9: DNA (27-MER)

Chain E: 100%



● Molecule 10: DNA (28-MER)



● Molecule 11: DNA (24-MER)



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	11019	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	48.03	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	130000	Depositor
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.720	Depositor
Minimum map value	-0.164	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.026	Depositor
Recommended contour level	0.168	Depositor
Map size (Å)	678.08, 678.08, 678.08	wwPDB
Map dimensions	520, 520, 520	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.304, 1.304, 1.304	Depositor

5 Model quality

5.1 Standard geometry

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	0.22	0/28804	0.40	0/38906
1	F	0.22	0/28820	0.40	2/38928 (0.0%)
2	K	0.15	0/1657	0.34	0/2228
2	L	0.16	0/1616	0.35	0/2170
2	N	0.15	0/1654	0.35	0/2224
2	O	0.14	0/1616	0.35	0/2170
3	M	0.16	0/2134	0.34	1/2884 (0.0%)
3	P	0.21	0/2028	0.39	0/2737
4	Q	0.21	0/1778	0.44	0/2403
4	R	0.17	0/1831	0.43	0/2476
5	a	0.18	0/4116	0.35	0/5549
5	h	0.18	0/4105	0.35	0/5538
6	b	0.15	0/5313	0.33	0/7159
6	j	0.17	0/5178	0.36	1/6979 (0.0%)
7	c	0.14	0/169	0.26	0/226
7	i	0.15	0/166	0.27	0/222
8	D	0.38	0/622	0.66	3/959 (0.3%)
9	E	0.30	0/647	0.43	0/996
10	I	0.31	0/555	0.48	0/854
11	J	0.35	0/548	0.55	0/844
All	All	0.21	0/93357	0.39	7/126452 (0.0%)

There are no bond length outliers.

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	D	14	DA	P-O3'-C3'	-7.09	109.56	120.20
1	F	956	PRO	N-CA-CB	6.89	110.58	103.00
8	D	17	DT	P-O3'-C3'	-6.78	110.04	120.20
8	D	16	DA	P-O3'-C3'	-6.33	110.71	120.20
3	M	670	THR	N-CA-C	-5.50	108.34	114.62
1	F	2405	VAL	N-CA-C	-5.29	107.26	111.81
6	j	389	MET	CB-CG-SD	-5.23	97.00	112.70

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	28250	0	28465	1646	0
1	F	28263	0	28500	1660	0
2	K	1628	0	1620	125	0
2	L	1589	0	1581	101	0
2	N	1625	0	1612	124	0
2	O	1589	0	1587	124	0
3	M	2085	0	2024	151	0
3	P	1983	0	1924	137	0
4	Q	1745	0	1754	146	0
4	R	1796	0	1814	146	0
5	a	4038	0	4092	273	0
5	h	4026	0	4069	287	0
6	b	5214	0	5231	297	0
6	j	5082	0	5069	288	0
7	c	165	0	160	13	0
7	i	162	0	151	9	0
8	D	556	0	310	60	0
9	E	576	0	318	58	0
10	I	494	0	273	53	0
11	J	491	0	278	46	0
All	All	91357	0	90832	5315	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 30.

All (5315) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2440:TYR:HA	1:F:2443:MET:HE3	1.42	0.97
1:F:1269:THR:O	1:F:1273:GLU:HB2	1.66	0.95
1:A:2405:VAL:HA	1:A:2408:MET:HE3	1.49	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:a:203:MET:HE1	5:a:238:LYS:H	1.32	0.93
1:F:1268:ASN:HD21	1:F:1344:PHE:HA	1.34	0.92
1:A:67:VAL:HA	1:A:71:LYS:HZ3	1.33	0.92
1:F:2225:HIS:HB2	1:F:2231:PHE:HB2	1.51	0.91
4:Q:131:VAL:HG12	4:R:44:VAL:HG22	1.50	0.91
2:O:3:ARG:HE	2:O:23:SER:HB3	1.34	0.90
1:F:1878:ASP:HB3	1:F:1947:CYS:HA	1.54	0.89
5:a:318:ARG:HA	6:b:278:VAL:HA	1.55	0.88
1:F:139:ARG:HA	1:F:142:ARG:HH21	1.36	0.88
1:A:3301:LEU:HG	1:A:3305:SER:H	1.37	0.87
1:F:2126:MET:O	1:F:2130:HIS:HB2	1.74	0.87
1:A:208:MET:HE3	1:A:252:VAL:HG12	1.55	0.87
1:A:1300:SER:HA	1:A:1304:HIS:HB2	1.57	0.87
5:h:446:MET:HE3	6:j:264:TYR:HB2	1.54	0.86
1:A:1071:ASN:HD21	1:A:1073:PHE:HB2	1.38	0.86
2:O:94:TYR:HE1	2:O:111:PHE:HB2	1.38	0.86
1:A:2925:GLU:HA	1:A:2928:LYS:HE3	1.58	0.86
1:A:2225:HIS:HB2	1:A:2231:PHE:HB2	1.57	0.85
1:F:1452:VAL:HG22	1:F:1517:LEU:HD11	1.58	0.85
1:A:1871:MET:HE1	1:A:1940:TYR:HA	1.58	0.85
1:A:1206:LEU:HA	1:A:1209:LYS:HD3	1.59	0.84
6:j:20:MET:HB3	6:j:31:PHE:HB2	1.58	0.84
1:A:3796:MET:H	1:A:3801:GLY:HA2	1.42	0.84
1:F:3011:LEU:HB3	1:F:3047:SER:HB2	1.60	0.84
2:K:8:ILE:HG21	2:K:20:LEU:HB2	1.60	0.83
6:j:13:CYS:HB2	6:j:134:ILE:HG12	1.60	0.83
3:P:814:ARG:H	3:P:850:ALA:N	1.77	0.83
1:F:1583:MET:HG3	1:F:1625:HIS:HB3	1.60	0.82
5:a:289:TYR:HB2	5:a:293:ASN:H	1.44	0.82
1:A:3835:PRO:HA	1:A:3839:TYR:HB2	1.59	0.82
4:Q:130:LEU:HA	4:R:42:GLN:HA	1.60	0.82
1:F:3422:GLN:HE22	1:F:3423:GLN:HE21	1.24	0.81
6:b:11:VAL:HG22	6:b:55:ALA:HB3	1.62	0.81
1:A:1071:ASN:HD22	1:A:1074:LYS:HG3	1.43	0.81
2:O:50:SER:H	2:O:54:GLN:HE21	1.29	0.81
5:a:203:MET:HE2	5:a:239:LEU:HG	1.62	0.81
4:Q:132:SER:HA	4:R:40:ASP:H	1.46	0.80
1:F:334:HIS:HA	1:F:337:LYS:HE3	1.64	0.80
1:F:168:ASP:H	1:F:171:LEU:HD12	1.46	0.80
1:F:361:ILE:HD13	1:F:364:ARG:HH21	1.45	0.80
2:N:95:PHE:HB3	2:N:111:PHE:HB2	1.62	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:901:MET:HG2	1:F:903:PRO:HD3	1.63	0.79
1:A:2891:ARG:HG2	1:A:3894:PRO:HB3	1.63	0.79
6:j:593:ASN:HA	6:j:597:ASN:HB2	1.64	0.79
1:F:2806:LYS:HE2	1:F:2857:CYS:HB2	1.64	0.79
4:R:24:LEU:HB2	4:R:38:VAL:HG13	1.63	0.79
1:F:414:LEU:HB2	1:F:460:ALA:HB1	1.64	0.78
6:j:28:GLU:HB2	6:j:33:GLN:HG3	1.65	0.78
1:A:2174:SER:HB3	1:A:2214:ARG:HH12	1.46	0.78
6:b:347:LYS:HB3	6:b:350:GLN:HG3	1.65	0.78
6:j:44:ARG:HG2	6:j:237:PHE:HA	1.64	0.78
1:F:1115:HIS:HE1	1:F:1183:CYS:H	1.27	0.78
9:E:30:DA:OP1	9:E:31:DA:N6	2.17	0.78
1:F:2551:GLU:HA	1:F:2554:PHE:HB2	1.65	0.78
2:N:173:GLU:HB2	2:O:172:LEU:HD21	1.65	0.78
1:A:2433:LYS:HG3	1:A:2472:GLN:HE22	1.46	0.78
1:A:2965:TYR:HB3	1:A:3001:CYS:HB2	1.63	0.78
1:A:864:GLY:H	1:A:3169:PRO:HA	1.48	0.78
1:A:1201:ASN:HB2	1:A:1207:TRP:HB2	1.65	0.78
1:F:3301:LEU:HB3	1:F:3304:VAL:HA	1.66	0.78
2:O:28:LEU:HD11	2:O:71:ARG:HA	1.63	0.77
1:A:1172:LEU:HD11	1:A:1187:SER:HB2	1.65	0.77
5:h:35:ARG:HD2	5:h:80:ARG:HE	1.49	0.77
2:N:124:ARG:HD3	2:O:16:ILE:HG21	1.67	0.77
4:R:16:LEU:HD13	4:R:106:LEU:HD11	1.67	0.77
1:A:3750:PHE:HB3	1:A:3802:LEU:HD11	1.65	0.77
1:A:167:PRO:HA	1:A:171:LEU:HD12	1.66	0.77
6:b:667:GLU:HA	6:b:675:TRP:HE1	1.50	0.77
10:I:40:DT:H3	11:J:18:DA:H8	1.29	0.77
1:F:1070:PRO:HG2	1:F:3715:TYR:HB3	1.65	0.77
2:O:28:LEU:HD22	2:O:74:LEU:HB2	1.67	0.77
1:A:2948:GLY:HA3	1:A:2954:GLN:HE21	1.50	0.77
5:h:35:ARG:HH21	5:h:159:PHE:HB3	1.49	0.76
5:h:261:LEU:HA	5:h:345:LEU:HB2	1.66	0.76
1:F:1871:MET:HE2	1:F:1871:MET:HA	1.67	0.76
1:F:3162:ASN:ND2	1:F:3234:CYS:SG	2.59	0.76
1:F:3512:VAL:HA	1:F:3515:GLN:HE21	1.49	0.76
1:A:3958:LEU:HG	1:A:4060:THR:HG21	1.68	0.76
2:O:99:LYS:HE3	2:O:101:LEU:HB2	1.68	0.76
4:Q:129:SER:HA	4:R:44:VAL:HB	1.68	0.76
1:F:2572:TYR:HE1	1:F:2791:ILE:HD11	1.50	0.76
1:A:3639:GLU:HA	1:A:3642:LYS:HE3	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:198:ARG:HH12	5:h:315:ASP:HB2	1.49	0.76
5:h:336:GLU:HA	5:h:339:ARG:HG3	1.68	0.76
1:A:2791:ILE:HA	1:A:2794:LEU:HD12	1.67	0.75
2:O:22:VAL:HG23	2:O:35:THR:H	1.50	0.75
1:A:1685:ASP:HB3	1:A:1688:LEU:HG	1.68	0.75
1:F:213:ARG:HH21	6:j:548:VAL:H	1.33	0.75
1:F:3574:ALA:HB1	1:F:3681:LYS:HE2	1.68	0.75
8:D:27:DT:H2''	8:D:28:DA:C5	2.21	0.75
1:A:3359:ILE:HA	1:A:3362:LEU:HB3	1.69	0.75
1:F:1934:LEU:HD13	1:F:1937:ARG:HE	1.51	0.75
5:h:488:ARG:HG3	5:h:501:GLU:HG3	1.69	0.75
1:A:90:CYS:SG	1:A:133:LYS:NZ	2.60	0.74
2:K:24:TRP:HA	2:K:33:VAL:H	1.52	0.74
3:P:800:GLU:HA	3:P:805:TRP:HB2	1.69	0.74
1:A:105:VAL:O	1:A:108:LYS:HB3	1.88	0.74
2:L:96:PHE:HA	2:L:109:GLY:HA3	1.68	0.74
1:F:2526:SER:HA	1:F:2531:LEU:HD12	1.67	0.74
1:A:3084:GLN:HE22	1:A:3134:ALA:HB1	1.53	0.74
1:A:3638:LYS:HZ3	1:A:3642:LYS:HE2	1.53	0.74
3:M:719:ASP:HA	3:M:746:MET:HA	1.69	0.74
6:j:682:GLY:O	6:j:686:ILE:N	2.21	0.74
1:A:197:PHE:O	1:A:246:ARG:NH2	2.21	0.74
1:F:2981:TRP:HD1	1:F:2985:GLU:HG2	1.53	0.74
2:K:45:GLY:HA3	2:K:113:LEU:HD13	1.70	0.74
1:F:1296:PHE:HA	1:F:1299:GLU:HG2	1.68	0.74
1:F:919:LEU:HG	1:F:920:THR:HG23	1.68	0.74
6:b:630:PRO:HA	6:b:633:MET:HG2	1.68	0.74
1:A:3559:LYS:HA	1:A:3562:LEU:HG	1.70	0.74
1:F:213:ARG:HG2	5:h:404:ARG:HD3	1.68	0.74
3:P:902:GLU:OE1	3:P:904:GLN:NE2	2.20	0.74
1:A:1590:THR:HG21	1:A:1641:THR:HG23	1.70	0.73
1:F:72:SER:H	1:F:82:ARG:NH2	1.85	0.73
5:h:288:LEU:HD23	5:h:293:ASN:HB3	1.70	0.73
5:h:358:LYS:HA	6:j:353:ARG:HH22	1.52	0.73
1:A:1686:LEU:HA	1:A:1689:LYS:HD2	1.70	0.73
1:A:2367:VAL:O	1:A:2371:PHE:N	2.21	0.73
1:A:1805:PHE:HZ	1:A:1869:LYS:HA	1.52	0.73
1:A:3901:ARG:HH11	1:A:3971:MET:HE2	1.51	0.73
9:E:44:DG:H2''	9:E:45:DG:H3'	1.70	0.73
1:A:1766:LEU:HD11	1:A:1775:GLU:HG2	1.71	0.73
1:F:785:MET:HA	1:F:788:TYR:CZ	2.23	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3269:ARG:HB2	1:F:3272:TRP:HB3	1.69	0.73
3:M:797:ALA:HB2	3:M:814:ARG:HB3	1.70	0.73
1:F:210:SER:N	6:j:552:GLU:OE1	2.22	0.73
5:h:444:ARG:HH21	6:j:242:ARG:HB2	1.54	0.73
1:F:2940:ARG:NH2	1:F:3978:GLY:O	2.21	0.73
2:K:97:PHE:H	2:K:109:GLY:HA3	1.51	0.73
3:P:708:ARG:NH2	6:j:322:PRO:O	2.21	0.73
1:A:2893:LEU:HD23	1:A:2926:LEU:HG	1.70	0.73
1:F:2124:SER:H	1:F:2126:MET:HE1	1.52	0.73
2:O:163:GLU:HA	3:P:846:ARG:HH22	1.53	0.73
1:A:3831:ASP:HB3	1:A:3832:PRO:HD3	1.71	0.73
1:A:2138:VAL:O	1:A:2143:ARG:NH2	2.22	0.73
1:F:675:ARG:HA	1:F:678:LYS:HE2	1.70	0.73
1:F:3048:LYS:HA	1:F:3051:LEU:HD12	1.71	0.73
3:P:814:ARG:H	3:P:850:ALA:H	1.37	0.73
1:A:3301:LEU:HB3	1:A:3304:VAL:HA	1.71	0.72
1:F:1420:ARG:NH2	1:F:1465:HIS:O	2.21	0.72
2:K:17:THR:H	2:L:124:ARG:HE	1.35	0.72
4:Q:185:GLU:HG3	4:Q:188:SER:HB3	1.71	0.72
5:h:171:ASN:ND2	5:h:206:LYS:O	2.22	0.72
1:A:3354:ASP:O	1:A:3358:ARG:NH1	2.22	0.72
1:A:3898:LEU:HD22	1:A:3901:ARG:HH21	1.52	0.72
2:K:1:MET:HG2	2:K:23:SER:HB2	1.72	0.72
2:O:31:GLY:H	2:O:52:ILE:HG21	1.54	0.72
1:F:3982:SER:O	1:F:3986:HIS:ND1	2.22	0.72
4:Q:136:ILE:HG23	4:Q:139:LEU:HD23	1.71	0.72
1:F:1751:GLU:O	1:F:1788:ARG:NH1	2.22	0.72
6:j:347:LYS:H	6:j:350:GLN:HE21	1.36	0.72
1:A:901:MET:HG2	1:A:903:PRO:HD3	1.72	0.72
1:A:2133:LEU:HD11	1:A:2171:LEU:HD22	1.71	0.72
1:F:3380:ARG:O	1:F:3384:HIS:ND1	2.23	0.72
1:A:128:LEU:HD21	1:A:170:VAL:HB	1.72	0.72
1:A:4055:ASN:HB2	1:A:4095:GLU:HA	1.70	0.72
1:F:2307:MET:HE1	1:F:2320:ALA:HB2	1.72	0.72
1:F:3713:PRO:O	1:F:3716:HIS:NE2	2.22	0.72
4:R:210:PHE:HA	4:R:214:LEU:HD12	1.72	0.72
1:A:3029:LYS:N	1:A:3032:SER:HG	1.87	0.72
6:b:448:GLU:HA	6:b:451:LEU:HD12	1.71	0.72
1:F:988:VAL:HA	1:F:991:LEU:HD12	1.70	0.72
1:F:2967:GLU:O	1:F:2971:GLN:NE2	2.21	0.72
1:F:3278:GLN:HB3	1:F:3282:ARG:HH12	1.54	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:415:GLN:O	1:A:463:LYS:NZ	2.22	0.72
1:F:899:ARG:HH22	1:F:2566:THR:HA	1.55	0.72
1:F:338:LEU:HD21	6:j:568:LYS:HD2	1.71	0.71
1:F:415:GLN:O	1:F:463:LYS:NZ	2.23	0.71
2:K:29:GLU:HA	2:K:52:ILE:HG21	1.72	0.71
6:b:312:GLN:NE2	6:b:323:PHE:O	2.22	0.71
1:F:958:MET:HB3	1:F:961:LEU:HB3	1.71	0.71
4:R:131:VAL:HG13	4:R:135:LEU:HD22	1.71	0.71
4:R:142:MET:HA	4:R:221:VAL:HG22	1.71	0.71
5:h:484:GLN:NE2	6:j:428:GLU:OE2	2.23	0.71
6:j:345:PHE:HB3	6:j:389:MET:HE2	1.73	0.71
1:A:1169:VAL:HG11	1:A:1198:LEU:HD11	1.70	0.71
1:F:1821:ASP:OD1	1:F:1875:LYS:NZ	2.23	0.71
3:M:887:LYS:HG2	3:M:911:ILE:HG23	1.72	0.71
1:A:3718:ARG:H	1:A:3743:HIS:CE1	2.08	0.71
3:M:809:PRO:O	3:M:848:HIS:ND1	2.23	0.71
2:N:10:LEU:HD21	2:N:18:HIS:HD2	1.55	0.71
1:A:793:LEU:HD12	1:A:869:ASN:HB2	1.71	0.71
1:F:847:SER:N	1:F:850:GLU:OE2	2.23	0.71
1:F:1210:ASP:HA	1:F:1213:LYS:HD2	1.72	0.71
1:F:2941:GLY:HA3	1:F:3974:MET:HE1	1.72	0.71
3:P:841:LYS:HD3	3:P:867:GLU:H	1.54	0.71
5:h:289:TYR:HD2	5:h:291:GLU:H	1.39	0.71
6:j:165:LEU:O	6:j:227:PHE:N	2.20	0.71
1:A:2577:PHE:O	1:A:2784:GLN:NE2	2.24	0.71
1:A:3192:LYS:HD2	1:A:3196:LYS:HZ1	1.55	0.71
1:F:933:LEU:HB2	1:F:2793:PRO:HB2	1.72	0.71
1:F:2298:GLU:HG2	1:F:2301:GLN:HB3	1.72	0.71
2:N:102:LYS:HZ2	4:Q:79:LEU:HD13	1.56	0.71
4:Q:156:LEU:HG	4:Q:160:LYS:HD2	1.73	0.71
5:h:35:ARG:O	5:h:162:SER:N	2.23	0.71
1:F:3090:TYR:HB3	1:F:3095:ASP:HB3	1.73	0.71
1:A:3811:THR:HG23	1:A:3814:ASP:H	1.55	0.71
1:F:469:ALA:HA	1:F:475:LEU:HD13	1.73	0.71
1:F:1045:THR:HB	1:F:1048:GLN:HG2	1.72	0.71
5:a:317:LYS:HE2	5:a:328:ILE:HG22	1.73	0.71
1:A:1028:PHE:HA	1:A:1031:ARG:HE	1.55	0.70
1:F:2380:ASN:OD1	1:F:2381:ALA:N	2.23	0.70
6:j:497:ARG:HD3	6:j:501:PRO:HA	1.73	0.70
1:A:449:TYR:O	1:A:454:GLN:NE2	2.24	0.70
1:A:455:LEU:HB2	1:A:459:ARG:HH21	1.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1611:GLN:NE2	1:A:1614:GLN:OE1	2.24	0.70
2:O:10:LEU:HB3	2:O:13:GLU:H	1.56	0.70
4:Q:1:MET:HE1	4:Q:3:GLU:HG3	1.73	0.70
1:A:527:TYR:O	1:A:530:LEU:HB3	1.91	0.70
1:A:1766:LEU:O	1:A:1822:ARG:NH1	2.24	0.70
1:F:1568:ASN:HA	1:F:1600:MET:HE1	1.73	0.70
2:L:158:VAL:HA	2:L:161:ARG:HG2	1.72	0.70
2:N:192:ARG:NH2	3:P:768:ASP:OD1	2.25	0.70
4:Q:130:LEU:CA	4:R:42:GLN:HA	2.21	0.70
5:a:403:ARG:NH1	9:E:31:DA:O3'	2.25	0.70
5:h:325:ARG:NH2	6:j:89:ASP:OD1	2.24	0.70
1:A:718:MET:HB2	1:A:726:LEU:HD11	1.74	0.70
1:A:4115:ASN:OD1	1:A:4116:ILE:N	2.23	0.70
2:L:178:LYS:HG3	3:M:792:MET:HE3	1.71	0.70
4:Q:132:SER:HA	4:R:40:ASP:N	2.05	0.70
1:F:89:LEU:HB3	1:F:133:LYS:HE2	1.74	0.70
1:F:1307:ILE:HG23	1:F:1309:ALA:H	1.55	0.70
1:F:1934:LEU:HD22	1:F:1937:ARG:HH21	1.56	0.70
5:h:161:MET:O	5:h:164:LYS:NZ	2.23	0.70
2:N:174:THR:HG22	2:N:178:LYS:HZ2	1.56	0.70
4:R:36:LEU:O	4:R:46:HIS:NE2	2.25	0.70
5:a:173:ASP:HB2	5:a:216:PHE:HB3	1.74	0.70
1:A:908:ASP:HA	1:A:911:LEU:HD23	1.73	0.70
1:A:1117:ASP:O	1:A:1119:LYS:NZ	2.21	0.70
1:A:3581:PRO:HB2	1:A:3617:LEU:HD11	1.74	0.70
1:F:1071:ASN:HD21	1:F:1073:PHE:HB2	1.55	0.70
3:P:671:ASP:HB3	3:P:723:PRO:HG3	1.74	0.70
1:A:1867:ILE:HA	1:A:1870:LYS:HD2	1.74	0.70
1:F:2157:PHE:HB2	1:F:2160:TYR:HB3	1.74	0.70
1:F:2891:ARG:HD3	1:F:3898:LEU:HD11	1.73	0.70
1:F:3681:LYS:HD3	1:F:3687:MET:HG3	1.73	0.70
5:h:40:PHE:HB2	5:h:85:VAL:HG12	1.74	0.70
5:h:77:SER:O	5:h:249:LYS:NZ	2.20	0.70
1:A:2514:ASN:HD22	1:A:2517:LEU:HG	1.56	0.70
1:F:2327:LEU:O	1:F:2333:ARG:NH2	2.24	0.70
2:K:128:CYS:HA	2:L:7:ARG:HH12	1.56	0.70
10:I:36:DA:H2	11:J:22:DG:H1	1.37	0.70
1:A:2127:LYS:NZ	1:A:2160:TYR:OH	2.24	0.69
1:F:449:TYR:O	1:F:454:GLN:NE2	2.24	0.69
6:b:485:PRO:HA	6:b:488:GLN:HE21	1.57	0.69
1:A:142:ARG:NH2	1:A:181:LEU:O	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2526:SER:O	1:A:2538:ARG:NH2	2.26	0.69
1:A:3608:LYS:HG3	1:A:3612:ARG:HE	1.57	0.69
1:F:1568:ASN:HD22	1:F:1603:GLN:HB2	1.57	0.69
1:F:1766:LEU:HD11	1:F:1775:GLU:HG2	1.73	0.69
2:K:96:PHE:HA	2:K:110:SER:H	1.57	0.69
6:b:381:ILE:HD13	6:b:417:GLU:HB3	1.74	0.69
1:A:3465:PHE:HA	1:A:3468:LEU:HD12	1.72	0.69
1:F:2260:PHE:O	1:F:2270:ASN:ND2	2.24	0.69
2:N:3:ARG:HH22	2:N:122:VAL:HG23	1.57	0.69
1:A:1803:GLU:HA	1:A:1806:ARG:HH21	1.56	0.69
1:A:2967:GLU:HA	1:A:2970:LYS:HE2	1.74	0.69
1:F:2424:MET:HE1	1:F:2457:PRO:HB2	1.74	0.69
1:F:3266:SER:HB3	1:F:3273:LEU:HA	1.72	0.69
1:F:3928:PHE:HE1	1:F:3962:ARG:HG3	1.57	0.69
6:j:329:GLU:O	6:j:334:LYS:NZ	2.25	0.69
9:E:26:DA:C2	9:E:27:DC:H2'	2.28	0.69
10:I:40:DT:N3	11:J:18:DA:H8	1.91	0.69
6:b:44:ARG:HB3	6:b:238:LYS:HG3	1.74	0.69
1:A:93:LEU:HD22	1:A:136:GLN:HB3	1.75	0.69
1:F:2274:ILE:HA	1:F:2277:LEU:HD12	1.74	0.69
1:A:715:ALA:O	1:A:719:LYS:NZ	2.24	0.69
1:A:1139:GLU:HA	1:A:1197:LEU:HD11	1.75	0.69
1:F:2168:LEU:O	1:F:2172:ALA:N	2.24	0.69
1:F:3114:TYR:HA	1:F:3117:ILE:HD12	1.73	0.69
1:F:3740:ILE:O	1:F:3748:HIS:N	2.22	0.69
1:F:3811:THR:HG23	1:F:3814:ASP:H	1.58	0.69
1:F:3999:THR:HA	1:F:4002:MET:HE1	1.75	0.69
2:N:22:VAL:HG11	2:N:71:ARG:HH12	1.57	0.69
4:Q:136:ILE:HA	4:Q:139:LEU:HB3	1.74	0.69
5:a:400:TYR:O	5:a:408:PRO:HA	1.93	0.69
1:A:4008:GLU:HG3	1:A:4011:PHE:HB2	1.72	0.69
1:F:105:VAL:O	1:F:109:ASN:ND2	2.25	0.69
1:F:3554:PHE:HA	1:F:3557:ARG:HE	1.58	0.69
1:F:3796:MET:H	1:F:3801:GLY:HA2	1.58	0.69
1:A:3123:GLN:OE1	1:A:3123:GLN:N	2.24	0.69
1:F:802:THR:O	1:F:852:ARG:NH1	2.25	0.69
1:F:1379:PRO:O	1:F:1382:ILE:HG12	1.92	0.69
3:P:681:ARG:HH21	3:P:730:PHE:HB3	1.57	0.69
1:F:1156:GLY:O	1:F:1171:TRP:NE1	2.25	0.68
1:F:3609:MET:HA	1:F:3612:ARG:HE	1.56	0.68
1:F:3913:ILE:HD12	1:F:3984:MET:HB2	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:j:248:PRO:O	6:j:338:LYS:NZ	2.25	0.68
1:A:1829:TRP:O	1:A:1883:ARG:NH2	2.26	0.68
2:K:187:LYS:HA	2:K:190:LYS:HD2	1.75	0.68
4:Q:144:LEU:HG	4:R:214:LEU:HD11	1.75	0.68
5:a:101:ASN:ND2	5:a:140:ASP:O	2.25	0.68
5:h:290:ARG:NH2	6:j:310:ILE:O	2.26	0.68
6:j:66:ASN:ND2	6:j:74:TYR:O	2.25	0.68
1:A:419:SER:HB3	1:A:463:LYS:HZ1	1.57	0.68
1:A:2510:LEU:O	1:A:2518:GLN:NE2	2.26	0.68
1:A:3311:ASN:HB2	1:A:3314:SER:HA	1.75	0.68
1:F:2928:LYS:O	1:F:2932:SER:N	2.25	0.68
4:R:136:ILE:HG23	4:R:139:LEU:HD12	1.76	0.68
1:F:753:GLN:HE22	1:F:792:ILE:HA	1.56	0.68
1:F:1196:PRO:HG3	1:F:1203:SER:HB2	1.74	0.68
1:F:1415:LEU:O	1:F:1419:LEU:N	2.22	0.68
3:M:819:TYR:HB3	3:M:863:VAL:HG22	1.76	0.68
6:b:116:ASP:O	6:b:120:HIS:ND1	2.26	0.68
5:h:85:VAL:HG23	5:h:105:LEU:HB3	1.75	0.68
6:j:81:ARG:HD2	6:j:90:LEU:HD13	1.75	0.68
10:I:29:DA:H1'	10:I:30:DA:C8	2.28	0.68
1:A:1397:ASP:OD1	1:A:1398:VAL:N	2.26	0.68
1:A:2437:ASP:OD1	1:A:2472:GLN:NE2	2.26	0.68
1:A:2535:THR:HG22	1:A:2565:MET:HE1	1.74	0.68
1:A:3110:PHE:HE1	1:A:3128:LYS:HG3	1.59	0.68
1:F:1528:LEU:HD23	1:F:1531:LEU:HD12	1.74	0.68
1:F:1851:LEU:O	1:F:1870:LYS:NZ	2.26	0.68
1:F:3755:GLY:HA2	1:F:3799:ARG:HA	1.76	0.68
1:F:3929:MET:O	1:F:3938:ILE:N	2.23	0.68
2:L:59:MET:HB2	2:L:61:MET:HE1	1.76	0.68
6:b:553:ILE:HG23	6:b:555:GLN:H	1.57	0.68
1:A:2151:ILE:HG12	1:A:2192:THR:HG21	1.76	0.68
1:A:2746:LYS:HD2	8:D:14:DA:N7	2.08	0.68
1:F:2479:TRP:O	1:F:2483:ASN:ND2	2.21	0.68
2:O:10:LEU:HD21	2:O:38:ASP:HA	1.75	0.68
3:P:889:LEU:HD12	3:P:903:LEU:HG	1.75	0.68
6:b:365:PHE:CE1	6:b:418:CYS:HB3	2.29	0.68
6:j:599:ARG:HH21	6:j:602:VAL:HG21	1.58	0.68
1:A:2507:ILE:HA	1:A:2510:LEU:HD23	1.75	0.68
2:N:29:GLU:HB3	2:N:52:ILE:HD11	1.76	0.68
3:P:758:TYR:HA	3:P:764:SER:HA	1.75	0.68
1:A:2988:GLU:HA	1:A:2991:LYS:HE2	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2986:PRO:O	1:F:2991:LYS:NZ	2.27	0.68
1:F:3897:PHE:HD2	1:F:3898:LEU:HD12	1.57	0.68
5:a:229:LEU:HD23	5:a:230:ARG:HH11	1.59	0.68
5:h:173:ASP:HB2	5:h:216:PHE:HB3	1.74	0.68
1:A:1415:LEU:O	1:A:1419:LEU:N	2.25	0.68
1:A:3677:PRO:HG2	1:A:3682:GLU:H	1.59	0.68
1:F:1071:ASN:HD22	1:F:1074:LYS:HG3	1.57	0.68
1:F:1505:LEU:HA	1:F:1508:LYS:HD2	1.76	0.68
4:Q:136:ILE:HB	4:R:40:ASP:HA	1.76	0.68
4:R:8:LEU:HG	4:R:37:LEU:HD12	1.76	0.68
6:b:628:GLU:HB2	6:b:631:TYR:HB2	1.76	0.68
6:j:529:PRO:HA	6:j:532:LYS:HG2	1.76	0.68
1:F:1685:ASP:HB3	1:F:1688:LEU:HG	1.75	0.68
4:R:9:LEU:HD13	4:R:134:HIS:HB3	1.76	0.68
5:a:471:PHE:HB3	7:c:201:PHE:HD1	1.59	0.68
5:h:416:GLN:HE21	5:h:428:THR:HG23	1.57	0.68
1:A:2232:ARG:HD2	1:A:2235:LEU:HD12	1.76	0.67
1:A:3686:TRP:HA	1:A:3689:ASP:HB3	1.76	0.67
1:F:61:ARG:NH1	1:F:62:ASP:OD1	2.26	0.67
1:F:207:GLN:NE2	1:F:215:PRO:O	2.27	0.67
2:L:174:THR:HG23	3:M:792:MET:HG2	1.76	0.67
3:M:818:VAL:HG21	3:M:845:LEU:HD22	1.76	0.67
4:Q:184:PHE:HB2	4:R:160:LYS:HD2	1.76	0.67
1:F:3954:PRO:O	1:F:4068:HIS:NE2	2.25	0.67
4:R:107:ARG:HH21	4:R:121:PHE:H	1.41	0.67
1:A:1151:ARG:HB2	1:A:1163:LEU:HD12	1.76	0.67
1:F:865:GLN:N	1:F:3170:ASP:OD1	2.27	0.67
1:F:1685:ASP:OD1	1:F:1738:ASN:ND2	2.26	0.67
4:Q:77:ASP:O	4:Q:81:ARG:NH1	2.27	0.67
1:A:3085:GLU:OE1	1:A:3085:GLU:N	2.27	0.67
1:F:3727:THR:O	1:F:3737:ARG:N	2.28	0.67
5:a:126:GLN:OE1	5:a:130:ARG:NH1	2.26	0.67
1:A:3321:LEU:HD13	1:A:3324:ARG:HH12	1.59	0.67
1:F:1067:ALA:HA	1:F:1075:ARG:HA	1.76	0.67
1:F:1771:GLN:HA	1:F:1775:GLU:HG3	1.77	0.67
1:F:3878:VAL:O	1:F:3965:ARG:NH1	2.26	0.67
1:F:378:ALA:O	1:F:381:VAL:HB	1.93	0.67
3:M:728:GLU:OE2	3:M:739:GLN:NE2	2.27	0.67
3:P:813:PHE:HB2	3:P:848:HIS:HD2	1.58	0.67
6:b:610:GLU:HA	6:b:654:ARG:HH22	1.60	0.67
1:A:3675:LYS:NZ	1:A:3676:PRO:O	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:711:ASN:OD1	6:b:330:GLN:NE2	2.27	0.67
3:P:654:LYS:N	3:P:660:GLU:OE2	2.27	0.67
6:b:621:GLU:HA	6:b:624:LEU:HD12	1.76	0.67
5:h:339:ARG:NH1	5:h:405:ASN:OD1	2.28	0.67
6:j:663:GLN:NE2	6:j:667:GLU:OE2	2.27	0.67
1:A:1568:ASN:HA	1:A:1600:MET:HE1	1.75	0.67
1:A:1643:MET:HE2	1:A:1688:LEU:HD11	1.75	0.67
1:A:2274:ILE:HD13	1:A:2319:ALA:HB2	1.77	0.67
1:A:3312:VAL:O	1:A:3316:LEU:N	2.25	0.67
1:F:66:LEU:O	1:F:70:ARG:N	2.25	0.67
1:F:530:LEU:O	1:F:534:LEU:N	2.26	0.67
1:F:2372:PRO:O	1:F:2404:ARG:NH1	2.28	0.67
4:R:175:ILE:HG12	4:R:179:LEU:HD11	1.77	0.67
5:a:289:TYR:HB2	5:a:293:ASN:N	2.10	0.67
1:A:652:GLU:HA	1:A:655:LEU:HD12	1.77	0.67
1:F:1766:LEU:O	1:F:1822:ARG:NH1	2.27	0.67
1:A:3924:HIS:O	1:A:3927:ASN:ND2	2.28	0.67
1:F:1013:ILE:HA	1:F:1017:ILE:HD12	1.76	0.67
1:F:2311:ARG:NH1	1:F:2311:ARG:O	2.27	0.67
1:F:3763:ARG:NH1	1:F:4002:MET:O	2.28	0.67
1:F:3835:PRO:HA	1:F:3839:TYR:HB2	1.77	0.67
1:F:3873:LYS:O	1:F:3877:LYS:HB2	1.94	0.67
2:K:33:VAL:HG13	2:K:46:THR:HG22	1.77	0.67
3:M:843:LEU:O	3:M:847:PHE:HB3	1.95	0.67
5:a:348:MET:HB2	5:a:397:LEU:HG	1.77	0.67
6:b:44:ARG:NH1	6:b:236:VAL:O	2.27	0.67
1:A:1740:VAL:HA	1:A:1743:MET:SD	2.34	0.66
1:A:3806:LEU:HD22	1:A:3809:THR:HB	1.76	0.66
1:F:884:VAL:HG21	1:F:3933:GLU:HA	1.77	0.66
1:F:1424:THR:O	1:F:1426:GLN:NE2	2.27	0.66
1:F:2229:ALA:O	1:F:2233:HIS:N	2.24	0.66
3:P:814:ARG:N	3:P:850:ALA:H	1.91	0.66
5:a:289:TYR:HB3	5:a:291:GLU:H	1.60	0.66
5:h:346:MET:HB2	5:h:399:ARG:HB3	1.78	0.66
2:N:159:GLN:OE1	2:O:161:ARG:NH2	2.28	0.66
1:A:1782:PHE:HD1	1:A:1827:LEU:HD21	1.60	0.66
1:A:3254:LEU:N	1:A:3256:MET:SD	2.68	0.66
1:F:3585:PHE:HD1	1:F:3613:MET:HE2	1.60	0.66
6:j:253:ILE:HD12	6:j:257:LEU:HD23	1.76	0.66
6:j:509:GLN:OE1	6:j:511:HIS:NE2	2.24	0.66
1:F:2234:ASN:HA	1:F:2237:ILE:HD12	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3992:ARG:NH1	1:F:4051:LEU:O	2.29	0.66
3:M:701:ILE:HD12	3:M:726:LEU:HD21	1.77	0.66
1:A:418:ALA:HB2	1:A:464:VAL:HG12	1.76	0.66
1:F:3582:GLU:O	1:F:3586:LYS:NZ	2.26	0.66
3:M:811:SER:HB2	3:M:814:ARG:HH21	1.60	0.66
5:a:125:GLN:O	5:a:128:GLN:NE2	2.26	0.66
11:J:20:DT:H2'	11:J:21:DA:C8	2.29	0.66
1:F:71:LYS:HB2	1:F:82:ARG:NH2	2.11	0.66
1:F:3722:PHE:HA	1:F:3741:ARG:HB3	1.77	0.66
6:j:688:LYS:HG2	6:j:700:GLU:HB3	1.77	0.66
1:A:86:LEU:O	1:A:133:LYS:NZ	2.27	0.66
1:A:675:ARG:HA	1:A:678:LYS:HE2	1.77	0.66
1:A:723:ASP:C	1:A:725:LEU:H	2.03	0.66
1:A:934:LEU:HA	1:A:937:MET:HE3	1.77	0.66
1:F:2584:CYS:SG	1:F:2585:GLU:N	2.68	0.66
1:F:2891:ARG:HG2	1:F:3894:PRO:HB3	1.78	0.66
1:F:3970:LEU:HG	1:F:3971:MET:SD	2.36	0.66
3:P:890:LYS:N	3:P:904:GLN:O	2.26	0.66
6:j:510:GLN:HA	6:j:513:TRP:HD1	1.60	0.66
1:F:2791:ILE:HA	1:F:2794:LEU:HD12	1.78	0.66
1:F:3126:LEU:O	1:F:3130:GLN:NE2	2.24	0.66
5:h:206:LYS:HA	5:h:235:GLU:HB3	1.78	0.66
10:I:42:DA:N6	11:J:19:DA:OP2	2.28	0.66
1:F:803:SER:HA	1:F:852:ARG:HH12	1.61	0.66
1:F:1231:GLN:HA	1:F:1289:SER:HB2	1.76	0.66
1:F:2931:ARG:HH22	1:F:3000:ASP:HB3	1.61	0.66
1:A:782:ARG:HA	1:A:785:MET:HE2	1.78	0.66
1:F:1871:MET:CE	1:F:1940:TYR:HA	2.26	0.66
3:M:741:ARG:NH2	3:M:762:GLY:O	2.29	0.66
1:A:738:HIS:O	1:A:742:GLU:HG3	1.95	0.65
1:F:145:ASP:O	1:F:148:LYS:NZ	2.26	0.65
1:F:538:ASP:HA	1:F:541:MET:HG3	1.76	0.65
2:K:164:LYS:NZ	3:M:897:SER:O	2.29	0.65
4:R:49:VAL:HG11	4:R:57:ARG:HH21	1.62	0.65
1:A:82:ARG:HA	1:A:85:ILE:HD12	1.78	0.65
1:A:1416:GLU:HA	1:A:1419:LEU:HB3	1.78	0.65
1:A:2986:PRO:O	1:A:2991:LYS:NZ	2.29	0.65
1:A:3588:TRP:HE1	1:A:3609:MET:CG	2.09	0.65
1:A:3680:LEU:HA	1:A:3724:GLU:HB3	1.76	0.65
1:F:2254:ARG:NH2	1:F:2292:CYS:SG	2.69	0.65
4:R:161:ASP:HB3	4:R:183:PRO:HA	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:h:418:GLU:HB2	5:h:430:PRO:HB3	1.77	0.65
1:A:531:PHE:HA	1:A:534:LEU:HB2	1.78	0.65
1:A:1071:ASN:ND2	1:A:1073:PHE:HB2	2.11	0.65
1:A:2404:ARG:NH2	1:A:2406:GLU:OE2	2.29	0.65
1:F:1444:ASP:HA	1:F:1447:ARG:HH21	1.61	0.65
1:F:3157:LEU:O	1:F:3161:LEU:N	2.29	0.65
1:F:3758:LEU:HB2	1:F:3795:PRO:HB3	1.78	0.65
1:F:3924:HIS:O	1:F:3927:ASN:ND2	2.28	0.65
5:h:90:THR:HA	5:h:137:HIS:HA	1.79	0.65
5:h:403:ARG:NH1	10:I:32:DA:OP2	2.30	0.65
6:j:246:HIS:ND1	6:j:264:TYR:OH	2.23	0.65
8:D:25:DT:N3	9:E:33:DA:OP1	2.25	0.65
1:F:2532:PRO:HD2	1:F:2538:ARG:HA	1.78	0.65
2:N:168:ALA:HB1	3:P:810:LEU:HD21	1.78	0.65
2:O:20:LEU:HD22	2:O:37:THR:HG22	1.78	0.65
3:P:746:MET:O	3:P:751:LYS:NZ	2.30	0.65
4:R:207:GLY:HA2	4:R:210:PHE:HB3	1.78	0.65
1:F:2437:ASP:OD1	1:F:2472:GLN:NE2	2.30	0.65
1:F:3828:TYR:CE1	1:F:3879:PRO:HD3	2.31	0.65
1:F:3994:ASP:HB3	1:F:3998:LEU:HG	1.77	0.65
4:Q:57:ARG:HD2	4:Q:121:PHE:HA	1.79	0.65
5:h:74:LYS:NZ	7:i:187:ASN:OD1	2.30	0.65
10:I:28:DT:H2''	10:I:29:DA:C4	2.31	0.65
11:J:31:DT:H1'	11:J:32:DT:H5'	1.79	0.65
1:A:759:GLY:HA3	1:A:766:ALA:HB2	1.79	0.65
1:A:902:LYS:HE3	1:F:2570:PRO:HG2	1.78	0.65
1:F:98:GLN:HE21	1:F:101:ALA:HB2	1.61	0.65
1:F:326:MET:O	1:F:330:ASN:ND2	2.29	0.65
1:F:3348:LEU:O	1:F:3352:GLU:N	2.30	0.65
1:F:3581:PRO:HA	1:F:3584:LEU:HD13	1.77	0.65
3:M:746:MET:O	3:M:751:LYS:NZ	2.29	0.65
3:M:812:MET:HG3	3:M:903:LEU:HA	1.77	0.65
1:A:1630:ASP:HA	1:A:1633:TRP:HE1	1.62	0.65
1:A:1878:ASP:OD1	1:A:1879:VAL:N	2.30	0.65
1:A:2967:GLU:OE1	1:A:2967:GLU:N	2.30	0.65
1:F:2218:PHE:O	1:F:2222:HIS:ND1	2.30	0.65
1:F:3628:PHE:HA	1:F:3631:LYS:HE3	1.78	0.65
6:j:91:LEU:HA	6:j:94:ILE:HD12	1.79	0.65
1:A:4114:PRO:HA	1:A:4117:LEU:HD12	1.79	0.65
1:F:3720:ALA:HB3	1:F:3743:HIS:HB3	1.79	0.65
3:P:820:LEU:HD21	3:P:841:LYS:HD2	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:h:353:LEU:HD12	5:h:393:GLU:HG2	1.78	0.65
9:E:39:DA:N6	9:E:40:DT:O4	2.29	0.65
1:A:31:GLY:HA2	1:A:34:LEU:HD12	1.78	0.65
1:A:1603:GLN:HA	1:A:1606:ARG:HE	1.62	0.65
1:A:2733:MET:HE2	1:A:2737:GLU:HB3	1.77	0.65
1:F:2894:GLU:HG3	1:F:3973:PRO:HG3	1.78	0.65
2:K:19:PHE:CZ	2:L:127:ILE:HG23	2.32	0.65
5:h:176:HIS:HA	5:h:182:LYS:HE3	1.79	0.65
6:j:400:ARG:HH22	11:J:33:DA:H1'	1.62	0.65
1:A:87:LYS:NZ	1:A:829:VAL:O	2.30	0.65
1:A:1307:ILE:HG23	1:A:1309:ALA:H	1.60	0.65
1:A:1848:ILE:HG12	1:A:1915:LEU:HD21	1.78	0.65
1:A:2252:PRO:O	1:A:2291:GLN:NE2	2.30	0.65
1:A:2271:SER:O	1:A:2275:GLN:NE2	2.22	0.65
1:A:3948:SER:O	1:A:3952:PHE:N	2.30	0.65
1:F:2430:GLU:OE1	1:F:2430:GLU:N	2.19	0.65
1:F:3085:GLU:HA	1:F:3088:LEU:HD12	1.79	0.65
2:K:158:VAL:HG12	3:M:840:ILE:HG13	1.79	0.65
5:a:488:ARG:HG2	5:a:501:GLU:HB3	1.77	0.65
6:j:260:ARG:HB2	6:j:367:ALA:HB2	1.78	0.65
1:F:2569:SER:HB2	1:F:2572:TYR:HB2	1.79	0.64
2:L:51:GLU:O	2:L:54:GLN:NE2	2.31	0.64
3:P:814:ARG:N	3:P:850:ALA:O	2.30	0.64
4:Q:5:GLU:OE2	4:Q:48:GLN:NE2	2.29	0.64
1:A:79:ARG:HE	1:A:82:ARG:HE	1.43	0.64
1:A:724:GLU:HB3	1:A:2600:THR:H	1.62	0.64
1:A:785:MET:HA	1:A:788:TYR:CZ	2.32	0.64
1:A:935:HIS:HD2	1:A:2773:ARG:HH12	1.42	0.64
1:F:1815:THR:N	1:F:1818:SER:HG	1.95	0.64
1:F:3385:LEU:HB3	1:F:3416:LEU:HD12	1.79	0.64
2:K:99:LYS:HB3	2:K:108:LEU:HD22	1.80	0.64
2:O:36:LEU:HB2	2:O:43:TRP:HB2	1.79	0.64
5:h:352:PRO:HA	5:h:394:VAL:HA	1.79	0.64
1:A:2120:ARG:HH21	1:A:2159:PRO:HG2	1.63	0.64
1:F:643:GLU:HA	1:F:646:VAL:HG13	1.78	0.64
1:F:1254:LEU:HA	1:F:1257:LEU:HD12	1.80	0.64
1:F:2576:MET:SD	1:F:2576:MET:N	2.70	0.64
1:F:2937:ASP:HB3	1:F:3979:LEU:HA	1.79	0.64
6:b:261:ILE:HA	6:b:366:ALA:HA	1.80	0.64
5:h:92:LYS:NZ	5:h:135:MET:O	2.30	0.64
5:h:125:GLN:O	5:h:126:GLN:HG3	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:j:127:PHE:O	6:j:130:ARG:NH1	2.30	0.64
1:A:2851:PHE:HB3	1:A:2854:PHE:HB3	1.78	0.64
1:F:2570:PRO:O	1:F:2574:ASN:ND2	2.30	0.64
1:F:3512:VAL:HA	1:F:3515:GLN:NE2	2.11	0.64
2:N:152:LEU:HB2	2:O:151:LEU:HD13	1.80	0.64
6:j:62:ASP:HA	6:j:103:GLN:HG2	1.79	0.64
1:F:2376:ASP:HA	1:F:2379:MET:HG2	1.79	0.64
1:F:2866:ALA:HA	1:F:2869:LEU:HG	1.79	0.64
5:a:253:LYS:NZ	6:b:434:MET:O	2.30	0.64
5:h:286:ILE:O	6:j:313:GLY:N	2.26	0.64
1:A:1448:LEU:HD23	1:A:1510:LEU:HD22	1.78	0.64
1:A:2825:THR:HG23	1:A:2828:GLU:H	1.61	0.64
1:A:3158:LYS:HZ3	1:A:3162:ASN:HB3	1.61	0.64
1:A:3459:ASN:HA	1:A:3462:ARG:HD3	1.79	0.64
1:F:67:VAL:HA	1:F:71:LYS:HG2	1.79	0.64
1:F:3183:ILE:HB	1:F:3242:MET:HE3	1.80	0.64
1:F:3680:LEU:HD11	1:F:3688:SER:HA	1.80	0.64
2:O:43:TRP:HB3	2:O:115:LYS:HA	1.79	0.64
6:b:489:ARG:NH1	6:b:506:PRO:O	2.24	0.64
8:D:18:DA:H2"	8:D:19:DA:C8	2.32	0.64
1:A:217:LEU:N	1:A:218:PRO:HD2	2.13	0.64
1:A:997:ASN:HB3	1:A:1000:LYS:HG2	1.79	0.64
1:F:2824:LYS:O	1:F:2829:LYS:NZ	2.30	0.64
4:R:27:VAL:HG12	4:R:82:PRO:HA	1.80	0.64
4:R:36:LEU:HD13	4:R:106:LEU:HD22	1.80	0.64
5:a:157:VAL:HG12	5:a:159:PHE:H	1.63	0.64
1:A:1171:TRP:O	1:A:1175:HIS:ND1	2.30	0.64
1:A:2353:GLN:HB3	1:A:2360:PHE:HB2	1.80	0.64
1:A:3255:ALA:HB1	1:A:3258:LEU:HB3	1.80	0.64
1:F:584:GLU:N	1:F:613:HIS:O	2.31	0.64
1:F:3007:GLU:O	1:F:3011:LEU:HG	1.98	0.64
1:F:3787:GLN:NE2	1:F:3788:LEU:O	2.31	0.64
3:M:862:HIS:HA	3:M:886:PHE:HB2	1.80	0.64
2:O:37:THR:HA	2:O:42:ALA:HA	1.80	0.64
6:j:16:VAL:O	6:j:101:GLY:N	2.30	0.64
1:A:2257:PHE:HA	1:A:2260:PHE:CE2	2.33	0.64
1:A:3110:PHE:CE1	1:A:3128:LYS:HG3	2.32	0.64
1:F:380:ASP:O	1:F:383:PHE:HB3	1.96	0.64
1:F:2263:LYS:HE3	1:F:2265:PRO:HA	1.78	0.64
1:F:3094:ASP:OD1	1:F:3192:LYS:NZ	2.30	0.64
5:a:85:VAL:HG23	5:a:105:LEU:HB3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:h:463:LYS:HE3	6:j:383:ALA:HA	1.80	0.64
6:j:378:SER:O	6:j:382:HIS:ND1	2.30	0.64
11:J:17:DT:H2"	11:J:18:DA:C8	2.32	0.64
1:A:1322:THR:O	1:A:1326:GLU:N	2.31	0.64
1:A:1339:VAL:O	1:A:1343:GLU:HG2	1.97	0.64
1:A:1727:ARG:HH22	1:A:1731:PRO:HD3	1.62	0.64
1:A:3097:ASP:OD1	1:A:3098:ARG:N	2.31	0.64
1:F:3383:GLN:O	1:F:3387:GLU:HG3	1.97	0.64
4:Q:58:ALA:HB1	4:Q:67:ALA:HB3	1.79	0.64
5:h:470:ARG:HG3	7:i:202:ASP:HB2	1.80	0.64
1:A:736:LEU:HD12	1:A:740:ILE:HG21	1.80	0.63
1:A:2295:GLN:HG3	1:A:2298:GLU:HB3	1.80	0.63
5:h:86:VAL:HG22	5:h:104:VAL:HG23	1.79	0.63
5:h:253:LYS:NZ	6:j:434:MET:O	2.29	0.63
5:h:403:ARG:HG2	5:h:404:ARG:H	1.63	0.63
6:j:407:VAL:HB	6:j:424:LEU:HD11	1.80	0.63
6:j:630:PRO:HA	6:j:633:MET:HG2	1.79	0.63
1:A:225:LYS:NZ	1:A:267:VAL:O	2.30	0.63
1:A:1298:LEU:HG	1:A:1367:HIS:CE1	2.34	0.63
1:F:18:THR:O	1:F:22:ALA:N	2.28	0.63
1:F:584:GLU:HB2	1:F:613:HIS:HB3	1.79	0.63
1:F:1960:LYS:HD3	1:F:2125:TRP:HE1	1.63	0.63
1:F:3878:VAL:HG13	1:F:3965:ARG:HH11	1.63	0.63
2:K:34:ILE:O	2:K:45:GLY:N	2.31	0.63
2:N:59:MET:HG2	2:N:101:LEU:HB3	1.78	0.63
2:N:72:LYS:HD2	2:N:80:PRO:HD2	1.78	0.63
3:P:739:GLN:H	3:P:742:PHE:HE1	1.46	0.63
4:R:131:VAL:HA	4:R:135:LEU:HD13	1.79	0.63
1:A:1095:LEU:O	1:A:1099:PHE:N	2.30	0.63
1:F:332:GLU:HB2	1:F:335:LYS:HD2	1.79	0.63
1:F:382:ASP:O	1:F:385:TYR:HB3	1.99	0.63
1:F:1234:GLY:HA3	1:F:1292:LYS:NZ	2.13	0.63
1:F:2810:SER:HA	1:F:2861:ILE:HD11	1.80	0.63
1:F:3423:GLN:O	1:F:3427:GLU:N	2.30	0.63
2:N:194:LEU:HB3	2:O:194:LEU:HB3	1.80	0.63
3:P:814:ARG:HB2	3:P:847:PHE:N	2.14	0.63
6:b:13:CYS:HB2	6:b:134:ILE:HG12	1.79	0.63
6:b:316:TYR:N	6:b:319:ASP:O	2.31	0.63
6:j:489:ARG:NH1	6:j:506:PRO:O	2.32	0.63
1:F:3626:GLY:HA2	1:F:3677:PRO:HB3	1.80	0.63
3:M:827:ASN:HA	3:M:855:CYS:HA	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:151:LEU:HD22	2:O:152:LEU:HA	1.79	0.63
4:Q:158:HIS:CD2	4:Q:186:GLU:HG3	2.34	0.63
8:D:16:DA:H1'	9:E:42:DA:H61	1.62	0.63
1:A:585:ILE:O	1:A:611:ASN:ND2	2.31	0.63
1:A:1389:VAL:HG23	1:A:1391:VAL:HG22	1.80	0.63
1:A:3190:LEU:HD13	1:A:3231:ILE:HB	1.81	0.63
1:F:1448:LEU:HD11	1:F:1514:LEU:HD21	1.79	0.63
1:A:169:THR:HA	1:A:172:GLU:HG2	1.80	0.63
1:A:469:ALA:HA	1:A:475:LEU:HD22	1.81	0.63
1:F:1184:ARG:NH2	1:F:1265:GLU:OE1	2.31	0.63
1:F:1322:THR:O	1:F:1326:GLU:N	2.31	0.63
1:F:1512:SER:HA	1:F:1515:LEU:HD12	1.81	0.63
1:F:1711:ARG:O	1:F:1715:GLU:HG2	1.98	0.63
1:F:1936:ARG:HD3	1:F:1939:LEU:HD12	1.81	0.63
2:K:197:LYS:HE3	2:L:198:LEU:HD21	1.80	0.63
3:P:746:MET:HB2	3:P:750:THR:HB	1.81	0.63
5:h:414:VAL:HB	5:h:433:GLN:HB2	1.80	0.63
1:A:1115:HIS:CE1	1:A:1183:CYS:H	2.17	0.63
1:F:2307:MET:HE1	1:F:2363:CYS:HB3	1.81	0.63
1:F:2415:LEU:HB2	1:F:2420:PHE:HB2	1.81	0.63
1:F:3962:ARG:HA	1:F:4124:TRP:HZ2	1.63	0.63
3:M:761:TYR:HB2	3:M:777:VAL:HG13	1.81	0.63
4:Q:130:LEU:C	4:R:42:GLN:HA	2.24	0.63
6:b:599:ARG:HH21	6:b:602:VAL:HG21	1.64	0.63
6:j:76:ASN:HB2	6:j:105:ALA:HB2	1.81	0.63
1:F:1115:HIS:CE1	1:F:1183:CYS:H	2.14	0.63
2:K:3:ARG:HH12	2:K:35:THR:HG21	1.64	0.63
3:M:871:ARG:O	3:M:875:PHE:N	2.29	0.63
1:A:1251:GLN:HA	1:A:1254:LEU:HD12	1.81	0.63
1:A:1788:ARG:O	1:A:1794:GLN:NE2	2.32	0.63
1:A:2227:LYS:HB2	1:A:2230:VAL:HG22	1.80	0.63
1:A:3657:SER:N	1:A:3660:ASN:OD1	2.31	0.63
1:A:4050:LYS:HD3	1:A:4059:ILE:HG21	1.79	0.63
1:F:1771:GLN:HG3	1:F:1775:GLU:H	1.64	0.63
1:F:3757:ASP:OD1	1:F:3759:ARG:N	2.31	0.63
2:L:95:PHE:HB3	2:L:111:PHE:HB2	1.80	0.63
3:P:813:PHE:HB2	3:P:848:HIS:CD2	2.34	0.63
5:a:463:LYS:HA	6:b:387:LEU:HD11	1.81	0.63
6:j:11:VAL:HG22	6:j:55:ALA:HB3	1.81	0.63
10:I:44:DG:H2'	10:I:45:DG:H2'	1.81	0.63
1:A:2723:THR:HA	1:A:2726:LEU:HD13	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2943:PHE:O	1:A:2954:GLN:NE2	2.32	0.62
1:F:1060:PHE:HA	1:F:1063:LEU:HD12	1.81	0.62
1:F:1747:LEU:HD22	1:F:1777:LEU:HB3	1.81	0.62
2:L:175:ASP:HA	2:L:178:LYS:HD2	1.80	0.62
8:D:18:DA:H2'	8:D:18:DA:N3	2.13	0.62
1:A:3142:ILE:HA	1:A:3145:ILE:HG12	1.81	0.62
1:A:3158:LYS:NZ	1:A:3162:ASN:HB3	2.14	0.62
1:F:908:ASP:HA	1:F:911:LEU:HD13	1.82	0.62
3:P:707:ILE:HA	3:P:710:LYS:HE2	1.80	0.62
5:a:74:LYS:NZ	7:c:186:ILE:O	2.26	0.62
5:a:321:ILE:HB	5:a:326:GLN:HG2	1.81	0.62
1:A:25:CYS:SG	1:A:26:GLY:N	2.72	0.62
1:A:1751:GLU:O	1:A:1788:ARG:NH1	2.33	0.62
1:A:2940:ARG:HH22	1:A:3982:SER:HB3	1.64	0.62
1:F:2578:GLU:OE1	1:F:2578:GLU:N	2.29	0.62
5:a:57:LEU:HD22	5:a:65:GLN:HE22	1.63	0.62
5:a:107:GLU:O	5:a:115:ARG:NH2	2.29	0.62
5:h:132:GLN:OE1	5:h:137:HIS:ND1	2.32	0.62
10:I:24:DA:H5''	10:I:25:DA:C5	2.34	0.62
1:F:880:MET:O	1:F:881:LYS:HG2	1.99	0.62
1:F:1101:PHE:HA	1:F:1104:LEU:HD12	1.81	0.62
1:F:3940:ILE:HG22	1:F:3941:ASP:H	1.64	0.62
3:P:813:PHE:N	3:P:850:ALA:H	1.97	0.62
5:a:236:SER:HB2	5:a:239:LEU:HD12	1.81	0.62
1:A:335:LYS:HA	6:b:564:ALA:HB3	1.79	0.62
1:A:2746:LYS:HD2	8:D:14:DA:C5	2.35	0.62
1:A:3094:ASP:OD1	1:A:3192:LYS:NZ	2.32	0.62
1:F:1019:ASP:O	1:F:1026:ARG:NH2	2.32	0.62
1:F:1184:ARG:NH2	1:F:1262:ALA:HA	2.13	0.62
1:F:3738:ILE:HD11	1:F:3750:PHE:HB2	1.81	0.62
2:O:45:GLY:HA3	2:O:114:GLU:HG2	1.80	0.62
2:O:169:LYS:NZ	3:P:847:PHE:O	2.27	0.62
4:Q:40:ASP:OD1	4:Q:43:GLN:N	2.32	0.62
5:h:416:GLN:HB2	5:h:433:GLN:HG3	1.81	0.62
9:E:33:DA:N3	9:E:34:DC:N4	2.48	0.62
1:A:914:VAL:HG11	1:A:937:MET:HE1	1.80	0.62
1:A:3735:PRO:HB2	1:A:3751:LEU:HD11	1.80	0.62
1:F:3187:CYS:HA	1:F:3190:LEU:HD12	1.81	0.62
2:N:54:GLN:HB2	4:Q:65:LEU:HB2	1.81	0.62
3:P:660:GLU:HG2	3:P:686:GLY:HA3	1.81	0.62
6:b:122:THR:HG21	6:b:130:ARG:HD3	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1795:VAL:HG21	1:A:1838:GLU:HB2	1.80	0.62
1:A:3701:ILE:HD12	1:A:3717:VAL:HG13	1.81	0.62
1:F:211:ALA:HB1	5:h:336:GLU:HG2	1.81	0.62
1:F:3860:LYS:HB2	1:F:4073:ALA:HB2	1.81	0.62
3:P:889:LEU:HA	3:P:905:GLU:HB2	1.79	0.62
5:a:40:PHE:HA	5:a:167:MET:HB3	1.79	0.62
8:D:23:DT:H72	9:E:33:DA:N6	2.15	0.62
1:A:3963:LEU:HD23	1:A:4112:THR:HG21	1.80	0.62
1:F:1039:TRP:NE1	1:F:1043:GLN:OE1	2.33	0.62
1:F:1300:SER:HA	1:F:1304:HIS:HB3	1.82	0.62
1:F:3625:LEU:HD23	1:F:3682:GLU:HB3	1.82	0.62
4:Q:8:LEU:HG	4:Q:26:LYS:HB3	1.82	0.62
5:a:421:ASP:OD1	5:a:425:ILE:N	2.33	0.62
1:A:124:LYS:HG2	1:A:125:ILE:H	1.64	0.62
1:A:211:ALA:O	5:a:339:ARG:NH1	2.32	0.62
1:A:1840:PHE:CB	1:A:1880:MET:HE2	2.28	0.62
1:A:3034:PRO:HB2	1:A:3037:GLN:HG2	1.81	0.62
1:F:333:MET:HE2	1:F:375:VAL:HG11	1.81	0.62
5:h:131:PHE:O	5:h:135:MET:N	2.31	0.62
5:h:317:LYS:O	6:j:279:VAL:N	2.27	0.62
5:h:319:SER:O	6:j:277:THR:N	2.32	0.62
10:I:37:DT:H2'	10:I:38:DT:H71	1.81	0.62
1:A:38:LEU:HD21	1:A:85:ILE:HG13	1.82	0.62
1:A:339:GLN:HE22	6:b:563:THR:H	1.48	0.62
1:A:1021:VAL:O	1:A:1026:ARG:NH1	2.33	0.62
1:A:2120:ARG:HH22	1:A:2157:PHE:HA	1.65	0.62
1:A:2205:VAL:HG22	1:A:2207:LYS:H	1.65	0.62
1:A:2745:ARG:HH21	9:E:45:DG:H2'	1.65	0.62
1:A:3354:ASP:H	1:A:3357:ARG:HG2	1.65	0.62
1:F:628:GLU:OE1	1:F:631:ARG:NH2	2.27	0.62
1:F:1358:LEU:HA	1:F:1361:LYS:HE2	1.81	0.62
1:F:3444:ALA:HA	1:F:3482:LEU:HD11	1.81	0.62
4:Q:22:SER:HB2	4:Q:208:LYS:HD2	1.81	0.62
1:A:2976:LEU:O	1:A:2979:GLN:NE2	2.33	0.61
1:A:3781:CYS:O	1:A:3785:ALA:N	2.32	0.61
1:F:716:VAL:HA	1:F:719:LYS:HZ1	1.65	0.61
1:F:2133:LEU:HD11	1:F:2171:LEU:HD22	1.81	0.61
1:F:3262:LEU:O	1:F:3266:SER:N	2.33	0.61
2:K:179:ARG:HB3	3:M:805:TRP:CZ2	2.35	0.61
4:R:138:PRO:O	4:R:142:MET:HB3	2.00	0.61
6:b:44:ARG:HG2	6:b:237:PHE:HA	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:D:16:DA:H1'	9:E:42:DA:N6	2.14	0.61
1:A:879:MET:HG3	1:A:881:LYS:H	1.65	0.61
1:A:3547:THR:HG23	1:A:3550:LYS:HD2	1.80	0.61
1:A:3733:ARG:NH2	1:A:3755:GLY:H	1.98	0.61
1:F:1385:ASN:ND2	1:F:1388:ASP:OD1	2.33	0.61
1:F:2308:SER:HB3	1:F:2348:GLN:HE22	1.65	0.61
1:F:2573:PRO:HA	1:F:2786:LYS:HD3	1.81	0.61
1:F:2723:THR:HA	1:F:2726:LEU:HD13	1.82	0.61
1:F:2920:VAL:HA	1:F:2923:TRP:HB2	1.82	0.61
1:F:3496:ILE:HG21	1:F:3705:TYR:HB3	1.82	0.61
1:F:3928:PHE:CE1	1:F:3962:ARG:HG3	2.35	0.61
5:a:106:GLN:NE2	5:a:118:GLU:OE2	2.33	0.61
1:A:334:HIS:HA	1:A:337:LYS:HE3	1.81	0.61
1:F:3313:SER:HB2	1:F:3323:PHE:HB2	1.81	0.61
3:M:896:ASP:HB3	3:M:900:LYS:HD3	1.82	0.61
4:R:34:TYR:OH	4:R:57:ARG:NH2	2.33	0.61
5:h:399:ARG:HG2	5:h:408:PRO:HB2	1.81	0.61
6:j:27:ILE:HD12	6:j:33:GLN:HE22	1.64	0.61
1:A:1420:ARG:NH2	1:A:1465:HIS:O	2.33	0.61
1:A:2278:GLY:O	1:A:2282:ALA:N	2.33	0.61
1:A:3183:ILE:HD12	1:A:3238:MET:HB2	1.82	0.61
3:P:813:PHE:O	3:P:847:PHE:N	2.33	0.61
3:P:865:ILE:H	3:P:889:LEU:HD11	1.65	0.61
6:b:347:LYS:H	6:b:350:GLN:HE21	1.47	0.61
10:I:27:DC:H2''	11:J:31:DT:C5	2.34	0.61
1:A:2920:VAL:HA	1:A:2923:TRP:HB2	1.81	0.61
1:A:3072:GLU:HA	1:A:3075:LYS:HE2	1.81	0.61
1:F:1397:ASP:OD1	1:F:1398:VAL:N	2.33	0.61
1:F:1441:ALA:O	1:F:1445:ARG:NH1	2.33	0.61
1:F:1514:LEU:HA	1:F:1517:LEU:HD12	1.82	0.61
1:F:2737:GLU:HB2	1:F:2740:SER:HB2	1.82	0.61
1:F:3729:MET:HE1	1:F:3737:ARG:HB2	1.81	0.61
3:P:839:ALA:O	3:P:843:LEU:HG	1.99	0.61
4:Q:297:LEU:N	6:b:133:GLU:OE2	2.32	0.61
5:a:289:TYR:HD2	5:a:292:THR:HB	1.65	0.61
1:A:1484:LEU:HD11	1:A:1531:LEU:HD13	1.83	0.61
1:A:2938:VAL:O	1:A:2942:ILE:HG12	2.01	0.61
1:F:3771:MET:HA	1:F:3774:ILE:HD12	1.83	0.61
4:Q:61:LEU:HD22	4:Q:118:TYR:O	2.00	0.61
6:j:647:ILE:HG13	6:j:689:GLU:HB3	1.82	0.61
11:J:21:DA:H2'	11:J:22:DG:C8	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:124:LYS:HD2	8:D:22:DG:H21	1.65	0.61
1:F:759:GLY:HA3	1:F:766:ALA:HB2	1.81	0.61
1:F:1268:ASN:ND2	1:F:1344:PHE:HA	2.10	0.61
1:F:1440:ASP:OD1	1:F:1445:ARG:NH1	2.33	0.61
1:F:2988:GLU:HA	1:F:2991:LYS:HE2	1.82	0.61
1:F:3617:LEU:HD23	1:F:3633:ILE:HG22	1.83	0.61
2:K:181:ILE:HG13	3:M:774:LEU:HD22	1.82	0.61
5:h:411:VAL:HA	5:h:437:LEU:HG	1.83	0.61
6:j:249:CYS:SG	6:j:250:ARG:N	2.73	0.61
8:D:37:DG:OP1	9:E:21:DA:N6	2.34	0.61
1:A:2410:GLU:O	1:A:2414:GLN:NE2	2.31	0.61
1:A:3731:SER:HB2	1:A:3735:PRO:HD3	1.83	0.61
1:F:16:GLN:NE2	1:F:62:ASP:OD2	2.30	0.61
1:F:531:PHE:HA	1:F:534:LEU:HD12	1.81	0.61
1:F:665:GLY:O	1:F:669:LEU:HG	2.00	0.61
1:F:1818:SER:HB2	1:F:1822:ARG:HH21	1.66	0.61
1:F:3247:ARG:HH22	1:F:3248:LYS:HG3	1.65	0.61
1:F:3479:THR:HA	1:F:3482:LEU:HD12	1.82	0.61
3:M:739:GLN:H	3:M:743:MET:HE1	1.66	0.61
5:a:299:LYS:NZ	6:b:296:CYS:SG	2.66	0.61
6:j:655:PHE:CE2	6:j:689:GLU:HB2	2.36	0.61
1:A:61:ARG:HB2	1:A:103:TYR:HE2	1.64	0.61
1:A:1342:MET:HE1	1:A:1398:VAL:HG22	1.81	0.61
1:A:2967:GLU:O	1:A:2971:GLN:HG2	2.01	0.61
1:F:397:LEU:HD23	1:F:399:GLN:HE22	1.66	0.61
1:F:1082:PHE:HA	1:F:1085:ILE:HG12	1.81	0.61
1:F:2295:GLN:NE2	1:F:2298:GLU:OE1	2.34	0.61
1:F:2346:ALA:HB2	1:F:2377:ARG:HH11	1.65	0.61
1:F:2405:VAL:HG12	1:F:2441:LYS:HZ1	1.65	0.61
3:M:710:LYS:HA	3:M:713:ILE:HD12	1.82	0.61
3:M:857:ALA:HB3	3:M:860:VAL:HG23	1.81	0.61
2:N:188:LYS:HG3	2:O:187:LYS:HZ1	1.66	0.61
4:Q:7:GLY:O	4:Q:11:GLN:N	2.34	0.61
5:a:105:LEU:HG	5:a:106:GLN:HG3	1.81	0.61
6:j:656:ASN:ND2	6:j:691:ALA:O	2.34	0.61
1:A:2442:MET:HE1	1:A:2446:LEU:HD22	1.82	0.61
1:F:1151:ARG:NH1	1:F:1163:LEU:O	2.30	0.61
1:F:1180:GLN:HB3	1:F:1183:CYS:HB3	1.82	0.61
2:K:40:HIS:NE2	2:L:40:HIS:O	2.34	0.61
6:b:593:ASN:HB2	6:b:616:LEU:HD12	1.83	0.61
6:j:497:ARG:NH2	6:j:503:GLU:O	2.25	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:210:SER:HB3	6:j:551:GLN:H	1.66	0.60
2:N:179:ARG:NH2	3:P:807:CYS:SG	2.74	0.60
3:P:844:GLU:OE2	3:P:848:HIS:NE2	2.25	0.60
4:Q:14:ALA:HB1	4:Q:84:LEU:HD22	1.83	0.60
1:F:111:CYS:O	1:F:130:LEU:HD11	2.01	0.60
1:F:1719:VAL:HG21	6:j:630:PRO:HB2	1.83	0.60
3:M:728:GLU:HG2	3:M:736:VAL:HG21	1.83	0.60
2:O:25:GLU:HG2	2:O:26:LYS:H	1.66	0.60
5:h:328:ILE:HG21	6:j:284:LEU:HD22	1.83	0.60
1:A:1018:VAL:HG22	1:A:1074:LYS:HA	1.83	0.60
1:A:2132:LYS:O	1:A:2135:ASN:ND2	2.33	0.60
1:A:3263:HIS:HB2	1:A:3276:TRP:CZ2	2.37	0.60
1:F:1095:LEU:O	1:F:1099:PHE:N	2.34	0.60
1:F:1372:LEU:O	1:F:1376:LEU:N	2.27	0.60
1:F:2149:LEU:O	1:F:2153:THR:HG23	2.01	0.60
1:F:2920:VAL:HG12	1:F:2947:ILE:HG23	1.83	0.60
1:F:3228:SER:OG	1:F:3232:ARG:NH2	2.27	0.60
1:F:3810:VAL:HG21	1:F:3815:LEU:HD13	1.84	0.60
2:K:47:VAL:HG13	2:K:51:GLU:HB2	1.83	0.60
3:P:845:LEU:HB3	3:P:852:VAL:HG22	1.84	0.60
4:R:46:HIS:CE1	4:R:48:GLN:HB2	2.36	0.60
5:a:312:LEU:HB2	5:a:315:ASP:HB2	1.82	0.60
6:j:605:LYS:HB3	6:j:609:PHE:HA	1.83	0.60
5:a:470:ARG:NH1	5:a:471:PHE:O	2.34	0.60
6:b:365:PHE:HE1	6:b:418:CYS:HB3	1.65	0.60
1:A:2218:PHE:O	1:A:2222:HIS:ND1	2.34	0.60
1:F:1423:ILE:HG13	1:F:1425:ALA:H	1.65	0.60
1:F:2586:PHE:HD1	1:F:2778:GLY:HA3	1.67	0.60
2:K:88:PHE:HA	2:K:95:PHE:HA	1.83	0.60
2:O:50:SER:H	2:O:54:GLN:NE2	1.98	0.60
1:A:843:ASN:O	1:A:2764:LYS:NZ	2.34	0.60
1:A:1742:CYS:O	1:A:1746:PHE:HD1	1.85	0.60
1:A:2097:LEU:HB2	1:A:2149:LEU:HD11	1.83	0.60
1:A:2430:GLU:OE1	1:A:2430:GLU:N	2.33	0.60
1:A:2937:ASP:HB2	1:A:3979:LEU:HD23	1.84	0.60
1:A:3986:HIS:HA	1:A:3989:ARG:HH21	1.65	0.60
1:F:3725:ARG:HB3	1:F:3739:ILE:HD12	1.82	0.60
2:K:22:VAL:HG12	2:K:24:TRP:HB3	1.83	0.60
3:M:654:LYS:N	3:M:660:GLU:OE2	2.35	0.60
3:M:758:TYR:HA	3:M:764:SER:HA	1.84	0.60
3:M:800:GLU:HB3	3:M:806:ASP:HB2	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:864:ILE:HG21	3:M:894:VAL:HB	1.82	0.60
4:Q:21:ASN:HB2	4:Q:99:CYS:HA	1.84	0.60
5:a:374:LEU:O	6:b:542:ALA:N	2.34	0.60
1:A:1445:ARG:NH1	1:A:1507:CYS:SG	2.75	0.60
1:A:2205:VAL:HG13	1:A:2208:ASP:H	1.65	0.60
1:F:196:LEU:HB3	1:F:200:PHE:CZ	2.37	0.60
4:R:17:GLN:HB2	4:R:84:LEU:HB3	1.83	0.60
5:a:35:ARG:HB2	5:a:161:MET:HE1	1.82	0.60
5:a:484:GLN:O	5:a:488:ARG:NH1	2.35	0.60
6:j:155:LYS:HE3	6:j:215:LEU:HD23	1.83	0.60
8:D:18:DA:H2"	8:D:19:DA:C5	2.36	0.60
1:A:247:GLU:HG2	1:A:251:PHE:CZ	2.36	0.60
1:A:652:GLU:O	1:A:656:GLN:NE2	2.27	0.60
1:A:1665:HIS:H	1:A:1668:PHE:HB3	1.66	0.60
1:F:3945:ALA:N	1:F:3948:SER:OG	2.33	0.60
2:L:179:ARG:HD3	3:M:778:PHE:HB3	1.82	0.60
3:P:857:ALA:O	3:P:884:ARG:NH1	2.30	0.60
4:R:15:TRP:H	4:R:211:VAL:HG11	1.66	0.60
5:a:92:LYS:HZ3	5:a:135:MET:HA	1.67	0.60
3:M:829:LEU:HD13	3:M:854:SER:HB3	1.84	0.60
4:Q:108:VAL:HG11	4:Q:119:TRP:HB2	1.82	0.60
4:Q:209:PRO:O	4:Q:213:ASN:HB2	2.01	0.60
6:b:251:LEU:HB3	6:b:259:ILE:HB	1.84	0.60
5:h:179:ASP:HB3	5:h:182:LYS:HE2	1.83	0.60
6:j:9:ALA:O	6:j:131:HIS:N	2.33	0.60
1:A:196:LEU:HB3	1:A:200:PHE:CZ	2.37	0.60
1:A:2587:GLN:O	1:A:2777:HIS:N	2.35	0.60
1:A:2833:THR:HG21	1:A:2867:ALA:HB1	1.82	0.60
1:A:3072:GLU:O	1:A:3076:ALA:N	2.23	0.60
1:A:3574:ALA:HB1	1:A:3684:SER:HA	1.83	0.60
1:F:941:MET:HE3	1:F:961:LEU:HD22	1.82	0.60
1:F:1151:ARG:HB2	1:F:1163:LEU:HD12	1.84	0.60
1:F:3193:ILE:HD13	1:F:3196:LYS:HE3	1.83	0.60
2:K:7:ARG:NH2	2:L:131:LEU:O	2.34	0.60
3:M:853:VAL:HG22	3:M:855:CYS:H	1.66	0.60
5:a:45:SER:O	5:a:137:HIS:ND1	2.35	0.60
6:j:522:VAL:HA	6:j:525:LYS:HE2	1.84	0.60
8:D:26:DT:H2"	8:D:27:DT:C5	2.37	0.60
1:A:3443:PRO:HB3	1:A:3471:ILE:HD11	1.83	0.59
1:A:3970:LEU:HG	1:A:3971:MET:SD	2.41	0.59
1:F:188:GLU:OE2	1:F:192:ASN:ND2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3577:GLN:HA	1:F:3629:ARG:HE	1.66	0.59
4:R:46:HIS:HE1	4:R:48:GLN:HB2	1.65	0.59
6:j:662:LEU:HA	6:j:665:LYS:HG2	1.84	0.59
9:E:44:DG:O3'	9:E:45:DG:N2	2.34	0.59
10:I:43:DT:H2'	10:I:44:DG:C2	2.36	0.59
1:A:1766:LEU:HD13	1:A:1778:PHE:CG	2.36	0.59
1:F:1392:MET:HA	1:F:1395:LEU:HG	1.84	0.59
1:F:1639:LEU:HA	1:F:1642:LYS:HE2	1.85	0.59
1:F:1795:VAL:HG23	1:F:1835:ALA:HB1	1.83	0.59
1:F:3778:ASP:OD1	1:F:3779:SER:N	2.35	0.59
3:M:697:THR:HB	3:M:718:HIS:CE1	2.37	0.59
3:M:800:GLU:HG2	3:M:805:TRP:HB2	1.84	0.59
2:O:21:GLN:HE22	2:O:129:TYR:HB2	1.67	0.59
4:R:48:GLN:HG2	4:R:130:LEU:HD12	1.83	0.59
6:j:571:GLN:O	6:j:575:HIS:HB3	2.02	0.59
1:A:1071:ASN:ND2	1:A:1074:LYS:HG3	2.16	0.59
1:A:1357:LYS:O	1:A:1361:LYS:N	2.30	0.59
1:A:2209:GLU:HA	1:A:2248:CYS:HB2	1.83	0.59
1:A:2306:ASN:HA	1:A:2309:PHE:CD2	2.37	0.59
1:F:2254:ARG:HH21	1:F:2291:GLN:HE22	1.48	0.59
1:A:145:ASP:O	1:A:148:LYS:NZ	2.30	0.59
1:A:1149:LYS:N	1:A:1163:LEU:O	2.35	0.59
1:A:3958:LEU:HD22	1:A:4115:ASN:HB3	1.84	0.59
1:F:131:LEU:HB3	1:F:177:LEU:HD21	1.83	0.59
1:F:2235:LEU:HA	1:F:2238:ILE:HD12	1.83	0.59
1:F:2806:LYS:NZ	1:F:2807:GLN:OE1	2.24	0.59
1:F:3044:MET:HB3	1:F:3048:LYS:HZ1	1.67	0.59
3:M:818:VAL:N	3:M:851:LYS:O	2.36	0.59
5:a:164:LYS:O	5:a:199:PHE:N	2.33	0.59
5:a:458:GLN:HB3	5:a:525:PHE:HE1	1.68	0.59
1:A:305:ASN:O	1:A:308:LEU:N	2.31	0.59
1:A:913:ARG:NH2	1:A:2801:ASP:OD1	2.34	0.59
1:A:1363:LEU:HD11	1:A:1368:LEU:HD13	1.84	0.59
1:F:2518:GLN:HG3	1:F:2522:ARG:HH12	1.68	0.59
1:F:2776:ARG:HH22	1:F:2784:GLN:HB2	1.68	0.59
1:F:3118:ASP:OD1	1:F:3119:VAL:N	2.34	0.59
5:h:484:GLN:OE1	5:h:488:ARG:NH1	2.35	0.59
7:i:187:ASN:HB3	7:i:190:PHE:HD2	1.67	0.59
8:D:26:DT:H2''	8:D:27:DT:C6	2.37	0.59
1:A:708:VAL:HG22	1:A:740:ILE:HG13	1.83	0.59
1:A:1407:LYS:O	1:A:1412:LYS:HD2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3588:TRP:NE1	1:A:3609:MET:SD	2.74	0.59
1:F:135:LEU:O	1:F:139:ARG:HD3	2.02	0.59
1:F:164:LYS:HB3	1:F:166:ILE:HG12	1.83	0.59
1:F:1111:LEU:HB3	1:F:1183:CYS:HB2	1.84	0.59
1:F:2104:MET:O	1:F:2108:LEU:N	2.36	0.59
1:F:3581:PRO:HB2	1:F:3617:LEU:HD21	1.83	0.59
2:N:181:ILE:HG13	3:P:774:LEU:HD22	1.83	0.59
5:a:462:MET:HE3	5:a:525:PHE:CD1	2.37	0.59
5:h:174:ASN:HD21	5:h:215:LEU:HD13	1.67	0.59
5:h:318:ARG:HB3	6:j:276:TRP:CE3	2.37	0.59
1:A:1062:ARG:NH1	1:A:3745:GLU:HB2	2.18	0.59
1:A:1067:ALA:HB1	1:A:1110:SER:HB3	1.85	0.59
1:A:2891:ARG:HB2	1:A:3898:LEU:HD21	1.85	0.59
1:A:3112:GLN:NE2	1:A:3113:ASN:OD1	2.36	0.59
1:F:3820:MET:SD	1:F:3825:LYS:HB2	2.43	0.59
1:F:3856:MET:HA	1:F:3859:TYR:CD2	2.38	0.59
4:R:18:LEU:HG	4:R:104:LEU:HD11	1.85	0.59
6:b:652:GLU:HA	6:b:655:PHE:HB3	1.84	0.59
1:A:1261:LEU:HD11	1:A:1337:VAL:HG22	1.83	0.59
1:A:1603:GLN:HE21	1:A:1607:GLU:HB2	1.68	0.59
1:A:2324:GLY:HA3	1:A:2370:SER:OG	2.03	0.59
1:A:2930:TYR:HB2	1:A:2939:LEU:HD21	1.84	0.59
1:A:2973:ASP:O	1:A:2977:ASN:ND2	2.36	0.59
1:A:3173:MET:O	1:A:3249:GLN:NE2	2.36	0.59
1:A:3730:ALA:HA	1:A:3734:ARG:HG3	1.84	0.59
1:F:1115:HIS:HA	1:F:1119:LYS:HE3	1.85	0.59
1:F:3681:LYS:O	1:F:3688:SER:OG	2.20	0.59
2:K:89:SER:HB3	2:K:96:PHE:HE1	1.67	0.59
2:L:22:VAL:HG22	2:L:34:ILE:HA	1.84	0.59
2:N:180:PHE:HE2	2:O:176:LEU:HB3	1.67	0.59
6:b:133:GLU:HG2	6:b:162:GLN:HB2	1.84	0.59
6:b:137:ASP:O	6:b:201:GLN:NE2	2.35	0.59
1:A:472:GLY:O	1:A:476:ARG:NE	2.32	0.59
1:A:1109:GLU:O	1:A:1113:LEU:HG	2.03	0.59
1:A:2254:ARG:HH22	1:A:2292:CYS:HB3	1.68	0.59
1:A:2411:LEU:HD21	1:A:2442:MET:HG3	1.85	0.59
1:A:3728:VAL:HG22	1:A:3736:LYS:HG3	1.84	0.59
1:F:82:ARG:HA	1:F:85:ILE:HD12	1.83	0.59
1:F:2312:TYR:OH	11:J:17:DT:OP1	2.20	0.59
1:F:2466:SER:C	1:F:2470:ARG:HH21	2.11	0.59
1:F:3728:VAL:HG22	1:F:3736:LYS:HG3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:138:GLN:HA	2:L:141:ASN:HD22	1.68	0.59
6:b:130:ARG:O	6:b:160:SER:N	2.31	0.59
1:A:1759:LEU:HD22	1:A:1797:LEU:HD23	1.85	0.59
1:A:3686:TRP:H	1:A:3686:TRP:CD1	2.20	0.59
1:F:2468:THR:O	1:F:2471:GLU:HG2	2.03	0.59
1:F:2526:SER:O	1:F:2538:ARG:NH2	2.30	0.59
1:F:3502:MET:HA	1:F:3505:LEU:HB3	1.85	0.59
4:Q:68:PRO:O	4:Q:72:PHE:N	2.32	0.59
4:Q:131:VAL:HG12	4:R:44:VAL:CG2	2.30	0.59
4:R:65:LEU:HD21	4:R:119:TRP:HE3	1.68	0.59
6:b:352:GLN:HB2	6:b:354:ARG:HG2	1.85	0.59
1:A:2532:PRO:HD2	1:A:2538:ARG:HA	1.84	0.58
1:A:2555:LEU:HD11	1:A:2854:PHE:HA	1.85	0.58
1:A:2860:ASP:O	1:A:2864:GLN:HG2	2.02	0.58
1:F:89:LEU:O	1:F:133:LYS:NZ	2.36	0.58
1:F:1278:ALA:O	1:F:1282:LEU:N	2.34	0.58
3:M:868:ASP:OD2	3:M:871:ARG:NH2	2.36	0.58
6:b:8:ALA:N	6:b:52:ASP:OD1	2.36	0.58
6:j:53:GLU:HB3	6:j:83:LEU:HG	1.83	0.58
6:j:133:GLU:HG3	6:j:162:GLN:HB2	1.85	0.58
1:F:409:GLN:OE1	1:F:409:GLN:N	2.35	0.58
1:F:645:TRP:O	1:F:649:PHE:HB3	2.02	0.58
1:F:1815:THR:O	1:F:1818:SER:OG	2.22	0.58
2:N:10:LEU:HG	2:N:17:THR:HA	1.85	0.58
2:N:157:ASP:OD2	3:P:837:ARG:NH1	2.35	0.58
4:R:62:ASN:HD21	4:R:120:ASN:H	1.50	0.58
5:a:426:GLN:HE22	6:b:435:PHE:HB2	1.68	0.58
5:a:469:LEU:HD11	5:a:518:LEU:HD11	1.85	0.58
6:b:45:GLN:HE22	6:b:238:LYS:HD2	1.67	0.58
6:b:450:GLN:HG2	6:b:536:LEU:HB3	1.84	0.58
10:I:31:DA:OP2	10:I:32:DA:N6	2.36	0.58
1:A:1047:GLN:O	1:A:1050:GLU:HG2	2.03	0.58
1:A:3118:ASP:OD1	1:A:3119:VAL:N	2.36	0.58
1:A:3909:ALA:HB1	1:A:3984:MET:HE3	1.84	0.58
1:F:208:MET:HE3	6:j:551:GLN:HB3	1.84	0.58
1:F:1803:GLU:HA	1:F:1806:ARG:HH21	1.68	0.58
1:F:1948:ALA:O	1:F:1952:ILE:HG12	2.03	0.58
2:N:155:TRP:HE1	2:O:158:VAL:HG21	1.68	0.58
6:j:496:HIS:NE2	6:j:503:GLU:HB2	2.19	0.58
10:I:40:DT:H2''	10:I:41:DT:O4'	2.03	0.58
1:A:337:LYS:HB2	1:A:369:PHE:HE1	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:468:LEU:HG	1:A:475:LEU:HA	1.86	0.58
1:A:527:TYR:HB3	1:A:531:PHE:HE1	1.69	0.58
1:F:895:ALA:HB1	1:F:902:LYS:HB3	1.85	0.58
2:L:17:THR:OG1	2:L:38:ASP:O	2.21	0.58
3:P:843:LEU:HA	3:P:846:ARG:HE	1.69	0.58
5:h:445:LYS:N	6:j:241:GLU:OE2	2.36	0.58
1:A:95:LYS:HE2	1:A:95:LYS:HA	1.86	0.58
1:A:1643:MET:HA	1:A:1646:LEU:HD12	1.84	0.58
1:A:2414:GLN:OE1	1:A:2414:GLN:N	2.34	0.58
1:A:3963:LEU:HA	1:A:3967:PHE:HD2	1.68	0.58
1:F:1878:ASP:OD1	1:F:1879:VAL:N	2.36	0.58
1:F:3666:LEU:HA	1:F:3669:LYS:HZ1	1.67	0.58
3:P:663:GLU:HB3	3:P:697:THR:HA	1.86	0.58
5:a:273:ILE:HD12	5:a:368:VAL:HG22	1.84	0.58
5:a:321:ILE:O	6:b:274:LYS:NZ	2.37	0.58
1:A:663:ILE:HG22	1:A:666:PHE:H	1.68	0.58
1:A:718:MET:SD	1:A:719:LYS:HD3	2.44	0.58
1:A:771:ASN:HA	1:A:774:GLU:OE1	2.02	0.58
1:A:2559:THR:O	1:A:2563:LEU:HG	2.04	0.58
1:A:3167:ARG:O	1:A:3168:TYR:C	2.47	0.58
1:F:61:ARG:HB2	1:F:103:TYR:HE2	1.68	0.58
1:F:1779:GLN:O	1:F:1783:ARG:HG2	2.04	0.58
1:F:2353:GLN:HB3	1:F:2360:PHE:HB2	1.84	0.58
1:F:3428:GLU:HB3	1:F:3474:ARG:HH22	1.69	0.58
2:L:139:ALA:O	2:L:143:HIS:ND1	2.27	0.58
2:N:121:GLU:HA	2:N:124:ARG:HD2	1.85	0.58
5:a:330:GLU:N	5:a:333:GLU:OE2	2.26	0.58
1:A:320:LEU:HD21	1:A:365:GLY:HA2	1.86	0.58
1:A:409:GLN:N	1:A:409:GLN:OE1	2.37	0.58
1:A:1867:ILE:O	1:A:1871:MET:HG2	2.03	0.58
1:A:3048:LYS:HE3	1:A:3061:LEU:HD13	1.86	0.58
1:A:3867:THR:HG23	1:A:4117:LEU:C	2.29	0.58
1:F:1357:LYS:HE2	1:F:1410:PRO:HG2	1.86	0.58
1:F:1755:SER:HB3	1:F:1758:LEU:HD13	1.84	0.58
1:F:3472:ILE:HG12	1:F:3479:THR:HB	1.85	0.58
1:F:3557:ARG:O	1:F:3561:LYS:NZ	2.31	0.58
1:F:3764:VAL:HA	1:F:3767:LEU:HD12	1.86	0.58
4:R:18:LEU:HD12	4:R:97:CYS:HB2	1.86	0.58
5:a:206:LYS:HA	5:a:235:GLU:HB3	1.86	0.58
5:a:276:LEU:HA	6:b:431:ARG:HB2	1.86	0.58
6:b:74:TYR:HA	6:b:109:ASP:HB3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:b:603:LYS:O	6:b:606:LYS:NZ	2.36	0.58
6:j:342:VAL:HA	6:j:393:VAL:HG12	1.86	0.58
6:j:690:GLU:HA	6:j:696:VAL:HG21	1.85	0.58
10:I:34:DC:C6	10:I:35:DT:H72	2.39	0.58
1:A:523:THR:HG23	1:A:525:LYS:H	1.68	0.58
1:A:1671:VAL:O	1:A:1674:THR:HB	2.04	0.58
1:A:2298:GLU:HA	1:A:2301:GLN:HB3	1.86	0.58
1:A:3148:GLN:HE21	1:A:3150:ASN:HA	1.69	0.58
1:F:745:VAL:HA	1:F:748:TYR:HD2	1.67	0.58
2:O:4:LYS:HG2	2:O:75:LEU:HA	1.85	0.58
5:a:500:PRO:O	5:a:502:GLN:NE2	2.36	0.58
6:j:688:LYS:HB3	6:j:696:VAL:HB	1.86	0.58
1:A:109:ASN:O	1:A:112:THR:OG1	2.21	0.58
1:A:203:GLU:O	1:A:207:GLN:HG2	2.04	0.58
1:A:656:GLN:O	1:A:659:ARG:HB3	2.04	0.58
1:A:1476:HIS:H	1:A:1524:LEU:HD21	1.68	0.58
1:A:1722:PHE:CE2	1:A:1765:VAL:HG13	2.39	0.58
1:A:2346:ALA:HB2	1:A:2377:ARG:HH11	1.68	0.58
1:A:2742:MET:HE1	9:E:44:DG:N7	2.18	0.58
1:A:2817:LEU:HD22	1:A:2865:HIS:CE1	2.38	0.58
1:A:3981:TYR:OH	1:A:4101:GLU:OE1	2.22	0.58
1:A:3991:PHE:HB3	1:A:4051:LEU:HD11	1.86	0.58
1:F:1605:PHE:O	1:F:1608:ARG:NH2	2.23	0.58
1:F:3590:ASN:HA	1:F:3593:ARG:HD2	1.86	0.58
2:K:188:LYS:NZ	3:M:764:SER:O	2.34	0.58
2:N:59:MET:HA	2:N:102:LYS:HD3	1.84	0.58
2:O:36:LEU:HD11	2:O:95:PHE:HB2	1.86	0.58
3:P:670:THR:HG23	3:P:674:PRO:HA	1.85	0.58
6:b:253:ILE:HB	6:b:257:LEU:HB3	1.84	0.58
1:A:268:PRO:O	1:A:272:LEU:HG	2.04	0.58
1:A:919:LEU:HG	1:A:920:THR:HG23	1.84	0.58
1:A:1533:LEU:HA	1:A:1592:MET:HE2	1.85	0.58
1:A:3479:THR:O	1:A:3483:MET:N	2.28	0.58
1:A:3787:GLN:NE2	1:A:3788:LEU:O	2.37	0.58
1:A:4054:ALA:HB1	1:A:4059:ILE:HD11	1.86	0.58
1:A:4086:ASP:HA	1:A:4089:ILE:HG12	1.86	0.58
1:F:1866:GLN:OE1	1:F:1866:GLN:N	2.30	0.58
2:O:94:TYR:OH	2:O:107:ARG:NH2	2.37	0.58
3:P:716:ASN:HA	3:P:745:HIS:NE2	2.19	0.58
6:j:640:ARG:HH21	6:j:686:ILE:HA	1.68	0.58
11:J:20:DT:H2'	11:J:21:DA:H8	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:19:LEU:HD22	1:A:34:LEU:HD23	1.85	0.57
1:A:738:HIS:HA	1:A:741:ILE:HG12	1.86	0.57
1:A:1082:PHE:HA	1:A:1085:ILE:HG12	1.86	0.57
1:A:2429:ASP:OD1	1:A:2430:GLU:N	2.37	0.57
1:A:3736:LYS:HB2	1:A:3752:VAL:HB	1.85	0.57
1:F:1418:HIS:HA	1:F:1421:GLU:HG2	1.85	0.57
1:F:2797:VAL:O	1:F:2801:ASP:N	2.32	0.57
1:F:2974:GLU:HG3	1:F:2978:LYS:NZ	2.19	0.57
1:F:3831:ASP:HB3	1:F:3832:PRO:HD3	1.86	0.57
2:L:118:ASN:HB2	2:L:121:GLU:HB2	1.86	0.57
3:P:814:ARG:HB3	3:P:849:GLY:N	2.19	0.57
6:j:250:ARG:NH1	6:j:252:THR:OG1	2.36	0.57
1:A:3164:TRP:HA	1:A:3241:LYS:NZ	2.19	0.57
2:K:2:GLU:OE1	2:K:4:LYS:NZ	2.36	0.57
2:K:22:VAL:HG11	2:K:71:ARG:HH22	1.67	0.57
2:L:32:PHE:HD2	2:L:34:ILE:HG13	1.68	0.57
2:L:178:LYS:HG3	3:M:792:MET:CE	2.33	0.57
4:R:56:GLN:O	4:R:60:GLU:HG2	2.04	0.57
5:a:305:THR:HB	6:b:288:ASP:HA	1.85	0.57
5:h:392:LYS:NZ	6:j:455:ASP:OD1	2.24	0.57
1:A:771:ASN:OD1	1:A:854:ARG:NH2	2.32	0.57
1:A:1423:ILE:HG23	1:A:1467:ILE:HD11	1.87	0.57
1:A:2448:PRO:HA	1:A:2451:LEU:HB2	1.85	0.57
1:A:4055:ASN:HD22	1:A:4058:VAL:HG23	1.68	0.57
1:F:1371:VAL:O	1:F:1374:GLN:HB2	2.05	0.57
1:F:1785:ILE:HA	1:F:1788:ARG:HB2	1.86	0.57
1:F:3192:LYS:O	1:F:3196:LYS:HG2	2.03	0.57
1:F:3662:ILE:HA	1:F:3665:MET:HE3	1.85	0.57
2:O:56:ALA:HB1	2:O:63:LYS:HA	1.86	0.57
1:A:207:GLN:NE2	1:A:215:PRO:O	2.38	0.57
1:A:221:ALA:O	1:A:225:LYS:HG3	2.05	0.57
1:A:1603:GLN:O	1:A:1607:GLU:N	2.37	0.57
1:A:1669:PRO:HA	1:A:1672:PHE:HB3	1.84	0.57
1:A:2313:LYS:HA	1:A:2316:TYR:CZ	2.39	0.57
1:A:2532:PRO:O	1:A:2538:ARG:NH1	2.38	0.57
1:A:3357:ARG:HB2	1:A:3358:ARG:HH11	1.68	0.57
1:F:1849:ASP:OD1	1:F:1850:VAL:N	2.37	0.57
1:F:2257:PHE:HA	1:F:2260:PHE:CE2	2.40	0.57
1:F:2310:VAL:HG11	1:F:2359:LYS:HE3	1.85	0.57
1:F:2571:ASP:HA	1:F:2574:ASN:HD22	1.68	0.57
1:F:2897:LEU:HD23	1:F:3973:PRO:HB3	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:56:ALA:HB1	2:K:62:GLU:HA	1.86	0.57
3:P:720:VAL:HG11	3:P:744:ILE:HB	1.86	0.57
4:Q:10:MET:HE1	4:Q:223:THR:HA	1.84	0.57
4:Q:72:PHE:HA	4:Q:75:HIS:CE1	2.39	0.57
5:h:43:ASP:OD2	5:h:45:SER:OG	2.21	0.57
8:D:15:DA:H2''	8:D:16:DA:C8	2.38	0.57
1:A:890:LYS:HG2	1:A:3889:ARG:HH22	1.69	0.57
1:A:3294:SER:O	1:A:3298:LEU:HG	2.05	0.57
1:F:172:GLU:HB2	1:F:219:VAL:HG12	1.86	0.57
1:F:2295:GLN:HE21	1:F:2299:TYR:N	2.02	0.57
2:N:102:LYS:HE2	4:Q:75:HIS:HB2	1.86	0.57
5:h:429:PRO:HB3	6:j:435:PHE:HB2	1.85	0.57
8:D:37:DG:N3	9:E:21:DA:H8	2.02	0.57
1:A:2571:ASP:HA	1:A:2574:ASN:HD22	1.70	0.57
1:F:299:LYS:O	1:F:303:HIS:ND1	2.34	0.57
1:F:1022:ASP:OD1	1:F:1025:LEU:N	2.35	0.57
1:F:2965:TYR:HB3	1:F:3001:CYS:HB2	1.86	0.57
1:F:3109:SER:O	1:F:3113:ASN:ND2	2.37	0.57
1:F:3792:SER:N	1:F:3804:GLU:OE1	2.37	0.57
1:F:3927:ASN:O	1:F:3940:ILE:N	2.29	0.57
1:F:4120:THR:OG1	1:F:4126:PRO:HB3	2.04	0.57
2:N:3:ARG:HA	2:N:21:GLN:HA	1.85	0.57
2:N:152:LEU:HA	2:O:151:LEU:HD22	1.87	0.57
3:P:721:VAL:HG22	3:P:742:PHE:HE2	1.69	0.57
4:R:129:SER:O	4:R:133:GLN:NE2	2.35	0.57
6:j:263:ALA:HB2	6:j:364:VAL:HG13	1.86	0.57
8:D:23:DT:H2'	8:D:24:DT:N3	2.19	0.57
1:A:75:SER:O	1:A:79:ARG:NH1	2.37	0.57
1:A:1921:ASP:OD1	1:A:1922:ALA:N	2.38	0.57
1:F:1389:VAL:O	1:F:1392:MET:HG3	2.03	0.57
1:F:2507:ILE:HA	1:F:2510:LEU:HD12	1.87	0.57
1:F:2527:HIS:CD2	1:F:2529:THR:H	2.22	0.57
1:F:3048:LYS:HD2	1:F:3061:LEU:HB2	1.86	0.57
4:R:30:THR:OG1	4:R:33:GLY:O	2.21	0.57
6:b:66:ASN:ND2	6:b:74:TYR:O	2.38	0.57
5:h:484:GLN:O	5:h:488:ARG:HD3	2.04	0.57
6:j:59:PHE:HB3	6:j:110:ALA:HB2	1.87	0.57
1:A:489:ARG:O	1:A:492:SER:OG	2.22	0.57
1:A:724:GLU:CB	1:A:2600:THR:H	2.16	0.57
1:F:79:ARG:HH21	1:F:82:ARG:HD2	1.68	0.57
1:F:466:LEU:HD21	1:F:560:LEU:HD22	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2497:GLU:HA	1:F:2500:LYS:HE2	1.86	0.57
1:F:3494:GLN:HG2	1:F:3495:PHE:CD2	2.39	0.57
1:F:3530:VAL:O	1:F:3534:ILE:HG12	2.04	0.57
1:F:4010:SER:HA	1:F:4038:TRP:HE1	1.70	0.57
3:M:816:HIS:O	3:M:851:LYS:N	2.35	0.57
4:Q:198:LEU:HD11	4:R:220:ALA:HB1	1.86	0.57
5:h:263:LEU:HB2	5:h:267:ILE:HB	1.87	0.57
5:h:307:THR:HG23	5:h:309:GLY:H	1.70	0.57
1:A:210:SER:H	6:b:551:GLN:HB2	1.69	0.57
1:A:3109:SER:O	1:A:3112:GLN:NE2	2.37	0.57
1:A:3898:LEU:HA	1:A:3901:ARG:HE	1.68	0.57
1:F:717:LYS:HB3	1:F:721:TYR:CZ	2.40	0.57
1:F:2361:ILE:HD12	1:F:2364:LEU:HD23	1.86	0.57
1:F:3730:ALA:HA	1:F:3734:ARG:HA	1.87	0.57
5:h:312:LEU:H	5:h:315:ASP:HB3	1.69	0.57
11:J:32:DT:H2"	11:J:33:DA:C8	2.40	0.57
1:A:3169:PRO:HD2	1:A:3179:TRP:CZ3	2.40	0.57
1:F:1034:ARG:HD3	1:F:1084:ASN:HB3	1.85	0.57
1:F:2724:ASP:OD1	1:F:2725:LEU:N	2.38	0.57
1:F:3014:CYS:O	1:F:3044:MET:HE1	2.05	0.57
1:F:3483:MET:HE3	1:F:3513:ALA:H	1.70	0.57
2:L:89:SER:O	2:L:93:CYS:N	2.38	0.57
2:O:32:PHE:HZ	2:O:109:GLY:HA3	1.69	0.57
6:b:10:VAL:HB	6:b:54:ILE:HG12	1.86	0.57
6:b:450:GLN:HA	6:b:536:LEU:HD13	1.87	0.57
1:A:71:LYS:HD2	1:A:78:PHE:HB3	1.87	0.56
1:F:1058:SER:HA	1:F:1061:LYS:HE2	1.87	0.56
1:F:2991:LYS:O	1:F:2995:GLU:HG2	2.03	0.56
5:a:355:LEU:HD21	6:b:473:LEU:HB2	1.86	0.56
1:A:166:ILE:HG13	1:A:167:PRO:HD3	1.86	0.56
1:A:1294:VAL:HA	1:A:1297:PHE:CD2	2.41	0.56
1:A:1657:SER:HG	1:A:1660:SER:HG	1.53	0.56
1:F:864:GLY:HA2	1:F:867:ASN:HB2	1.87	0.56
1:F:1205:ASN:HD22	1:F:1275:THR:HA	1.70	0.56
1:F:1370:ARG:O	1:F:1374:GLN:NE2	2.38	0.56
1:F:3117:ILE:O	1:F:3125:ARG:NH2	2.38	0.56
1:F:3663:THR:HA	1:F:3666:LEU:HD12	1.87	0.56
1:F:3733:ARG:NH2	1:F:3755:GLY:H	2.03	0.56
1:F:3980:MET:N	1:F:3980:MET:SD	2.79	0.56
2:K:188:LYS:HD3	3:M:768:ASP:HA	1.86	0.56
4:R:162:LEU:HA	4:R:165:GLN:HG2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:a:301:ARG:O	6:b:292:GLU:N	2.38	0.56
6:b:599:ARG:O	6:b:603:LYS:HG2	2.05	0.56
6:b:624:LEU:HB3	6:b:674:PHE:HE1	1.70	0.56
5:h:171:ASN:HB3	5:h:205:LEU:HB3	1.86	0.56
6:j:312:GLN:HE22	6:j:328:GLU:CD	2.13	0.56
6:j:316:TYR:N	6:j:319:ASP:O	2.38	0.56
6:j:406:GLY:HA2	6:j:424:LEU:HG	1.87	0.56
10:I:28:DT:H5'	11:J:30:DT:H1'	1.86	0.56
1:A:153:PHE:HZ	1:A:196:LEU:HD11	1.69	0.56
1:A:165:LYS:O	1:A:165:LYS:HD3	2.05	0.56
1:A:665:GLY:O	1:A:669:LEU:HG	2.06	0.56
1:A:676:ASN:HA	1:A:679:LYS:HE2	1.88	0.56
1:A:935:HIS:HD2	1:A:2773:ARG:NH1	2.03	0.56
1:A:949:PRO:HB3	1:F:2582:SER:HA	1.87	0.56
1:A:1201:ASN:ND2	1:A:1210:ASP:OD2	2.39	0.56
1:A:1420:ARG:NE	1:A:1466:ASN:O	2.38	0.56
1:A:1734:PRO:HD2	6:b:578:VAL:HG13	1.86	0.56
1:A:2263:LYS:HE3	1:A:2265:PRO:HB3	1.87	0.56
1:F:712:LYS:NZ	1:F:743:LEU:O	2.37	0.56
1:F:891:ARG:NH1	1:F:957:PRO:O	2.39	0.56
1:F:2292:CYS:SG	1:F:2293:GLY:N	2.77	0.56
1:F:2388:LYS:NZ	5:h:157:VAL:O	2.39	0.56
1:F:3084:GLN:OE1	1:F:3084:GLN:N	2.30	0.56
4:R:62:ASN:ND2	4:R:120:ASN:H	2.03	0.56
4:R:198:LEU:O	4:R:202:CYS:N	2.38	0.56
5:a:413:LEU:HD12	5:a:432:PHE:HB3	1.87	0.56
6:b:513:TRP:O	6:b:517:ASN:N	2.38	0.56
5:h:143:LEU:HA	5:h:146:VAL:HG22	1.87	0.56
5:h:200:LEU:N	5:h:222:SER:OG	2.36	0.56
6:j:19:THR:OG1	6:j:139:SER:OG	2.23	0.56
6:j:40:MET:HA	6:j:43:GLN:OE1	2.05	0.56
6:j:412:ILE:HA	6:j:417:GLU:HG2	1.87	0.56
10:I:29:DA:H1'	10:I:30:DA:N7	2.20	0.56
1:A:27:ALA:O	1:A:30:ALA:N	2.27	0.56
1:A:1867:ILE:HD13	1:A:1936:ARG:HB3	1.87	0.56
1:A:2157:PHE:HB2	1:A:2160:TYR:HB3	1.86	0.56
1:A:2383:PHE:O	1:A:2418:LYS:NZ	2.38	0.56
1:A:3292:GLY:O	1:A:3296:GLN:HB3	2.04	0.56
1:A:3834:ALA:O	1:A:3839:TYR:N	2.37	0.56
1:F:898:PHE:HB2	1:F:901:MET:O	2.05	0.56
3:P:865:ILE:N	3:P:889:LEU:HD11	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:55:SER:HB3	4:Q:69:PRO:HB3	1.85	0.56
4:R:157:LEU:HD21	4:R:184:PHE:HD2	1.71	0.56
5:a:416:GLN:NE2	5:a:429:PRO:O	2.39	0.56
8:D:29:DG:H21	9:E:29:DA:H1'	1.70	0.56
1:A:1296:PHE:HA	1:A:1299:GLU:HB3	1.87	0.56
1:A:3131:SER:O	1:A:3135:LEU:HG	2.05	0.56
1:F:915:THR:O	1:F:919:LEU:N	2.37	0.56
1:F:1172:LEU:O	1:F:1176:CYS:N	2.39	0.56
1:F:1534:ASN:HB2	1:F:1556:GLY:H	1.71	0.56
1:F:1727:ARG:NE	1:F:1772:HIS:HA	2.21	0.56
1:F:2219:LEU:HD13	1:F:2238:ILE:HG12	1.87	0.56
1:F:2279:ILE:O	1:F:2283:ASN:ND2	2.37	0.56
3:M:670:THR:HG23	3:M:674:PRO:HA	1.87	0.56
2:O:44:THR:H	2:O:116:VAL:HG13	1.70	0.56
5:a:317:LYS:O	6:b:279:VAL:N	2.32	0.56
6:j:122:THR:HG22	6:j:127:PHE:HD2	1.70	0.56
1:A:79:ARG:HA	1:A:82:ARG:HG2	1.86	0.56
1:A:2301:GLN:HA	1:A:2304:VAL:HG22	1.87	0.56
1:A:2366:LYS:HA	1:A:2369:LYS:HE2	1.88	0.56
1:A:3659:PHE:HA	1:A:3662:ILE:HD12	1.87	0.56
1:F:175:TYR:O	1:F:227:LEU:HD12	2.06	0.56
1:F:271:GLY:HA2	1:F:274:LEU:HD13	1.88	0.56
1:F:732:PHE:O	1:F:735:SER:OG	2.22	0.56
1:F:2391:GLY:O	1:F:2431:ARG:NH2	2.36	0.56
1:F:3478:GLU:OE1	1:F:3478:GLU:N	2.38	0.56
3:M:720:VAL:HB	3:M:745:HIS:H	1.70	0.56
2:N:151:LEU:HD13	2:O:152:LEU:HB2	1.88	0.56
3:P:772:ASN:O	3:P:776:GLU:HG2	2.05	0.56
5:a:47:ALA:HB1	5:a:171:ASN:HD21	1.70	0.56
5:h:48:MET:HA	5:h:59:PRO:HB2	1.87	0.56
6:j:646:ALA:HB1	6:j:655:PHE:HB2	1.87	0.56
1:A:530:LEU:O	1:A:534:LEU:N	2.35	0.56
1:F:43:VAL:O	1:F:46:SER:OG	2.22	0.56
1:F:2357:GLU:HA	1:F:2360:PHE:HB3	1.88	0.56
3:M:738:TRP:HB2	3:M:753:HIS:CE1	2.41	0.56
1:A:3676:PRO:HB2	1:A:3681:LYS:HB2	1.87	0.56
1:F:363:ILE:O	1:F:416:SER:OG	2.24	0.56
1:F:863:GLY:HA3	1:F:3168:TYR:HB2	1.86	0.56
5:a:168:LEU:HD23	5:a:202:LEU:HD13	1.87	0.56
6:b:132:ILE:N	6:b:160:SER:O	2.34	0.56
5:h:95:ASN:HD21	5:h:99:PHE:HB2	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:D:15:DA:H2	9:E:44:DG:C6	2.23	0.56
1:A:1693:VAL:HG21	1:A:1746:PHE:CZ	2.41	0.56
1:A:2477:LEU:HA	1:A:2480:ILE:HD12	1.88	0.56
1:A:3301:LEU:CG	1:A:3305:SER:H	2.13	0.56
1:F:200:PHE:CE2	1:F:227:LEU:HD22	2.41	0.56
1:F:2245:TRP:HB2	1:F:2249:LEU:HD11	1.86	0.56
1:F:3496:ILE:HD12	1:F:3707:GLY:H	1.69	0.56
1:F:4100:GLU:OE1	1:F:4100:GLU:N	2.32	0.56
4:Q:34:TYR:HD1	4:Q:54:VAL:HG22	1.71	0.56
4:R:73:LEU:O	4:R:77:ASP:HB2	2.06	0.56
6:b:484:ASN:O	6:b:488:GLN:NE2	2.37	0.56
6:j:19:THR:OG1	6:j:137:ASP:OD2	2.22	0.56
1:A:207:GLN:CD	1:A:220:LEU:HD23	2.31	0.56
1:A:1190:LEU:HD23	1:A:1193:LYS:HD3	1.87	0.56
1:A:3595:GLU:HG3	1:A:3609:MET:HE1	1.88	0.56
1:F:103:TYR:HA	1:F:106:GLU:CD	2.30	0.56
1:F:639:ALA:HB2	1:F:676:ASN:HB3	1.88	0.56
1:F:1149:LYS:O	1:F:1151:ARG:NH1	2.39	0.56
1:F:2252:PRO:HD2	1:F:2256:ILE:HD11	1.88	0.56
4:Q:45:TRP:HA	4:Q:124:MET:SD	2.45	0.56
5:a:439:PHE:N	5:a:442:ASP:OD2	2.33	0.56
5:a:462:MET:HE3	5:a:525:PHE:CG	2.41	0.56
6:b:17:GLY:N	6:b:20:MET:HE1	2.21	0.56
6:b:30:PRO:HB3	6:b:166:PRO:HG3	1.88	0.56
6:b:411:HIS:HB3	6:b:418:CYS:SG	2.45	0.56
6:j:401:ALA:HA	10:I:25:DA:C8	2.40	0.56
6:j:465:LYS:HB3	6:j:474:GLU:HB3	1.87	0.56
9:E:28:DT:H1'	9:E:29:DA:H5''	1.86	0.56
1:A:1639:LEU:HA	1:A:1642:LYS:HE3	1.87	0.55
1:A:2737:GLU:O	1:A:2741:LEU:N	2.35	0.55
1:F:122:LYS:HG3	1:F:124:LYS:HD3	1.88	0.55
1:F:301:CYS:HA	1:F:309:LYS:HA	1.88	0.55
1:F:1050:GLU:OE1	1:F:1057:LYS:NZ	2.38	0.55
1:F:1532:LEU:HG	1:F:1592:MET:HE1	1.88	0.55
4:R:55:SER:OG	4:R:69:PRO:HB3	2.06	0.55
6:j:629:THR:HA	6:j:632:PHE:CZ	2.41	0.55
1:A:273:ARG:O	1:A:277:LEU:HG	2.06	0.55
1:A:2548:PRO:HB3	1:A:2847:THR:HA	1.89	0.55
1:A:3445:LEU:O	1:A:3448:GLU:HG2	2.06	0.55
1:A:3500:SER:HA	1:A:3503:VAL:HG12	1.89	0.55
1:A:3738:ILE:O	1:A:3749:PRO:HA	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3771:MET:HA	1:A:3774:ILE:HD12	1.89	0.55
1:F:639:ALA:O	1:F:643:GLU:N	2.39	0.55
1:F:923:ASP:O	1:F:926:THR:N	2.39	0.55
1:F:1400:VAL:HA	1:F:1403:MET:HE2	1.86	0.55
1:F:2321:GLU:O	1:F:2325:LEU:HG	2.06	0.55
1:F:2548:PRO:HB3	1:F:2847:THR:HA	1.89	0.55
1:F:3239:LYS:HB3	1:F:3258:LEU:HD21	1.87	0.55
2:L:6:SER:HB3	2:L:20:LEU:HD12	1.89	0.55
2:L:56:ALA:HB3	2:L:63:LYS:HE3	1.86	0.55
2:N:32:PHE:HZ	2:N:70:LEU:HD12	1.71	0.55
5:a:36:ASP:N	5:a:81:ASP:OD1	2.38	0.55
5:a:48:MET:HA	5:a:59:PRO:HB2	1.87	0.55
5:a:275:ASN:ND2	8:D:27:DT:OP1	2.38	0.55
8:D:25:DT:H3'	8:D:26:DT:H72	1.87	0.55
1:A:61:ARG:HH11	1:A:65:LEU:HD12	1.72	0.55
1:A:1086:TYR:CE1	1:A:1133:HIS:HB3	2.41	0.55
1:A:2225:HIS:CE1	1:A:2234:ASN:HD21	2.24	0.55
1:A:2481:HIS:HE2	1:A:2530:ARG:HG3	1.72	0.55
1:A:2806:LYS:HB2	1:A:2857:CYS:HB2	1.89	0.55
1:A:3444:ALA:HA	1:A:3482:LEU:HD11	1.88	0.55
1:F:323:VAL:HA	1:F:326:MET:HG2	1.87	0.55
1:F:407:VAL:O	1:F:449:TYR:OH	2.23	0.55
1:F:1468:LEU:HD22	1:F:1521:PHE:CZ	2.41	0.55
1:F:2348:GLN:O	1:F:2353:GLN:NE2	2.39	0.55
1:F:3495:PHE:O	1:F:3499:ILE:N	2.39	0.55
1:F:3502:MET:HG3	1:F:3518:VAL:HG11	1.87	0.55
1:F:3962:ARG:HD2	1:F:4124:TRP:NE1	2.21	0.55
2:O:21:GLN:HE21	2:O:126:LEU:HA	1.71	0.55
6:j:497:ARG:HH12	6:j:503:GLU:H	1.52	0.55
1:A:2801:ASP:OD2	1:A:2804:ILE:N	2.29	0.55
1:A:3459:ASN:O	1:A:3463:LEU:HG	2.07	0.55
1:F:306:VAL:HA	1:F:309:LYS:HD3	1.87	0.55
1:F:1038:LYS:HA	1:F:1041:ILE:HD12	1.87	0.55
1:F:2158:ARG:C	1:F:2160:TYR:H	2.14	0.55
2:N:155:TRP:CE2	2:O:154:ASP:HB3	2.42	0.55
3:P:817:THR:HG1	3:P:861:SER:HG	1.51	0.55
5:a:280:ALA:N	6:b:429:ASP:OD1	2.34	0.55
6:j:251:LEU:HG	6:j:259:ILE:HB	1.89	0.55
6:j:484:ASN:O	6:j:488:GLN:NE2	2.38	0.55
6:j:659:LEU:HD13	6:j:688:LYS:HD2	1.87	0.55
1:A:303:HIS:O	1:A:309:LYS:NZ	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:851:ILE:O	1:A:855:VAL:HG23	2.07	0.55
1:A:2446:LEU:HD23	1:A:2451:LEU:HD23	1.88	0.55
1:A:3357:ARG:O	1:A:3360:LEU:HB3	2.07	0.55
1:F:1015:ASP:OD1	1:F:1015:ASP:N	2.37	0.55
1:F:1626:TRP:HZ2	1:F:1674:THR:HG21	1.70	0.55
2:N:16:ILE:HG12	2:N:38:ASP:HB2	1.88	0.55
1:A:1676:ILE:O	1:A:1680:ALA:N	2.35	0.55
1:A:2514:ASN:ND2	1:A:2517:LEU:HG	2.21	0.55
1:A:3293:CYS:SG	1:A:3340:ALA:HB1	2.46	0.55
1:F:2097:LEU:O	1:F:2101:VAL:HG23	2.06	0.55
1:F:2987:THR:HG22	1:F:2990:GLU:HG3	1.89	0.55
1:F:3554:PHE:HA	1:F:3557:ARG:NE	2.22	0.55
1:F:3741:ARG:HA	1:F:3747:GLU:HA	1.87	0.55
5:a:135:MET:HG2	5:a:136:GLY:H	1.72	0.55
6:j:325:LYS:O	6:j:328:GLU:HG2	2.06	0.55
6:j:465:LYS:O	6:j:474:GLU:N	2.38	0.55
1:A:1821:ASP:OD1	1:A:1875:LYS:NZ	2.24	0.55
1:F:1582:LEU:HD11	1:F:1597:LEU:HD21	1.88	0.55
2:K:188:LYS:HE3	3:M:769:THR:HG23	1.89	0.55
2:N:55:GLU:HA	2:N:58:ASP:HB2	1.88	0.55
3:P:668:SER:OG	3:P:704:SER:N	2.38	0.55
4:R:16:LEU:HA	4:R:83:LEU:HA	1.88	0.55
6:b:457:LEU:O	6:b:461:MET:N	2.38	0.55
5:h:458:GLN:HB3	5:h:525:PHE:HE1	1.71	0.55
6:j:80:HIS:HE1	6:j:93:ASP:HB3	1.72	0.55
1:A:894:PHE:O	1:A:905:ILE:N	2.37	0.55
1:A:1675:TYR:HA	1:A:1678:LEU:HD12	1.88	0.55
1:A:3593:ARG:NH2	1:A:3657:SER:O	2.37	0.55
1:A:3947:GLY:O	1:A:3950:THR:OG1	2.24	0.55
1:F:1627:LYS:HE2	1:F:1674:THR:OG1	2.07	0.55
1:F:1709:GLU:OE1	1:F:1709:GLU:N	2.33	0.55
1:F:2820:MET:HE1	1:F:2829:LYS:HG2	1.87	0.55
1:F:3176:MET:HA	1:F:3176:MET:HE3	1.89	0.55
3:M:800:GLU:HA	3:M:805:TRP:HB2	1.87	0.55
2:O:55:GLU:OE1	2:O:66:TYR:OH	2.23	0.55
3:P:820:LEU:HD21	3:P:841:LYS:HB3	1.87	0.55
5:a:90:THR:OG1	5:a:91:GLU:OE1	2.25	0.55
5:h:372:GLU:OE2	5:h:379:SER:N	2.25	0.55
5:h:467:GLU:O	5:h:470:ARG:NH1	2.34	0.55
1:A:111:CYS:HB2	1:A:130:LEU:HD22	1.87	0.55
1:A:865:GLN:OE1	1:A:3171:ALA:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2197:THR:O	1:A:2201:THR:OG1	2.24	0.55
1:A:3472:ILE:HA	1:A:3479:THR:HG21	1.89	0.55
1:F:103:TYR:O	1:F:106:GLU:HB2	2.06	0.55
1:F:1723:PRO:HG3	6:j:594:PRO:HD3	1.87	0.55
1:F:2335:ASN:OD1	1:F:2336:ILE:N	2.39	0.55
1:F:2507:ILE:HG22	1:F:2550:ILE:HG13	1.87	0.55
3:M:753:HIS:NE2	3:M:757:GLU:OE2	2.40	0.55
2:O:33:VAL:HG22	2:O:47:VAL:HG13	1.89	0.55
5:h:203:MET:HE1	5:h:205:LEU:HD13	1.89	0.55
1:A:18:THR:O	1:A:22:ALA:N	2.39	0.55
1:A:3251:ASN:O	1:A:3254:LEU:HD22	2.06	0.55
1:A:3622:ALA:O	1:A:3630:ARG:NE	2.40	0.55
1:A:3699:LEU:O	1:A:3719:ILE:N	2.40	0.55
1:F:1960:LYS:HZ3	1:F:2125:TRP:CD1	2.25	0.55
1:F:2348:GLN:O	1:F:2352:HIS:NE2	2.40	0.55
1:F:3081:HIS:HB2	1:F:3082:TYR:CE2	2.42	0.55
1:F:3424:LEU:HD21	1:F:3443:PRO:HG3	1.89	0.55
1:F:3995:PRO:HD3	1:F:4051:LEU:HD22	1.88	0.55
2:K:153:ARG:HD2	2:K:154:ASP:N	2.22	0.55
3:M:875:PHE:HD2	3:M:888:ILE:HG23	1.71	0.55
2:N:145:GLN:HB2	2:O:144:LEU:HD13	1.89	0.55
5:a:87:PHE:O	5:a:103:TYR:N	2.40	0.55
5:h:118:GLU:O	5:h:121:GLN:HG2	2.07	0.55
6:j:332:LYS:O	6:j:334:LYS:NZ	2.33	0.55
6:j:629:THR:HA	6:j:632:PHE:CE2	2.42	0.55
1:A:138:PHE:O	1:A:142:ARG:HD2	2.07	0.54
1:A:895:ALA:HA	1:A:904:VAL:HA	1.90	0.54
1:A:1071:ASN:O	1:A:1075:ARG:NE	2.38	0.54
1:A:1504:ASP:H	1:A:1507:CYS:HB2	1.72	0.54
1:A:2394:LYS:O	1:A:2398:LEU:HG	2.06	0.54
1:A:3062:LEU:HD13	1:A:3089:LEU:HD11	1.89	0.54
1:A:3151:LEU:HB3	1:A:3197:LEU:HA	1.88	0.54
1:A:3639:GLU:HG2	1:A:3667:LEU:HD11	1.88	0.54
1:F:913:ARG:NH2	1:F:2801:ASP:OD1	2.34	0.54
1:F:3061:LEU:O	1:F:3065:ILE:HG12	2.07	0.54
1:F:3825:LYS:HA	1:F:3829:LEU:HD13	1.88	0.54
1:F:3881:ASP:HB3	1:F:3885:ARG:HH22	1.72	0.54
3:M:791:GLU:O	3:M:794:SER:OG	2.21	0.54
3:M:812:MET:SD	3:M:848:HIS:HB3	2.47	0.54
4:Q:31:LYS:HG3	4:Q:32:GLN:HG2	1.89	0.54
4:R:41:LEU:HD21	4:R:139:LEU:HD11	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:b:381:ILE:HG23	6:b:410:PRO:HB2	1.88	0.54
6:j:242:ARG:NH2	6:j:271:ARG:O	2.40	0.54
6:j:381:ILE:HD13	6:j:417:GLU:HB3	1.89	0.54
8:D:29:DG:N2	9:E:29:DA:H1'	2.22	0.54
1:A:418:ALA:HB3	1:A:463:LYS:HD3	1.89	0.54
1:A:1102:GLU:H	1:A:1102:GLU:CD	2.15	0.54
1:A:1416:GLU:O	1:A:1420:ARG:N	2.27	0.54
1:A:2869:LEU:HD13	1:A:2896:ALA:HA	1.89	0.54
1:F:1048:GLN:OE1	1:F:1051:LYS:NZ	2.40	0.54
1:F:1164:CYS:SG	1:F:1165:LEU:N	2.80	0.54
1:F:1949:ILE:HG12	1:F:2100:LEU:HD21	1.88	0.54
3:M:869:HIS:CE1	3:M:890:LYS:HA	2.42	0.54
2:O:38:ASP:OD1	2:O:41:SER:N	2.33	0.54
4:Q:17:GLN:HB2	4:Q:83:LEU:HD12	1.89	0.54
4:Q:54:VAL:HG12	4:Q:72:PHE:HB3	1.89	0.54
6:b:67:PRO:HD2	6:b:113:VAL:HG13	1.88	0.54
6:b:593:ASN:HA	6:b:597:ASN:HB2	1.88	0.54
5:h:330:GLU:HB3	5:h:332:GLU:CD	2.31	0.54
5:h:470:ARG:HA	6:j:345:PHE:HB2	1.88	0.54
6:j:247:TRP:H	6:j:264:TYR:HE1	1.54	0.54
11:J:16:DA:H2'	11:J:17:DT:C4	2.42	0.54
1:A:1072:ALA:HA	1:A:1075:ARG:HH21	1.71	0.54
1:A:1142:HIS:HA	1:A:1145:LEU:HD13	1.89	0.54
1:A:1386:ILE:HG13	1:A:1387:GLY:H	1.71	0.54
1:A:3419:PHE:O	1:A:3423:GLN:HG2	2.08	0.54
1:A:3856:MET:O	1:A:3860:LYS:HB2	2.07	0.54
1:A:3986:HIS:HA	1:A:3989:ARG:HE	1.73	0.54
1:F:198:ARG:NH1	5:h:315:ASP:HB2	2.21	0.54
1:F:928:VAL:HB	1:F:2769:VAL:HG11	1.89	0.54
1:F:2851:PHE:HB3	1:F:2854:PHE:HB3	1.88	0.54
5:a:125:GLN:O	5:a:129:LYS:HG2	2.08	0.54
5:a:203:MET:HE1	5:a:237:SER:H	1.72	0.54
6:b:341:SER:O	6:b:394:ARG:N	2.40	0.54
5:h:468:LYS:HB3	5:h:517:ARG:HG3	1.88	0.54
5:h:514:MET:HE3	6:j:254:GLY:HA2	1.88	0.54
8:D:28:DA:H2''	8:D:29:DG:N7	2.22	0.54
1:A:252:VAL:HA	6:b:554:PHE:HB2	1.88	0.54
1:A:667:TYR:HA	1:A:670:LEU:HD12	1.89	0.54
1:A:935:HIS:CD2	1:A:2773:ARG:HH12	2.25	0.54
1:A:3512:VAL:HA	1:A:3515:GLN:OE1	2.07	0.54
1:F:108:LYS:HZ1	1:F:148:LYS:HE2	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1419:LEU:HG	1:F:1467:ILE:HD13	1.90	0.54
1:F:1510:LEU:O	1:F:1514:LEU:HG	2.07	0.54
1:F:2376:ASP:HB3	1:F:2404:ARG:NH2	2.22	0.54
1:F:2452:ARG:HE	1:F:2497:GLU:CD	2.14	0.54
1:F:3582:GLU:O	1:F:3586:LYS:HG2	2.07	0.54
2:O:5:ILE:HA	2:O:21:GLN:HA	1.90	0.54
4:Q:178:ARG:NH2	5:h:216:PHE:O	2.41	0.54
5:a:176:HIS:CD2	5:a:182:LYS:HD3	2.43	0.54
6:b:14:MET:SD	6:b:38:ILE:HD11	2.47	0.54
6:b:56:LEU:HB3	6:b:81:ARG:HB3	1.89	0.54
5:h:253:LYS:HA	6:j:433:TYR:CZ	2.42	0.54
1:A:1005:ASP:OD1	1:A:1005:ASP:N	2.41	0.54
1:A:1086:TYR:CD1	1:A:1133:HIS:HB3	2.42	0.54
1:A:1190:LEU:O	1:A:1193:LYS:HG2	2.07	0.54
1:A:1840:PHE:HB2	1:A:1880:MET:HE2	1.89	0.54
1:A:2411:LEU:O	1:A:2415:LEU:HG	2.07	0.54
1:A:2771:LEU:HD23	1:A:2771:LEU:H	1.72	0.54
1:A:3159:ARG:HA	1:A:3162:ASN:ND2	2.23	0.54
1:A:3959:MET:N	1:A:3959:MET:SD	2.81	0.54
1:F:218:PRO:HG3	11:J:21:DA:OP2	2.07	0.54
1:F:456:VAL:HA	1:F:459:ARG:HD2	1.89	0.54
1:F:1270:PHE:HB3	1:F:1276:VAL:HG12	1.88	0.54
1:F:2415:LEU:HA	1:F:2418:LYS:HB2	1.90	0.54
1:F:3449:LYS:HA	1:F:3452:LYS:HD3	1.90	0.54
2:K:94:TYR:HE1	2:K:96:PHE:HB3	1.72	0.54
6:b:623:PHE:HE2	6:b:634:LYS:HB2	1.73	0.54
8:D:24:DT:H3	9:E:33:DA:H2	1.54	0.54
1:A:103:TYR:HA	1:A:106:GLU:OE2	2.08	0.54
1:A:2268:LYS:O	1:A:2271:SER:OG	2.20	0.54
1:A:2869:LEU:HB2	1:A:2899:ARG:HH21	1.72	0.54
1:A:3805:TRP:CD1	1:A:3807:GLU:H	2.26	0.54
1:F:582:THR:HB	1:F:615:ALA:HB2	1.89	0.54
1:F:710:PHE:O	1:F:713:GLU:HG2	2.08	0.54
1:F:1250:LEU:O	1:F:1254:LEU:HG	2.08	0.54
1:F:2773:ARG:HH21	1:F:2775:TYR:HE1	1.55	0.54
1:F:3383:GLN:O	1:F:3386:SER:OG	2.20	0.54
1:F:3974:MET:HE2	1:F:3978:GLY:N	2.23	0.54
2:N:4:LYS:HB3	2:N:20:LEU:HB3	1.89	0.54
2:N:190:LYS:HE2	2:N:194:LEU:HD11	1.90	0.54
5:a:39:ILE:HG12	5:a:84:ALA:HB3	1.89	0.54
6:b:12:LEU:HB3	6:b:14:MET:HE3	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:h:299:LYS:O	6:j:294:VAL:N	2.39	0.54
1:A:1164:CYS:SG	1:A:1165:LEU:N	2.80	0.54
1:A:2974:GLU:O	1:A:2978:LYS:N	2.41	0.54
1:A:3149:GLY:O	1:A:3152:SER:OG	2.25	0.54
1:A:3841:ASP:OD1	1:A:3866:GLU:HG3	2.06	0.54
1:F:1115:HIS:O	1:F:1119:LYS:NZ	2.34	0.54
1:F:1407:LYS:HA	1:F:1412:LYS:HB3	1.90	0.54
1:F:1697:PRO:HA	1:F:1753:SER:HB2	1.90	0.54
1:F:2196:TRP:HE1	1:F:2200:ALA:HB3	1.71	0.54
1:F:3100:LYS:HA	1:F:3103:ILE:HG22	1.90	0.54
1:F:3373:VAL:O	1:F:3377:LEU:HG	2.07	0.54
1:F:4008:GLU:HG3	1:F:4011:PHE:HB2	1.89	0.54
4:Q:194:MET:HE1	4:R:220:ALA:HB2	1.89	0.54
5:h:392:LYS:NZ	6:j:459:ASP:OD1	2.31	0.54
5:h:471:PHE:N	6:j:345:PHE:O	2.31	0.54
6:j:14:MET:SD	6:j:38:ILE:HD11	2.47	0.54
1:A:275:PHE:HZ	1:A:319:PHE:HB2	1.73	0.54
1:A:976:VAL:HG22	1:A:977:ASP:H	1.72	0.54
1:A:1423:ILE:HG13	1:A:1425:ALA:H	1.73	0.54
1:A:3085:GLU:HA	1:A:3088:LEU:HD12	1.89	0.54
1:A:3279:SER:HA	1:A:3282:ARG:HH21	1.73	0.54
1:F:1418:HIS:O	1:F:1421:GLU:HG2	2.08	0.54
1:F:1691:GLN:O	1:F:1694:THR:OG1	2.24	0.54
1:F:2405:VAL:HA	1:F:2408:MET:HE1	1.90	0.54
1:F:3158:LYS:HE2	1:F:3186:ARG:HH12	1.72	0.54
1:F:3335:ARG:HG2	1:F:3339:ASN:HD21	1.71	0.54
3:M:706:ASN:HA	5:a:498:MET:HA	1.89	0.54
4:Q:131:VAL:N	4:R:42:GLN:H	2.06	0.54
5:a:143:LEU:HA	5:a:146:VAL:HG22	1.89	0.54
5:a:514:MET:HG2	7:c:201:PHE:CE2	2.42	0.54
6:b:212:MET:HE2	6:b:220:GLY:O	2.08	0.54
6:j:112:ILE:HA	6:j:115:MET:HG2	1.89	0.54
1:A:40:GLN:HE21	1:A:2426:HIS:CE1	2.26	0.54
1:A:380:ASP:HA	1:A:383:PHE:HB3	1.90	0.54
1:A:635:PRO:O	1:A:679:LYS:NZ	2.37	0.54
1:A:2578:GLU:OE1	1:A:2578:GLU:N	2.31	0.54
1:A:3156:PRO:HA	1:A:3159:ARG:CZ	2.38	0.54
1:F:1921:ASP:OD1	1:F:1922:ALA:N	2.41	0.54
1:F:3048:LYS:O	1:F:3052:LEU:HG	2.08	0.54
1:F:4057:ALA:HB1	1:F:4082:ARG:HA	1.90	0.54
2:K:42:ALA:HB3	2:K:116:VAL:HG11	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:871:ARG:HD2	3:M:874:ASP:OD2	2.08	0.54
4:R:187:ASN:OD1	4:R:188:SER:N	2.38	0.54
1:A:391:ARG:HB3	1:A:395:MET:HE1	1.90	0.54
1:A:645:TRP:O	1:A:649:PHE:N	2.41	0.54
1:A:2837:LEU:O	1:A:2841:ASN:ND2	2.40	0.54
1:A:3077:ILE:HA	1:A:3080:LEU:HB2	1.90	0.54
1:A:3447:VAL:HA	1:A:3450:MET:HG2	1.90	0.54
1:F:342:MET:HE2	6:j:573:GLY:HA2	1.88	0.54
1:F:2825:THR:HG22	1:F:2828:GLU:CD	2.32	0.54
1:F:3659:PHE:HA	1:F:3662:ILE:HD12	1.89	0.54
2:K:20:LEU:HG	2:K:34:ILE:HD11	1.89	0.54
4:Q:178:ARG:NE	5:h:214:SER:O	2.41	0.54
6:b:14:MET:HE1	6:b:135:PHE:HD1	1.72	0.54
8:D:27:DT:O4	9:E:29:DA:N6	2.41	0.54
1:A:174:VAL:O	1:A:178:LEU:N	2.32	0.53
1:A:1251:GLN:CD	1:A:1251:GLN:H	2.16	0.53
1:A:3571:PHE:O	1:A:3575:LEU:HG	2.09	0.53
1:F:828:LYS:HB2	1:F:830:VAL:HG22	1.90	0.53
1:F:1151:ARG:HH11	1:F:1163:LEU:HB2	1.72	0.53
1:F:2187:VAL:HG23	1:F:2728:LEU:HD21	1.89	0.53
1:F:2257:PHE:HA	1:F:2260:PHE:CZ	2.42	0.53
1:F:2414:GLN:O	1:F:2418:LYS:N	2.32	0.53
1:F:2464:HIS:CD2	1:F:2466:SER:HB3	2.42	0.53
1:F:3120:LEU:HD23	1:F:3120:LEU:H	1.73	0.53
2:K:92:SER:HB3	2:K:94:TYR:HD2	1.74	0.53
3:M:845:LEU:O	3:M:850:ALA:N	2.41	0.53
2:N:148:ASN:OD1	2:O:151:LEU:HD12	2.07	0.53
2:O:163:GLU:HA	3:P:846:ARG:NH2	2.21	0.53
4:Q:221:VAL:HG13	4:R:198:LEU:HD11	1.90	0.53
5:a:240:GLU:H	5:a:240:GLU:CD	2.15	0.53
5:h:62:MET:HE1	5:h:239:LEU:HD13	1.90	0.53
5:h:164:LYS:HB3	5:h:198:ILE:HA	1.90	0.53
5:h:419:GLU:HB3	5:h:428:THR:HB	1.90	0.53
1:A:217:LEU:O	1:A:218:PRO:C	2.51	0.53
1:A:3159:ARG:HA	1:A:3162:ASN:HD21	1.72	0.53
1:A:3521:ILE:O	1:A:3525:TYR:N	2.32	0.53
1:A:3988:LEU:HD23	1:A:4100:GLU:HA	1.90	0.53
1:F:406:ARG:O	1:F:409:GLN:NE2	2.40	0.53
1:F:1588:ASP:OD1	1:F:1589:ASN:N	2.40	0.53
1:F:2228:ARG:HH22	1:F:2738:LYS:HD3	1.73	0.53
1:F:2253:TYR:H	1:F:2256:ILE:HD12	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2575:PRO:HA	1:F:2786:LYS:HA	1.89	0.53
1:F:2975:ALA:HA	1:F:2978:LYS:HZ1	1.73	0.53
3:M:876:LYS:O	3:M:880:ARG:HG2	2.08	0.53
2:O:9:HIS:NE2	2:O:86:PHE:O	2.41	0.53
4:Q:51:THR:OG1	4:Q:69:PRO:HB2	2.09	0.53
5:a:210:GLY:HA2	5:a:233:PHE:HA	1.90	0.53
6:b:104:GLN:HB3	6:b:141:ARG:H	1.72	0.53
5:h:83:LEU:O	5:h:115:ARG:NH2	2.34	0.53
6:j:246:HIS:HA	6:j:264:TYR:CE1	2.44	0.53
1:A:369:PHE:HZ	6:b:574:ALA:H	1.55	0.53
1:A:2391:GLY:O	1:A:2431:ARG:NH2	2.38	0.53
1:A:2948:GLY:O	1:A:2951:GLN:NE2	2.41	0.53
1:A:3228:SER:OG	1:A:3232:ARG:NH2	2.41	0.53
1:F:62:ASP:O	1:F:66:LEU:HG	2.08	0.53
1:F:246:ARG:HA	1:F:249:PHE:CD2	2.43	0.53
1:F:901:MET:HB2	1:F:2819:GLU:HG2	1.89	0.53
1:F:1343:GLU:O	1:F:1346:THR:OG1	2.22	0.53
1:F:2388:LYS:NZ	5:h:154:PHE:O	2.35	0.53
1:F:2404:ARG:NH1	1:F:2406:GLU:OE2	2.41	0.53
1:F:2749:ALA:O	1:F:2753:ARG:HG2	2.08	0.53
1:F:3691:LYS:NZ	1:F:3693:GLU:OE2	2.41	0.53
2:K:71:ARG:HD3	2:K:75:LEU:HD12	1.90	0.53
3:M:661:ASP:H	3:M:688:TYR:HE1	1.56	0.53
3:M:720:VAL:N	3:M:745:HIS:O	2.29	0.53
3:P:836:THR:HG23	3:P:838:LEU:HG	1.90	0.53
6:b:570:GLU:O	6:b:575:HIS:HB3	2.08	0.53
1:A:342:MET:HE3	1:A:369:PHE:CG	2.43	0.53
1:A:1413:ASP:OD1	1:A:1414:ILE:N	2.41	0.53
1:A:1419:LEU:HD11	1:A:1467:ILE:HD13	1.90	0.53
1:A:3422:GLN:N	1:A:3425:ARG:HH21	2.06	0.53
1:F:94:GLU:OE1	1:F:837:THR:OG1	2.25	0.53
1:F:183:GLU:HG2	1:F:184:VAL:N	2.24	0.53
1:F:2350:LYS:HA	1:F:2354:ASN:OD1	2.09	0.53
1:F:4113:ASP:O	1:F:4117:LEU:HG	2.09	0.53
2:K:95:PHE:HB2	2:K:113:LEU:HD11	1.90	0.53
3:M:654:LYS:HB2	3:M:684:GLU:O	2.08	0.53
2:O:22:VAL:HG21	2:O:74:LEU:HD22	1.89	0.53
3:P:707:ILE:HG12	5:h:500:PRO:HD3	1.90	0.53
5:a:340:PHE:HD2	5:a:408:PRO:HD2	1.73	0.53
1:A:2213:ASN:ND2	1:A:2248:CYS:O	2.42	0.53
1:A:2213:ASN:OD1	1:A:2250:SER:N	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2564:GLU:O	1:A:2567:SER:OG	2.24	0.53
1:F:531:PHE:O	1:F:534:LEU:HB2	2.07	0.53
1:F:941:MET:SD	1:F:942:LEU:N	2.82	0.53
1:F:994:TRP:CZ2	1:F:1000:LYS:HE3	2.43	0.53
1:F:1268:ASN:ND2	1:F:1347:THR:OG1	2.42	0.53
1:F:1455:CYS:HA	1:F:1458:LEU:HD12	1.90	0.53
1:F:1639:LEU:HD11	1:F:1688:LEU:HD13	1.91	0.53
1:F:2253:TYR:CE1	1:F:2288:TYR:HA	2.43	0.53
1:F:2491:THR:OG1	1:F:2492:ASP:N	2.36	0.53
1:F:3424:LEU:HA	1:F:3427:GLU:HB2	1.91	0.53
4:Q:133:GLN:HB2	4:R:43:GLN:N	2.23	0.53
5:a:441:ASP:HB3	6:b:239:LYS:HG3	1.91	0.53
5:a:474:ARG:HB3	5:a:477:SER:OG	2.08	0.53
1:A:538:ASP:OD1	1:A:538:ASP:N	2.42	0.53
1:A:1331:ASN:HD21	1:A:1384:PHE:N	2.06	0.53
1:A:1333:SER:O	1:A:1337:VAL:HG23	2.08	0.53
1:A:3114:TYR:HE1	1:A:3125:ARG:HB3	1.74	0.53
1:A:3915:HIS:HB2	1:A:3920:ILE:HB	1.91	0.53
1:F:967:PRO:HB2	1:F:971:ARG:NH2	2.23	0.53
1:F:996:THR:HG23	1:F:1043:GLN:NE2	2.23	0.53
1:F:1142:HIS:O	1:F:1146:ASN:N	2.37	0.53
1:F:1769:GLU:O	1:F:1822:ARG:NH1	2.41	0.53
1:F:2534:ASN:HB3	1:F:2537:ASP:HB2	1.90	0.53
1:F:3169:PRO:O	1:F:3179:TRP:NE1	2.42	0.53
1:F:3771:MET:O	1:F:3775:LEU:HG	2.08	0.53
1:F:3874:ARG:NH2	1:F:4116:ILE:O	2.35	0.53
2:K:19:PHE:CE2	2:K:126:LEU:HD21	2.43	0.53
2:K:35:THR:HG22	2:K:44:THR:HG22	1.90	0.53
3:P:753:HIS:NE2	3:P:757:GLU:OE1	2.42	0.53
6:b:497:ARG:NH2	6:b:503:GLU:O	2.42	0.53
5:h:204:HIS:CD2	5:h:237:SER:HB3	2.44	0.53
6:j:529:PRO:HA	6:j:532:LYS:HE3	1.89	0.53
8:D:37:DG:N1	9:E:22:DA:N1	2.46	0.53
1:A:538:ASP:HA	1:A:541:MET:HG3	1.90	0.53
1:A:997:ASN:OD1	1:A:1043:GLN:NE2	2.41	0.53
1:A:1098:GLN:OE1	1:A:1152:ARG:N	2.42	0.53
1:A:1279:LEU:H	1:A:1356:TRP:HE1	1.56	0.53
1:A:1849:ASP:OD1	1:A:1850:VAL:N	2.42	0.53
1:A:3283:LEU:O	1:A:3287:ARG:N	2.34	0.53
1:F:1278:ALA:HA	1:F:1281:VAL:HG22	1.91	0.53
1:F:1404:LYS:NZ	1:F:1460:ARG:O	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2225:HIS:CE1	1:F:2234:ASN:HD21	2.27	0.53
1:F:3240:MET:HE3	1:F:3272:TRP:CH2	2.44	0.53
1:F:3339:ASN:OD1	1:F:3378:TYR:OH	2.27	0.53
2:K:173:GLU:HG2	2:L:172:LEU:HD21	1.91	0.53
2:N:191:ILE:HG23	2:O:194:LEU:HD11	1.91	0.53
2:O:53:SER:O	2:O:63:LYS:NZ	2.42	0.53
6:j:457:LEU:O	6:j:461:MET:N	2.42	0.53
6:j:512:ILE:HA	6:j:515:MET:SD	2.49	0.53
6:j:643:ARG:CZ	6:j:689:GLU:HG2	2.38	0.53
1:A:332:GLU:OE1	1:A:332:GLU:N	2.38	0.53
1:A:1504:ASP:O	1:A:1508:LYS:N	2.40	0.53
1:A:1729:PHE:HB3	1:A:1736:PHE:HB2	1.91	0.53
1:A:1766:LEU:HD13	1:A:1778:PHE:CD1	2.44	0.53
1:A:3321:LEU:HA	1:A:3324:ARG:NH1	2.24	0.53
1:A:3530:VAL:HG12	1:A:3562:LEU:HD22	1.89	0.53
1:F:40:GLN:CD	1:F:2427:ARG:HB2	2.34	0.53
1:F:417:VAL:HA	1:F:420:VAL:HG12	1.90	0.53
1:F:1635:LYS:HE2	1:F:1642:LYS:HZ3	1.73	0.53
1:F:2582:SER:OG	1:F:2583:GLU:N	2.42	0.53
1:F:2808:LEU:HD23	1:F:2812:LEU:HD23	1.91	0.53
1:F:4041:ARG:HA	1:F:4044:ILE:HG12	1.91	0.53
2:K:89:SER:HB3	2:K:96:PHE:CE1	2.43	0.53
11:J:21:DA:H2'	11:J:22:DG:N7	2.23	0.53
1:A:65:LEU:O	1:A:69:VAL:HG22	2.09	0.53
1:A:648:SER:O	1:A:651:TYR:HB3	2.09	0.53
1:A:1304:HIS:HB3	1:A:1307:ILE:O	2.09	0.53
1:A:3929:MET:O	1:A:3938:ILE:N	2.36	0.53
1:F:61:ARG:HB2	1:F:103:TYR:CE2	2.44	0.53
1:F:125:ILE:HD12	1:F:125:ILE:H	1.73	0.53
1:F:195:ASN:O	1:F:198:ARG:HG3	2.09	0.53
1:F:357:LYS:O	1:F:361:ILE:HG12	2.09	0.53
1:F:1323:SER:N	1:F:1328:GLU:OE2	2.42	0.53
1:F:2485:ARG:NH2	1:F:2529:THR:O	2.42	0.53
1:F:3036:TYR:O	1:F:3039:THR:OG1	2.20	0.53
1:F:3981:TYR:HA	1:F:3984:MET:SD	2.49	0.53
3:P:722:LYS:H	3:P:742:PHE:HD2	1.56	0.53
4:Q:131:VAL:CA	4:R:42:GLN:H	2.22	0.53
5:a:261:LEU:O	5:a:268:VAL:HA	2.09	0.53
5:a:352:PRO:HA	5:a:394:VAL:HG12	1.91	0.53
5:a:498:MET:N	5:a:498:MET:SD	2.81	0.53
5:h:205:LEU:HD12	5:h:206:LYS:H	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:541:MET:HE3	1:A:560:LEU:HB3	1.90	0.53
1:F:71:LYS:HB2	1:F:82:ARG:HH21	1.73	0.53
1:F:162:LEU:HD11	1:F:164:LYS:HD3	1.90	0.53
1:F:1484:LEU:HD22	1:F:1531:LEU:HD13	1.91	0.53
1:F:2220:MET:HA	1:F:2223:VAL:HG12	1.91	0.53
1:F:2958:LEU:O	1:F:2962:ARG:HG2	2.09	0.53
4:Q:132:SER:HA	4:R:40:ASP:CA	2.39	0.53
6:j:513:TRP:HA	6:j:516:LEU:HB2	1.91	0.53
6:j:623:PHE:HE2	6:j:634:LYS:HB2	1.73	0.53
10:I:35:DT:H2''	10:I:36:DA:C8	2.45	0.53
1:A:1604:SER:HA	1:A:1607:GLU:HB3	1.90	0.52
1:A:1759:LEU:HD11	1:A:1782:PHE:HE1	1.73	0.52
1:A:2295:GLN:HG3	1:A:2298:GLU:H	1.72	0.52
1:A:3810:VAL:HG11	1:A:3815:LEU:HD13	1.92	0.52
1:F:933:LEU:HD21	1:F:2794:LEU:HD23	1.91	0.52
1:F:978:GLN:H	1:F:978:GLN:CD	2.17	0.52
1:F:1086:TYR:CE1	1:F:1133:HIS:HB3	2.43	0.52
1:F:1388:ASP:HA	1:F:1392:MET:HG2	1.91	0.52
1:F:3996:GLY:O	1:F:4000:ASN:ND2	2.42	0.52
2:O:86:PHE:HB2	2:O:95:PHE:HZ	1.74	0.52
5:a:61:ASP:OD1	5:a:62:MET:N	2.42	0.52
5:a:484:GLN:NE2	6:b:428:GLU:OE2	2.37	0.52
6:b:629:THR:OG1	6:b:630:PRO:HD3	2.09	0.52
5:h:247:ARG:NH2	5:h:501:GLU:OE2	2.42	0.52
6:j:198:THR:HG1	6:j:201:GLN:HG3	1.73	0.52
1:A:468:LEU:HD21	1:A:478:CYS:HB2	1.91	0.52
1:A:1736:PHE:HA	1:A:1739:TYR:HD2	1.74	0.52
1:A:2586:PHE:CG	1:A:2782:ASP:HB3	2.44	0.52
1:F:790:LYS:HA	1:F:869:ASN:HB3	1.92	0.52
1:F:1635:LYS:HE3	1:F:1683:LYS:HG2	1.90	0.52
2:N:18:HIS:HB3	2:N:34:ILE:HD11	1.90	0.52
4:Q:24:LEU:HD13	4:Q:211:VAL:HG12	1.90	0.52
4:Q:61:LEU:HD11	4:Q:120:ASN:H	1.75	0.52
4:R:110:SER:HB2	4:R:117:PHE:HB3	1.91	0.52
5:a:240:GLU:HG2	5:a:241:ASP:H	1.74	0.52
5:h:451:LYS:NZ	6:j:413:LYS:O	2.30	0.52
10:I:43:DT:H73	10:I:44:DG:H1	1.74	0.52
10:I:45:DG:C8	10:I:45:DG:H5'	2.44	0.52
1:A:58:VAL:HG21	1:A:3098:ARG:HD2	1.90	0.52
1:A:99:LYS:O	1:A:102:PRO:HD2	2.10	0.52
1:A:142:ARG:H	1:A:144:MET:HE1	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:406:ARG:O	1:A:409:GLN:NE2	2.42	0.52
1:A:1081:ALA:O	1:A:1085:ILE:HG23	2.09	0.52
1:A:1169:VAL:HG21	1:A:1198:LEU:HD21	1.91	0.52
1:A:1840:PHE:CZ	1:A:1844:VAL:HG22	2.44	0.52
1:A:2571:ASP:HA	1:A:2574:ASN:ND2	2.23	0.52
1:A:3515:GLN:HA	1:A:3518:VAL:HG12	1.90	0.52
1:F:1238:GLN:HG3	1:F:1296:PHE:HZ	1.73	0.52
1:F:1576:ASP:HA	1:F:1579:VAL:HB	1.91	0.52
1:F:1674:THR:O	1:F:1678:LEU:HG	2.09	0.52
1:F:2304:VAL:O	1:F:2307:MET:HB3	2.09	0.52
1:F:2755:LYS:HA	1:F:2758:LYS:HE2	1.91	0.52
1:F:2820:MET:HE2	1:F:2824:LYS:HG3	1.91	0.52
2:N:99:LYS:HB2	2:N:108:LEU:HD22	1.91	0.52
2:N:161:ARG:HB3	2:O:162:PHE:CE2	2.44	0.52
3:P:722:LYS:HG2	3:P:742:PHE:O	2.09	0.52
6:b:57:VAL:HG12	6:b:79:VAL:HG23	1.89	0.52
6:b:549:THR:HA	6:b:551:GLN:HE21	1.74	0.52
5:h:328:ILE:HG13	6:j:284:LEU:HD13	1.90	0.52
1:A:1111:LEU:HD12	1:A:1127:CYS:HB2	1.92	0.52
1:A:1164:CYS:N	1:A:1167:ASP:OD2	2.41	0.52
1:A:2931:ARG:HH12	1:A:2997:ALA:HA	1.74	0.52
1:A:3047:SER:O	1:A:3051:LEU:HG	2.09	0.52
1:A:3479:THR:HA	1:A:3482:LEU:HD12	1.90	0.52
1:F:179:GLY:C	1:F:230:LEU:HD23	2.34	0.52
1:F:440:VAL:HG21	1:F:485:GLN:HG3	1.92	0.52
1:F:1037:LEU:O	1:F:1040:SER:OG	2.23	0.52
1:F:1781:SER:HA	1:F:1784:ARG:HD3	1.91	0.52
1:F:3046:ARG:HH22	1:F:3177:ASN:HB3	1.74	0.52
1:F:3097:ASP:HA	1:F:3100:LYS:HE2	1.90	0.52
1:F:3585:PHE:HB3	1:F:3586:LYS:NZ	2.24	0.52
2:L:25:GLU:HG2	2:L:26:LYS:H	1.74	0.52
2:L:45:GLY:HA3	2:L:114:GLU:H	1.72	0.52
2:N:52:ILE:HG13	2:N:66:TYR:CG	2.44	0.52
4:R:57:ARG:HD2	4:R:61:LEU:HD22	1.91	0.52
4:R:119:TRP:CE2	4:R:121:PHE:HE1	2.28	0.52
5:a:451:LYS:HG2	5:a:453:MET:HE1	1.92	0.52
6:j:65:ASP:HB3	6:j:78:THR:HA	1.91	0.52
1:A:215:PRO:O	1:A:217:LEU:N	2.42	0.52
1:A:345:PHE:HA	1:A:348:ILE:HG12	1.91	0.52
1:A:364:ARG:NH1	1:A:415:GLN:HB3	2.25	0.52
1:A:405:ASP:OD1	1:A:406:ARG:N	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:414:LEU:HB2	1:A:460:ALA:HB1	1.91	0.52
1:A:1145:LEU:HB3	1:A:1165:LEU:HB2	1.91	0.52
1:A:1697:PRO:HD3	1:A:1749:ALA:HB1	1.91	0.52
1:A:3643:HIS:HB3	1:A:3659:PHE:CZ	2.45	0.52
1:F:571:SER:HA	1:F:574:LYS:HE2	1.91	0.52
1:F:1474:ASP:OD1	1:F:1474:ASP:N	2.43	0.52
1:F:1603:GLN:O	1:F:1603:GLN:NE2	2.42	0.52
1:F:1649:LEU:HA	1:F:1652:ILE:HD12	1.91	0.52
1:F:3482:LEU:HA	1:F:3485:LYS:HZ3	1.74	0.52
2:K:145:GLN:N	2:L:144:LEU:HD21	2.24	0.52
3:M:743:MET:HE2	3:M:754:PHE:HZ	1.74	0.52
3:M:812:MET:HE1	3:M:848:HIS:ND1	2.25	0.52
4:Q:153:LEU:O	4:Q:157:LEU:HG	2.09	0.52
6:b:133:GLU:OE2	6:b:162:GLN:NE2	2.43	0.52
5:h:466:VAL:HG11	6:j:389:MET:HG2	1.92	0.52
6:j:198:THR:OG1	6:j:201:GLN:HG3	2.09	0.52
1:A:1331:ASN:ND2	1:A:1384:PHE:H	2.07	0.52
1:A:1418:HIS:O	1:A:1422:LYS:NZ	2.34	0.52
1:A:1754:GLN:NE2	1:A:1785:ILE:O	2.43	0.52
1:F:22:ALA:HA	1:F:24:ARG:HH11	1.74	0.52
1:F:637:LYS:O	1:F:679:LYS:NZ	2.41	0.52
1:F:3516:HIS:O	1:F:3519:GLU:HB3	2.10	0.52
3:M:869:HIS:HE2	3:M:890:LYS:HG2	1.74	0.52
2:N:193:SER:O	2:N:197:LYS:HG3	2.09	0.52
3:P:847:PHE:HD2	3:P:848:HIS:CE1	2.27	0.52
5:h:59:PRO:HB3	5:h:205:LEU:HG	1.90	0.52
6:j:9:ALA:HB3	6:j:130:ARG:HG3	1.91	0.52
10:I:40:DT:O2	11:J:18:DA:H1'	2.09	0.52
1:A:79:ARG:HH21	1:A:82:ARG:HE	1.57	0.52
1:A:3269:ARG:HG3	1:A:3272:TRP:HB3	1.92	0.52
1:F:1232:PRO:HA	1:F:1235:ILE:HD12	1.91	0.52
1:F:1412:LYS:O	1:F:1415:LEU:HB2	2.10	0.52
1:F:1491:ILE:HG21	1:F:1558:TYR:HE2	1.74	0.52
1:F:1661:PHE:H	1:F:1665:HIS:CG	2.26	0.52
2:K:198:LEU:HD13	2:L:198:LEU:HA	1.92	0.52
5:a:514:MET:HG2	7:c:201:PHE:HE2	1.74	0.52
5:h:319:SER:N	6:j:277:THR:O	2.42	0.52
1:A:1009:LEU:O	1:A:1013:ILE:HG12	2.10	0.52
1:A:3319:ASN:CG	1:A:3321:LEU:HB2	2.35	0.52
1:A:3350:GLU:HA	1:A:3357:ARG:CZ	2.40	0.52
1:A:3512:VAL:O	1:A:3516:HIS:ND1	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3752:VAL:HG22	1:A:3802:LEU:HD13	1.90	0.52
1:F:738:HIS:HA	1:F:741:ILE:HG12	1.92	0.52
1:F:2571:ASP:O	1:F:2787:HIS:ND1	2.42	0.52
1:F:3419:PHE:O	1:F:3422:GLN:NE2	2.43	0.52
1:F:3628:PHE:CD1	1:F:3675:LYS:HB3	2.45	0.52
1:F:3662:ILE:O	1:F:3665:MET:HG2	2.10	0.52
2:K:72:LYS:HZ2	2:K:86:PHE:HE2	1.57	0.52
2:L:3:ARG:NH2	2:L:125:GLU:OE1	2.42	0.52
2:O:69:GLU:HA	2:O:72:LYS:HG2	1.92	0.52
3:P:741:ARG:NH1	3:P:742:PHE:HB3	2.25	0.52
7:i:183:GLU:OE2	7:i:189:GLY:N	2.31	0.52
11:J:30:DT:C6	11:J:31:DT:H72	2.45	0.52
1:A:982:GLN:HG3	1:A:2591:ILE:HD12	1.92	0.52
1:A:1414:ILE:O	1:A:1417:THR:OG1	2.21	0.52
1:F:646:VAL:O	1:F:650:SER:OG	2.22	0.52
1:F:671:SER:HB3	1:F:732:PHE:HA	1.92	0.52
1:F:1789:GLY:O	1:F:1794:GLN:NE2	2.42	0.52
3:P:752:GLU:HG3	3:P:756:ARG:NH2	2.24	0.52
4:R:109:ARG:HA	4:R:119:TRP:HD1	1.75	0.52
1:A:483:VAL:HG21	1:A:567:GLU:HG3	1.92	0.52
1:A:560:LEU:O	1:A:564:LEU:HG	2.09	0.52
1:A:1743:MET:HA	1:A:1746:PHE:CD1	2.44	0.52
1:A:2196:TRP:HB2	1:A:2199:LEU:HB2	1.91	0.52
1:A:2746:LYS:NZ	9:E:44:DG:O6	2.36	0.52
1:A:3480:LEU:HA	1:A:3483:MET:HE3	1.92	0.52
1:A:3738:ILE:HD12	1:A:3740:ILE:HD11	1.91	0.52
1:F:13:LEU:HD23	1:F:3075:LYS:NZ	2.25	0.52
1:F:2124:SER:H	1:F:2126:MET:CE	2.22	0.52
1:F:2126:MET:HG3	1:F:2160:TYR:HE2	1.75	0.52
1:F:2395:THR:HA	1:F:2398:LEU:HD12	1.91	0.52
1:F:2940:ARG:HH21	1:F:3981:TYR:HB3	1.75	0.52
1:F:3104:GLN:OE1	1:F:3108:GLN:NE2	2.42	0.52
1:F:3962:ARG:HD2	1:F:4124:TRP:CE2	2.44	0.52
2:K:127:ILE:HG13	2:L:126:LEU:HD22	1.92	0.52
2:K:172:LEU:HD11	2:L:173:GLU:HB2	1.92	0.52
2:N:13:GLU:HG3	2:N:16:ILE:HD12	1.92	0.52
6:j:511:HIS:HA	6:j:514:ASN:OD1	2.09	0.52
8:D:19:DA:H2	9:E:39:DA:C2	2.28	0.52
1:A:241:ASP:HA	1:A:244:THR:HG22	1.92	0.51
1:A:1307:ILE:HG12	1:A:1308:ALA:H	1.75	0.51
1:A:2165:LEU:HD11	1:A:2200:ALA:HB1	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2246:LYS:H	1:A:2249:LEU:HG	1.74	0.51
1:A:2253:TYR:CE2	1:A:2289:ASP:HB3	2.44	0.51
1:A:3051:LEU:O	1:A:3054:GLN:HG2	2.11	0.51
1:A:3232:ARG:HA	1:A:3235:LYS:HD3	1.92	0.51
1:A:3295:GLU:HA	1:A:3298:LEU:HD12	1.92	0.51
1:F:3097:ASP:N	1:F:3097:ASP:OD1	2.42	0.51
1:F:3781:CYS:O	1:F:3785:ALA:N	2.43	0.51
2:K:155:TRP:HA	2:L:155:TRP:HD1	1.74	0.51
3:M:739:GLN:HB3	3:M:741:ARG:NH1	2.25	0.51
6:b:61:THR:HA	6:b:101:GLY:HA3	1.92	0.51
6:b:448:GLU:OE2	6:b:452:ASN:ND2	2.42	0.51
6:j:12:LEU:HB3	6:j:14:MET:HE3	1.91	0.51
1:A:1278:ALA:HB3	1:A:1356:TRP:CD1	2.46	0.51
1:A:1386:ILE:C	1:A:1392:MET:HE1	2.35	0.51
1:A:1867:ILE:HD11	1:A:1940:TYR:HB2	1.91	0.51
1:A:2740:SER:HA	1:A:2743:TYR:CD2	2.45	0.51
1:A:3548:GLY:O	1:A:3552:LYS:NZ	2.43	0.51
1:A:3912:CYS:HA	1:A:3915:HIS:CD2	2.45	0.51
1:F:714:VAL:HG12	1:F:733:LEU:HD11	1.92	0.51
1:F:886:TRP:O	1:F:888:ARG:NH1	2.34	0.51
1:F:939:MET:SD	1:F:2783:ILE:HD13	2.49	0.51
1:F:1071:ASN:ND2	1:F:1073:PHE:HB2	2.25	0.51
1:F:1412:LYS:HA	1:F:1415:LEU:HD13	1.92	0.51
1:F:2162:LYS:O	1:F:2165:LEU:HB3	2.11	0.51
2:L:141:ASN:O	2:L:145:GLN:HG3	2.10	0.51
3:P:669:GLY:H	3:P:675:LYS:HB2	1.75	0.51
6:b:264:TYR:OH	6:b:368:ARG:NE	2.43	0.51
5:h:62:MET:HA	5:h:65:GLN:CD	2.35	0.51
5:h:229:LEU:HD23	5:h:230:ARG:HH11	1.73	0.51
5:h:256:LEU:N	5:h:273:ILE:O	2.42	0.51
5:h:411:VAL:HG12	5:h:436:PHE:HA	1.91	0.51
6:j:211:VAL:O	6:j:214:SER:OG	2.25	0.51
6:j:612:ALA:HA	6:j:616:LEU:HB2	1.91	0.51
1:A:1724:MET:O	1:A:1768:ARG:NE	2.44	0.51
1:F:210:SER:CB	6:j:551:GLN:H	2.24	0.51
1:F:289:ASN:O	1:F:292:SER:OG	2.22	0.51
1:F:977:ASP:OD1	1:F:978:GLN:N	2.42	0.51
1:F:1029:CYS:O	1:F:1033:ILE:HG12	2.11	0.51
1:F:1356:TRP:HD1	1:F:1359:LEU:HD11	1.75	0.51
1:F:1527:ARG:O	1:F:1531:LEU:HG	2.09	0.51
1:F:3466:PRO:HG3	1:F:3498:TRP:HE1	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3871:PHE:HA	1:F:3874:ARG:HE	1.76	0.51
2:N:20:LEU:HD11	2:N:22:VAL:HB	1.92	0.51
3:P:814:ARG:N	3:P:849:GLY:H	2.08	0.51
4:R:14:ALA:HB1	4:R:83:LEU:HD21	1.92	0.51
5:a:328:ILE:HG21	6:b:284:LEU:HD22	1.91	0.51
5:a:533:ASP:OD1	5:a:534:TYR:N	2.43	0.51
6:b:81:ARG:HH21	6:b:84:MET:HG3	1.76	0.51
5:h:317:LYS:HE3	5:h:328:ILE:HG22	1.93	0.51
6:j:238:LYS:HZ2	6:j:240:ILE:HA	1.74	0.51
9:E:23:DT:H1'	9:E:24:DA:N7	2.25	0.51
1:A:339:GLN:NE2	6:b:563:THR:H	2.07	0.51
1:A:628:GLU:OE1	1:A:631:ARG:NH2	2.43	0.51
1:A:645:TRP:HB3	1:A:649:PHE:HB2	1.92	0.51
1:A:721:TYR:O	1:A:1023:SER:OG	2.27	0.51
1:A:1000:LYS:HA	1:A:1004:GLN:HE21	1.75	0.51
1:A:1851:LEU:HD23	1:A:1918:LEU:HD13	1.91	0.51
1:A:2230:VAL:HG12	1:A:2731:ARG:HB3	1.92	0.51
1:A:3320:ILE:HA	1:A:3323:PHE:HB3	1.91	0.51
1:F:153:PHE:HE2	1:F:192:ASN:HD22	1.57	0.51
1:F:189:MET:HA	1:F:192:ASN:HD22	1.74	0.51
1:F:359:LEU:O	1:F:363:ILE:HG12	2.09	0.51
1:F:450:SER:N	1:F:453:MET:SD	2.84	0.51
1:F:723:ASP:C	1:F:725:LEU:H	2.18	0.51
1:F:880:MET:HG2	1:F:3934:THR:HB	1.92	0.51
1:F:1047:GLN:HG3	1:F:1051:LYS:HZ1	1.76	0.51
1:F:1096:VAL:O	1:F:1100:VAL:HG13	2.09	0.51
1:F:1686:LEU:HB3	1:F:1738:ASN:HB3	1.92	0.51
1:F:2251:ILE:HB	1:F:2253:TYR:CZ	2.46	0.51
1:F:2553:HIS:O	1:F:2556:SER:OG	2.21	0.51
1:F:3131:SER:O	1:F:3135:LEU:HG	2.10	0.51
2:L:143:HIS:HA	2:L:146:LYS:HE2	1.93	0.51
2:N:169:LYS:HB3	2:O:169:LYS:HB2	1.92	0.51
3:P:675:LYS:O	3:P:679:GLU:HG3	2.11	0.51
3:P:763:ASP:HB2	3:P:777:VAL:HG21	1.92	0.51
4:Q:146:LEU:HB3	4:R:150:VAL:HG21	1.91	0.51
6:b:213:ILE:HG13	6:b:221:LEU:HD21	1.93	0.51
6:b:682:GLY:O	6:b:686:ILE:N	2.44	0.51
5:h:303:PHE:HB2	5:h:309:GLY:O	2.11	0.51
1:A:103:TYR:O	1:A:107:ILE:HG12	2.11	0.51
1:A:1630:ASP:HA	1:A:1633:TRP:NE1	2.26	0.51
1:A:2313:LYS:HA	1:A:2316:TYR:CE2	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3321:LEU:HD13	1:A:3324:ARG:NH1	2.25	0.51
1:F:1293:ALA:HA	1:F:1296:PHE:HB2	1.91	0.51
1:F:3736:LYS:HB2	1:F:3752:VAL:HB	1.91	0.51
2:K:32:PHE:H	2:K:47:VAL:HB	1.75	0.51
2:L:124:ARG:HA	2:L:127:ILE:HD12	1.93	0.51
2:L:160:GLY:O	2:L:164:LYS:HD3	2.11	0.51
2:O:62:GLU:HB2	2:O:65:LYS:HG2	1.93	0.51
4:Q:43:GLN:HE22	4:Q:124:MET:HG2	1.75	0.51
4:R:138:PRO:O	4:R:142:MET:CB	2.58	0.51
6:b:377:LEU:HD11	6:b:419:LEU:HD23	1.91	0.51
5:h:320:GLN:HG2	6:j:276:TRP:HA	1.92	0.51
5:h:480:ASN:O	5:h:484:GLN:HG2	2.11	0.51
6:j:108:LEU:O	6:j:112:ILE:HG13	2.10	0.51
6:j:352:GLN:HG3	6:j:354:ARG:H	1.75	0.51
10:I:27:DC:H2"	11:J:31:DT:C4	2.45	0.51
1:A:36:ARG:HD3	1:A:2426:HIS:HB2	1.92	0.51
1:A:718:MET:HA	1:A:721:TYR:CD2	2.45	0.51
1:A:1354:GLU:HB3	1:A:1357:LYS:HD2	1.92	0.51
1:A:1428:ILE:HA	1:A:1431:LEU:HB2	1.93	0.51
1:A:1761:LEU:O	1:A:1765:VAL:HG23	2.11	0.51
1:A:1913:LYS:HA	1:A:1916:ILE:HD12	1.93	0.51
1:A:3335:ARG:HG2	1:A:3339:ASN:HD21	1.76	0.51
1:F:377:ASN:HB2	6:j:574:ALA:HB1	1.92	0.51
1:F:461:ILE:O	1:F:464:VAL:HG22	2.11	0.51
1:F:1527:ARG:O	1:F:1530:SER:OG	2.23	0.51
1:F:1675:TYR:O	1:F:1679:LEU:HG	2.11	0.51
1:F:1725:GLN:HG3	1:F:1728:GLU:H	1.75	0.51
1:F:1935:GLU:O	1:F:1939:LEU:HG	2.10	0.51
1:F:2355:THR:HG23	1:F:2356:MET:HE3	1.91	0.51
1:F:3236:PHE:HB3	1:F:3272:TRP:CZ3	2.45	0.51
1:F:3968:ILE:HD13	1:F:3976:GLU:HG3	1.91	0.51
2:N:20:LEU:HD13	2:N:74:LEU:HB3	1.92	0.51
5:h:289:TYR:HE1	6:j:305:VAL:HG11	1.75	0.51
6:j:347:LYS:N	6:j:350:GLN:HE21	2.07	0.51
1:A:168:ASP:HB2	1:A:170:VAL:HG22	1.93	0.51
1:A:864:GLY:O	1:A:868:LYS:HG2	2.10	0.51
1:A:1071:ASN:HB3	1:A:1074:LYS:HD2	1.93	0.51
1:A:1454:ALA:O	1:A:1458:LEU:HG	2.11	0.51
1:A:1697:PRO:HG3	1:A:1749:ALA:O	2.11	0.51
1:A:3122:HIS:O	1:A:3126:LEU:HG	2.11	0.51
1:F:198:ARG:HH12	5:h:312:LEU:HB2	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:242:PRO:C	1:F:246:ARG:HH21	2.18	0.51
1:F:342:MET:HE3	1:F:369:PHE:CZ	2.46	0.51
1:F:411:PRO:O	1:F:415:GLN:HG3	2.10	0.51
1:F:489:ARG:O	1:F:492:SER:OG	2.27	0.51
1:F:1538:LEU:HD13	1:F:1553:PHE:CZ	2.44	0.51
1:F:2120:ARG:HH12	1:F:2160:TYR:HB2	1.75	0.51
1:F:2164:TRP:C	1:F:2167:PRO:HD2	2.36	0.51
1:F:2220:MET:O	1:F:2259:LYS:NZ	2.35	0.51
1:F:2233:HIS:CE1	1:F:2237:ILE:HD11	2.46	0.51
3:M:706:ASN:ND2	5:a:496:ASP:OD1	2.31	0.51
4:Q:77:ASP:OD1	4:Q:81:ARG:NH1	2.44	0.51
5:a:288:LEU:HD11	6:b:322:PRO:HB3	1.92	0.51
6:b:151:ILE:HD11	6:b:211:VAL:HG22	1.92	0.51
6:b:338:LYS:H	6:b:398:ASP:HA	1.75	0.51
6:j:10:VAL:HA	6:j:131:HIS:HB2	1.91	0.51
1:A:949:PRO:HG3	1:F:2580:PRO:HG2	1.92	0.51
1:A:1411:TYR:O	1:A:1414:ILE:HB	2.11	0.51
1:A:1844:VAL:O	1:A:1848:ILE:HG13	2.10	0.51
1:A:3967:PHE:O	1:A:3970:LEU:HD22	2.11	0.51
1:A:4102:THR:HA	1:A:4105:LYS:HE3	1.92	0.51
1:F:785:MET:HB3	1:F:789:TYR:CE1	2.46	0.51
1:F:1751:GLU:HG3	1:F:1784:ARG:CZ	2.41	0.51
1:F:2553:HIS:O	1:F:2557:LEU:HG	2.11	0.51
1:F:3483:MET:HA	1:F:3486:GLU:HB2	1.93	0.51
1:F:4014:LYS:NZ	1:F:4015:ASN:OD1	2.31	0.51
2:K:175:ASP:OD1	2:K:176:LEU:N	2.44	0.51
2:L:177:TYR:CG	3:M:796:ILE:HG12	2.45	0.51
3:M:675:LYS:HA	3:M:678:LEU:HD12	1.91	0.51
3:M:721:VAL:HG22	3:M:743:MET:HG3	1.92	0.51
3:M:821:ASP:OD2	3:M:871:ARG:NH1	2.44	0.51
2:N:150:ARG:O	2:N:153:ARG:HG3	2.10	0.51
5:h:115:ARG:O	5:h:119:LEU:HG	2.11	0.51
5:h:288:LEU:HD13	6:j:313:GLY:HA3	1.92	0.51
6:j:497:ARG:HH11	6:j:501:PRO:HA	1.75	0.51
1:A:63:PHE:CE2	1:A:85:ILE:HG12	2.46	0.51
1:A:63:PHE:HE2	1:A:85:ILE:HG12	1.76	0.51
1:A:998:ASN:OD1	1:A:999:LYS:N	2.44	0.51
1:A:2133:LEU:HD23	1:A:2164:TRP:CZ3	2.46	0.51
1:A:2392:VAL:O	1:A:2396:LEU:HG	2.11	0.51
1:A:3348:LEU:O	1:A:3352:GLU:N	2.39	0.51
1:F:432:THR:OG1	1:F:433:PRO:HD3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:774:GLU:O	1:F:778:ILE:HG12	2.11	0.51
1:F:1131:ILE:HA	1:F:1134:LEU:HD12	1.93	0.51
1:F:1264:LEU:HD23	1:F:1340:ARG:HG3	1.93	0.51
1:F:2097:LEU:HA	1:F:2100:LEU:HD12	1.91	0.51
1:F:3550:LYS:HA	1:F:3553:GLU:CD	2.36	0.51
4:Q:33:GLY:HA2	4:Q:73:LEU:HD22	1.92	0.51
4:R:4:LEU:HD23	4:R:30:THR:HG21	1.92	0.51
6:b:616:LEU:HD13	6:b:619:HIS:CE1	2.46	0.51
5:h:125:GLN:C	5:h:127:GLY:H	2.18	0.51
5:h:526:LYS:O	5:h:530:TYR:N	2.43	0.51
8:D:13:DC:O3'	8:D:14:DA:H2'	2.11	0.51
1:A:339:GLN:HG3	6:b:564:ALA:HB2	1.92	0.51
1:A:341:PHE:HD2	1:A:369:PHE:HD1	1.57	0.51
1:A:1580:LEU:HD13	1:A:1625:HIS:CG	2.45	0.51
1:A:1913:LYS:O	1:A:1917:LYS:HG2	2.11	0.51
1:A:2412:TYR:CZ	1:A:2450:GLU:HB3	2.46	0.51
1:A:3227:ILE:HA	1:A:3230:LEU:HD12	1.93	0.51
1:A:3593:ARG:HH12	1:A:3661:ASP:CG	2.18	0.51
1:A:3894:PRO:O	1:A:3898:LEU:HG	2.11	0.51
1:A:4041:ARG:HA	1:A:4044:ILE:HG12	1.93	0.51
1:F:407:VAL:HA	1:F:410:MET:HE1	1.93	0.51
1:F:1200:GLY:O	1:F:1202:ARG:NH1	2.44	0.51
1:F:2158:ARG:HE	1:F:2199:LEU:HG	1.76	0.51
1:F:2749:ALA:HB1	1:F:2753:ARG:HH12	1.75	0.51
1:F:2797:VAL:HA	1:F:2800:ARG:HB3	1.93	0.51
1:F:3413:TYR:HD2	1:F:3453:ALA:HB2	1.76	0.51
1:F:3548:GLY:O	1:F:3552:LYS:NZ	2.39	0.51
3:M:875:PHE:CD2	3:M:888:ILE:HG23	2.46	0.51
2:O:32:PHE:CE1	2:O:70:LEU:HD11	2.46	0.51
5:h:39:ILE:HG12	5:h:84:ALA:HB3	1.93	0.51
5:h:76:ILE:HG21	5:h:247:ARG:HA	1.93	0.51
8:D:18:DA:H2''	8:D:19:DA:N7	2.25	0.51
1:A:479:ILE:HA	1:A:482:VAL:HG22	1.94	0.50
1:A:1689:LYS:O	1:A:1693:VAL:HG23	2.11	0.50
1:A:3073:LEU:HD12	1:A:3074:GLN:N	2.25	0.50
1:F:1327:GLY:HA2	1:F:1330:TYR:HB3	1.92	0.50
1:F:1871:MET:HE1	1:F:1940:TYR:HA	1.93	0.50
1:F:2510:LEU:HD21	1:F:2525:TRP:CD1	2.46	0.50
1:F:2954:GLN:NE2	1:F:2954:GLN:O	2.44	0.50
1:F:3962:ARG:NH1	1:F:4124:TRP:O	2.37	0.50
2:L:8:ILE:HD13	2:L:86:PHE:CD2	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:819:TYR:HB2	3:P:860:VAL:HG11	1.92	0.50
5:a:413:LEU:HD21	5:a:434:LEU:HD12	1.91	0.50
8:D:21:DA:N6	9:E:36:DA:H61	2.08	0.50
1:A:181:LEU:HD13	1:A:234:PHE:CE2	2.45	0.50
1:A:573:LEU:HD22	1:A:649:PHE:HD1	1.76	0.50
1:A:1199:PRO:HA	1:A:1202:ARG:HH11	1.76	0.50
1:A:1610:ASN:OD1	1:A:1611:GLN:N	2.38	0.50
1:A:1958:GLU:H	1:A:1958:GLU:CD	2.19	0.50
1:A:2234:ASN:HA	1:A:2237:ILE:HD12	1.93	0.50
1:A:2825:THR:O	1:A:2829:LYS:HG3	2.10	0.50
1:A:4012:ASP:HB2	1:A:4038:TRP:CH2	2.46	0.50
1:F:67:VAL:O	1:F:82:ARG:NH2	2.44	0.50
1:F:134:LEU:O	1:F:137:THR:OG1	2.27	0.50
1:F:2231:PHE:O	1:F:2235:LEU:HG	2.11	0.50
1:F:2356:MET:HG2	1:F:2358:ASP:H	1.77	0.50
1:F:3266:SER:HA	1:F:3272:TRP:CD1	2.47	0.50
1:F:3348:LEU:HA	1:F:3351:ILE:HD12	1.93	0.50
1:F:3443:PRO:HA	1:F:3446:VAL:HG22	1.93	0.50
2:N:95:PHE:HB2	2:N:113:LEU:HD11	1.92	0.50
4:Q:36:LEU:O	4:Q:47:GLU:HB3	2.10	0.50
5:a:302:THR:HG22	5:a:311:LEU:HD12	1.94	0.50
5:a:350:PHE:CG	6:b:458:ILE:HG23	2.45	0.50
5:a:470:ARG:NE	6:b:389:MET:SD	2.84	0.50
6:b:454:VAL:O	6:b:458:ILE:HG13	2.12	0.50
5:h:301:ARG:HH11	5:h:310:LEU:HD13	1.76	0.50
5:h:376:ILE:HB	6:j:540:ILE:HG12	1.92	0.50
5:h:498:MET:N	5:h:498:MET:SD	2.85	0.50
1:A:106:GLU:O	1:A:110:THR:HG23	2.11	0.50
1:A:832:LYS:C	1:A:834:LEU:H	2.19	0.50
1:A:2347:LYS:O	1:A:2351:GLN:N	2.26	0.50
1:A:2427:ARG:HE	1:A:2432:GLN:HG3	1.76	0.50
1:F:1750:LEU:HD22	1:F:1762:MET:HG3	1.94	0.50
1:F:2442:MET:HE1	1:F:2446:LEU:HD22	1.93	0.50
1:F:2973:ASP:OD1	1:F:2977:ASN:ND2	2.43	0.50
2:K:130:CYS:HB2	2:L:130:CYS:HB2	1.93	0.50
2:N:12:SER:OG	2:N:13:GLU:OE1	2.22	0.50
2:N:45:GLY:HA3	2:N:113:LEU:HD23	1.94	0.50
2:N:130:CYS:HB3	2:O:130:CYS:HB3	1.93	0.50
3:P:813:PHE:H	3:P:849:GLY:N	2.09	0.50
4:Q:294:PRO:HA	4:Q:298:PHE:HB2	1.94	0.50
5:a:142:SER:HA	5:a:176:HIS:NE2	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:a:230:ARG:HB2	5:a:232:HIS:NE2	2.27	0.50
5:a:318:ARG:HB3	6:b:276:TRP:CE3	2.47	0.50
5:a:469:LEU:HD21	5:a:518:LEU:HG	1.94	0.50
6:b:69:SER:O	6:b:75:GLN:NE2	2.45	0.50
1:A:82:ARG:O	1:A:86:LEU:HG	2.11	0.50
1:A:860:GLY:HA3	1:A:3136:THR:OG1	2.12	0.50
1:A:1047:GLN:O	1:A:1051:LYS:HG2	2.10	0.50
1:A:1603:GLN:OE1	1:A:1606:ARG:NH2	2.44	0.50
1:A:2866:ALA:HA	1:A:2869:LEU:HG	1.92	0.50
1:F:65:LEU:O	1:F:69:VAL:HG22	2.12	0.50
1:F:484:HIS:O	1:F:488:ILE:HG12	2.11	0.50
1:F:1767:CYS:HB3	1:F:1819:PHE:HA	1.92	0.50
1:F:3046:ARG:O	1:F:3050:LYS:HG2	2.10	0.50
1:F:3259:LEU:O	1:F:3276:TRP:NE1	2.35	0.50
1:F:3389:VAL:HG13	1:F:3413:TYR:HE1	1.76	0.50
1:F:3462:ARG:HB3	1:F:3498:TRP:CH2	2.47	0.50
1:F:3580:ASN:HB3	1:F:3582:GLU:OE1	2.12	0.50
2:K:89:SER:HB2	2:K:91:GLU:HG2	1.93	0.50
2:L:137:ASN:O	2:L:141:ASN:ND2	2.44	0.50
2:N:8:ILE:HD11	2:N:18:HIS:HB2	1.92	0.50
2:O:66:TYR:OH	2:O:109:GLY:HA2	2.11	0.50
3:P:858:GLU:HG3	3:P:883:LYS:HD3	1.92	0.50
4:Q:25:ALA:HA	4:Q:38:VAL:HA	1.92	0.50
6:b:315:ARG:HA	6:b:320:ILE:HD13	1.91	0.50
6:b:629:THR:HA	6:b:632:PHE:CZ	2.45	0.50
5:h:258:ARG:CZ	10:I:33:DA:H3'	2.41	0.50
5:h:462:MET:HE3	5:h:525:PHE:CD1	2.46	0.50
5:h:469:LEU:HD11	5:h:518:LEU:HD11	1.94	0.50
6:j:343:LEU:HD21	6:j:394:ARG:HB2	1.92	0.50
1:A:29:LEU:HA	1:A:32:HIS:HD1	1.77	0.50
1:A:2824:LYS:O	1:A:2829:LYS:NZ	2.30	0.50
1:A:3826:ALA:O	1:A:3830:SER:OG	2.28	0.50
1:A:3981:TYR:OH	1:A:4101:GLU:HB2	2.11	0.50
1:F:23:ASP:N	1:F:23:ASP:OD1	2.44	0.50
1:F:394:GLN:CD	1:F:1737:ASN:HB3	2.36	0.50
1:F:1783:ARG:HE	1:F:1830:HIS:HB2	1.76	0.50
1:F:3156:PRO:O	1:F:3160:LEU:N	2.45	0.50
1:F:3582:GLU:H	1:F:3582:GLU:CD	2.18	0.50
3:M:739:GLN:HB3	3:M:741:ARG:HH11	1.77	0.50
3:M:889:LEU:HD13	3:M:893:TRP:CE2	2.47	0.50
2:N:18:HIS:NE2	2:N:36:LEU:HD13	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:11:VAL:N	2:O:88:PHE:O	2.44	0.50
5:a:59:PRO:HG3	5:a:206:LYS:HB3	1.94	0.50
5:a:120:ASP:HA	5:a:123:LYS:HB2	1.94	0.50
5:h:220:ILE:O	5:h:220:ILE:HG22	2.12	0.50
5:h:358:LYS:HA	6:j:353:ARG:NH2	2.24	0.50
1:A:338:LEU:HD11	6:b:564:ALA:HB1	1.94	0.50
1:A:535:LEU:O	1:A:637:LYS:NZ	2.39	0.50
1:A:639:ALA:HA	1:A:642:PHE:HB3	1.93	0.50
1:A:923:ASP:O	1:A:926:THR:N	2.45	0.50
1:A:1184:ARG:NH2	1:A:1265:GLU:OE1	2.41	0.50
1:A:1289:SER:HA	1:A:1292:LYS:HE3	1.93	0.50
1:A:1708:GLU:OE2	1:A:1712:ARG:NE	2.43	0.50
1:A:2153:THR:O	1:A:2156:VAL:HG12	2.11	0.50
1:A:3581:PRO:HB3	1:A:3629:ARG:HE	1.77	0.50
1:F:895:ALA:HA	1:F:904:VAL:HA	1.94	0.50
1:F:1829:TRP:HA	1:F:1883:ARG:HH22	1.76	0.50
1:F:2305:ASN:O	1:F:2308:SER:OG	2.28	0.50
1:F:2518:GLN:HG3	1:F:2522:ARG:NH1	2.26	0.50
1:F:3722:PHE:HB3	1:F:3724:GLU:OE2	2.12	0.50
1:F:3924:HIS:H	1:F:3927:ASN:ND2	2.10	0.50
2:K:161:ARG:HH11	2:K:164:LYS:HE2	1.77	0.50
2:N:188:LYS:HG3	2:O:187:LYS:NZ	2.27	0.50
2:O:104:VAL:HG13	2:O:106:PHE:CE2	2.45	0.50
3:P:813:PHE:HA	3:P:850:ALA:HB3	1.94	0.50
3:P:843:LEU:HD22	3:P:846:ARG:NH2	2.27	0.50
4:Q:102:ASP:HA	4:Q:126:ALA:HB2	1.94	0.50
5:a:510:LYS:HB3	5:a:513:ALA:HB3	1.93	0.50
5:h:480:ASN:HD21	5:h:482:VAL:HB	1.76	0.50
1:A:13:LEU:O	1:A:16:GLN:HG3	2.12	0.50
1:A:342:MET:HE3	1:A:369:PHE:CD2	2.46	0.50
1:A:451:PRO:O	1:A:455:LEU:HG	2.12	0.50
1:A:460:ALA:O	1:A:464:VAL:HG13	2.12	0.50
1:A:524:TYR:HD2	1:A:629:PHE:HD2	1.59	0.50
1:A:1791:CYS:SG	1:A:1834:ASP:HB3	2.52	0.50
1:A:2197:THR:HG21	1:A:2244:CYS:HB2	1.93	0.50
1:A:2382:VAL:O	1:A:2386:LEU:HG	2.12	0.50
1:A:3467:ARG:HD2	1:A:4000:ASN:HD21	1.76	0.50
1:F:655:LEU:HB3	1:F:659:ARG:NH1	2.26	0.50
1:F:655:LEU:O	1:F:658:THR:OG1	2.27	0.50
1:F:1504:ASP:O	1:F:1508:LYS:N	2.43	0.50
1:F:1834:ASP:O	1:F:1838:GLU:HG3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2392:VAL:O	1:F:2396:LEU:HG	2.12	0.50
1:F:3717:VAL:HG23	1:F:3744:ASP:H	1.77	0.50
1:F:3775:LEU:O	1:F:3782:SER:OG	2.29	0.50
2:K:55:GLU:HG2	2:K:111:PHE:CD2	2.46	0.50
4:R:194:MET:HA	4:R:198:LEU:HB2	1.94	0.50
1:A:28:ALA:O	1:A:32:HIS:ND1	2.43	0.50
1:A:207:GLN:HE22	1:A:216:LYS:C	2.19	0.50
1:A:542:ASP:OD1	1:A:543:SER:N	2.44	0.50
1:A:965:THR:O	1:A:969:LEU:HG	2.11	0.50
1:A:1300:SER:O	1:A:1334:LYS:NZ	2.45	0.50
1:A:1626:TRP:CD1	1:A:1627:LYS:HE3	2.46	0.50
1:A:1719:VAL:HG21	6:b:630:PRO:HB2	1.94	0.50
1:A:2372:PRO:O	1:A:2374:LEU:N	2.39	0.50
1:A:3289:ARG:HG3	1:A:3290:SER:H	1.77	0.50
1:A:3578:LEU:HD21	1:A:3681:LYS:HD2	1.92	0.50
1:A:4086:ASP:N	1:A:4086:ASP:OD1	2.44	0.50
1:F:286:LEU:HD12	1:F:319:PHE:CE1	2.47	0.50
1:F:409:GLN:NE2	1:F:410:MET:SD	2.85	0.50
1:F:1081:ALA:O	1:F:1085:ILE:HG23	2.12	0.50
1:F:3226:ASP:O	1:F:3230:LEU:HG	2.12	0.50
1:F:3326:GLN:NE2	1:F:3326:GLN:O	2.45	0.50
1:F:3472:ILE:HA	1:F:3479:THR:HG21	1.93	0.50
1:F:3687:MET:HA	1:F:3687:MET:HE2	1.94	0.50
1:F:3814:ASP:O	1:F:3818:ASN:N	2.35	0.50
1:F:3869:THR:O	1:F:3873:LYS:HG3	2.12	0.50
2:K:151:LEU:HD12	2:L:152:LEU:HA	1.93	0.50
4:R:208:LYS:HB2	4:R:209:PRO:HD3	1.94	0.50
5:a:240:GLU:OE1	5:a:240:GLU:N	2.36	0.50
5:a:339:ARG:HB2	5:a:405:ASN:HA	1.93	0.50
5:h:103:TYR:CD2	5:h:135:MET:HE1	2.46	0.50
6:j:250:ARG:HA	6:j:259:ILE:O	2.12	0.50
6:j:340:PHE:HD1	6:j:395:TYR:HA	1.77	0.50
8:D:15:DA:H2	9:E:44:DG:N1	2.09	0.50
10:I:27:DC:H2'	11:J:30:DT:C6	2.47	0.50
1:A:215:PRO:C	1:A:217:LEU:N	2.70	0.50
1:A:1145:LEU:O	1:A:1165:LEU:N	2.41	0.50
1:A:1418:HIS:HA	1:A:1421:GLU:CD	2.37	0.50
1:A:2796:ALA:O	1:A:2800:ARG:HG2	2.12	0.50
1:A:3296:GLN:HG3	1:A:3337:ILE:HD11	1.92	0.50
1:F:539:GLN:N	1:F:539:GLN:OE1	2.45	0.50
1:F:968:VAL:N	1:F:971:ARG:HH21	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1373:VAL:O	1:F:1377:CYS:N	2.32	0.50
1:F:1558:TYR:O	1:F:1561:SER:OG	2.21	0.50
1:F:1626:TRP:CZ2	1:F:1633:TRP:HB3	2.47	0.50
1:F:1733:THR:HG23	1:F:1736:PHE:H	1.77	0.50
1:F:2406:GLU:OE1	1:F:2406:GLU:N	2.31	0.50
6:b:696:VAL:O	6:b:699:GLU:HB2	2.11	0.50
6:j:279:VAL:HG12	6:j:286:LYS:HB3	1.93	0.50
6:j:348:SER:OG	6:j:390:VAL:HG13	2.11	0.50
6:j:411:HIS:CE1	6:j:413:LYS:HG3	2.47	0.50
1:A:125:ILE:HA	1:A:128:LEU:HD13	1.93	0.49
1:A:635:PRO:HB3	1:A:672:ILE:HD11	1.94	0.49
1:A:1400:VAL:HG13	1:A:1461:ALA:HB2	1.94	0.49
1:A:1657:SER:OG	1:A:1660:SER:OG	2.25	0.49
1:A:1775:GLU:O	1:A:1778:PHE:HB3	2.12	0.49
1:A:2760:GLU:O	1:A:2764:LYS:HG3	2.12	0.49
1:A:3287:ARG:CZ	1:A:3289:ARG:HH22	2.24	0.49
1:A:3492:CYS:SG	1:A:3494:GLN:NE2	2.85	0.49
1:F:53:LEU:O	1:F:57:LEU:HG	2.12	0.49
1:F:1359:LEU:HA	1:F:1362:ASP:CG	2.37	0.49
1:F:3007:GLU:O	1:F:3010:SER:HB3	2.12	0.49
1:F:3123:GLN:HG2	1:F:3124:SER:N	2.27	0.49
1:F:3470:GLN:O	1:F:3474:ARG:HG2	2.11	0.49
2:K:195:HIS:HB2	2:L:194:LEU:HD21	1.94	0.49
3:M:660:GLU:HG2	3:M:686:GLY:HA3	1.92	0.49
3:M:892:SER:HA	3:M:895:THR:OG1	2.12	0.49
2:N:29:GLU:HG2	2:N:66:TYR:HD2	1.76	0.49
4:R:45:TRP:HB3	4:R:103:ALA:HA	1.93	0.49
6:b:64:THR:OG1	6:b:76:ASN:N	2.40	0.49
5:h:157:VAL:HG22	5:h:159:PHE:H	1.77	0.49
5:h:317:LYS:NZ	5:h:330:GLU:HG2	2.27	0.49
5:h:379:SER:HB2	6:j:444:TYR:CD1	2.47	0.49
5:h:418:GLU:O	6:j:439:LYS:NZ	2.45	0.49
9:E:32:DA:N3	9:E:33:DA:H3'	2.27	0.49
1:A:864:GLY:N	1:A:3169:PRO:HA	2.21	0.49
1:A:924:ARG:HH21	1:A:2768:GLN:HA	1.76	0.49
1:A:1228:GLY:HA2	1:A:1233:SER:HB2	1.94	0.49
1:A:2824:LYS:HD2	1:A:2828:GLU:HG2	1.95	0.49
1:A:3416:LEU:HD23	1:A:3449:LYS:HD2	1.94	0.49
1:A:4100:GLU:O	1:A:4104:VAL:HG13	2.12	0.49
1:F:1477:HIS:HB3	1:F:1481:THR:HG23	1.94	0.49
1:F:3585:PHE:HB3	1:F:3586:LYS:HZ2	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:22:VAL:HG11	2:L:74:LEU:HD13	1.93	0.49
2:N:141:ASN:HD21	2:O:140:LYS:HD3	1.78	0.49
2:N:161:ARG:HA	2:N:164:LYS:HD2	1.94	0.49
4:Q:193:PHE:HD1	4:Q:197:LYS:HE2	1.77	0.49
6:b:599:ARG:NH1	6:b:638:CYS:SG	2.85	0.49
6:j:523:THR:O	6:j:527:GLN:HG3	2.12	0.49
8:D:23:DT:H2'	8:D:24:DT:C2	2.47	0.49
1:A:1099:PHE:CE1	1:A:1152:ARG:HG3	2.47	0.49
1:A:1249:SER:OG	1:A:1250:LEU:N	2.44	0.49
1:A:1674:THR:O	1:A:1678:LEU:HG	2.12	0.49
1:A:1948:ALA:O	1:A:1952:ILE:HG12	2.12	0.49
1:A:2478:MET:HG2	1:A:2524:PHE:CE1	2.47	0.49
1:A:2742:MET:O	1:A:2746:LYS:HG2	2.12	0.49
1:F:230:LEU:HA	1:F:233:ASN:OD1	2.13	0.49
1:F:406:ARG:NH2	1:F:408:TYR:HB2	2.27	0.49
1:F:1558:TYR:O	1:F:1562:LEU:HG	2.12	0.49
1:F:2153:THR:O	1:F:2156:VAL:HG12	2.12	0.49
1:F:3051:LEU:HA	1:F:3054:GLN:NE2	2.26	0.49
1:F:3335:ARG:O	1:F:3339:ASN:ND2	2.46	0.49
1:F:3449:LYS:HG2	1:F:3452:LYS:NZ	2.27	0.49
2:K:99:LYS:HD3	4:R:115:LEU:HD21	1.93	0.49
2:L:86:PHE:HA	2:L:97:PHE:HB3	1.93	0.49
3:M:754:PHE:HA	3:M:758:TYR:HD2	1.78	0.49
2:N:24:TRP:HA	2:N:32:PHE:HB3	1.94	0.49
6:b:671:LEU:O	6:b:675:TRP:N	2.42	0.49
5:h:207:LYS:N	5:h:235:GLU:OE1	2.42	0.49
9:E:41:DT:H2''	9:E:42:DA:H5'	1.94	0.49
1:A:738:HIS:NE2	1:A:739:ASN:OD1	2.46	0.49
1:A:1182:GLU:OE2	1:A:1185:HIS:ND1	2.46	0.49
1:A:1484:LEU:HD22	1:A:1527:ARG:HH21	1.76	0.49
1:A:3179:TRP:C	1:A:3242:MET:HE1	2.37	0.49
1:F:1164:CYS:N	1:F:1167:ASP:OD2	2.43	0.49
1:F:1371:VAL:HA	1:F:1374:GLN:CD	2.37	0.49
1:F:1843:ILE:HB	1:F:1846:ASP:HB3	1.93	0.49
1:F:2589:TYR:HB2	1:F:2777:HIS:HB2	1.93	0.49
1:F:3666:LEU:HA	1:F:3669:LYS:NZ	2.27	0.49
1:F:3925:LEU:HD13	1:F:3962:ARG:HH21	1.76	0.49
1:F:3964:THR:H	1:F:3967:PHE:HD2	1.61	0.49
2:K:22:VAL:HA	2:K:34:ILE:HA	1.93	0.49
3:M:716:ASN:HA	3:M:745:HIS:NE2	2.27	0.49
6:b:323:PHE:CZ	6:b:328:GLU:HA	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:h:462:MET:HE3	5:h:525:PHE:CG	2.47	0.49
8:D:35:DT:H2'	8:D:36:DG:C8	2.47	0.49
11:J:20:DT:C2	11:J:21:DA:C8	3.00	0.49
1:A:192:ASN:O	1:A:196:LEU:HG	2.12	0.49
1:A:377:ASN:ND2	6:b:570:GLU:OE1	2.46	0.49
1:A:1070:PRO:HG2	1:A:3715:TYR:HD2	1.76	0.49
1:A:2310:VAL:HG13	1:A:2316:TYR:HE2	1.77	0.49
1:A:2925:GLU:O	1:A:2928:LYS:HG2	2.13	0.49
1:A:3889:ARG:HG3	1:A:3890:MET:HE2	1.94	0.49
1:A:3918:LEU:HB2	1:A:3920:ILE:HG12	1.94	0.49
1:F:460:ALA:O	1:F:464:VAL:HG13	2.13	0.49
1:F:719:LYS:O	1:F:1023:SER:HB3	2.12	0.49
1:F:1086:TYR:CZ	1:F:1133:HIS:HB3	2.48	0.49
1:F:1359:LEU:O	1:F:1362:ASP:HB2	2.13	0.49
1:F:1590:THR:HG21	1:F:1641:THR:HG23	1.94	0.49
1:F:1620:THR:HG22	1:F:1624:GLN:NE2	2.27	0.49
1:F:2150:VAL:HA	1:F:2153:THR:OG1	2.11	0.49
1:F:2970:LYS:NZ	1:F:2971:GLN:HE22	2.09	0.49
1:F:3254:LEU:HG	1:F:3283:LEU:HD11	1.93	0.49
1:F:3454:LEU:HG	1:F:3490:VAL:HG21	1.93	0.49
1:F:3767:LEU:HA	1:F:3770:VAL:HG22	1.94	0.49
2:N:179:ARG:HB3	3:P:805:TRP:CE2	2.47	0.49
2:O:156:ASN:O	2:O:159:GLN:HG2	2.11	0.49
3:P:818:VAL:HA	3:P:862:HIS:HB2	1.95	0.49
3:P:843:LEU:HD22	3:P:846:ARG:HH21	1.77	0.49
6:b:664:GLU:O	6:b:668:ILE:HG12	2.13	0.49
6:j:33:GLN:HB3	6:j:227:PHE:HB3	1.93	0.49
1:A:78:PHE:HB2	1:A:79:ARG:NH1	2.27	0.49
1:A:583:LEU:HA	1:A:614:PRO:HA	1.94	0.49
1:A:710:PHE:O	1:A:714:VAL:HG23	2.13	0.49
1:A:899:ARG:CZ	1:A:2568:MET:HB2	2.43	0.49
1:A:1297:PHE:HD1	1:A:1301:ILE:HG13	1.78	0.49
1:A:2138:VAL:HG13	1:A:2143:ARG:HB3	1.94	0.49
1:A:2562:LEU:O	1:A:2566:THR:OG1	2.30	0.49
1:A:3334:TYR:CE2	1:A:3384:HIS:HE1	2.29	0.49
1:A:3643:HIS:HB3	1:A:3659:PHE:HZ	1.78	0.49
1:A:3820:MET:SD	1:A:3825:LYS:HB2	2.52	0.49
1:F:1017:ILE:HG23	1:F:1077:GLY:C	2.38	0.49
1:F:3382:PHE:HB2	1:F:3419:PHE:CE2	2.47	0.49
1:F:3492:CYS:HB3	1:F:3709:GLY:O	2.12	0.49
1:F:3880:ALA:HB1	1:F:3969:ASN:HD21	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:119:PRO:O	2:L:123:ILE:HG12	2.13	0.49
3:M:827:ASN:HD21	3:M:856:LEU:HB2	1.77	0.49
2:N:66:TYR:OH	2:N:109:GLY:HA3	2.13	0.49
2:N:88:PHE:CD2	2:N:90:LYS:HG2	2.48	0.49
2:O:190:LYS:HE3	2:O:194:LEU:HD11	1.95	0.49
4:Q:13:TRP:CE3	4:Q:24:LEU:HG	2.48	0.49
5:a:256:LEU:HB3	5:a:273:ILE:O	2.13	0.49
6:b:202:LYS:O	6:b:206:GLU:HG2	2.12	0.49
5:h:300:THR:HA	6:j:293:THR:HA	1.95	0.49
9:E:33:DA:H5'	9:E:34:DC:N3	2.27	0.49
10:I:36:DA:H2	11:J:22:DG:N1	2.07	0.49
10:I:45:DG:N2	11:J:14:DT:H1'	2.27	0.49
1:A:161:ALA:HB3	5:a:310:LEU:HD21	1.95	0.49
1:A:194:GLU:O	1:A:198:ARG:HG3	2.13	0.49
1:A:2528:GLU:OE1	1:A:2528:GLU:N	2.41	0.49
1:A:2833:THR:O	1:A:2837:LEU:HD23	2.12	0.49
1:F:288:ASP:N	1:F:288:ASP:OD1	2.46	0.49
1:F:1570:GLU:HG3	1:F:1571:LEU:HD22	1.95	0.49
1:F:1773:VAL:O	1:F:1773:VAL:HG12	2.12	0.49
1:F:2228:ARG:HH21	10:I:45:DG:H4'	1.78	0.49
1:F:3120:LEU:O	1:F:3122:HIS:ND1	2.46	0.49
2:K:127:ILE:HG23	2:L:19:PHE:HE2	1.76	0.49
3:M:770:ASP:H	3:M:773:GLN:HB2	1.77	0.49
3:P:813:PHE:N	3:P:850:ALA:N	2.61	0.49
5:a:440:ALA:HB2	6:b:481:LYS:C	2.37	0.49
5:a:453:MET:N	5:a:453:MET:HE2	2.28	0.49
6:b:59:PHE:HB2	6:b:105:ALA:HB3	1.93	0.49
5:h:107:GLU:OE1	5:h:107:GLU:N	2.45	0.49
5:h:397:LEU:HD11	6:j:479:THR:HG21	1.95	0.49
6:j:411:HIS:N	6:j:418:CYS:O	2.26	0.49
1:A:188:GLU:HG2	1:A:189:MET:H	1.78	0.49
1:A:450:SER:O	1:A:454:GLN:HG3	2.12	0.49
1:A:1452:VAL:HG13	1:A:1517:LEU:HD11	1.95	0.49
1:A:1506:SER:O	1:A:1509:GLN:NE2	2.46	0.49
1:A:2880:CYS:O	1:A:2885:GLN:N	2.44	0.49
1:A:3909:ALA:HB2	1:A:3980:MET:SD	2.53	0.49
1:A:3911:ILE:HD12	1:A:3937:VAL:HG13	1.95	0.49
1:A:3928:PHE:HD1	1:A:3939:GLY:HA2	1.76	0.49
1:F:301:CYS:O	1:F:309:LYS:NZ	2.31	0.49
1:F:888:ARG:HB3	1:F:3889:ARG:HE	1.77	0.49
1:F:1413:ASP:OD1	1:F:1414:ILE:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2801:ASP:OD2	1:F:2804:ILE:N	2.24	0.49
1:F:2981:TRP:CD1	1:F:2985:GLU:HG2	2.40	0.49
1:F:3179:TRP:HB3	1:F:3242:MET:SD	2.52	0.49
1:F:3444:ALA:HB1	1:F:3482:LEU:HD21	1.95	0.49
1:F:3476:PRO:HA	1:F:3479:THR:OG1	2.13	0.49
1:F:3870:SER:HA	1:F:3873:LYS:HE2	1.95	0.49
2:L:6:SER:HB2	2:L:8:ILE:HG23	1.95	0.49
2:O:28:LEU:O	2:O:32:PHE:HB3	2.12	0.49
2:O:94:TYR:CE1	2:O:111:PHE:HB2	2.30	0.49
3:P:787:GLN:HE21	3:P:792:MET:HB3	1.77	0.49
5:a:90:THR:O	5:a:139:SER:OG	2.31	0.49
5:a:183:ALA:HB1	5:a:187:ARG:HH12	1.77	0.49
5:a:350:PHE:O	6:b:463:LEU:N	2.34	0.49
5:h:142:SER:HA	5:h:176:HIS:CE1	2.48	0.49
5:h:189:LYS:O	5:h:193:LEU:HG	2.13	0.49
5:h:261:LEU:O	5:h:268:VAL:HA	2.12	0.49
6:j:598:PHE:O	6:j:602:VAL:HG22	2.12	0.49
1:A:135:LEU:HD21	1:A:177:LEU:HA	1.95	0.49
1:A:723:ASP:C	1:A:725:LEU:N	2.71	0.49
1:A:1225:GLU:O	1:A:1230:GLY:N	2.45	0.49
1:A:1397:ASP:HA	1:A:1460:ARG:HH22	1.78	0.49
1:A:1762:MET:HG3	1:A:1778:PHE:HE1	1.78	0.49
1:A:1922:ALA:HB1	1:A:1940:TYR:CE1	2.47	0.49
1:A:2386:LEU:HD12	1:A:2418:LYS:HG3	1.94	0.49
1:F:1048:GLN:CD	1:F:1051:LYS:HZ3	2.20	0.49
1:F:1144:SER:O	1:F:1147:LYS:NZ	2.45	0.49
1:F:1407:LYS:NZ	1:F:1461:ALA:O	2.27	0.49
1:F:2348:GLN:OE1	1:F:2353:GLN:NE2	2.45	0.49
1:F:3463:LEU:O	1:F:3466:PRO:HD2	2.13	0.49
2:K:88:PHE:CD1	2:K:113:LEU:HD12	2.47	0.49
2:L:3:ARG:HH12	2:L:125:GLU:HB3	1.77	0.49
3:M:682:ILE:HG12	3:M:687:GLY:HA3	1.95	0.49
3:M:879:ARG:HG2	3:M:885:LYS:HA	1.95	0.49
2:O:43:TRP:HA	2:O:116:VAL:HG22	1.95	0.49
2:O:97:PHE:H	2:O:107:ARG:NH1	2.10	0.49
3:P:813:PHE:CA	3:P:850:ALA:H	2.25	0.49
5:a:480:ASN:HB3	5:a:483:LEU:HB2	1.94	0.49
5:h:487:PHE:HA	5:h:490:LEU:HD12	1.93	0.49
6:j:682:GLY:O	6:j:685:LEU:N	2.46	0.49
8:D:27:DT:H2''	8:D:28:DA:N7	2.27	0.49
10:I:26:DA:H1'	10:I:27:DC:N1	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:135:LEU:O	1:A:139:ARG:HG2	2.12	0.49
1:A:248:ILE:O	1:A:252:VAL:HG23	2.12	0.49
1:A:1502:SER:OG	1:A:1503:LEU:N	2.45	0.49
1:A:1603:GLN:O	1:A:1603:GLN:NE2	2.46	0.49
1:A:1667:SER:OG	1:A:1670:GLU:OE1	2.28	0.49
1:A:2443:MET:HE1	1:A:2479:TRP:CE3	2.48	0.49
1:A:2504:ASP:O	1:A:2508:GLN:HG2	2.12	0.49
1:A:2855:VAL:HG23	1:A:2885:GLN:HG3	1.94	0.49
1:A:3449:LYS:HA	1:A:3452:LYS:HD3	1.94	0.49
1:F:105:VAL:HA	1:F:108:LYS:HB3	1.95	0.49
1:F:865:GLN:HB3	1:F:3168:TYR:CD2	2.48	0.49
1:F:979:VAL:HA	1:F:982:GLN:HG2	1.95	0.49
1:F:1071:ASN:ND2	1:F:1074:LYS:HG3	2.26	0.49
1:F:1864:ASP:OD1	1:F:1864:ASP:N	2.44	0.49
1:F:2964:ASP:OD1	1:F:2965:TYR:N	2.45	0.49
1:F:3958:LEU:HD23	1:F:4081:ALA:HB2	1.95	0.49
1:F:4012:ASP:HB2	1:F:4038:TRP:CD2	2.48	0.49
3:M:786:GLU:OE1	3:M:786:GLU:N	2.46	0.49
4:Q:132:SER:HB3	4:R:44:VAL:HA	1.94	0.49
5:a:289:TYR:CD2	5:a:292:THR:HB	2.48	0.49
5:a:300:THR:HA	6:b:293:THR:HA	1.94	0.49
6:b:76:ASN:HB2	6:b:105:ALA:HB2	1.94	0.49
5:h:50:GLU:OE1	5:h:50:GLU:N	2.44	0.49
6:j:620:ILE:O	6:j:624:LEU:HG	2.13	0.49
1:A:40:GLN:NE2	1:A:2427:ARG:O	2.45	0.48
1:A:70:ARG:HB3	1:A:71:LYS:NZ	2.28	0.48
1:A:335:LYS:HG3	1:A:336:ASN:H	1.78	0.48
1:A:718:MET:HA	1:A:721:TYR:CE2	2.49	0.48
1:A:762:TYR:CD2	1:A:764:PRO:HD2	2.48	0.48
1:A:1175:HIS:HA	1:A:1178:ARG:NE	2.28	0.48
1:A:1564:SER:O	1:A:1568:ASN:ND2	2.46	0.48
1:A:2342:CYS:C	1:A:2377:ARG:HH12	2.21	0.48
1:A:2386:LEU:HB2	1:A:2387:PRO:HD3	1.95	0.48
1:A:3452:LYS:O	1:A:3455:LYS:HB3	2.13	0.48
1:A:3953:LEU:HB3	1:A:3955:VAL:HG22	1.95	0.48
1:F:67:VAL:HG11	1:F:85:ILE:HD13	1.94	0.48
1:F:271:GLY:O	1:F:274:LEU:HB2	2.13	0.48
1:F:721:TYR:C	1:F:722:LYS:HD2	2.38	0.48
1:F:2167:PRO:O	1:F:2170:GLN:HG3	2.12	0.48
1:F:3007:GLU:HG2	1:F:3010:SER:H	1.79	0.48
1:F:3502:MET:O	1:F:3506:LEU:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3614:TYR:CD1	1:F:3618:GLY:HA3	2.48	0.48
1:F:3730:ALA:HB2	1:F:3734:ARG:CZ	2.43	0.48
1:F:3992:ARG:HH12	1:F:4053:GLY:N	2.11	0.48
1:F:3995:PRO:HG3	1:F:4051:LEU:HB3	1.95	0.48
2:K:172:LEU:HB2	3:M:810:LEU:HG	1.94	0.48
2:L:102:LYS:O	2:L:104:VAL:HG23	2.13	0.48
3:M:772:ASN:O	3:M:776:GLU:HG2	2.12	0.48
3:M:823:TYR:C	3:M:871:ARG:HH22	2.21	0.48
4:Q:35:ALA:HA	4:Q:48:GLN:HA	1.95	0.48
4:Q:161:ASP:OD1	4:Q:184:PHE:N	2.36	0.48
4:R:81:ARG:HH11	4:R:84:LEU:HA	1.78	0.48
4:R:166:ASP:HA	4:R:169:GLU:HG3	1.95	0.48
5:a:286:ILE:N	6:b:313:GLY:O	2.44	0.48
5:a:363:ARG:HG3	5:a:436:PHE:CD1	2.48	0.48
5:a:465:ILE:HG23	5:a:518:LEU:CD2	2.43	0.48
5:a:465:ILE:HG23	5:a:518:LEU:HD22	1.95	0.48
9:E:28:DT:C6	9:E:28:DT:H5''	2.48	0.48
10:I:27:DC:H1'	11:J:31:DT:C4	2.47	0.48
1:A:2154:GLU:HA	1:A:2157:PHE:CE1	2.48	0.48
1:A:3064:PHE:HA	1:A:3067:LYS:HE3	1.95	0.48
1:A:3581:PRO:HA	1:A:3584:LEU:HD13	1.95	0.48
1:F:385:TYR:O	1:F:389:ILE:HG12	2.13	0.48
1:F:1190:LEU:HA	1:F:1193:LYS:HG2	1.94	0.48
1:F:1264:LEU:HD11	1:F:1344:PHE:CG	2.48	0.48
1:F:2161:ALA:O	1:F:2165:LEU:N	2.46	0.48
1:F:2184:TYR:CZ	1:F:2734:ARG:HD2	2.48	0.48
1:F:3413:TYR:CD2	1:F:3453:ALA:HB2	2.48	0.48
2:L:4:LYS:HG2	2:L:22:VAL:HB	1.95	0.48
2:N:58:ASP:OD1	4:Q:62:ASN:ND2	2.45	0.48
2:N:84:TYR:CD1	2:N:97:PHE:HB2	2.48	0.48
4:Q:100:VAL:HG12	4:Q:102:ASP:H	1.77	0.48
5:a:470:ARG:NH1	6:b:346:CYS:HA	2.28	0.48
5:h:332:GLU:O	5:h:335:GLU:N	2.46	0.48
6:j:251:LEU:HD11	6:j:259:ILE:HD12	1.96	0.48
1:A:394:GLN:NE2	1:A:1738:ASN:OD1	2.43	0.48
1:A:847:SER:O	1:A:851:ILE:HG12	2.13	0.48
1:A:953:GLN:H	1:A:956:PRO:HG3	1.78	0.48
1:A:1039:TRP:HA	1:A:1042:LYS:HD3	1.94	0.48
1:A:1136:ARG:O	1:A:1139:GLU:HG2	2.13	0.48
1:A:1805:PHE:CZ	1:A:1869:LYS:HA	2.40	0.48
1:A:3103:ILE:HD11	1:A:3135:LEU:HB3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3156:PRO:HA	1:A:3159:ARG:NE	2.28	0.48
1:F:114:VAL:HA	1:F:119:ARG:HH21	1.77	0.48
1:F:899:ARG:NH2	1:F:2566:THR:HA	2.26	0.48
1:F:2181:GLY:O	1:F:2184:TYR:HB2	2.13	0.48
1:F:2254:ARG:NE	1:F:2293:GLY:HA2	2.28	0.48
3:M:843:LEU:O	3:M:847:PHE:CB	2.61	0.48
3:M:865:ILE:HG13	3:M:871:ARG:HB2	1.95	0.48
3:P:826:ILE:O	3:P:827:ASN:HB2	2.13	0.48
4:Q:17:GLN:H	4:Q:83:LEU:HG	1.77	0.48
4:Q:142:MET:HE1	4:Q:214:LEU:HD13	1.94	0.48
5:a:171:ASN:HB2	5:a:207:LYS:HB2	1.94	0.48
5:a:288:LEU:HA	5:a:296:VAL:HG23	1.94	0.48
5:a:462:MET:HE2	5:a:465:ILE:HD12	1.94	0.48
6:b:39:THR:HG22	6:b:43:GLN:NE2	2.29	0.48
6:b:614:ASN:HA	6:b:658:PHE:CZ	2.48	0.48
5:h:93:ASP:HB3	5:h:101:ASN:N	2.28	0.48
5:h:275:ASN:HA	5:h:366:LEU:HD22	1.95	0.48
6:j:346:CYS:HB2	6:j:350:GLN:NE2	2.27	0.48
6:j:484:ASN:ND2	6:j:486:ARG:HB3	2.29	0.48
1:A:79:ARG:HH21	1:A:82:ARG:NE	2.11	0.48
1:A:252:VAL:HG22	6:b:554:PHE:HB2	1.95	0.48
1:A:671:SER:HB3	1:A:732:PHE:HA	1.95	0.48
1:A:1087:ARG:HA	1:A:1090:ARG:CZ	2.44	0.48
1:A:1340:ARG:HH21	1:A:1343:GLU:HG3	1.78	0.48
1:A:2574:ASN:C	1:A:2786:LYS:HG3	2.38	0.48
1:A:3751:LEU:HD23	1:A:3803:ILE:HD11	1.96	0.48
1:A:3880:ALA:HB2	1:A:3965:ARG:NH2	2.29	0.48
1:F:68:PHE:HD2	1:F:69:VAL:HG13	1.78	0.48
1:F:745:VAL:HG23	1:F:746:ARG:HD2	1.95	0.48
1:F:1015:ASP:O	1:F:1019:ASP:HB3	2.12	0.48
1:F:1047:GLN:HG3	1:F:1051:LYS:NZ	2.28	0.48
1:F:2123:PRO:HA	1:F:2126:MET:SD	2.54	0.48
1:F:2452:ARG:HB2	1:F:2498:ILE:HD11	1.95	0.48
1:F:3090:TYR:O	1:F:3095:ASP:N	2.42	0.48
1:F:3727:THR:HB	1:F:3737:ARG:HB3	1.95	0.48
2:K:154:ASP:O	2:K:158:VAL:HG13	2.13	0.48
2:L:52:ILE:HD11	2:L:67:VAL:HA	1.94	0.48
2:N:187:LYS:HB2	2:O:187:LYS:HZ3	1.77	0.48
2:O:8:ILE:HB	2:O:95:PHE:HE2	1.79	0.48
2:O:22:VAL:HG13	2:O:24:TRP:HZ3	1.78	0.48
4:Q:4:LEU:O	4:Q:8:LEU:HB2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:26:LYS:HE3	4:R:37:LEU:HB3	1.95	0.48
5:h:61:ASP:OD1	5:h:62:MET:N	2.46	0.48
5:h:173:ASP:OD1	5:h:173:ASP:N	2.45	0.48
6:j:352:GLN:HB3	6:j:355:PHE:CE2	2.48	0.48
6:j:676:GLU:HG2	6:j:677:ILE:N	2.26	0.48
1:A:924:ARG:NH2	1:A:2767:ALA:O	2.46	0.48
1:A:1096:VAL:O	1:A:1100:VAL:HG13	2.14	0.48
1:A:1723:PRO:HB2	6:b:594:PRO:HG2	1.95	0.48
1:A:1816:ARG:HA	1:A:1819:PHE:CE2	2.49	0.48
1:A:3151:LEU:HD13	1:A:3196:LYS:O	2.13	0.48
1:A:4101:GLU:HA	1:A:4104:VAL:HG22	1.96	0.48
1:F:712:LYS:NZ	1:F:744:ASP:HB3	2.28	0.48
1:F:793:LEU:HB3	1:F:870:LEU:HA	1.95	0.48
1:F:1019:ASP:OD1	1:F:1026:ARG:NE	2.47	0.48
1:F:1730:PRO:O	1:F:1733:THR:HG22	2.14	0.48
1:F:2971:GLN:O	1:F:2974:GLU:HG2	2.14	0.48
1:F:2974:GLU:O	1:F:2978:LYS:N	2.46	0.48
2:K:137:ASN:HA	2:K:140:LYS:HG2	1.94	0.48
2:L:179:ARG:HD3	3:M:778:PHE:CB	2.43	0.48
3:M:706:ASN:OD1	3:M:709:VAL:N	2.29	0.48
2:N:32:PHE:CZ	2:N:70:LEU:HD12	2.48	0.48
2:N:55:GLU:HB2	2:N:61:MET:HE2	1.95	0.48
2:N:89:SER:O	2:N:93:CYS:N	2.46	0.48
4:Q:55:SER:O	4:Q:59:LYS:HD3	2.13	0.48
5:a:203:MET:HE1	5:a:238:LYS:N	2.15	0.48
6:j:30:PRO:HG3	6:j:166:PRO:HG3	1.95	0.48
6:j:355:PHE:O	6:j:425:PRO:HD3	2.12	0.48
1:A:933:LEU:HD12	1:A:2793:PRO:C	2.38	0.48
1:A:1058:SER:O	1:A:1062:ARG:HG2	2.14	0.48
1:A:2339:GLU:O	1:A:2343:GLU:HG2	2.14	0.48
1:A:2384:PHE:CE2	1:A:2388:LYS:HE3	2.48	0.48
1:A:2571:ASP:O	1:A:2787:HIS:ND1	2.46	0.48
1:A:3120:LEU:HD11	1:A:3895:GLU:HG2	1.94	0.48
1:A:3563:ASP:OD1	1:A:3563:ASP:N	2.46	0.48
1:A:3797:THR:N	1:A:3800:LEU:O	2.39	0.48
1:F:535:LEU:O	1:F:637:LYS:NZ	2.29	0.48
1:F:913:ARG:O	1:F:916:GLU:HG2	2.12	0.48
1:F:1332:TYR:O	1:F:1336:THR:OG1	2.27	0.48
1:F:1614:GLN:HA	1:F:1617:LYS:HE2	1.95	0.48
1:F:1711:ARG:CZ	1:F:1757:MET:HG2	2.43	0.48
1:F:2404:ARG:HB3	1:F:2407:GLY:HA3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2432:GLN:O	1:F:2436:LEU:HG	2.13	0.48
1:F:3034:PRO:HB2	1:F:3037:GLN:HG3	1.96	0.48
1:F:3448:GLU:HB2	1:F:3482:LEU:HD22	1.95	0.48
1:F:3530:VAL:HG23	1:F:3531:TYR:H	1.78	0.48
1:F:3763:ARG:HH12	1:F:4003:ASP:HA	1.78	0.48
2:K:87:ASN:HB2	2:K:96:PHE:CZ	2.48	0.48
2:N:58:ASP:HB3	2:N:106:PHE:CD2	2.48	0.48
2:O:31:GLY:N	2:O:52:ILE:HG21	2.27	0.48
6:b:250:ARG:HG2	6:b:260:ARG:HD2	1.95	0.48
6:b:365:PHE:CZ	6:b:416:TYR:HB2	2.48	0.48
6:b:533:ILE:HA	6:b:536:LEU:HB2	1.95	0.48
6:j:457:LEU:HD11	6:j:530:LEU:HG	1.95	0.48
8:D:20:DT:C6	8:D:20:DT:H5"	2.49	0.48
1:A:23:ASP:O	1:A:70:ARG:NH2	2.39	0.48
1:A:935:HIS:CD2	1:A:2773:ARG:HH22	2.32	0.48
1:A:1115:HIS:O	1:A:1119:LYS:NZ	2.31	0.48
1:A:1575:LEU:HD21	1:A:1617:LYS:HB3	1.96	0.48
1:A:3061:LEU:O	1:A:3065:ILE:HG12	2.14	0.48
1:A:3156:PRO:O	1:A:3160:LEU:HG	2.14	0.48
1:A:3354:ASP:N	1:A:3354:ASP:OD1	2.46	0.48
1:F:188:GLU:CD	1:F:192:ASN:HD21	2.20	0.48
1:F:1558:TYR:CE2	1:F:1562:LEU:HD11	2.48	0.48
1:F:2968:ALA:HA	1:F:2971:GLN:HG2	1.96	0.48
1:F:3254:LEU:HB2	1:F:3256:MET:SD	2.53	0.48
1:F:3665:MET:HA	1:F:3668:LEU:HG	1.96	0.48
2:K:32:PHE:CZ	2:K:47:VAL:HG21	2.48	0.48
5:a:68:GLN:HG3	5:a:119:LEU:HD23	1.95	0.48
5:a:459:VAL:HG12	5:a:463:LYS:HE3	1.95	0.48
6:b:353:ARG:HG2	6:b:356:PHE:CE2	2.48	0.48
6:b:599:ARG:HD3	6:b:603:LYS:HZ1	1.77	0.48
6:b:624:LEU:HB3	6:b:674:PHE:CE1	2.48	0.48
6:b:653:GLN:HG2	6:b:654:ARG:H	1.78	0.48
7:c:187:ASN:HB2	7:c:190:PHE:HB2	1.96	0.48
5:h:334:THR:HA	5:h:337:LEU:HG	1.96	0.48
6:j:384:LEU:HA	6:j:389:MET:HB3	1.96	0.48
6:j:496:HIS:O	6:j:500:HIS:N	2.43	0.48
10:I:30:DA:C8	11:J:29:DG:N2	2.81	0.48
1:A:484:HIS:O	1:A:488:ILE:HG12	2.14	0.48
1:A:706:LEU:HD12	1:A:1388:ASP:HB2	1.96	0.48
1:A:773:LEU:HG	1:A:858:MET:HE3	1.95	0.48
1:A:3089:LEU:HD12	1:A:3093:GLN:HE22	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3237:SER:O	1:A:3240:MET:HG3	2.14	0.48
1:F:664:SER:O	1:F:668:LYS:HG3	2.14	0.48
1:F:762:TYR:CD2	1:F:765:LEU:HG	2.48	0.48
1:F:913:ARG:NE	1:F:917:LEU:HD11	2.28	0.48
1:F:1149:LYS:HB3	1:F:1151:ARG:CZ	2.44	0.48
1:F:2238:ILE:O	1:F:2241:LEU:HG	2.14	0.48
1:F:2313:LYS:HA	1:F:2316:TYR:CZ	2.49	0.48
1:F:2477:LEU:HA	1:F:2480:ILE:HD12	1.95	0.48
1:F:2746:LYS:O	1:F:2750:GLU:HG2	2.13	0.48
1:F:3781:CYS:HB2	1:F:3786:LEU:HB2	1.95	0.48
1:F:4054:ALA:H	1:F:4103:GLN:NE2	2.12	0.48
1:F:4127:TRP:CD1	1:F:4128:MET:H	2.32	0.48
3:M:837:ARG:HB2	3:M:840:ILE:HB	1.96	0.48
2:N:3:ARG:CZ	2:N:21:GLN:HG2	2.44	0.48
2:N:70:LEU:O	2:N:74:LEU:HG	2.14	0.48
2:O:58:ASP:OD1	2:O:58:ASP:N	2.44	0.48
3:P:665:CYS:HB2	3:P:697:THR:HG21	1.96	0.48
3:P:670:THR:HA	3:P:673:GLN:O	2.14	0.48
5:a:173:ASP:HB3	5:a:217:TYR:CE2	2.49	0.48
5:a:304:ASN:O	5:a:308:GLY:N	2.22	0.48
6:b:14:MET:SD	6:b:135:PHE:HB2	2.54	0.48
6:b:251:LEU:N	6:b:259:ILE:O	2.35	0.48
6:b:496:HIS:CD2	6:b:500:HIS:HD2	2.31	0.48
5:h:38:LEU:HA	5:h:165:ARG:O	2.14	0.48
5:h:303:PHE:CE1	6:j:292:GLU:HB2	2.49	0.48
11:J:19:DA:H2"	11:J:20:DT:H5"	1.96	0.48
1:A:40:GLN:CD	1:A:2427:ARG:HB2	2.39	0.48
1:A:188:GLU:HG2	1:A:189:MET:N	2.28	0.48
1:A:1004:GLN:HG2	1:A:1005:ASP:N	2.29	0.48
1:A:1353:PRO:HD2	1:A:1356:TRP:CZ3	2.49	0.48
1:A:2317:ALA:O	1:A:2366:LYS:NZ	2.47	0.48
1:A:2409:THR:OG1	1:A:2410:GLU:N	2.46	0.48
1:A:2865:HIS:HB2	1:A:2868:LEU:HD23	1.95	0.48
1:A:2991:LYS:HA	1:A:2994:TRP:CE3	2.49	0.48
1:A:3087:SER:O	1:A:3091:LEU:HG	2.13	0.48
1:A:4011:PHE:O	1:A:4015:ASN:ND2	2.29	0.48
1:F:35:ILE:HG23	1:F:36:ARG:HE	1.79	0.48
1:F:76:ILE:HA	1:F:79:ARG:CG	2.43	0.48
1:F:243:GLN:HA	1:F:246:ARG:NE	2.29	0.48
1:F:712:LYS:O	1:F:716:VAL:HG23	2.14	0.48
1:F:1052:SER:OG	1:F:1054:VAL:O	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1445:ARG:HB3	1:F:1510:LEU:HD11	1.95	0.48
1:F:1504:ASP:HB3	1:F:1507:CYS:HB2	1.95	0.48
1:F:1736:PHE:HA	1:F:1739:TYR:CD2	2.48	0.48
1:F:1787:ARG:HB3	1:F:1830:HIS:CE1	2.49	0.48
1:F:2230:VAL:HA	1:F:2233:HIS:HB3	1.96	0.48
1:F:2317:ALA:O	1:F:2366:LYS:NZ	2.47	0.48
1:F:3232:ARG:HA	1:F:3235:LYS:HD3	1.94	0.48
1:F:3525:TYR:OH	1:F:3712:LEU:N	2.47	0.48
1:F:3924:HIS:CD2	1:F:3926:ASN:H	2.32	0.48
1:F:3958:LEU:HB2	1:F:4115:ASN:HD22	1.79	0.48
2:L:94:TYR:CE2	2:L:96:PHE:HB3	2.49	0.48
3:M:887:LYS:HD3	3:M:911:ILE:HG12	1.96	0.48
4:Q:29:ILE:HG23	4:Q:34:TYR:HA	1.95	0.48
4:R:49:VAL:HB	4:R:53:VAL:HG13	1.96	0.48
5:a:238:LYS:HD3	7:c:185:LEU:HD22	1.96	0.48
6:b:614:ASN:OD1	6:b:654:ARG:NH1	2.46	0.48
6:b:667:GLU:HA	6:b:675:TRP:NE1	2.23	0.48
5:h:149:VAL:O	5:h:153:LEU:HG	2.13	0.48
5:h:451:LYS:HE3	6:j:417:GLU:HG3	1.95	0.48
5:h:479:GLU:HA	6:j:426:PHE:HB3	1.96	0.48
6:j:353:ARG:HA	6:j:356:PHE:CE1	2.49	0.48
6:j:513:TRP:O	6:j:517:ASN:N	2.47	0.48
6:j:665:LYS:HA	6:j:668:ILE:HG12	1.96	0.48
1:A:314:SER:O	1:A:317:GLU:HG2	2.14	0.48
1:A:343:GLU:OE1	1:A:344:GLN:HG3	2.14	0.48
1:A:672:ILE:N	1:A:675:ARG:HH21	2.12	0.48
1:A:990:GLN:HB3	1:A:2781:PRO:HD3	1.95	0.48
1:A:1220:LEU:HA	1:A:1224:PHE:HD2	1.79	0.48
1:A:1418:HIS:O	1:A:1422:LYS:HG2	2.13	0.48
1:A:1597:LEU:HD22	1:A:1648:LEU:HD22	1.96	0.48
1:A:2133:LEU:O	1:A:2170:GLN:NE2	2.47	0.48
1:A:2232:ARG:O	1:A:2236:GLU:HG2	2.12	0.48
1:F:834:LEU:HD12	1:F:837:THR:HG23	1.96	0.48
1:F:962:TYR:HA	1:F:965:THR:HG22	1.95	0.48
1:F:1034:ARG:O	1:F:1038:LYS:HE3	2.13	0.48
1:F:1200:GLY:N	1:F:1202:ARG:HH12	2.12	0.48
1:F:1627:LYS:HZ2	1:F:1670:GLU:HB2	1.78	0.48
1:F:1801:VAL:HA	1:F:1804:MET:HG3	1.95	0.48
2:L:178:LYS:HG2	3:M:786:GLU:HB2	1.96	0.48
3:M:658:ILE:HG21	3:M:734:SER:HA	1.96	0.48
4:Q:130:LEU:HA	4:R:42:GLN:CA	2.38	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:h:289:TYR:CD2	5:h:291:GLU:HG2	2.48	0.48
5:h:403:ARG:HG2	5:h:404:ARG:N	2.29	0.48
6:j:260:ARG:HH21	6:j:370:ASP:CG	2.22	0.48
8:D:35:DT:H2'	8:D:36:DG:H8	1.79	0.48
10:I:35:DT:C4	10:I:36:DA:C6	3.02	0.48
1:A:307:GLU:O	1:A:310:LYS:HG3	2.14	0.47
1:A:406:ARG:HE	1:A:409:GLN:NE2	2.12	0.47
1:A:479:ILE:HG13	1:A:480:SER:N	2.28	0.47
1:A:664:SER:OG	1:A:725:LEU:HA	2.14	0.47
1:A:721:TYR:HD2	1:A:726:LEU:HD13	1.79	0.47
1:A:1156:GLY:O	1:A:1171:TRP:NE1	2.47	0.47
1:A:1532:LEU:HA	1:A:1556:GLY:HA3	1.96	0.47
1:A:2228:ARG:HH21	1:A:2738:LYS:NZ	2.12	0.47
1:A:2231:PHE:O	1:A:2235:LEU:HG	2.14	0.47
1:A:2279:ILE:O	1:A:2282:ALA:HB3	2.14	0.47
1:A:3236:PHE:HD2	1:A:3269:ARG:HH22	1.62	0.47
1:A:3447:VAL:HG11	1:A:3471:ILE:HG21	1.95	0.47
1:F:200:PHE:HB3	1:F:224:LEU:HD21	1.96	0.47
1:F:273:ARG:O	1:F:277:LEU:N	2.41	0.47
1:F:710:PHE:HA	1:F:713:GLU:CD	2.39	0.47
1:F:938:VAL:HA	1:F:941:MET:HG3	1.95	0.47
1:F:2417:SER:OG	1:F:2418:LYS:NZ	2.46	0.47
1:F:2427:ARG:HG2	1:F:2432:GLN:HE22	1.78	0.47
1:F:3103:ILE:HD13	1:F:3138:ILE:HD11	1.96	0.47
1:F:3390:GLN:HA	1:F:3393:GLU:OE1	2.14	0.47
2:K:22:VAL:HG21	2:K:74:LEU:HB3	1.96	0.47
5:a:187:ARG:HA	5:a:220:ILE:HG13	1.95	0.47
5:a:191:GLY:HA2	5:a:194:ARG:HE	1.79	0.47
5:a:389:CYS:HB3	5:a:415:PRO:HG3	1.95	0.47
6:j:280:ASP:OD2	6:j:283:THR:HG22	2.14	0.47
6:j:467:ASP:O	6:j:472:THR:OG1	2.32	0.47
10:I:39:DA:N1	11:J:18:DA:C8	2.82	0.47
1:A:23:ASP:HB2	1:A:70:ARG:NE	2.29	0.47
1:A:32:HIS:O	1:A:35:ILE:HG22	2.14	0.47
1:A:741:ILE:HG22	1:A:748:TYR:CZ	2.49	0.47
1:A:1070:PRO:HG3	1:A:3715:TYR:HB2	1.96	0.47
1:A:1736:PHE:O	1:A:1740:VAL:HG13	2.14	0.47
1:A:3493:TRP:HE3	1:A:3521:ILE:HG12	1.78	0.47
1:F:295:GLU:O	1:F:299:LYS:NZ	2.45	0.47
1:F:297:LEU:HD23	1:F:316:LEU:HA	1.96	0.47
1:F:1023:SER:HA	1:F:1026:ARG:HG3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1610:ASN:OD1	1:F:1611:GLN:N	2.47	0.47
1:F:1723:PRO:O	1:F:1768:ARG:NH1	2.46	0.47
1:F:2485:ARG:HH12	1:F:2530:ARG:HG2	1.78	0.47
1:F:3118:ASP:C	1:F:3125:ARG:HH21	2.22	0.47
3:P:759:ASP:CG	3:P:763:ASP:HB3	2.39	0.47
6:b:148:ASP:OD1	6:b:148:ASP:N	2.46	0.47
6:b:251:LEU:HB2	6:b:261:ILE:HG21	1.96	0.47
6:b:262:ALA:O	6:b:365:PHE:N	2.46	0.47
5:h:90:THR:HG23	5:h:92:LYS:O	2.14	0.47
5:h:214:SER:HB3	5:h:218:ARG:NE	2.29	0.47
1:A:145:ASP:HA	1:A:147:PHE:CE2	2.49	0.47
1:A:384:MET:HA	1:A:387:GLU:HG3	1.95	0.47
1:A:682:TYR:CZ	1:A:700:LYS:HD3	2.49	0.47
1:A:1711:ARG:HB2	1:A:1757:MET:HE2	1.97	0.47
1:A:1737:ASN:O	1:A:1740:VAL:HG22	2.14	0.47
1:A:2241:LEU:O	1:A:2245:TRP:HB2	2.15	0.47
1:A:2277:LEU:O	1:A:2281:MET:N	2.36	0.47
1:A:3009:LYS:HE3	1:A:3013:TYR:CE1	2.49	0.47
1:A:3557:ARG:O	1:A:3560:SER:OG	2.28	0.47
1:F:51:LEU:HD23	1:F:51:LEU:H	1.78	0.47
1:F:406:ARG:HH21	1:F:408:TYR:HB2	1.77	0.47
1:F:410:MET:O	1:F:414:LEU:HG	2.14	0.47
1:F:879:MET:HG3	1:F:881:LYS:H	1.79	0.47
1:F:1406:LEU:HD13	1:F:1415:LEU:HD21	1.94	0.47
1:F:1576:ASP:O	1:F:1580:LEU:N	2.39	0.47
1:F:2166:SER:OG	1:F:2167:PRO:HD3	2.14	0.47
1:F:3281:CYS:SG	1:F:3329:LEU:HB3	2.54	0.47
2:K:94:TYR:CE1	2:K:110:SER:HA	2.50	0.47
3:M:655:ILE:HD12	3:M:684:GLU:HB3	1.96	0.47
2:N:19:PHE:HB2	2:N:21:GLN:HE22	1.80	0.47
4:Q:25:ALA:HB2	4:Q:38:VAL:HG13	1.95	0.47
4:Q:47:GLU:HG3	4:Q:122:HIS:NE2	2.30	0.47
4:Q:57:ARG:HH12	4:Q:76:LEU:HD11	1.79	0.47
4:Q:139:LEU:HA	4:Q:142:MET:CE	2.44	0.47
4:Q:147:GLN:O	4:Q:151:ARG:HG2	2.14	0.47
5:a:370:PRO:HD3	5:a:382:PHE:CE1	2.50	0.47
6:b:17:GLY:H	6:b:20:MET:HE1	1.77	0.47
5:h:259:LEU:HD23	5:h:345:LEU:HG	1.97	0.47
6:j:269:GLN:NE2	6:j:270:GLU:O	2.46	0.47
1:A:1167:ASP:HA	1:A:1170:LYS:NZ	2.30	0.47
1:A:2294:ILE:HD12	1:A:2299:TYR:HD1	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2402:LEU:HD11	1:A:2437:ASP:HB2	1.97	0.47
1:F:1019:ASP:OD1	1:F:1019:ASP:N	2.46	0.47
1:F:1234:GLY:HA3	1:F:1292:LYS:HZ1	1.76	0.47
1:F:1601:LEU:HD13	1:F:1651:LYS:HB3	1.96	0.47
1:F:2275:GLN:O	1:F:2279:ILE:HG12	2.14	0.47
1:F:4055:ASN:HB3	1:F:4058:VAL:HG23	1.96	0.47
2:K:164:LYS:HZ3	3:M:898:ILE:HA	1.80	0.47
2:L:55:GLU:HB3	2:L:66:TYR:CD2	2.49	0.47
2:O:54:GLN:OE1	2:O:54:GLN:N	2.44	0.47
3:P:848:HIS:CE1	3:P:899:ASP:HA	2.49	0.47
5:a:328:ILE:HG13	6:b:284:LEU:HD13	1.95	0.47
5:a:339:ARG:HG3	5:a:405:ASN:H	1.79	0.47
5:a:351:LYS:HG3	5:a:355:LEU:HD12	1.95	0.47
6:b:130:ARG:HB3	6:b:159:ILE:HG23	1.97	0.47
6:b:228:SER:HA	6:b:231:LEU:HD12	1.97	0.47
6:b:640:ARG:NH2	6:b:686:ILE:HA	2.29	0.47
6:b:674:PHE:CE2	6:b:678:VAL:HG11	2.49	0.47
8:D:14:DA:H1'	8:D:15:DA:C2	2.50	0.47
10:I:26:DA:H1'	10:I:27:DC:C2	2.48	0.47
1:A:323:VAL:HA	1:A:326:MET:HG2	1.95	0.47
1:A:1444:ASP:N	1:A:1444:ASP:OD1	2.46	0.47
1:A:2385:LEU:HD13	1:A:2389:PHE:HE2	1.79	0.47
1:A:3046:ARG:NH2	1:A:3181:ASP:OD1	2.47	0.47
1:A:3369:ASP:O	1:A:3373:VAL:N	2.33	0.47
1:A:3466:PRO:O	1:A:3470:GLN:HG2	2.14	0.47
1:A:3595:GLU:HB2	1:A:3606:ILE:HD11	1.96	0.47
1:A:3702:PRO:HD3	1:A:3719:ILE:HD11	1.97	0.47
1:A:3748:HIS:HB3	1:A:3750:PHE:HE1	1.79	0.47
1:F:925:GLN:CD	1:F:2769:VAL:HG13	2.39	0.47
1:F:1367:HIS:HB2	1:F:1370:ARG:NH2	2.29	0.47
1:F:1747:LEU:HD11	1:F:1781:SER:OG	2.13	0.47
1:F:3156:PRO:HA	1:F:3159:ARG:HB2	1.95	0.47
1:F:3493:TRP:CD1	1:F:3524:ASN:HD22	2.33	0.47
2:K:124:ARG:NH1	2:L:38:ASP:O	2.47	0.47
2:N:102:LYS:NZ	4:Q:75:HIS:HD2	2.13	0.47
4:Q:192:GLN:O	4:Q:197:LYS:HG2	2.14	0.47
4:R:1:MET:N	4:R:5:GLU:OE2	2.46	0.47
5:a:203:MET:CE	5:a:237:SER:H	2.27	0.47
5:a:253:LYS:HD3	6:b:433:TYR:HB3	1.96	0.47
6:b:272:VAL:HG22	6:b:274:LYS:H	1.80	0.47
6:b:496:HIS:CG	6:b:506:PRO:HD3	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:b:675:TRP:CE2	6:b:679:VAL:HG11	2.49	0.47
5:h:240:GLU:HG2	5:h:241:ASP:N	2.29	0.47
6:j:296:CYS:HA	6:j:304:GLU:HA	1.95	0.47
6:j:304:GLU:OE1	6:j:304:GLU:N	2.48	0.47
8:D:29:DG:C5	8:D:30:DT:C4	3.03	0.47
1:A:1101:PHE:HB3	1:A:1168:LEU:HG	1.95	0.47
1:A:1580:LEU:HG	1:A:1584:GLN:NE2	2.29	0.47
1:A:3423:GLN:HA	1:A:3426:LYS:HE3	1.96	0.47
1:A:3493:TRP:H	1:A:3711:PRO:HG3	1.80	0.47
1:A:3601:VAL:HA	1:A:3604:LYS:HE3	1.96	0.47
1:A:3772:ASN:HD21	1:A:3788:LEU:HB2	1.79	0.47
1:F:54:GLN:HA	1:F:57:LEU:HG	1.95	0.47
1:F:168:ASP:OD2	11:J:22:DG:H5''	2.15	0.47
1:F:1045:THR:O	1:F:1049:GLN:HG3	2.15	0.47
1:F:1400:VAL:HG12	1:F:1404:LYS:HE2	1.97	0.47
1:F:1685:ASP:OD1	1:F:1686:LEU:N	2.48	0.47
1:F:1727:ARG:CZ	1:F:1772:HIS:HA	2.44	0.47
1:F:2231:PHE:CZ	1:F:2272:VAL:HG12	2.50	0.47
1:F:2461:PHE:HB2	1:F:2473:MET:SD	2.55	0.47
1:F:2930:TYR:O	1:F:2935:GLU:N	2.44	0.47
1:F:3979:LEU:O	1:F:3983:ILE:HG12	2.14	0.47
2:L:28:LEU:HD21	2:L:70:LEU:HB3	1.97	0.47
2:O:107:ARG:HH21	2:O:110:SER:HA	1.79	0.47
2:O:166:VAL:HG13	3:P:847:PHE:HD1	1.80	0.47
3:P:813:PHE:C	3:P:849:GLY:H	2.22	0.47
3:P:814:ARG:HB2	3:P:847:PHE:C	2.40	0.47
3:P:856:LEU:HD11	3:P:878:PHE:CD1	2.50	0.47
4:R:174:LEU:HD22	4:R:180:LYS:HG3	1.96	0.47
5:a:128:GLN:HE22	5:a:129:LYS:HE2	1.80	0.47
5:h:245:LYS:HB3	5:h:247:ARG:NH1	2.30	0.47
6:j:643:ARG:HA	6:j:655:PHE:CE1	2.49	0.47
11:J:26:DT:H1'	11:J:27:DT:H3	1.79	0.47
1:A:334:HIS:HB3	6:b:568:LYS:NZ	2.29	0.47
1:A:493:LYS:O	1:A:625:ASN:ND2	2.48	0.47
1:A:646:VAL:O	1:A:650:SER:OG	2.30	0.47
1:A:710:PHE:HA	1:A:713:GLU:OE1	2.14	0.47
1:A:783:HIS:HA	1:A:786:GLN:HG2	1.96	0.47
1:A:828:LYS:HB2	1:A:830:VAL:HG22	1.96	0.47
1:A:859:LEU:O	1:A:867:ASN:ND2	2.45	0.47
1:A:1072:ALA:CA	1:A:1075:ARG:HH21	2.27	0.47
1:A:1371:VAL:HA	1:A:1374:GLN:CD	2.38	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1631:SER:HG	1:A:1632:TRP:CD1	2.33	0.47
1:A:3113:ASN:O	1:A:3117:ILE:HG12	2.15	0.47
1:A:3505:LEU:HG	1:A:3515:GLN:NE2	2.29	0.47
1:A:3689:ASP:OD1	1:A:3690:PHE:N	2.48	0.47
1:A:3771:MET:O	1:A:3775:LEU:HG	2.15	0.47
1:A:3859:TYR:HB2	1:A:4077:TYR:HE1	1.78	0.47
1:A:3895:GLU:H	1:A:3895:GLU:CD	2.20	0.47
1:A:4055:ASN:O	1:A:4059:ILE:HG12	2.14	0.47
1:F:61:ARG:HD3	1:F:62:ASP:N	2.30	0.47
1:F:529:ASP:N	1:F:529:ASP:OD1	2.47	0.47
1:F:585:ILE:HG13	1:F:611:ASN:H	1.79	0.47
1:F:703:CYS:HB3	1:F:707:PHE:CE2	2.50	0.47
1:F:1155:ARG:HA	1:F:3693:GLU:CD	2.38	0.47
1:F:1184:ARG:HH21	1:F:1262:ALA:HA	1.80	0.47
1:F:1877:LEU:HA	1:F:1880:MET:HG2	1.97	0.47
1:F:2228:ARG:HD3	10:I:44:DG:P	2.54	0.47
1:F:3022:GLU:HG2	1:F:3037:GLN:CD	2.40	0.47
1:F:3278:GLN:HB3	1:F:3282:ARG:NH1	2.27	0.47
1:F:3314:SER:OG	1:F:3317:SER:HB2	2.15	0.47
1:F:3387:GLU:HA	1:F:3390:GLN:HE21	1.78	0.47
1:F:3530:VAL:HG23	1:F:3531:TYR:N	2.30	0.47
2:L:162:PHE:CD2	3:M:843:LEU:HD13	2.50	0.47
2:L:182:LEU:HD12	3:M:781:ILE:HG23	1.96	0.47
2:N:45:GLY:CA	2:N:113:LEU:HA	2.45	0.47
2:N:88:PHE:CE1	2:N:93:CYS:HA	2.50	0.47
2:N:188:LYS:HE3	3:P:769:THR:HG23	1.97	0.47
4:Q:106:LEU:HD22	4:Q:121:PHE:H	1.79	0.47
4:Q:135:LEU:HB2	4:R:41:LEU:CD1	2.45	0.47
4:Q:161:ASP:HB2	4:Q:184:PHE:HB3	1.96	0.47
4:Q:165:GLN:HA	4:Q:168:GLN:HG2	1.95	0.47
4:R:109:ARG:NH1	4:R:119:TRP:H	2.13	0.47
4:R:137:ARG:HA	4:R:140:MET:SD	2.54	0.47
4:R:195:ILE:HG13	4:R:196:GLU:HG3	1.96	0.47
5:a:35:ARG:N	5:a:160:LYS:O	2.47	0.47
5:a:90:THR:HG23	5:a:92:LYS:H	1.79	0.47
5:h:37:SER:OG	5:h:164:LYS:HA	2.15	0.47
5:h:255:ALA:N	10:I:34:DC:OP1	2.48	0.47
5:h:353:LEU:HB2	5:h:393:GLU:OE2	2.14	0.47
5:h:353:LEU:HD23	5:h:395:ALA:HB2	1.97	0.47
8:D:15:DA:N7	8:D:16:DA:N6	2.62	0.47
10:I:41:DT:H2'	10:I:43:DT:N3	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:250:ASN:O	1:A:253:LEU:HB3	2.15	0.47
1:A:323:VAL:O	1:A:327:VAL:HG12	2.15	0.47
1:A:1168:LEU:HA	1:A:1171:TRP:HB3	1.96	0.47
1:A:1369:MET:HE1	1:A:1418:HIS:HB2	1.97	0.47
1:A:2540:LEU:HD11	1:A:2835:LYS:HD2	1.97	0.47
1:A:2978:LYS:O	1:A:2981:TRP:NE1	2.47	0.47
1:A:3494:GLN:HG2	1:A:3709:GLY:HA2	1.96	0.47
1:A:3513:ALA:HA	1:A:3516:HIS:ND1	2.30	0.47
1:A:3971:MET:SD	1:A:3974:MET:HB2	2.55	0.47
1:F:357:LYS:O	1:F:360:SER:OG	2.25	0.47
1:F:409:GLN:H	1:F:409:GLN:CD	2.21	0.47
1:F:530:LEU:O	1:F:533:HIS:HB3	2.14	0.47
1:F:1185:HIS:HA	1:F:1188:ILE:HG12	1.97	0.47
1:F:1292:LYS:HD3	1:F:1296:PHE:CZ	2.48	0.47
1:F:1335:CYS:HB3	1:F:1382:ILE:HD12	1.96	0.47
1:F:1452:VAL:O	1:F:1456:LYS:HG2	2.14	0.47
1:F:1685:ASP:O	1:F:1689:LYS:N	2.39	0.47
1:F:1750:LEU:HA	1:F:1758:LEU:HD23	1.97	0.47
1:F:2188:GLU:O	1:F:2192:THR:HG23	2.15	0.47
1:F:2364:LEU:O	1:F:2368:THR:OG1	2.25	0.47
1:F:3155:VAL:N	1:F:3159:ARG:HH22	2.13	0.47
1:F:3772:ASN:OD1	1:F:3788:LEU:HB3	2.15	0.47
3:M:785:ASN:ND2	3:M:787:GLN:O	2.47	0.47
5:a:375:VAL:O	5:a:378:SER:OG	2.22	0.47
5:a:460:GLY:HA2	5:a:463:LYS:HD2	1.96	0.47
6:b:337:GLY:HA2	6:b:398:ASP:C	2.40	0.47
6:b:463:LEU:HD23	6:b:522:VAL:HG11	1.96	0.47
1:A:675:ARG:O	1:A:679:LYS:HG3	2.15	0.47
1:A:934:LEU:HA	1:A:937:MET:HG2	1.96	0.47
1:A:1174:ALA:HA	1:A:1222:ASN:HD21	1.79	0.47
1:A:1184:ARG:NH2	1:A:1262:ALA:HA	2.30	0.47
1:A:2310:VAL:HG22	1:A:2316:TYR:CD2	2.49	0.47
1:A:2761:LEU:HA	1:A:2764:LYS:HD2	1.97	0.47
1:A:3363:SER:HA	1:A:3380:ARG:HH11	1.79	0.47
1:A:3778:ASP:O	1:A:3782:SER:OG	2.20	0.47
1:A:4065:LEU:HA	1:A:4069:GLU:HB3	1.97	0.47
1:F:538:ASP:OD1	1:F:538:ASP:N	2.46	0.47
1:F:1368:LEU:HA	1:F:1371:VAL:HG22	1.96	0.47
1:F:1776:GLU:HG3	1:F:1777:LEU:HD12	1.97	0.47
1:F:2383:PHE:HZ	1:F:2411:LEU:HD22	1.79	0.47
1:F:2396:LEU:O	1:F:2400:VAL:HG23	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2418:LYS:HD3	1:F:2418:LYS:HA	1.72	0.47
1:F:2940:ARG:O	1:F:2944:THR:HG23	2.13	0.47
2:K:3:ARG:NH2	2:K:21:GLN:OE1	2.47	0.47
2:L:20:LEU:HG	2:L:86:PHE:HE2	1.80	0.47
4:Q:197:LYS:HD2	4:R:152:GLU:HB3	1.97	0.47
5:a:143:LEU:HD23	5:a:176:HIS:ND1	2.30	0.47
5:a:156:ASP:O	5:a:158:GLN:NE2	2.46	0.47
5:a:192:ASP:O	5:a:196:THR:HG23	2.15	0.47
5:a:445:LYS:HG2	6:b:243:HIS:HA	1.96	0.47
6:b:573:GLY:C	6:b:575:HIS:H	2.22	0.47
5:h:147:LEU:HD22	5:h:193:LEU:HD12	1.96	0.47
5:h:537:GLU:OE2	6:j:250:ARG:HB3	2.15	0.47
6:j:315:ARG:NH2	6:j:320:ILE:HB	2.30	0.47
10:I:24:DA:H4'	10:I:26:DA:N1	2.29	0.47
1:A:1620:THR:O	1:A:1624:GLN:HG2	2.15	0.47
1:A:1626:TRP:CD1	1:A:1670:GLU:HG3	2.49	0.47
1:A:2404:ARG:HA	1:A:2404:ARG:HD2	1.70	0.47
1:A:2826:LEU:HA	1:A:2829:LYS:HD2	1.95	0.47
1:F:414:LEU:HA	1:F:417:VAL:HG12	1.96	0.47
1:F:1453:SER:O	1:F:1457:GLN:HG3	2.15	0.47
1:F:2304:VAL:O	1:F:2348:GLN:NE2	2.48	0.47
1:F:3121:LEU:O	1:F:3124:SER:OG	2.27	0.47
1:F:3992:ARG:HE	1:F:4100:GLU:HG3	1.80	0.47
2:O:117:GLU:H	2:O:117:GLU:CD	2.23	0.47
4:Q:34:TYR:CD1	4:Q:54:VAL:HG22	2.48	0.47
5:a:299:LYS:O	6:b:294:VAL:N	2.42	0.47
5:a:346:MET:HB2	5:a:399:ARG:HB2	1.97	0.47
5:a:452:ILE:C	5:a:453:MET:HE2	2.40	0.47
1:A:207:GLN:NE2	1:A:216:LYS:C	2.73	0.46
1:A:417:VAL:HA	1:A:420:VAL:HG12	1.96	0.46
1:A:709:LYS:HG2	1:A:713:GLU:OE2	2.15	0.46
1:A:913:ARG:HE	1:A:917:LEU:HD11	1.79	0.46
1:A:1442:GLN:OE1	1:A:1445:ARG:NH2	2.27	0.46
1:A:3009:LYS:HA	1:A:3009:LYS:HD2	1.74	0.46
1:A:3165:THR:O	1:A:3169:PRO:HD3	2.16	0.46
1:A:3235:LYS:HB3	1:A:3239:LYS:HE2	1.96	0.46
1:A:3266:SER:HA	1:A:3272:TRP:NE1	2.30	0.46
1:A:3869:THR:HG22	1:A:3873:LYS:HZ3	1.80	0.46
1:F:782:ARG:HA	1:F:785:MET:HE2	1.97	0.46
1:F:2193:ILE:HA	1:F:2196:TRP:CH2	2.50	0.46
1:F:2288:TYR:CE2	1:F:2296:SER:HA	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3658:ASP:OD1	1:F:3658:ASP:N	2.48	0.46
1:F:3690:PHE:HZ	1:F:3695:LEU:HB2	1.80	0.46
2:K:98:GLU:HA	2:K:109:GLY:H	1.80	0.46
3:P:665:CYS:HB3	3:P:700:VAL:HG22	1.95	0.46
4:Q:163:GLU:HG3	4:R:179:LEU:HB2	1.97	0.46
4:R:193:PHE:O	4:R:198:LEU:N	2.48	0.46
5:a:110:ASN:HB2	6:b:318:SER:HB3	1.97	0.46
5:a:114:LYS:HA	5:a:117:LEU:HD12	1.96	0.46
5:a:474:ARG:HH21	5:a:476:ASP:C	2.23	0.46
5:a:506:LEU:HD11	7:c:196:ALA:HB1	1.96	0.46
6:b:690:GLU:HA	6:b:696:VAL:HG21	1.97	0.46
5:h:193:LEU:HB3	5:h:198:ILE:HD12	1.97	0.46
5:h:441:ASP:OD1	5:h:441:ASP:N	2.47	0.46
11:J:17:DT:H2"	11:J:18:DA:N9	2.29	0.46
1:A:10:CYS:SG	1:A:11:SER:N	2.83	0.46
1:A:410:MET:O	1:A:414:LEU:HG	2.15	0.46
1:A:650:SER:HB3	1:A:673:THR:HG21	1.97	0.46
1:A:715:ALA:O	1:A:718:MET:HG3	2.16	0.46
1:A:762:TYR:HD2	1:A:765:LEU:HD23	1.81	0.46
1:A:1118:GLU:OE2	1:A:1120:SER:OG	2.22	0.46
1:A:1558:TYR:O	1:A:1562:LEU:HG	2.15	0.46
1:A:2349:LEU:HB3	1:A:2360:PHE:CE2	2.50	0.46
1:A:2746:LYS:O	1:A:2750:GLU:OE1	2.33	0.46
1:A:3266:SER:HA	1:A:3272:TRP:CD1	2.49	0.46
1:A:3420:CYS:O	1:A:3424:LEU:HG	2.16	0.46
1:A:4087:HIS:HA	1:A:4090:ARG:HD2	1.97	0.46
1:F:457:CYS:O	1:F:461:ILE:HG12	2.15	0.46
1:F:472:GLY:O	1:F:475:LEU:HB3	2.15	0.46
1:F:879:MET:HE2	1:F:881:LYS:H	1.79	0.46
1:F:3049:LEU:O	1:F:3053:LEU:HG	2.16	0.46
1:F:4040:PRO:HA	1:F:4043:LYS:HG2	1.97	0.46
2:K:120:ALA:HA	2:L:40:HIS:CE1	2.50	0.46
3:M:865:ILE:HG21	3:M:869:HIS:HA	1.97	0.46
2:O:67:VAL:HG23	2:O:71:ARG:HH22	1.80	0.46
4:R:151:ARG:O	4:R:155:THR:HG23	2.14	0.46
5:a:171:ASN:HA	5:a:211:PHE:CE1	2.50	0.46
5:h:53:SER:OG	5:h:55:ASP:OD1	2.26	0.46
5:h:240:GLU:HG2	5:h:241:ASP:H	1.79	0.46
5:h:240:GLU:H	5:h:240:GLU:CD	2.23	0.46
5:h:334:THR:HG22	5:h:338:LYS:HE3	1.96	0.46
6:j:664:GLU:O	6:j:668:ILE:HG23	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:76:ILE:HA	1:A:79:ARG:HB2	1.97	0.46
1:A:396:PHE:CD1	1:A:441:MET:HE3	2.50	0.46
1:A:639:ALA:O	1:A:643:GLU:N	2.48	0.46
1:A:721:TYR:HB2	1:A:726:LEU:HD13	1.98	0.46
1:A:933:LEU:HD12	1:A:2793:PRO:HB2	1.97	0.46
1:A:975:ASP:O	1:A:981:ARG:NH2	2.48	0.46
1:A:1300:SER:CA	1:A:1304:HIS:HB2	2.40	0.46
1:A:1418:HIS:O	1:A:1421:GLU:HG2	2.14	0.46
1:A:1576:ASP:OD1	1:A:1576:ASP:N	2.47	0.46
1:A:1820:VAL:HA	1:A:1824:LEU:HD12	1.98	0.46
1:A:2246:LYS:HA	1:A:2249:LEU:HB2	1.97	0.46
1:A:2485:ARG:HH22	1:A:2530:ARG:HA	1.80	0.46
1:A:3172:LYS:HD3	1:A:3248:LYS:HB3	1.97	0.46
1:A:3324:ARG:HB3	1:A:3391:ALA:HB3	1.98	0.46
1:A:3956:PRO:HD2	1:A:4121:TRP:HB2	1.98	0.46
1:F:933:LEU:HD13	1:F:2793:PRO:HG2	1.97	0.46
1:F:1169:VAL:HG21	1:F:1198:LEU:HD21	1.96	0.46
1:F:1195:VAL:HA	1:F:1198:LEU:HG	1.97	0.46
1:F:1952:ILE:HG23	1:F:1956:PHE:HB2	1.96	0.46
1:F:2732:PHE:O	1:F:2733:MET:HE2	2.15	0.46
1:F:3965:ARG:HA	1:F:3968:ILE:HG12	1.98	0.46
2:K:30:SER:HA	2:K:49:GLU:HB2	1.96	0.46
2:K:140:LYS:HE3	2:L:141:ASN:ND2	2.31	0.46
2:L:52:ILE:HA	2:L:55:GLU:HG3	1.97	0.46
3:M:863:VAL:HB	3:M:886:PHE:CE2	2.50	0.46
3:P:882:PHE:HB3	3:P:884:ARG:HD3	1.97	0.46
4:Q:219:MET:HA	4:Q:222:THR:HG22	1.97	0.46
4:R:218:TYR:O	4:R:222:THR:HG23	2.16	0.46
5:a:176:HIS:O	5:a:183:ALA:HB2	2.15	0.46
5:h:193:LEU:O	5:h:196:THR:OG1	2.24	0.46
5:h:483:LEU:HB3	5:h:487:PHE:CZ	2.51	0.46
1:A:2738:LYS:NZ	9:E:43:DT:H3'	2.30	0.46
1:A:3260:LYS:O	1:A:3263:HIS:HB3	2.15	0.46
1:A:3349:ALA:HA	1:A:3352:GLU:HB3	1.97	0.46
1:A:3755:GLY:HA2	1:A:3799:ARG:C	2.39	0.46
1:A:4079:ALA:O	1:A:4083:GLY:N	2.47	0.46
1:F:1045:THR:HG22	1:F:1047:GLN:H	1.80	0.46
1:F:1505:LEU:HD12	1:F:1506:SER:N	2.31	0.46
1:F:3759:ARG:O	1:F:3763:ARG:HG2	2.16	0.46
1:F:4107:LEU:HD12	1:F:4111:ALA:HB3	1.97	0.46
3:M:666:VAL:HG12	3:M:675:LYS:HG3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:826:ILE:HD12	3:M:878:PHE:HZ	1.81	0.46
2:N:188:LYS:HG2	3:P:765:TYR:C	2.41	0.46
4:Q:38:VAL:HB	4:Q:45:TRP:HB2	1.97	0.46
4:Q:295:ARG:HE	4:Q:295:ARG:HB2	1.56	0.46
4:R:217:LEU:O	4:R:221:VAL:HG23	2.15	0.46
5:a:57:LEU:HD22	5:a:65:GLN:NE2	2.30	0.46
5:a:91:GLU:OE2	5:a:92:LYS:NZ	2.48	0.46
5:a:279:LYS:HA	6:b:429:ASP:CG	2.41	0.46
5:a:388:LYS:HD2	6:b:455:ASP:HB2	1.97	0.46
6:b:14:MET:HE1	6:b:135:PHE:CD1	2.51	0.46
5:h:301:ARG:HG2	6:j:292:GLU:HB3	1.98	0.46
5:h:332:GLU:HA	5:h:335:GLU:HG2	1.97	0.46
6:j:337:GLY:HA3	6:j:399:LYS:HD2	1.97	0.46
1:A:337:LYS:HB2	1:A:369:PHE:CE1	2.49	0.46
1:A:732:PHE:CD2	1:A:733:LEU:HD22	2.50	0.46
1:A:980:THR:HA	1:A:983:LEU:HG	1.98	0.46
1:A:1028:PHE:HA	1:A:1031:ARG:NE	2.28	0.46
1:A:2834:GLN:HG3	1:A:2838:GLN:NE2	2.31	0.46
1:A:3227:ILE:O	1:A:3231:ILE:HG23	2.16	0.46
1:A:3930:VAL:HA	1:A:3937:VAL:HA	1.96	0.46
1:A:3992:ARG:HE	1:A:4100:GLU:HG3	1.80	0.46
1:A:4111:ALA:O	1:A:4115:ASN:ND2	2.48	0.46
1:F:801:LYS:HD3	1:F:801:LYS:HA	1.70	0.46
1:F:1190:LEU:O	1:F:1193:LYS:HG2	2.16	0.46
1:F:1294:VAL:HA	1:F:1297:PHE:CD2	2.50	0.46
1:F:2427:ARG:HG2	1:F:2432:GLN:NE2	2.30	0.46
1:F:2817:LEU:HD22	1:F:2865:HIS:CD2	2.50	0.46
1:F:3236:PHE:HD2	1:F:3269:ARG:HH22	1.61	0.46
3:M:848:HIS:NE2	3:M:897:SER:HB3	2.31	0.46
2:O:159:GLN:O	2:O:163:GLU:HG3	2.16	0.46
4:Q:211:VAL:O	4:Q:215:GLN:HG2	2.14	0.46
5:a:380:THR:HA	6:b:444:TYR:HB3	1.97	0.46
5:h:184:SER:HA	5:h:187:ARG:HH11	1.80	0.46
5:h:330:GLU:HB2	5:h:333:GLU:CD	2.40	0.46
5:h:463:LYS:HG3	6:j:383:ALA:HB1	1.96	0.46
8:D:19:DA:H2	9:E:39:DA:H2	1.62	0.46
1:A:200:PHE:HB2	1:A:246:ARG:HH12	1.81	0.46
1:A:275:PHE:CZ	1:A:319:PHE:HB2	2.51	0.46
1:A:934:LEU:O	1:A:937:MET:HG2	2.15	0.46
1:A:943:GLY:HA3	1:A:2783:ILE:HG21	1.97	0.46
1:A:982:GLN:CD	1:A:2591:ILE:HG23	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1214:GLU:OE1	1:A:1214:GLU:N	2.46	0.46
1:A:1642:LYS:O	1:A:1646:LEU:HG	2.15	0.46
1:A:1671:VAL:HA	1:A:1674:THR:HB	1.97	0.46
1:A:2225:HIS:CG	1:A:2230:VAL:HG23	2.50	0.46
1:A:2310:VAL:HG11	1:A:2359:LYS:HE2	1.97	0.46
1:A:3234:CYS:O	1:A:3238:MET:HE3	2.16	0.46
1:A:3243:ILE:HD11	1:A:3258:LEU:HD23	1.97	0.46
1:A:3301:LEU:HB2	1:A:3333:THR:HG21	1.98	0.46
1:A:3455:LYS:HA	1:A:3490:VAL:HG23	1.97	0.46
1:F:88:PHE:HD2	1:F:89:LEU:HD22	1.81	0.46
1:F:174:VAL:O	1:F:177:LEU:HB2	2.16	0.46
1:F:709:LYS:HG2	1:F:1389:VAL:HG11	1.97	0.46
1:F:1740:VAL:HA	1:F:1743:MET:HG2	1.97	0.46
1:F:2102:LYS:HE2	1:F:2102:LYS:HB3	1.78	0.46
1:F:2135:ASN:OD1	1:F:2135:ASN:N	2.49	0.46
1:F:2455:LEU:HD12	1:F:2458:VAL:HB	1.97	0.46
1:F:3327:ASN:HB2	1:F:3388:ALA:HB2	1.98	0.46
1:F:3494:GLN:HB3	1:F:3709:GLY:N	2.30	0.46
3:M:793:ALA:O	3:M:814:ARG:HG3	2.16	0.46
3:M:803:TYR:HB2	3:M:805:TRP:CE2	2.51	0.46
5:a:173:ASP:CB	5:a:216:PHE:HB3	2.44	0.46
5:a:374:LEU:HD13	6:b:542:ALA:HB3	1.98	0.46
6:b:399:LYS:HZ1	8:D:34:DT:H4'	1.81	0.46
6:j:135:PHE:CD1	6:j:164:PHE:HB2	2.51	0.46
1:A:759:GLY:CA	1:A:766:ALA:HB2	2.46	0.46
1:A:1048:GLN:O	1:A:1052:SER:N	2.41	0.46
1:A:1369:MET:HA	1:A:1372:LEU:HB3	1.98	0.46
1:A:1437:TYR:HB2	1:A:1486:LEU:HD22	1.98	0.46
1:A:1558:TYR:O	1:A:1561:SER:OG	2.26	0.46
1:A:2817:LEU:O	1:A:2820:MET:HG3	2.15	0.46
1:A:2898:LEU:HD13	1:A:3972:LEU:HB2	1.97	0.46
1:A:3583:LEU:HA	1:A:3586:LYS:HE2	1.97	0.46
1:A:3881:ASP:N	1:A:3966:GLN:OE1	2.49	0.46
1:F:771:ASN:HA	1:F:774:GLU:CD	2.40	0.46
1:F:997:ASN:HA	1:F:1043:GLN:HE21	1.80	0.46
1:F:2328:ARG:HA	1:F:2333:ARG:HH21	1.81	0.46
1:F:3546:SER:O	1:F:3549:HIS:NE2	2.48	0.46
1:F:3586:LYS:HD3	1:F:3664:ASN:HD21	1.81	0.46
2:K:23:SER:N	2:K:33:VAL:O	2.49	0.46
2:K:157:ASP:OD2	3:M:837:ARG:NE	2.49	0.46
4:R:48:GLN:HB3	4:R:126:ALA:HB1	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:a:282:LYS:HD2	5:a:283:PRO:O	2.16	0.46
5:a:369:TYR:CD1	5:a:370:PRO:HD2	2.51	0.46
5:a:468:LYS:HG2	5:a:518:LEU:HD23	1.97	0.46
6:b:216:GLU:HG3	6:b:220:GLY:HA3	1.97	0.46
7:c:183:GLU:OE2	7:c:189:GLY:N	2.28	0.46
5:h:170:THR:HG23	5:h:172:GLU:H	1.80	0.46
1:A:1130:ALA:O	1:A:1134:LEU:HG	2.16	0.46
1:A:2123:PRO:HA	1:A:2127:LYS:HG2	1.97	0.46
1:A:2227:LYS:O	1:A:2229:ALA:N	2.48	0.46
1:A:2266:ASN:O	1:A:2311:ARG:HB2	2.16	0.46
1:A:2295:GLN:HE21	1:A:2298:GLU:C	2.24	0.46
1:A:2421:VAL:O	1:A:2425:ARG:HG3	2.16	0.46
1:A:3793:VAL:HG12	1:A:3803:ILE:HB	1.97	0.46
1:F:453:MET:HA	1:F:456:VAL:HB	1.97	0.46
1:F:520:LYS:HA	1:F:520:LYS:HD3	1.72	0.46
1:F:670:LEU:HB3	1:F:732:PHE:CD1	2.51	0.46
1:F:965:THR:O	1:F:969:LEU:HG	2.16	0.46
1:F:1176:CYS:SG	1:F:1188:ILE:HG22	2.56	0.46
1:F:2522:ARG:HG3	1:F:2561:PHE:CE1	2.51	0.46
1:F:3772:ASN:ND2	1:F:3787:GLN:HE22	2.13	0.46
1:F:3924:HIS:H	1:F:3927:ASN:HD21	1.64	0.46
3:P:816:HIS:O	3:P:850:ALA:HA	2.16	0.46
6:b:33:GLN:HB3	6:b:227:PHE:HB3	1.97	0.46
8:D:14:DA:H2''	8:D:15:DA:C6	2.50	0.46
9:E:41:DT:H2''	9:E:42:DA:H2'	1.97	0.46
1:A:201:LEU:HB2	1:A:246:ARG:NH2	2.31	0.46
1:A:364:ARG:HA	1:A:364:ARG:HE	1.81	0.46
1:A:529:ASP:O	1:A:533:HIS:N	2.29	0.46
1:A:654:ILE:HD12	1:A:706:LEU:HD21	1.97	0.46
1:A:1182:GLU:HG3	1:A:1186:LYS:NZ	2.31	0.46
1:A:1756:PRO:HG3	1:A:1797:LEU:HD12	1.98	0.46
1:A:1797:LEU:O	1:A:1801:VAL:HG22	2.16	0.46
1:A:2307:MET:HE1	1:A:2320:ALA:N	2.31	0.46
1:A:2330:VAL:O	1:A:2333:ARG:N	2.49	0.46
1:A:3666:LEU:HA	1:A:3669:LYS:NZ	2.31	0.46
1:F:54:GLN:HB3	1:F:3097:ASP:HB2	1.98	0.46
1:F:139:ARG:HA	1:F:142:ARG:NH2	2.18	0.46
1:F:528:VAL:O	1:F:532:ARG:HG2	2.16	0.46
1:F:1167:ASP:O	1:F:1170:LYS:HG3	2.16	0.46
1:F:2182:ILE:O	1:F:2186:VAL:HG23	2.16	0.46
1:F:2189:ILE:O	1:F:2192:THR:OG1	2.27	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2511:ILE:HG13	1:F:2550:ILE:HG23	1.98	0.46
1:F:2939:LEU:HD13	1:F:2957:LEU:HD22	1.98	0.46
1:F:3090:TYR:O	1:F:3094:ASP:N	2.49	0.46
1:F:3179:TRP:HE3	1:F:3242:MET:SD	2.38	0.46
2:K:188:LYS:NZ	3:M:767:ILE:O	2.44	0.46
2:N:60:ALA:HB1	4:Q:93:ALA:HB2	1.98	0.46
2:O:59:MET:SD	2:O:61:MET:HB3	2.56	0.46
4:Q:150:VAL:HA	4:Q:153:LEU:HD12	1.97	0.46
5:a:74:LYS:HG3	5:a:83:LEU:HD11	1.98	0.46
6:b:493:CYS:HB3	6:b:505:LEU:HD13	1.97	0.46
5:h:296:VAL:HG11	6:j:295:TYR:HB3	1.98	0.46
6:j:599:ARG:NH2	6:j:602:VAL:HG21	2.27	0.46
1:A:242:PRO:O	1:A:246:ARG:HG2	2.15	0.46
1:A:1121:LEU:O	1:A:1124:ILE:HG12	2.16	0.46
1:A:1565:GLU:OE1	1:A:1606:ARG:NH1	2.46	0.46
1:A:2724:ASP:N	1:A:2724:ASP:OD1	2.48	0.46
1:A:2726:LEU:HB3	1:A:2727:ARG:HH21	1.80	0.46
1:A:2871:LEU:HD11	1:A:2892:LEU:HD21	1.98	0.46
1:A:4008:GLU:OE2	1:A:4014:LYS:NZ	2.37	0.46
1:F:241:ASP:O	1:F:244:THR:HG22	2.16	0.46
1:F:966:PHE:HA	1:F:969:LEU:HD12	1.97	0.46
1:F:2310:VAL:HG13	1:F:2316:TYR:CE2	2.50	0.46
1:F:3138:ILE:HG22	1:F:3189:PHE:HZ	1.80	0.46
1:F:3163:THR:O	1:F:3167:ARG:NH1	2.49	0.46
1:F:3171:ALA:N	1:F:3179:TRP:HZ2	2.14	0.46
1:F:3625:LEU:N	1:F:3683:CYS:HA	2.31	0.46
1:F:3901:ARG:HD2	1:F:3902:SER:N	2.31	0.46
1:F:4115:ASN:O	1:F:4119:ARG:N	2.42	0.46
2:L:71:ARG:NH1	2:L:74:LEU:HD12	2.31	0.46
3:M:665:CYS:SG	3:M:690:VAL:HG13	2.55	0.46
2:N:34:ILE:HD12	2:N:74:LEU:CD2	2.45	0.46
4:Q:137:ARG:HB2	4:Q:138:PRO:HD3	1.98	0.46
5:a:289:TYR:OH	6:b:297:LEU:HD11	2.16	0.46
5:a:372:GLU:CD	5:a:377:GLY:H	2.23	0.46
6:b:377:LEU:O	6:b:381:ILE:HG13	2.16	0.46
6:b:643:ARG:HA	6:b:655:PHE:CE1	2.51	0.46
5:h:79:ASP:OD1	5:h:79:ASP:N	2.47	0.46
5:h:86:VAL:HA	5:h:104:VAL:HA	1.98	0.46
5:h:476:ASP:OD2	7:i:194:LYS:HE3	2.16	0.46
1:A:139:ARG:NH2	1:A:179:GLY:O	2.49	0.45
1:A:848:LEU:O	1:A:852:ARG:HG3	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:860:GLY:HA3	1:A:3136:THR:CB	2.46	0.45
1:A:1264:LEU:HD11	1:A:1344:PHE:HB2	1.98	0.45
1:A:1420:ARG:HH12	1:A:1469:PRO:HD3	1.81	0.45
1:A:1577:LEU:H	1:A:1577:LEU:HD12	1.80	0.45
1:A:2972:TYR:CZ	1:A:2997:ALA:HB1	2.50	0.45
1:A:3081:HIS:HB2	1:A:3082:TYR:CE2	2.51	0.45
1:A:3229:SER:N	1:A:3232:ARG:HH21	2.14	0.45
1:A:3387:GLU:O	1:A:3390:GLN:HG2	2.16	0.45
1:A:4113:ASP:O	1:A:4117:LEU:HG	2.16	0.45
1:F:934:LEU:HA	1:F:937:MET:HG2	1.98	0.45
1:F:1250:LEU:HD12	1:F:1251:GLN:N	2.31	0.45
1:F:1611:GLN:NE2	1:F:1614:GLN:HG3	2.30	0.45
1:F:1824:LEU:O	1:F:1828:LEU:HG	2.16	0.45
1:F:2228:ARG:HD3	10:I:44:DG:OP2	2.16	0.45
1:F:3300:VAL:HG13	1:F:3300:VAL:O	2.16	0.45
1:F:4127:TRP:CD1	1:F:4128:MET:N	2.85	0.45
2:O:163:GLU:HG2	3:P:843:LEU:HD22	1.97	0.45
3:P:864:ILE:HD11	3:P:906:GLU:HG2	1.98	0.45
4:R:166:ASP:O	4:R:170:SER:HB3	2.16	0.45
6:b:246:HIS:HE1	6:b:262:ALA:HA	1.80	0.45
6:b:308:GLU:N	6:b:308:GLU:OE1	2.49	0.45
6:b:630:PRO:HA	6:b:633:MET:CG	2.41	0.45
5:h:130:ARG:O	5:h:134:MET:HG3	2.16	0.45
5:h:259:LEU:HG	5:h:260:LYS:H	1.81	0.45
6:j:656:ASN:HB2	6:j:691:ALA:HB3	1.98	0.45
1:A:296:VAL:HG13	1:A:297:LEU:HD12	1.98	0.45
1:A:432:THR:O	1:A:435:LEU:HG	2.16	0.45
1:A:565:TYR:OH	1:A:642:PHE:HB2	2.15	0.45
1:A:678:LYS:NZ	1:A:735:SER:O	2.36	0.45
1:A:898:PHE:HB2	1:A:901:MET:O	2.17	0.45
1:A:1344:PHE:O	1:A:1347:THR:OG1	2.32	0.45
1:A:1611:GLN:NE2	1:A:1613:HIS:HB2	2.31	0.45
1:A:1667:SER:O	1:A:1670:GLU:HG2	2.16	0.45
1:A:1671:VAL:O	1:A:1675:TYR:N	2.39	0.45
1:A:2349:LEU:O	1:A:2353:GLN:HB2	2.16	0.45
1:A:2376:ASP:OD1	1:A:2377:ARG:N	2.48	0.45
1:A:3516:HIS:CE1	1:A:3554:PHE:HZ	2.34	0.45
1:A:3758:LEU:O	1:A:3762:GLN:N	2.42	0.45
1:F:30:ALA:O	1:F:33:GLN:HG2	2.16	0.45
1:F:1307:ILE:HG13	1:F:1308:ALA:H	1.81	0.45
1:F:1342:MET:HB2	1:F:1402:LEU:HD22	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1465:HIS:HA	1:F:1468:LEU:HB3	1.98	0.45
1:F:1504:ASP:OD2	1:F:1506:SER:OG	2.34	0.45
1:F:1591:LYS:O	1:F:1594:SER:OG	2.28	0.45
1:F:1712:ARG:HH22	6:j:630:PRO:HG3	1.82	0.45
1:F:2474:TYR:O	1:F:2478:MET:HG3	2.15	0.45
1:F:2791:ILE:O	1:F:2794:LEU:HB2	2.16	0.45
1:F:3008:TRP:H	1:F:3008:TRP:HE3	1.61	0.45
1:F:3490:VAL:HG13	1:F:3490:VAL:O	2.16	0.45
1:F:3495:PHE:HA	1:F:3498:TRP:HB2	1.99	0.45
1:F:3736:LYS:HE2	1:F:3752:VAL:HB	1.98	0.45
1:F:4125:GLU:HG2	1:F:4127:TRP:CZ2	2.51	0.45
3:M:813:PHE:HB3	3:M:816:HIS:HB2	1.98	0.45
3:M:879:ARG:NH1	3:M:888:ILE:HD11	2.31	0.45
2:O:29:GLU:OE1	2:O:71:ARG:HD3	2.16	0.45
4:Q:17:GLN:O	4:Q:94:THR:OG1	2.34	0.45
4:Q:32:GLN:C	4:Q:50:ASP:HA	2.41	0.45
4:Q:133:GLN:HB2	4:R:42:GLN:C	2.41	0.45
5:a:301:ARG:HH12	5:a:310:LEU:HA	1.81	0.45
6:b:653:GLN:CD	6:b:653:GLN:H	2.24	0.45
5:h:242:LEU:HD12	7:i:186:ILE:HD11	1.99	0.45
5:h:269:ILE:HD13	5:h:381:LEU:HD23	1.98	0.45
5:h:350:PHE:CD2	6:j:458:ILE:HA	2.51	0.45
6:j:307:LYS:HG3	6:j:310:ILE:HD11	1.97	0.45
9:E:32:DA:H2'	9:E:33:DA:H3'	1.98	0.45
10:I:27:DC:H2'	11:J:30:DT:C2	2.51	0.45
1:A:78:PHE:HB2	1:A:79:ARG:HH12	1.81	0.45
1:A:234:PHE:HD1	1:A:235:THR:HG23	1.82	0.45
1:A:290:TYR:HB3	6:b:562:PRO:HG3	1.97	0.45
1:A:1428:ILE:H	1:A:1428:ILE:HD12	1.80	0.45
1:A:1646:LEU:HD23	1:A:1678:LEU:HD13	1.99	0.45
1:A:1724:MET:HE3	1:A:1725:GLN:HE21	1.81	0.45
1:A:2130:HIS:HA	1:A:2164:TRP:CH2	2.51	0.45
1:A:2584:CYS:SG	1:A:2779:ASP:N	2.90	0.45
1:A:2955:SER:O	1:A:2958:LEU:HG	2.17	0.45
1:A:3072:GLU:OE1	1:A:3072:GLU:N	2.43	0.45
1:A:3078:LEU:HA	1:A:3082:TYR:HD2	1.81	0.45
1:A:3192:LYS:HB3	1:A:3196:LYS:NZ	2.31	0.45
1:A:3760:GLN:O	1:A:3764:VAL:HG23	2.17	0.45
1:A:3928:PHE:O	1:A:3929:MET:HE2	2.16	0.45
1:F:30:ALA:O	1:F:34:LEU:HG	2.17	0.45
1:F:320:LEU:HA	1:F:323:VAL:HG22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1115:HIS:HB2	1:F:1180:GLN:HG3	1.97	0.45
1:F:1662:ASN:OD1	1:F:1663:THR:N	2.49	0.45
3:M:663:GLU:HA	3:M:688:TYR:HB2	1.97	0.45
2:O:147:GLU:O	2:O:150:ARG:HG3	2.16	0.45
4:Q:150:VAL:HG13	4:R:153:LEU:HD13	1.97	0.45
5:a:512:GLU:OE1	5:a:512:GLU:N	2.44	0.45
6:b:61:THR:OG1	6:b:78:THR:HG23	2.16	0.45
6:b:460:SER:HB2	6:b:525:LYS:HB3	1.98	0.45
5:h:258:ARG:NE	10:I:33:DA:H3'	2.31	0.45
5:h:458:GLN:HB3	5:h:525:PHE:CE1	2.50	0.45
6:j:328:GLU:O	6:j:332:LYS:N	2.48	0.45
6:j:569:THR:HG23	6:j:572:GLY:H	1.80	0.45
6:j:656:ASN:ND2	6:j:692:SER:OG	2.35	0.45
6:j:681:ASP:O	6:j:685:LEU:HG	2.16	0.45
10:I:33:DA:H2''	10:I:34:DC:C6	2.51	0.45
1:A:79:ARG:HG2	1:A:79:ARG:HH11	1.82	0.45
1:A:676:ASN:O	1:A:679:LYS:HB2	2.16	0.45
1:A:908:ASP:OD1	1:A:908:ASP:N	2.47	0.45
1:A:984:TYR:HD1	1:A:987:LEU:HD23	1.82	0.45
1:A:1111:LEU:HD22	1:A:1183:CYS:HB2	1.99	0.45
1:A:1217:VAL:HA	1:A:1285:GLU:OE1	2.17	0.45
1:A:1253:THR:O	1:A:1257:LEU:HG	2.17	0.45
1:A:1731:PRO:HA	1:A:1736:PHE:CD2	2.51	0.45
1:A:2269:ASP:N	1:A:2269:ASP:OD1	2.48	0.45
1:A:2271:SER:HA	1:A:2274:ILE:HD12	1.99	0.45
1:A:2312:TYR:HE2	8:D:17:DT:P	2.40	0.45
1:A:2348:GLN:HG2	1:A:2352:HIS:HE1	1.82	0.45
1:A:2556:SER:O	1:A:2559:THR:OG1	2.30	0.45
1:A:3457:ASN:OD1	1:A:3457:ASN:N	2.49	0.45
1:F:207:GLN:HE22	1:F:216:LYS:C	2.24	0.45
1:F:296:VAL:HG22	1:F:300:TRP:CD1	2.51	0.45
1:F:908:ASP:O	1:F:911:LEU:HB2	2.17	0.45
1:F:1131:ILE:HD11	1:F:1186:LYS:HG2	1.99	0.45
1:F:1149:LYS:H	1:F:1151:ARG:HH12	1.64	0.45
1:F:1156:GLY:O	1:F:1158:PRO:HD3	2.17	0.45
1:F:1251:GLN:N	1:F:1251:GLN:OE1	2.34	0.45
1:F:2233:HIS:CE1	1:F:2728:LEU:HA	2.51	0.45
1:F:2241:LEU:HA	1:F:2244:CYS:SG	2.56	0.45
1:F:2923:TRP:HE3	1:F:2942:ILE:HG23	1.82	0.45
1:F:3882:LEU:HD23	1:F:3885:ARG:NH1	2.32	0.45
2:L:8:ILE:HD11	2:L:18:HIS:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:753:HIS:CE1	3:M:758:TYR:HE2	2.34	0.45
3:M:879:ARG:HB2	3:M:880:ARG:NH1	2.31	0.45
2:N:183:VAL:O	2:N:187:LYS:HG2	2.16	0.45
2:O:25:GLU:HG2	2:O:26:LYS:N	2.30	0.45
5:a:388:LYS:HA	5:a:388:LYS:HD3	1.76	0.45
6:b:242:ARG:HH21	6:b:273:LYS:H	1.62	0.45
6:b:509:GLN:HB2	6:b:512:ILE:HG12	1.99	0.45
6:j:152:HIS:O	6:j:156:LYS:HG2	2.16	0.45
1:A:896:VAL:N	1:A:903:PRO:O	2.47	0.45
1:A:1012:ALA:HA	1:A:1015:ASP:OD2	2.16	0.45
1:A:1513:GLY:O	1:A:1517:LEU:HG	2.17	0.45
1:A:2411:LEU:H	1:A:2411:LEU:HD23	1.80	0.45
1:A:3103:ILE:HD13	1:A:3138:ILE:HD11	1.98	0.45
1:F:394:GLN:OE1	1:F:1737:ASN:HB3	2.16	0.45
1:F:487:LEU:HA	1:F:490:ILE:HG22	1.98	0.45
1:F:1925:GLU:OE1	1:F:1941:HIS:NE2	2.49	0.45
1:F:2093:CYS:O	1:F:2096:PRO:HD2	2.16	0.45
1:F:2860:ASP:O	1:F:2864:GLN:HG2	2.17	0.45
1:F:2974:GLU:O	1:F:2978:LYS:HG3	2.17	0.45
1:F:3128:LYS:O	1:F:3131:SER:OG	2.28	0.45
1:F:3462:ARG:O	1:F:3465:PHE:HB3	2.16	0.45
2:N:36:LEU:HD11	2:N:88:PHE:CG	2.51	0.45
2:N:144:LEU:HD13	2:O:145:GLN:HB2	1.99	0.45
5:a:203:MET:HE3	5:a:204:HIS:O	2.16	0.45
6:b:213:ILE:HD11	6:b:221:LEU:HD11	1.97	0.45
6:b:528:ILE:HB	6:b:529:PRO:HD3	1.98	0.45
5:h:75:ILE:HD13	6:j:316:TYR:HE1	1.81	0.45
5:h:143:LEU:H	5:h:176:HIS:CE1	2.34	0.45
5:h:173:ASP:HB3	5:h:217:TYR:CE2	2.52	0.45
6:j:347:LYS:HB3	6:j:350:GLN:HG3	1.98	0.45
6:j:401:ALA:HA	10:I:25:DA:H8	1.82	0.45
6:j:669:LYS:HD2	6:j:669:LYS:HA	1.76	0.45
8:D:13:DC:O5'	8:D:14:DA:C5	2.69	0.45
9:E:34:DC:H5	9:E:35:DT:C2	2.35	0.45
11:J:17:DT:H2''	11:J:18:DA:C4	2.52	0.45
1:A:147:PHE:C	1:A:148:LYS:HD3	2.41	0.45
1:A:765:LEU:HD12	1:A:766:ALA:N	2.32	0.45
1:A:2497:GLU:HA	1:A:2500:LYS:HE2	1.98	0.45
1:A:3002:TYR:CE2	1:A:3013:TYR:HB3	2.52	0.45
1:A:3255:ALA:O	1:A:3259:LEU:N	2.41	0.45
1:A:3583:LEU:HD13	1:A:3733:ARG:HH21	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3628:PHE:HA	1:A:3631:LYS:HE3	1.99	0.45
1:A:3670:MET:HG2	1:A:3670:MET:O	2.16	0.45
1:A:3822:GLN:OE1	1:A:3822:GLN:N	2.49	0.45
1:A:4055:ASN:HD21	1:A:4057:ALA:HB3	1.82	0.45
1:F:793:LEU:HD11	1:F:867:ASN:HA	1.99	0.45
1:F:1261:LEU:HD21	1:F:1337:VAL:HA	1.98	0.45
1:F:1310:GLU:HG3	1:F:1312:CYS:H	1.81	0.45
1:F:1868:THR:O	1:F:1871:MET:HB2	2.17	0.45
1:F:1947:CYS:O	1:F:1951:VAL:HG13	2.16	0.45
1:F:2330:VAL:O	1:F:2330:VAL:HG13	2.17	0.45
1:F:3110:PHE:CD2	1:F:3135:LEU:HD11	2.52	0.45
1:F:3613:MET:HE3	1:F:3617:LEU:HG	1.98	0.45
1:F:3657:SER:HA	1:F:3660:ASN:OD1	2.17	0.45
1:F:3819:THR:HG22	1:F:3889:ARG:HH11	1.81	0.45
2:K:55:GLU:HB3	2:K:59:MET:HE2	1.99	0.45
3:M:759:ASP:HB2	3:M:763:ASP:HB3	1.99	0.45
3:M:794:SER:HA	3:M:815:ARG:HD3	1.99	0.45
3:P:716:ASN:HA	3:P:745:HIS:CE1	2.52	0.45
5:a:58:THR:C	5:a:62:MET:HE3	2.41	0.45
5:a:113:ALA:HA	5:a:116:ILE:HD12	1.98	0.45
6:b:229:GLU:HA	6:b:232:ARG:HE	1.81	0.45
6:j:45:GLN:HB3	6:j:86:PRO:HG3	1.97	0.45
1:A:45:SER:HB3	1:A:88:PHE:HZ	1.82	0.45
1:A:54:GLN:HB3	1:A:3097:ASP:HB2	1.98	0.45
1:A:1282:LEU:HB3	1:A:1359:LEU:HD13	1.98	0.45
1:A:1711:ARG:HG3	1:A:1712:ARG:HH21	1.81	0.45
1:A:3148:GLN:NE2	1:A:3150:ASN:HA	2.30	0.45
1:A:3178:ILE:H	1:A:3178:ILE:HD12	1.81	0.45
1:A:3548:GLY:O	1:A:3552:LYS:HG2	2.17	0.45
1:A:3832:PRO:HB2	1:A:3836:PRO:HG3	1.98	0.45
1:F:479:ILE:HA	1:F:482:VAL:HG22	1.98	0.45
1:F:653:LEU:HB3	1:F:670:LEU:HD21	1.99	0.45
1:F:1060:PHE:HB3	1:F:1064:TYR:CZ	2.52	0.45
1:F:1322:THR:OG1	1:F:1324:PRO:HD2	2.16	0.45
1:F:1653:LEU:HB3	1:F:1698:PHE:CE1	2.51	0.45
1:F:2971:GLN:HA	1:F:2974:GLU:OE2	2.17	0.45
1:F:3247:ARG:NH2	1:F:3248:LYS:HG3	2.30	0.45
1:F:3465:PHE:O	1:F:3468:LEU:HB3	2.17	0.45
2:K:59:MET:HE1	2:K:66:TYR:CD1	2.51	0.45
2:L:40:HIS:O	2:L:119:PRO:HB2	2.16	0.45
3:M:671:ASP:OD1	3:M:672:SER:N	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:710:LYS:NZ	5:h:498:MET:O	2.38	0.45
5:a:35:ARG:HG2	5:a:80:ARG:HG3	1.98	0.45
5:a:230:ARG:HB2	5:a:232:HIS:CE1	2.52	0.45
5:a:413:LEU:HB3	5:a:432:PHE:CD2	2.50	0.45
6:b:119:GLN:HG2	6:b:157:CYS:SG	2.57	0.45
5:h:74:LYS:O	5:h:78:SER:N	2.49	0.45
5:h:125:GLN:CD	5:h:128:GLN:HE22	2.24	0.45
6:j:80:HIS:CE1	6:j:93:ASP:HB3	2.51	0.45
6:j:448:GLU:OE2	6:j:452:ASN:ND2	2.50	0.45
6:j:605:LYS:HD2	6:j:611:GLU:HB3	1.98	0.45
1:A:131:LEU:HD12	1:A:173:LYS:HB2	1.99	0.45
1:A:158:GLY:HA2	5:a:310:LEU:HD22	1.98	0.45
1:A:181:LEU:HD12	1:A:185:HIS:HB2	1.99	0.45
1:A:208:MET:SD	1:A:256:ILE:HD12	2.57	0.45
1:A:213:ARG:NH2	6:b:548:VAL:HG13	2.31	0.45
1:A:364:ARG:HH22	1:A:463:LYS:HZ2	1.65	0.45
1:A:1369:MET:CE	1:A:1415:LEU:HA	2.47	0.45
1:A:2155:GLU:H	1:A:2155:GLU:CD	2.21	0.45
1:A:2294:ILE:HD12	1:A:2299:TYR:CD1	2.51	0.45
1:A:2464:HIS:CE1	1:A:2466:SER:HB3	2.52	0.45
1:A:2547:SER:C	1:A:2549:LYS:H	2.24	0.45
1:F:208:MET:CE	1:F:252:VAL:HG11	2.47	0.45
1:F:465:PHE:HA	1:F:468:LEU:HG	1.98	0.45
1:F:983:LEU:HB3	1:F:2591:ILE:HD11	1.98	0.45
1:F:1341:ILE:O	1:F:1345:THR:HG23	2.17	0.45
1:F:1539:SER:HA	1:F:1552:HIS:CE1	2.51	0.45
1:F:1745:LYS:HA	1:F:1748:ASP:OD2	2.16	0.45
1:F:1836:LEU:HD13	1:F:1883:ARG:HG3	1.99	0.45
1:F:1869:LYS:HB3	1:F:1873:TYR:CZ	2.52	0.45
1:F:2102:LYS:O	1:F:2106:ARG:HG2	2.16	0.45
1:F:2431:ARG:HA	1:F:2434:VAL:HG22	1.98	0.45
1:F:3122:HIS:O	1:F:3126:LEU:HG	2.17	0.45
1:F:3148:GLN:NE2	1:F:3150:ASN:HD21	2.15	0.45
1:F:3499:ILE:O	1:F:3503:VAL:HG12	2.16	0.45
1:F:3920:ILE:HA	1:F:3944:HIS:O	2.16	0.45
2:K:7:ARG:HH21	2:L:135:ALA:HB2	1.82	0.45
2:K:107:ARG:O	4:R:64:ARG:NH2	2.49	0.45
2:N:144:LEU:HD22	2:O:145:GLN:HA	1.98	0.45
2:O:63:LYS:O	2:O:67:VAL:HG22	2.15	0.45
2:O:158:VAL:O	2:O:161:ARG:HG2	2.17	0.45
5:a:95:ASN:HD21	5:a:99:PHE:H	1.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:h:192:ASP:O	5:h:196:THR:HG23	2.16	0.45
5:h:397:LEU:HD21	5:h:410:PHE:HB3	1.98	0.45
6:j:148:ASP:OD1	6:j:148:ASP:N	2.49	0.45
9:E:39:DA:C6	9:E:40:DT:O4	2.69	0.45
10:I:42:DA:H3'	10:I:43:DT:O4'	2.17	0.45
1:A:584:GLU:N	1:A:613:HIS:O	2.50	0.45
1:A:1175:HIS:HA	1:A:1178:ARG:CZ	2.46	0.45
1:A:1724:MET:HG3	1:A:1725:GLN:HG2	1.99	0.45
1:A:2452:ARG:HD3	1:A:2494:ASP:HB3	1.99	0.45
1:A:2721:GLY:C	1:A:2722:ARG:HH11	2.24	0.45
1:A:3638:LYS:NZ	1:A:3642:LYS:HE2	2.29	0.45
1:A:3825:LYS:O	1:A:3829:LEU:HB2	2.17	0.45
1:A:4083:GLY:HA3	1:A:4088:ASN:HB3	1.99	0.45
1:F:131:LEU:HD12	1:F:173:LYS:HB2	1.99	0.45
1:F:1416:GLU:HA	1:F:1419:LEU:HB3	1.97	0.45
1:F:2225:HIS:CG	1:F:2230:VAL:HG23	2.52	0.45
1:F:2301:GLN:HA	1:F:2304:VAL:HG22	1.99	0.45
1:F:2825:THR:O	1:F:2829:LYS:HG3	2.17	0.45
1:F:2893:LEU:HB2	1:F:2926:LEU:HD21	1.98	0.45
1:F:3159:ARG:HA	1:F:3162:ASN:ND2	2.32	0.45
1:F:3230:LEU:O	1:F:3233:SER:OG	2.29	0.45
1:F:3998:LEU:O	1:F:4001:THR:HG22	2.17	0.45
2:K:53:SER:HA	2:K:63:LYS:NZ	2.32	0.45
2:K:84:TYR:HE1	2:K:101:LEU:HA	1.82	0.45
2:N:28:LEU:HB2	2:N:67:VAL:HG13	1.98	0.45
2:N:48:SER:OG	2:N:51:GLU:OE2	2.34	0.45
2:N:53:SER:HB3	4:Q:64:ARG:HH12	1.82	0.45
2:O:69:GLU:HB3	2:O:99:LYS:HG2	1.99	0.45
2:O:179:ARG:HD3	3:P:778:PHE:HB3	1.98	0.45
4:R:9:LEU:HD22	4:R:134:HIS:ND1	2.32	0.45
4:R:12:PRO:HB3	4:R:215:GLN:HB2	1.98	0.45
5:a:113:ALA:O	5:a:117:LEU:HG	2.16	0.45
5:a:441:ASP:HA	6:b:239:LYS:HE2	1.98	0.45
9:E:20:DT:H6	9:E:20:DT:H2'	1.62	0.45
9:E:35:DT:H2''	9:E:36:DA:C8	2.52	0.45
1:A:722:LYS:HG3	1:A:1024:THR:HB	1.98	0.45
1:A:786:GLN:N	1:A:787:PRO:HD2	2.32	0.45
1:A:953:GLN:N	1:A:956:PRO:HG3	2.31	0.45
1:A:1272:GLY:HA2	1:A:1351:THR:HG21	1.99	0.45
1:A:2121:ASP:N	1:A:2121:ASP:OD1	2.48	0.45
1:A:2245:TRP:O	1:A:2246:LYS:HE2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2356:MET:HE1	1:A:2359:LYS:H	1.82	0.45
1:A:3002:TYR:CZ	1:A:3013:TYR:HB3	2.51	0.45
1:A:3923:ARG:O	1:A:4124:TRP:HA	2.17	0.45
1:A:4014:LYS:HG3	1:A:4015:ASN:ND2	2.32	0.45
1:F:213:ARG:NH2	6:j:548:VAL:H	2.09	0.45
1:F:886:TRP:CZ3	1:F:911:LEU:HB3	2.52	0.45
1:F:1368:LEU:HD12	1:F:1369:MET:N	2.31	0.45
1:F:1483:LEU:HD21	1:F:1515:LEU:HD23	1.99	0.45
1:F:1816:ARG:HA	1:F:1819:PHE:CD2	2.52	0.45
1:F:2723:THR:O	1:F:2727:ARG:N	2.36	0.45
1:F:3273:LEU:O	1:F:3277:VAL:HG23	2.16	0.45
1:F:3617:LEU:CD2	1:F:3633:ILE:HG22	2.47	0.45
1:F:3873:LYS:O	1:F:3877:LYS:CB	2.63	0.45
1:F:3880:ALA:HB1	1:F:3969:ASN:ND2	2.32	0.45
3:P:722:LYS:HA	3:P:722:LYS:HD3	1.72	0.45
4:Q:194:MET:HE3	4:Q:194:MET:O	2.17	0.45
4:R:5:GLU:HB3	4:R:130:LEU:HD22	1.99	0.45
6:j:453:ALA:HB1	6:j:532:LYS:HG3	1.98	0.45
6:j:617:ILE:O	6:j:621:GLU:HG3	2.16	0.45
9:E:28:DT:H5"	9:E:28:DT:H6	1.82	0.45
11:J:25:DT:H6	11:J:26:DT:C4	2.35	0.45
1:A:1294:VAL:HG13	1:A:1368:LEU:HD11	1.99	0.44
1:A:1348:LEU:O	1:A:1352:SER:HB2	2.17	0.44
1:A:2188:GLU:HG3	1:A:2728:LEU:HD11	1.99	0.44
1:A:2564:GLU:OE2	1:A:2795:GLN:NE2	2.46	0.44
1:F:67:VAL:HG12	1:F:71:LYS:HE3	1.98	0.44
1:F:410:MET:N	1:F:411:PRO:HD2	2.31	0.44
1:F:535:LEU:HB3	1:F:637:LYS:HG3	1.99	0.44
1:F:560:LEU:O	1:F:564:LEU:HG	2.16	0.44
1:F:1693:VAL:HG11	1:F:1746:PHE:CD1	2.52	0.44
1:F:2936:TYR:HA	1:F:2939:LEU:HD12	1.99	0.44
1:F:3971:MET:SD	1:F:3974:MET:HB3	2.57	0.44
3:M:794:SER:HA	3:M:815:ARG:CD	2.47	0.44
2:N:168:ALA:HB1	3:P:810:LEU:HD11	1.99	0.44
3:P:722:LYS:HB2	3:P:742:PHE:HB2	1.99	0.44
4:Q:211:VAL:HG23	4:Q:212:MET:SD	2.57	0.44
5:a:161:MET:HB2	5:a:164:LYS:HE3	1.99	0.44
6:j:74:TYR:HD1	6:j:113:VAL:HG23	1.82	0.44
6:j:265:LYS:HE3	10:I:24:DA:N6	2.32	0.44
8:D:23:DT:H3	9:E:34:DC:H41	1.65	0.44
9:E:38:DT:N3	9:E:39:DA:N3	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:100:ILE:HD12	1:A:103:TYR:CD1	2.53	0.44
1:A:234:PHE:CD1	1:A:235:THR:HG23	2.53	0.44
1:A:475:LEU:O	1:A:479:ILE:HG12	2.18	0.44
1:A:1611:GLN:HB2	1:A:1613:HIS:ND1	2.33	0.44
1:A:2347:LYS:HE2	1:A:2347:LYS:HB2	1.67	0.44
1:A:2411:LEU:HD21	1:A:2442:MET:CG	2.48	0.44
1:A:2835:LYS:HA	1:A:2838:GLN:OE1	2.18	0.44
1:A:3360:LEU:HD23	1:A:3373:VAL:HG11	1.99	0.44
1:A:4102:THR:O	1:A:4105:LYS:HG2	2.18	0.44
1:F:79:ARG:HG2	1:F:79:ARG:HH11	1.82	0.44
1:F:162:LEU:HG	1:F:164:LYS:H	1.81	0.44
1:F:316:LEU:O	1:F:320:LEU:HG	2.17	0.44
1:F:1444:ASP:N	1:F:1444:ASP:OD1	2.50	0.44
1:F:2149:LEU:O	1:F:2152:ASN:N	2.49	0.44
1:F:2475:ASN:HA	1:F:2478:MET:HE3	1.99	0.44
1:F:2485:ARG:NH1	1:F:2530:ARG:HG2	2.32	0.44
1:F:2756:GLU:HG3	1:F:2760:GLU:OE2	2.17	0.44
1:F:3258:LEU:O	1:F:3261:GLU:HG2	2.17	0.44
1:F:3454:LEU:HD13	1:F:3461:ALA:HB3	1.99	0.44
2:K:95:PHE:HE1	2:K:97:PHE:HB3	1.82	0.44
2:K:180:PHE:O	2:K:184:LEU:HG	2.17	0.44
2:N:133:THR:O	2:N:136:GLU:HG3	2.17	0.44
3:P:865:ILE:HD12	3:P:872:VAL:HG22	1.99	0.44
4:Q:1:MET:HE2	4:Q:2:GLU:H	1.82	0.44
4:R:142:MET:N	4:R:221:VAL:HG13	2.32	0.44
5:a:65:GLN:HA	5:a:68:GLN:OE1	2.17	0.44
5:a:121:GLN:O	5:a:130:ARG:NE	2.44	0.44
5:a:428:THR:HG23	6:b:354:ARG:HH12	1.82	0.44
6:b:20:MET:N	6:b:20:MET:SD	2.91	0.44
6:b:212:MET:HA	6:b:215:LEU:HD12	1.98	0.44
5:h:203:MET:SD	5:h:205:LEU:HB2	2.57	0.44
5:h:458:GLN:NE2	5:h:528:LEU:O	2.50	0.44
5:h:530:TYR:OH	6:j:373:ALA:HA	2.17	0.44
6:j:112:ILE:HA	6:j:115:MET:HE3	1.99	0.44
8:D:22:DG:H5"	9:E:33:DA:H61	1.81	0.44
1:A:38:LEU:CD2	1:A:85:ILE:HG13	2.46	0.44
1:A:111:CYS:HA	1:A:114:VAL:HB	1.99	0.44
1:A:487:LEU:HD21	1:A:568:PHE:CE1	2.53	0.44
1:A:958:MET:HB2	1:A:961:LEU:HD12	1.99	0.44
1:A:1098:GLN:HA	1:A:1151:ARG:HG2	1.99	0.44
1:A:1228:GLY:O	1:A:1233:SER:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1586:SER:HB2	1:A:1593:VAL:HG21	1.99	0.44
1:A:1727:ARG:NH1	1:A:1727:ARG:HA	2.33	0.44
1:A:2093:CYS:O	1:A:2096:PRO:HD2	2.17	0.44
1:A:3008:TRP:HA	1:A:3011:LEU:HD12	1.99	0.44
1:A:3577:GLN:HE22	1:A:3630:ARG:HD3	1.83	0.44
1:A:3809:THR:OG1	1:A:3810:VAL:N	2.51	0.44
1:A:3984:MET:HB3	1:A:4104:VAL:HG11	1.99	0.44
1:F:145:ASP:HB2	1:F:148:LYS:HZ1	1.83	0.44
1:F:538:ASP:HA	1:F:541:MET:CG	2.44	0.44
1:F:639:ALA:HA	1:F:642:PHE:HB3	1.99	0.44
1:F:1100:VAL:HG23	1:F:1101:PHE:N	2.32	0.44
1:F:1294:VAL:HA	1:F:1297:PHE:CE2	2.51	0.44
1:F:2255:LEU:O	1:F:2258:GLU:HG2	2.17	0.44
1:F:2955:SER:O	1:F:2958:LEU:HG	2.16	0.44
1:F:3349:ALA:HA	1:F:3352:GLU:HB3	1.99	0.44
1:F:3419:PHE:O	1:F:3423:GLN:HG2	2.17	0.44
1:F:3516:HIS:O	1:F:3520:GLU:OE1	2.35	0.44
1:F:4059:ILE:HA	1:F:4062:ASP:OD2	2.17	0.44
2:K:145:GLN:HA	2:L:144:LEU:HD11	1.98	0.44
2:N:41:SER:N	2:N:119:PRO:HG3	2.32	0.44
2:N:95:PHE:O	2:N:111:PHE:N	2.46	0.44
2:O:3:ARG:HH22	2:O:122:VAL:HG13	1.82	0.44
3:P:681:ARG:NH2	3:P:730:PHE:HB3	2.31	0.44
4:Q:136:ILE:HD12	4:R:39:SER:C	2.42	0.44
4:R:23:LEU:HD13	4:R:45:TRP:CE3	2.52	0.44
4:R:105:ILE:HA	4:R:123:CYS:HB2	1.98	0.44
5:a:217:TYR:HA	5:a:220:ILE:HG22	1.98	0.44
5:a:471:PHE:CD2	7:c:199:VAL:HG13	2.52	0.44
6:b:53:GLU:HB3	6:b:83:LEU:HG	1.98	0.44
6:b:56:LEU:HD21	6:b:98:ILE:HD11	1.99	0.44
6:b:94:ILE:HA	6:b:98:ILE:HD12	1.98	0.44
6:b:342:VAL:HA	6:b:393:VAL:HA	1.99	0.44
6:b:473:LEU:HD12	6:b:473:LEU:H	1.82	0.44
6:j:280:ASP:CG	6:j:282:LYS:H	2.25	0.44
10:I:31:DA:H4'	10:I:32:DA:H5'	1.99	0.44
11:J:25:DT:H5''	11:J:26:DT:H73	1.98	0.44
1:A:83:GLU:HG2	1:A:129:ASP:OD2	2.17	0.44
1:A:301:CYS:HB3	1:A:312:ALA:HB3	1.98	0.44
1:A:639:ALA:HB2	1:A:676:ASN:HB3	1.99	0.44
1:A:1525:CYS:O	1:A:1529:VAL:HG23	2.17	0.44
1:A:1603:GLN:HB2	1:A:1606:ARG:HH21	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1649:LEU:HA	1:A:1652:ILE:HD12	1.99	0.44
1:A:3835:PRO:O	1:A:3840:LYS:N	2.38	0.44
1:F:265:TYR:O	1:F:268:PRO:HD2	2.18	0.44
1:F:669:LEU:O	1:F:673:THR:OG1	2.28	0.44
1:F:1000:LYS:HD3	1:F:1000:LYS:HA	1.84	0.44
1:F:1037:LEU:HD12	1:F:1038:LYS:N	2.32	0.44
1:F:1536:ALA:C	1:F:1555:HIS:HD2	2.25	0.44
1:F:1935:GLU:OE1	1:F:1935:GLU:N	2.47	0.44
1:F:2572:TYR:CE1	1:F:2791:ILE:HD11	2.40	0.44
1:F:2586:PHE:CD1	1:F:2778:GLY:HA3	2.50	0.44
1:F:2817:LEU:O	1:F:2820:MET:HG3	2.17	0.44
1:F:2840:PHE:HD1	1:F:2843:PHE:HD2	1.66	0.44
1:F:3369:ASP:O	1:F:3373:VAL:HG23	2.17	0.44
1:F:3586:LYS:HE3	1:F:3668:LEU:HB3	2.00	0.44
1:F:4075:ARG:HA	1:F:4078:VAL:HG22	1.99	0.44
2:K:19:PHE:HE2	2:L:127:ILE:HG12	1.80	0.44
2:O:118:ASN:HB3	2:O:121:GLU:HB2	1.98	0.44
3:P:707:ILE:H	3:P:707:ILE:HD12	1.82	0.44
4:Q:50:ASP:OD1	4:Q:52:SER:OG	2.35	0.44
6:b:696:VAL:HA	6:b:699:GLU:HG3	1.99	0.44
5:h:289:TYR:CZ	6:j:309:ASP:HB3	2.52	0.44
6:j:203:GLU:O	6:j:207:ILE:HG12	2.17	0.44
1:A:391:ARG:HA	1:A:394:GLN:OE1	2.17	0.44
1:A:472:GLY:O	1:A:475:LEU:HB3	2.18	0.44
1:A:978:GLN:HE22	1:A:2597:PHE:C	2.26	0.44
1:A:1303:MET:N	1:A:1303:MET:SD	2.91	0.44
1:A:1851:LEU:HG	1:A:1852:LYS:HD3	2.00	0.44
1:A:2539:LEU:O	1:A:2542:LEU:HG	2.17	0.44
1:A:3878:VAL:HG11	1:A:4127:TRP:O	2.18	0.44
1:A:4091:ALA:HB1	1:A:4106:CYS:SG	2.57	0.44
1:F:35:ILE:HG12	1:F:36:ARG:NH2	2.32	0.44
1:F:230:LEU:HA	1:F:230:LEU:HD12	1.71	0.44
1:F:471:LYS:HB3	1:F:474:VAL:HB	2.00	0.44
1:F:643:GLU:HG2	1:F:644:PRO:HD3	2.00	0.44
1:F:832:LYS:C	1:F:834:LEU:H	2.25	0.44
1:F:1597:LEU:O	1:F:1601:LEU:HG	2.17	0.44
1:F:2577:PHE:HB2	1:F:2783:ILE:HG22	1.98	0.44
1:F:2830:ASN:O	1:F:2834:GLN:HG2	2.18	0.44
1:F:2928:LYS:HZ3	1:F:2993:PHE:HB2	1.83	0.44
1:F:3058:ASP:OD1	1:F:3060:SER:N	2.50	0.44
1:F:3239:LYS:HD3	1:F:3258:LEU:HD11	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3285:HIS:O	1:F:3288:SER:OG	2.21	0.44
1:F:4060:THR:O	1:F:4064:LEU:HG	2.18	0.44
1:F:4102:THR:HA	1:F:4105:LYS:HG2	1.99	0.44
2:K:3:ARG:HB2	2:K:129:TYR:CE2	2.53	0.44
2:K:84:TYR:CE1	2:K:99:LYS:HG3	2.52	0.44
4:Q:297:LEU:HG	6:b:234:LEU:HD21	1.98	0.44
4:R:36:LEU:HB3	4:R:47:GLU:H	1.83	0.44
5:a:376:ILE:HB	6:b:540:ILE:HG13	2.00	0.44
5:h:303:PHE:HA	5:h:311:LEU:H	1.82	0.44
6:j:347:LYS:H	6:j:350:GLN:NE2	2.09	0.44
1:A:51:LEU:HB3	1:A:3101:TYR:HD1	1.83	0.44
1:A:215:PRO:C	1:A:217:LEU:H	2.26	0.44
1:A:801:LYS:NZ	1:A:920:THR:O	2.51	0.44
1:A:1790:SER:O	1:A:1794:GLN:HG3	2.18	0.44
1:A:2203:THR:HB	1:A:2247:ASP:OD2	2.18	0.44
1:A:2321:GLU:O	1:A:2325:LEU:HG	2.17	0.44
1:A:2351:GLN:O	1:A:2352:HIS:ND1	2.50	0.44
1:A:2749:ALA:O	1:A:2753:ARG:HG2	2.17	0.44
1:A:4047:ALA:HA	1:A:4050:LYS:HE2	1.99	0.44
1:A:4105:LYS:HA	1:A:4108:MET:HG3	1.99	0.44
1:F:164:LYS:NZ	5:h:300:THR:HB	2.32	0.44
1:F:175:TYR:HB2	1:F:223:CYS:HB3	2.00	0.44
1:F:305:ASN:O	1:F:308:LEU:N	2.48	0.44
1:F:533:HIS:O	1:F:537:SER:OG	2.35	0.44
1:F:966:PHE:CD2	1:F:1007:VAL:HG12	2.53	0.44
1:F:994:TRP:CE2	1:F:1000:LYS:HG3	2.52	0.44
1:F:2242:VAL:O	1:F:2246:LYS:HG3	2.18	0.44
1:F:2539:LEU:HD12	1:F:2542:LEU:HD11	2.00	0.44
1:F:2541:ALA:O	1:F:2544:SER:OG	2.35	0.44
1:F:2571:ASP:OD1	1:F:2571:ASP:N	2.50	0.44
1:F:3628:PHE:CE1	1:F:3632:PHE:HE2	2.36	0.44
1:F:3701:ILE:HB	1:F:3704:GLN:NE2	2.31	0.44
1:F:3834:ALA:HB1	1:F:3839:TYR:CZ	2.53	0.44
3:P:820:LEU:HD23	3:P:845:LEU:HD11	1.98	0.44
4:Q:104:LEU:O	4:Q:123:CYS:HB3	2.17	0.44
5:a:94:LYS:HB2	5:a:103:TYR:CE2	2.53	0.44
5:a:304:ASN:HB3	5:a:307:THR:HB	1.99	0.44
6:b:59:PHE:HA	6:b:77:ILE:HA	2.00	0.44
6:b:161:LEU:HD21	6:b:163:PHE:HE1	1.83	0.44
5:h:524:GLU:O	5:h:528:LEU:HG	2.18	0.44
6:j:236:VAL:HG23	6:j:488:GLN:HG2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:996:THR:HG23	1:A:1043:GLN:OE1	2.18	0.44
1:A:1136:ARG:HA	1:A:1139:GLU:OE2	2.18	0.44
1:A:1623:LEU:HD11	1:A:1671:VAL:HG21	2.00	0.44
1:A:1963:GLN:OE1	1:A:2125:TRP:N	2.51	0.44
1:A:2187:VAL:HG12	1:A:2728:LEU:HD13	1.98	0.44
1:A:2746:LYS:HD3	1:A:2746:LYS:N	2.33	0.44
1:A:3271:ASP:HA	1:A:3318:LYS:HZ2	1.83	0.44
1:A:3382:PHE:HB2	1:A:3419:PHE:CZ	2.52	0.44
1:A:3462:ARG:HB3	1:A:3498:TRP:CZ3	2.53	0.44
1:F:1208:LEU:HD22	1:F:1275:THR:O	2.18	0.44
1:F:2228:ARG:HD2	10:I:44:DG:H3'	1.99	0.44
1:F:2350:LYS:HD2	1:F:2354:ASN:OD1	2.18	0.44
1:F:2995:GLU:O	1:F:2999:LEU:HG	2.17	0.44
1:F:3176:MET:HE3	1:F:3179:TRP:HB2	2.00	0.44
1:F:3348:LEU:HD13	1:F:3351:ILE:HD12	1.99	0.44
1:F:3420:CYS:SG	1:F:3421:ASP:N	2.89	0.44
1:F:3571:PHE:CE2	1:F:3575:LEU:HD11	2.53	0.44
1:F:3675:LYS:NZ	1:F:3676:PRO:O	2.32	0.44
1:F:3699:LEU:HD23	1:F:3719:ILE:HD12	1.99	0.44
2:K:72:LYS:HB2	2:K:78:ALA:HB2	2.00	0.44
2:K:127:ILE:HG23	2:L:19:PHE:CE2	2.52	0.44
2:O:69:GLU:HG3	2:O:104:VAL:HG21	2.00	0.44
3:P:702:ALA:O	3:P:723:PRO:HD3	2.17	0.44
3:P:706:ASN:O	3:P:709:VAL:HB	2.16	0.44
3:P:748:PRO:HA	3:P:751:LYS:HD2	2.00	0.44
3:P:753:HIS:O	3:P:757:GLU:HG2	2.17	0.44
3:P:815:ARG:H	3:P:850:ALA:N	2.16	0.44
4:Q:146:LEU:HB3	4:R:150:VAL:HG11	1.98	0.44
4:R:37:LEU:HG	4:R:135:LEU:HD11	2.00	0.44
5:a:303:PHE:CD1	6:b:292:GLU:HB2	2.53	0.44
5:a:403:ARG:HH12	9:E:32:DA:P	2.41	0.44
5:a:444:ARG:HH22	9:E:23:DT:P	2.40	0.44
6:b:97:LYS:HB3	6:b:97:LYS:HE2	1.65	0.44
6:b:259:ILE:O	6:b:261:ILE:HG23	2.18	0.44
6:b:497:ARG:HD3	6:b:501:PRO:HA	1.99	0.44
6:b:599:ARG:NH2	6:b:645:GLU:HG3	2.33	0.44
6:b:612:ALA:HA	6:b:616:LEU:HD23	1.99	0.44
6:b:655:PHE:CZ	6:b:659:LEU:HD11	2.53	0.44
11:J:20:DT:C4	11:J:21:DA:C5	3.05	0.44
1:A:798:GLY:C	1:A:800:LEU:H	2.26	0.44
1:A:1058:SER:HA	1:A:1061:LYS:HE2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1080:LEU:HA	1:A:1083:ASN:ND2	2.33	0.44
1:A:1952:ILE:HA	1:A:1955:VAL:O	2.18	0.44
1:A:2121:ASP:HA	1:A:2126:MET:HE1	2.00	0.44
1:A:2322:VAL:HA	1:A:2325:LEU:HD12	2.00	0.44
1:A:2339:GLU:HA	1:A:2342:CYS:SG	2.57	0.44
1:A:3632:PHE:HA	1:A:3635:THR:OG1	2.18	0.44
1:F:88:PHE:CD2	1:F:89:LEU:HD22	2.53	0.44
1:F:336:ASN:HB3	1:F:340:TYR:CZ	2.52	0.44
1:F:651:TYR:O	1:F:655:LEU:HG	2.18	0.44
1:F:1428:ILE:HD12	1:F:1431:LEU:HB2	1.99	0.44
1:F:2291:GLN:O	1:F:2292:CYS:C	2.61	0.44
1:F:2924:VAL:HG21	1:F:2989:ALA:HB1	1.99	0.44
1:F:3314:SER:OG	1:F:3318:LYS:HG2	2.17	0.44
1:F:3940:ILE:HG22	1:F:3941:ASP:N	2.31	0.44
1:F:3964:THR:HG22	1:F:3967:PHE:CD2	2.53	0.44
2:K:88:PHE:HB2	2:K:95:PHE:HD2	1.82	0.44
3:P:657:ASN:HA	3:P:660:GLU:HG3	2.00	0.44
4:Q:8:LEU:HD21	4:Q:37:LEU:CB	2.47	0.44
5:a:259:LEU:O	5:a:260:LYS:NZ	2.47	0.44
6:b:45:GLN:OE1	6:b:50:ASN:ND2	2.51	0.44
6:b:239:LYS:NZ	6:b:240:ILE:O	2.41	0.44
6:b:400:ARG:NH1	9:E:24:DA:N3	2.65	0.44
5:h:134:MET:SD	5:h:135:MET:HB2	2.58	0.44
5:h:321:ILE:HA	5:h:326:GLN:HA	1.99	0.44
9:E:40:DT:H1'	9:E:41:DT:O4'	2.18	0.44
1:A:23:ASP:HB2	1:A:70:ARG:HE	1.83	0.44
1:A:289:ASN:ND2	6:b:560:ASP:OD1	2.33	0.44
1:A:621:SER:O	1:A:624:ILE:HG12	2.17	0.44
1:A:738:HIS:N	1:A:775:GLU:OE2	2.51	0.44
1:A:899:ARG:HH11	1:A:2569:SER:N	2.16	0.44
1:A:933:LEU:HB2	1:A:2793:PRO:HB2	1.99	0.44
1:A:1226:GLY:HA3	1:A:1259:LEU:HG	2.00	0.44
1:A:2133:LEU:HB2	1:A:2146:LEU:HD13	2.00	0.44
1:A:2300:PHE:HB2	1:A:2341:LEU:HD22	1.99	0.44
1:A:2567:SER:HA	1:A:2572:TYR:CD2	2.52	0.44
1:A:3897:PHE:CZ	1:A:3901:ARG:HD3	2.53	0.44
1:A:3974:MET:HE1	1:A:3979:LEU:N	2.33	0.44
1:F:286:LEU:HD12	1:F:319:PHE:CD1	2.53	0.44
1:F:998:ASN:OD1	1:F:999:LYS:N	2.51	0.44
1:F:1101:PHE:HB2	1:F:1154:PRO:HG3	1.99	0.44
1:F:1881:TYR:HE1	1:F:1953:CYS:HG	1.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2260:PHE:CE2	1:F:2277:LEU:HD21	2.52	0.44
1:F:2348:GLN:HA	1:F:2352:HIS:CE1	2.53	0.44
1:F:2757:ILE:O	1:F:2761:LEU:HG	2.17	0.44
1:F:3252:PHE:CE1	1:F:3287:ARG:HA	2.53	0.44
1:F:3442:TYR:O	1:F:3445:LEU:HG	2.17	0.44
1:F:3549:HIS:CE1	1:F:3550:LYS:HD2	2.53	0.44
1:F:3772:ASN:CG	1:F:3787:GLN:HE22	2.26	0.44
1:F:3961:PHE:CE2	1:F:3963:LEU:HB2	2.53	0.44
2:K:7:ARG:NH2	2:L:135:ALA:HB2	2.33	0.44
2:L:159:GLN:OE1	3:M:840:ILE:HD11	2.18	0.44
3:M:889:LEU:HD11	3:M:906:GLU:OE1	2.18	0.44
3:P:810:LEU:HD22	3:P:848:HIS:ND1	2.33	0.44
3:P:856:LEU:HD11	3:P:878:PHE:CG	2.53	0.44
4:R:28:PHE:HB3	4:R:35:ALA:HB3	2.00	0.44
5:a:106:GLN:HB3	5:a:115:ARG:NH2	2.33	0.44
6:b:457:LEU:HD13	6:b:529:PRO:HB2	2.00	0.44
5:h:184:SER:HA	5:h:187:ARG:HG2	2.00	0.44
5:h:351:LYS:HE3	5:h:351:LYS:HB2	1.77	0.44
6:j:626:THR:HA	6:j:632:PHE:HD2	1.83	0.44
1:A:275:PHE:CD2	1:A:315:ALA:HB1	2.53	0.43
1:A:1785:ILE:HA	1:A:1788:ARG:HB2	2.00	0.43
1:A:2269:ASP:O	1:A:2272:VAL:HG22	2.17	0.43
1:A:2362:VAL:O	1:A:2366:LYS:HG2	2.18	0.43
1:A:2886:GLN:CD	1:A:2886:GLN:H	2.25	0.43
1:A:3014:CYS:O	1:A:3016:THR:HG23	2.17	0.43
1:A:3236:PHE:HD2	1:A:3269:ARG:NH2	2.15	0.43
1:A:3314:SER:OG	1:A:3318:LYS:N	2.51	0.43
1:F:85:ILE:O	1:F:89:LEU:HD23	2.18	0.43
1:F:168:ASP:OD1	1:F:169:THR:N	2.51	0.43
1:F:890:LYS:HB3	1:F:906:PHE:CG	2.53	0.43
1:F:1179:PRO:HG3	1:F:1259:LEU:HD13	1.99	0.43
1:F:1406:LEU:HD22	1:F:1415:LEU:HD11	2.00	0.43
1:F:2333:ARG:HA	1:F:2333:ARG:HD3	1.64	0.43
1:F:2954:GLN:HA	1:F:2957:LEU:HD12	2.00	0.43
1:F:2987:THR:HG23	1:F:2989:ALA:H	1.83	0.43
1:F:3076:ALA:O	1:F:3080:LEU:HG	2.17	0.43
1:F:3078:LEU:HA	1:F:3082:TYR:HD2	1.83	0.43
1:F:3364:GLY:HA3	1:F:3373:VAL:HG13	2.00	0.43
1:F:3459:ASN:O	1:F:3462:ARG:HB2	2.18	0.43
1:F:3662:ILE:O	1:F:3666:LEU:HG	2.18	0.43
1:F:3924:HIS:NE2	1:F:3926:ASN:HB2	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:94:TYR:HB2	2:K:111:PHE:O	2.18	0.43
3:M:720:VAL:O	3:M:743:MET:HA	2.18	0.43
2:N:51:GLU:HA	4:Q:64:ARG:HD2	2.00	0.43
4:Q:157:LEU:HD21	4:R:157:LEU:HA	2.00	0.43
4:R:109:ARG:NH2	4:R:120:ASN:HD22	2.16	0.43
5:a:299:LYS:N	6:b:294:VAL:O	2.48	0.43
6:b:147:LEU:HD22	6:b:211:VAL:HG21	2.00	0.43
6:b:342:VAL:HA	6:b:393:VAL:HG12	1.99	0.43
5:h:304:ASN:N	5:h:311:LEU:HG	2.33	0.43
5:h:403:ARG:CG	5:h:404:ARG:H	2.28	0.43
5:h:473:TYR:H	6:j:350:GLN:CD	2.26	0.43
1:A:54:GLN:HA	1:A:57:LEU:HG	2.00	0.43
1:A:222:GLY:HA2	1:A:225:LYS:HE3	1.99	0.43
1:A:933:LEU:O	1:A:936:SER:OG	2.28	0.43
1:A:1115:HIS:HE1	1:A:1183:CYS:H	1.63	0.43
1:A:1356:TRP:HD1	1:A:1359:LEU:HD12	1.83	0.43
1:A:1725:GLN:OE1	1:A:1769:GLU:HB3	2.18	0.43
1:A:1745:LYS:HA	1:A:1748:ASP:OD2	2.17	0.43
1:A:2251:ILE:HB	1:A:2253:TYR:CE2	2.54	0.43
1:A:2257:PHE:HB2	1:A:2299:TYR:HE1	1.82	0.43
1:A:2965:TYR:O	1:A:2969:ALA:N	2.43	0.43
1:A:2986:PRO:HG3	1:A:2994:TRP:CH2	2.53	0.43
1:A:2986:PRO:HG3	1:A:2994:TRP:HH2	1.83	0.43
1:A:3496:ILE:HB	1:A:3707:GLY:HA3	2.00	0.43
1:A:3699:LEU:HD12	1:A:3699:LEU:HA	1.83	0.43
1:F:344:GLN:O	1:F:348:ILE:HG12	2.18	0.43
1:F:485:GLN:O	1:F:485:GLN:NE2	2.51	0.43
1:F:847:SER:OG	1:F:848:LEU:N	2.49	0.43
1:F:1442:GLN:O	1:F:1446:SER:N	2.42	0.43
1:F:2586:PHE:CD2	1:F:2782:ASP:HB3	2.52	0.43
1:F:3044:MET:HB3	1:F:3048:LYS:NZ	2.32	0.43
1:F:3269:ARG:NH2	1:F:3272:TRP:HB2	2.33	0.43
1:F:3471:ILE:HA	1:F:3474:ARG:HG2	1.98	0.43
2:K:53:SER:HA	2:K:63:LYS:HZ1	1.82	0.43
2:N:45:GLY:HA3	2:N:113:LEU:HA	2.01	0.43
2:N:57:ASP:HB3	4:Q:62:ASN:CG	2.44	0.43
2:N:154:ASP:HB3	2:O:155:TRP:CD1	2.53	0.43
2:N:179:ARG:HB3	3:P:805:TRP:CZ2	2.53	0.43
4:R:84:LEU:HD22	4:R:95:PHE:HB2	2.00	0.43
4:R:154:ALA:HB1	4:R:186:GLU:HB2	1.99	0.43
6:b:496:HIS:HE1	6:b:503:GLU:O	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:h:290:ARG:HH21	6:j:308:GLU:C	2.26	0.43
5:h:473:TYR:HD2	6:j:350:GLN:HB3	1.83	0.43
6:j:165:LEU:HD13	6:j:167:PHE:CZ	2.53	0.43
9:E:45:DG:H21	9:E:45:DG:P	2.40	0.43
1:A:88:PHE:HA	1:A:91:ILE:HG12	2.00	0.43
1:A:320:LEU:HA	1:A:323:VAL:HG22	2.00	0.43
1:A:411:PRO:HB3	1:A:457:CYS:HA	2.01	0.43
1:A:888:ARG:HB3	1:A:3890:MET:HE1	1.99	0.43
1:A:1182:GLU:C	1:A:1186:LYS:HZ2	2.25	0.43
1:A:1715:GLU:HA	1:A:1718:ILE:HG12	1.98	0.43
1:A:2140:LEU:HA	1:A:2143:ARG:HG2	1.99	0.43
1:A:2586:PHE:HB3	1:A:2776:ARG:O	2.16	0.43
1:A:3301:LEU:HD13	1:A:3333:THR:OG1	2.19	0.43
1:A:3679:ASN:HB3	1:A:3724:GLU:O	2.18	0.43
1:A:3749:PRO:HG2	1:A:3805:TRP:HB3	2.00	0.43
1:A:3975:LYS:C	1:A:3977:THR:H	2.26	0.43
1:F:652:GLU:OE1	1:F:653:LEU:HD22	2.19	0.43
1:F:745:VAL:HG21	1:F:788:TYR:OH	2.18	0.43
1:F:1274:ARG:HH11	1:F:1351:THR:HB	1.83	0.43
1:F:2154:GLU:OE2	1:F:2195:SER:HB2	2.18	0.43
1:F:2228:ARG:HG3	1:F:2229:ALA:H	1.84	0.43
1:F:2812:LEU:HD12	1:F:2813:PHE:N	2.34	0.43
1:F:3444:ALA:HB2	1:F:3478:GLU:HG3	2.00	0.43
1:F:3586:LYS:O	1:F:3590:ASN:ND2	2.51	0.43
1:F:3718:ARG:H	1:F:3743:HIS:CE1	2.36	0.43
2:K:184:LEU:HD21	2:L:183:VAL:HG13	2.01	0.43
2:L:28:LEU:HD12	2:L:32:PHE:CG	2.53	0.43
3:M:708:ARG:O	3:M:712:ILE:HG12	2.18	0.43
3:M:725:TRP:HD1	3:M:742:PHE:CD2	2.35	0.43
4:R:62:ASN:OD1	4:R:119:TRP:HA	2.18	0.43
6:b:496:HIS:O	6:b:500:HIS:N	2.49	0.43
6:b:656:ASN:HB2	6:b:691:ALA:HB1	1.99	0.43
5:h:74:LYS:HG3	5:h:83:LEU:HD11	2.00	0.43
6:j:500:HIS:HA	6:j:502:ARG:NH1	2.34	0.43
8:D:33:DA:H5"	8:D:33:DA:C8	2.53	0.43
1:A:11:SER:O	1:A:15:LEU:HD23	2.18	0.43
1:A:225:LYS:NZ	1:A:267:VAL:HG12	2.33	0.43
1:A:438:LEU:O	1:A:441:MET:HG3	2.18	0.43
1:A:896:VAL:HG13	1:A:903:PRO:HD2	2.00	0.43
1:A:992:ILE:HG23	1:A:1036:PHE:HD1	1.83	0.43
1:A:1357:LYS:O	1:A:1360:LYS:HB3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1376:LEU:HD12	1:A:1399:CYS:SG	2.58	0.43
1:A:1771:GLN:H	1:A:1775:GLU:CD	2.26	0.43
1:A:1862:THR:HG22	1:A:1865:THR:H	1.83	0.43
1:A:1963:GLN:HE22	1:A:2125:TRP:CD1	2.36	0.43
1:A:2272:VAL:HA	1:A:2275:GLN:HG2	2.00	0.43
1:A:2328:ARG:HG2	1:A:2329:TYR:CE1	2.53	0.43
1:A:2356:MET:HE1	1:A:2359:LYS:HD3	1.99	0.43
1:A:3058:ASP:OD1	1:A:3059:GLN:N	2.52	0.43
1:A:3111:MET:SD	1:A:3112:GLN:N	2.92	0.43
1:A:3381:ALA:O	1:A:3385:LEU:HG	2.17	0.43
1:A:4010:SER:HA	1:A:4038:TRP:CZ2	2.54	0.43
1:F:1104:LEU:O	1:F:1108:MET:HG2	2.18	0.43
1:F:1458:LEU:HD13	1:F:1467:ILE:HG21	1.99	0.43
1:F:1580:LEU:O	1:F:1584:GLN:HG2	2.19	0.43
1:F:2154:GLU:HA	1:F:2157:PHE:CZ	2.53	0.43
1:F:2575:PRO:HA	1:F:2785:ILE:O	2.19	0.43
1:F:2855:VAL:O	1:F:2859:GLN:HG3	2.19	0.43
1:F:3154:GLN:C	1:F:3156:PRO:HD3	2.43	0.43
1:F:3185:ASN:HB3	1:F:3189:PHE:CZ	2.53	0.43
1:F:3590:ASN:OD1	1:F:3593:ARG:NH1	2.52	0.43
1:F:3628:PHE:HE1	1:F:3673:ASP:HB3	1.83	0.43
1:F:3631:LYS:O	1:F:3634:GLN:HG2	2.17	0.43
1:F:3814:ASP:HA	1:F:3817:LEU:HB3	2.01	0.43
2:L:34:ILE:H	2:L:47:VAL:HG21	1.82	0.43
2:L:38:ASP:OD1	2:L:39:GLY:N	2.52	0.43
2:L:169:LYS:HD3	3:M:810:LEU:HD12	1.99	0.43
4:Q:56:GLN:NE2	4:Q:60:GLU:HB3	2.34	0.43
5:a:147:LEU:HA	5:a:150:CYS:SG	2.59	0.43
5:a:369:TYR:CG	5:a:370:PRO:HD2	2.53	0.43
5:a:369:TYR:OH	6:b:436:SER:O	2.32	0.43
5:h:204:HIS:HA	5:h:211:PHE:CD2	2.53	0.43
6:j:599:ARG:HA	6:j:599:ARG:NE	2.34	0.43
8:D:37:DG:C8	9:E:19:DC:H2"	2.54	0.43
1:A:74:ASN:HA	1:A:79:ARG:HD2	2.00	0.43
1:A:1101:PHE:HB2	1:A:1154:PRO:HG3	2.01	0.43
1:A:2353:GLN:HG2	1:A:2356:MET:SD	2.59	0.43
1:A:2449:VAL:HA	1:A:2452:ARG:NE	2.33	0.43
1:A:2737:GLU:HG2	1:A:2740:SER:HB2	2.00	0.43
1:A:2940:ARG:NH1	1:A:3981:TYR:HB3	2.33	0.43
1:F:188:GLU:O	1:F:192:ASN:ND2	2.52	0.43
1:F:715:ALA:O	1:F:718:MET:HG3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:892:LEU:HB2	1:F:908:ASP:OD1	2.18	0.43
1:F:1342:MET:O	1:F:1346:THR:HG23	2.17	0.43
1:F:2268:LYS:HB3	1:F:2315:VAL:HG22	2.00	0.43
1:F:2389:PHE:O	1:F:2394:LYS:HD3	2.19	0.43
1:F:3169:PRO:HB2	1:F:3179:TRP:CZ2	2.52	0.43
1:F:3442:TYR:HB3	1:F:3443:PRO:HD3	2.01	0.43
1:F:4013:TRP:HB2	1:F:4038:TRP:CD1	2.53	0.43
2:K:150:ARG:O	2:K:153:ARG:HG3	2.19	0.43
3:P:735:PHE:HZ	3:P:738:TRP:CZ2	2.36	0.43
3:P:856:LEU:HA	3:P:882:PHE:HE1	1.83	0.43
4:Q:14:ALA:N	4:Q:25:ALA:O	2.36	0.43
4:R:176:ARG:HA	4:R:176:ARG:NE	2.33	0.43
5:a:362:LEU:HB3	5:a:436:PHE:HB2	2.01	0.43
6:b:661:ALA:O	6:b:665:LYS:HG2	2.18	0.43
5:h:339:ARG:HH12	5:h:404:ARG:HB3	1.82	0.43
1:A:450:SER:OG	1:A:453:MET:HG3	2.18	0.43
1:A:461:ILE:O	1:A:464:VAL:HG22	2.19	0.43
1:A:623:PHE:O	1:A:626:LEU:HG	2.18	0.43
1:A:664:SER:O	1:A:668:LYS:HG3	2.18	0.43
1:A:1297:PHE:HA	1:A:1301:ILE:HG12	1.99	0.43
1:A:1511:ALA:HA	1:A:1514:LEU:HD12	2.01	0.43
1:A:1771:GLN:HE22	1:A:1774:MET:HA	1.84	0.43
1:A:1847:ALA:HA	1:A:1850:VAL:HG12	2.01	0.43
1:A:2090:ARG:HH22	1:A:2144:LEU:HD22	1.83	0.43
1:A:3567:VAL:HG13	1:A:3686:TRP:CH2	2.53	0.43
1:A:3622:ALA:H	1:A:3630:ARG:CZ	2.31	0.43
1:F:153:PHE:HE2	1:F:192:ASN:ND2	2.16	0.43
1:F:1092:GLU:OE2	1:F:1094:SER:N	2.52	0.43
1:F:1239:PRO:O	1:F:1310:GLU:HA	2.18	0.43
1:F:1306:ILE:HG13	1:F:1307:ILE:H	1.84	0.43
1:F:2219:LEU:HD12	1:F:2220:MET:N	2.33	0.43
1:F:2243:GLU:HA	1:F:2246:LYS:HE3	1.99	0.43
1:F:2510:LEU:HD21	1:F:2525:TRP:HD1	1.82	0.43
1:F:2547:SER:C	1:F:2549:LYS:H	2.26	0.43
1:F:3236:PHE:O	1:F:3240:MET:HG2	2.18	0.43
1:F:4102:THR:HG22	1:F:4105:LYS:HE3	2.01	0.43
2:K:118:ASN:HD21	2:K:120:ALA:HB3	1.83	0.43
2:K:146:LYS:O	2:K:149:GLU:HG2	2.19	0.43
3:M:722:LYS:NZ	3:M:723:PRO:HD2	2.34	0.43
3:P:728:GLU:OE1	3:P:741:ARG:NH2	2.52	0.43
4:Q:13:TRP:CD2	4:Q:24:LEU:HG	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:95:PHE:CE1	4:R:108:VAL:HA	2.54	0.43
5:a:40:PHE:HB2	5:a:85:VAL:HG12	2.01	0.43
5:a:320:GLN:HG2	6:b:276:TRP:CE3	2.54	0.43
6:b:59:PHE:HB3	6:b:110:ALA:HB2	1.99	0.43
6:b:122:THR:HG22	6:b:127:PHE:CD2	2.54	0.43
5:h:304:ASN:HB2	5:h:311:LEU:HD21	2.00	0.43
5:h:343:PRO:HG3	5:h:403:ARG:HA	2.01	0.43
5:h:372:GLU:HA	5:h:375:VAL:O	2.18	0.43
6:j:343:LEU:HD11	6:j:394:ARG:HB2	2.01	0.43
1:A:75:SER:O	1:A:79:ARG:HG2	2.19	0.43
1:A:886:TRP:HZ3	1:A:911:LEU:HB3	1.84	0.43
1:A:899:ARG:NH2	1:A:2568:MET:HE2	2.34	0.43
1:A:1062:ARG:HH11	1:A:3745:GLU:HB2	1.82	0.43
1:A:1491:ILE:HG21	1:A:1558:TYR:CE2	2.54	0.43
1:A:2254:ARG:NH2	1:A:2293:GLY:H	2.16	0.43
1:A:2921:LEU:O	1:A:2925:GLU:HG3	2.19	0.43
1:A:3371:GLU:HA	1:A:3374:ILE:HG12	2.01	0.43
1:A:3588:TRP:HE1	1:A:3609:MET:HG3	1.83	0.43
1:A:3781:CYS:SG	1:A:3786:LEU:HB2	2.58	0.43
1:A:3924:HIS:NE2	1:A:3927:ASN:OD1	2.52	0.43
1:F:43:VAL:C	1:F:46:SER:HG	2.24	0.43
1:F:183:GLU:HG2	1:F:184:VAL:H	1.84	0.43
1:F:192:ASN:O	1:F:196:LEU:HG	2.17	0.43
1:F:242:PRO:HB2	1:F:246:ARG:HH21	1.83	0.43
1:F:651:TYR:CZ	1:F:655:LEU:HD11	2.53	0.43
1:F:707:PHE:C	1:F:740:ILE:HD11	2.44	0.43
1:F:802:THR:OG1	1:F:803:SER:N	2.48	0.43
1:F:1048:GLN:HA	1:F:1051:LYS:HG2	1.99	0.43
1:F:2158:ARG:HB2	1:F:2159:PRO:HD3	2.01	0.43
1:F:2269:ASP:OD1	1:F:2270:ASN:N	2.51	0.43
1:F:2306:ASN:HA	1:F:2309:PHE:HD2	1.84	0.43
1:F:2313:LYS:O	1:F:2317:ALA:CB	2.67	0.43
1:F:2973:ASP:O	1:F:2977:ASN:ND2	2.51	0.43
1:F:3041:LEU:O	1:F:3045:ILE:HG12	2.19	0.43
1:F:3140:GLU:O	1:F:3143:SER:OG	2.33	0.43
1:F:3228:SER:O	1:F:3231:ILE:HG12	2.19	0.43
1:F:3299:THR:O	1:F:3299:THR:HG23	2.19	0.43
1:F:3482:LEU:O	1:F:3485:LYS:HG2	2.19	0.43
1:F:3488:SER:O	1:F:3491:PRO:HD3	2.19	0.43
2:K:13:GLU:CD	2:K:90:LYS:HE3	2.44	0.43
2:K:33:VAL:HA	2:K:46:THR:HA	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:180:PHE:HE2	2:L:176:LEU:HB3	1.83	0.43
3:M:719:ASP:OD2	3:M:750:THR:OG1	2.36	0.43
3:M:817:THR:HA	3:M:851:LYS:HB2	2.00	0.43
2:O:24:TRP:CZ2	2:O:28:LEU:HD23	2.54	0.43
2:O:61:MET:HE2	2:O:66:TYR:HB2	2.00	0.43
2:O:88:PHE:HB2	2:O:95:PHE:CE2	2.53	0.43
4:Q:18:LEU:HD12	4:Q:97:CYS:O	2.19	0.43
4:R:8:LEU:HD22	4:R:35:ALA:HB1	1.99	0.43
6:b:366:ALA:N	6:b:377:LEU:HD22	2.34	0.43
7:c:184:SER:N	7:c:190:PHE:O	2.31	0.43
5:h:40:PHE:HE2	5:h:83:LEU:HB3	1.83	0.43
5:h:147:LEU:HA	5:h:150:CYS:SG	2.58	0.43
5:h:176:HIS:CE1	5:h:182:LYS:HD2	2.53	0.43
5:h:297:LYS:HG3	6:j:296:CYS:HB3	2.01	0.43
6:j:226:SER:O	6:j:229:GLU:HG2	2.19	0.43
6:j:285:LYS:HB3	6:j:287:GLU:CD	2.44	0.43
6:j:521:GLU:O	6:j:525:LYS:HG3	2.18	0.43
10:I:39:DA:C2	11:J:19:DA:C2	3.07	0.43
11:J:27:DT:H1'	11:J:28:DA:C2	2.54	0.43
1:A:80:GLU:HG3	1:A:81:CYS:N	2.33	0.43
1:A:645:TRP:HB3	1:A:649:PHE:CB	2.48	0.43
1:A:996:THR:HG21	1:A:1039:TRP:HD1	1.83	0.43
1:A:1623:LEU:HG	1:A:1667:SER:OG	2.18	0.43
1:A:2735:ASP:N	1:A:2735:ASP:OD1	2.52	0.43
1:A:2750:GLU:O	1:A:2754:GLU:OE1	2.37	0.43
1:A:2762:LYS:HG3	1:A:2763:MET:HE2	2.01	0.43
1:F:122:LYS:HA	1:F:122:LYS:HD3	1.70	0.43
1:F:471:LYS:O	1:F:475:LEU:N	2.23	0.43
1:F:542:ASP:OD1	1:F:543:SER:N	2.51	0.43
1:F:1420:ARG:HH22	1:F:1468:LEU:C	2.27	0.43
1:F:1582:LEU:HD12	1:F:1583:MET:N	2.34	0.43
1:F:1661:PHE:CD1	1:F:1665:HIS:HB2	2.54	0.43
1:F:2446:LEU:HD11	1:F:2450:GLU:HB2	2.00	0.43
1:F:3705:TYR:HE1	1:F:3716:HIS:CE1	2.36	0.43
1:F:3855:TYR:HB3	1:F:3859:TYR:CZ	2.54	0.43
2:K:8:ILE:CG2	2:K:20:LEU:H	2.31	0.43
2:K:164:LYS:NZ	3:M:898:ILE:HA	2.34	0.43
2:L:134:ILE:HA	2:L:137:ASN:HD21	1.83	0.43
2:O:42:ALA:HB2	2:O:123:ILE:HG13	1.99	0.43
4:Q:57:ARG:HA	4:Q:60:GLU:CD	2.44	0.43
4:R:81:ARG:NH1	4:R:85:LYS:H	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:R:105:ILE:HD13	4:R:123:CYS:HB3	1.99	0.43
5:a:397:LEU:HD13	5:a:437:LEU:HD12	2.01	0.43
6:b:81:ARG:NH1	6:b:90:LEU:HB2	2.34	0.43
6:b:599:ARG:HA	6:b:602:VAL:HG22	2.01	0.43
5:h:94:LYS:H	5:h:103:TYR:HA	1.84	0.43
5:h:154:PHE:O	5:h:157:VAL:HG12	2.18	0.43
5:h:238:LYS:O	5:h:242:LEU:HD13	2.19	0.43
5:h:365:SER:HG	5:h:434:LEU:C	2.23	0.43
6:j:628:GLU:HB3	6:j:630:PRO:HD2	2.01	0.43
9:E:26:DA:H2	9:E:27:DC:H2'	1.78	0.43
1:A:183:GLU:HG3	1:A:184:VAL:H	1.83	0.43
1:A:296:VAL:HG22	1:A:300:TRP:CD1	2.54	0.43
1:A:832:LYS:HG3	1:A:834:LEU:H	1.83	0.43
1:A:1069:HIS:NE2	1:A:3744:ASP:HA	2.34	0.43
1:A:1479:VAL:HG11	1:A:1518:ALA:HA	2.00	0.43
1:A:1627:LYS:HA	1:A:1630:ASP:OD1	2.19	0.43
1:A:1872:GLY:O	1:A:1876:ILE:HG12	2.19	0.43
1:A:2245:TRP:HB3	1:A:2246:LYS:H	1.64	0.43
1:A:2304:VAL:HA	1:A:2307:MET:HG2	2.01	0.43
1:A:2386:LEU:O	1:A:2394:LYS:NZ	2.29	0.43
1:A:2466:SER:C	1:A:2470:ARG:HE	2.27	0.43
1:A:2854:PHE:O	1:A:2858:ILE:HG12	2.18	0.43
1:A:3270:ASP:OD1	1:A:3271:ASP:N	2.51	0.43
1:A:3297:VAL:O	1:A:3300:VAL:HG13	2.18	0.43
1:A:3347:CYS:O	1:A:3351:ILE:N	2.41	0.43
1:A:3864:ARG:O	1:A:3867:THR:HB	2.18	0.43
1:A:3958:LEU:HD22	1:A:4115:ASN:HD22	1.83	0.43
1:F:856:VAL:HA	1:F:859:LEU:HD12	2.00	0.43
1:F:1173:LEU:HD12	1:F:1173:LEU:HA	1.83	0.43
1:F:1374:GLN:O	1:F:1378:GLU:N	2.29	0.43
1:F:1479:VAL:HG21	1:F:1518:ALA:HA	2.01	0.43
1:F:3749:PRO:O	1:F:3805:TRP:HB3	2.19	0.43
1:F:3880:ALA:HA	1:F:3966:GLN:OE1	2.19	0.43
3:M:846:ARG:NH2	3:M:852:VAL:HG21	2.34	0.43
2:O:46:THR:O	2:O:112:ASN:HB2	2.19	0.43
2:O:83:VAL:C	2:O:99:LYS:HZ3	2.26	0.43
2:O:175:ASP:O	2:O:179:ARG:HD2	2.19	0.43
2:O:177:TYR:CZ	3:P:796:ILE:HG23	2.54	0.43
4:R:29:ILE:HG23	4:R:76:LEU:O	2.19	0.43
6:b:601:LEU:HB3	6:b:612:ALA:HB1	2.00	0.43
5:h:270:SER:H	5:h:375:VAL:HB	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:h:505:ASP:HB3	5:h:508:LEU:HG	2.00	0.43
6:j:489:ARG:HD2	6:j:492:GLN:HE21	1.84	0.43
1:A:473:PRO:N	1:A:476:ARG:HH21	2.16	0.43
1:A:1269:THR:O	1:A:1273:GLU:HB2	2.18	0.43
1:A:1672:PHE:CZ	1:A:1676:ILE:HD11	2.54	0.43
1:A:2792:THR:N	1:A:2793:PRO:HD2	2.34	0.43
1:A:3262:LEU:O	1:A:3266:SER:N	2.52	0.43
1:A:3390:GLN:HA	1:A:3393:GLU:OE1	2.19	0.43
1:F:931:CYS:O	1:F:984:TYR:OH	2.37	0.43
1:F:1115:HIS:HB3	1:F:1180:GLN:HE21	1.84	0.43
1:F:1372:LEU:HD12	1:F:1373:VAL:N	2.34	0.43
1:F:1913:LYS:O	1:F:1917:LYS:HG2	2.19	0.43
1:F:2097:LEU:HD23	1:F:2100:LEU:HD12	2.01	0.43
1:F:2349:LEU:HA	1:F:2353:GLN:CD	2.44	0.43
1:F:2920:VAL:CA	1:F:2923:TRP:HB2	2.48	0.43
1:F:2999:LEU:HD22	1:F:3014:CYS:HA	2.01	0.43
1:F:3330:LEU:HD23	1:F:3384:HIS:CD2	2.54	0.43
1:F:3760:GLN:O	1:F:3764:VAL:HG23	2.19	0.43
2:K:187:LYS:HB3	2:L:187:LYS:HG2	2.01	0.43
3:M:748:PRO:HA	3:M:751:LYS:HD2	2.01	0.43
2:N:50:SER:HA	4:Q:115:LEU:HD22	2.01	0.43
2:N:163:GLU:HA	2:N:166:VAL:HG22	2.00	0.43
2:O:61:MET:HE1	2:O:106:PHE:CZ	2.54	0.43
2:O:107:ARG:NE	2:O:109:GLY:O	2.52	0.43
2:O:193:SER:O	2:O:197:LYS:HG2	2.18	0.43
4:Q:139:LEU:HA	4:Q:142:MET:HE2	2.00	0.43
4:R:109:ARG:HA	4:R:119:TRP:CD1	2.54	0.43
5:h:380:THR:HA	6:j:444:TYR:HB3	2.01	0.43
6:j:42:VAL:O	6:j:46:VAL:HG23	2.19	0.43
6:j:623:PHE:HD2	6:j:635:SER:HB3	1.84	0.43
8:D:13:DC:H4'	8:D:14:DA:C4	2.54	0.43
8:D:19:DA:H2'	8:D:20:DT:H72	2.00	0.43
1:A:337:LYS:HA	1:A:341:PHE:CD2	2.54	0.42
1:A:385:TYR:O	1:A:389:ILE:HG12	2.18	0.42
1:A:960:GLN:O	1:A:964:ARG:HG2	2.19	0.42
1:A:1576:ASP:HB3	1:A:1621:THR:HG21	2.01	0.42
1:A:1675:TYR:O	1:A:1679:LEU:HG	2.19	0.42
1:A:2158:ARG:NH2	1:A:2196:TRP:HB3	2.34	0.42
1:A:2167:PRO:HA	1:A:2170:GLN:HE21	1.82	0.42
1:A:2303:LEU:CB	1:A:2323:LEU:HD21	2.49	0.42
1:A:2481:HIS:ND1	1:A:2499:PHE:HE1	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2540:LEU:O	1:A:2835:LYS:NZ	2.52	0.42
1:A:3022:GLU:HG3	1:A:3037:GLN:HG3	2.01	0.42
1:A:3638:LYS:HZ3	1:A:3642:LYS:HB3	1.84	0.42
1:F:718:MET:HA	1:F:721:TYR:CD2	2.53	0.42
1:F:894:PHE:O	1:F:905:ILE:N	2.42	0.42
1:F:1569:THR:O	1:F:1573:LYS:HG3	2.19	0.42
1:F:1591:LYS:HG3	1:F:1592:MET:N	2.34	0.42
1:F:1781:SER:O	1:F:1785:ILE:HG12	2.19	0.42
1:F:2185:MET:O	1:F:2189:ILE:HG12	2.19	0.42
1:F:3550:LYS:O	1:F:3554:PHE:HB2	2.19	0.42
1:F:3588:TRP:HA	1:F:3609:MET:HE2	2.00	0.42
1:F:3864:ARG:O	1:F:3868:VAL:HG23	2.18	0.42
1:F:4114:PRO:HA	1:F:4117:LEU:HD12	2.01	0.42
2:L:28:LEU:CD2	2:L:70:LEU:HB3	2.49	0.42
3:M:716:ASN:OD1	3:M:751:LYS:NZ	2.51	0.42
2:N:150:ARG:NH1	2:N:154:ASP:OD2	2.51	0.42
2:N:194:LEU:HB2	2:O:194:LEU:HD13	2.01	0.42
3:P:743:MET:HG2	3:P:754:PHE:HE2	1.84	0.42
3:P:816:HIS:H	3:P:850:ALA:HA	1.84	0.42
4:Q:112:LEU:HD22	4:Q:117:PHE:HE2	1.84	0.42
4:Q:176:ARG:HA	5:h:180:SER:HB3	2.01	0.42
4:R:84:LEU:HD13	4:R:95:PHE:HB2	2.01	0.42
5:a:38:LEU:HA	5:a:165:ARG:O	2.19	0.42
5:a:50:GLU:O	5:a:59:PRO:HD2	2.19	0.42
6:b:87:ASP:OD1	6:b:87:ASP:N	2.52	0.42
6:b:108:LEU:O	6:b:112:ILE:HG13	2.19	0.42
6:b:381:ILE:CD1	6:b:417:GLU:HB3	2.48	0.42
6:b:556:ASP:N	6:b:556:ASP:OD1	2.52	0.42
6:b:610:GLU:C	6:b:654:ARG:HH12	2.27	0.42
5:h:289:TYR:CE2	5:h:291:GLU:HG2	2.54	0.42
6:j:56:LEU:HG	6:j:80:HIS:HB3	2.01	0.42
1:A:250:ASN:C	1:A:254:LYS:HZ2	2.26	0.42
1:A:894:PHE:N	1:A:905:ILE:O	2.52	0.42
1:A:901:MET:HB2	1:A:2819:GLU:HG2	2.00	0.42
1:A:1178:ARG:C	1:A:1180:GLN:H	2.27	0.42
1:A:1310:GLU:HG3	1:A:1312:CYS:H	1.83	0.42
1:A:2389:PHE:C	1:A:2394:LYS:HD3	2.44	0.42
1:A:3048:LYS:HB2	1:A:3061:LEU:HD22	2.00	0.42
1:A:3897:PHE:CD2	1:A:3898:LEU:HD23	2.53	0.42
1:F:540:MET:O	1:F:544:ILE:HG12	2.19	0.42
1:F:1115:HIS:CE1	1:F:1182:GLU:HB3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1124:ILE:HG13	1:F:1125:GLN:OE1	2.19	0.42
1:F:2447:LYS:HB2	1:F:2450:GLU:OE1	2.19	0.42
1:F:2891:ARG:O	1:F:2895:GLU:HG2	2.19	0.42
1:F:3037:GLN:HA	1:F:3040:TYR:CD2	2.54	0.42
1:F:3148:GLN:OE1	1:F:3148:GLN:N	2.52	0.42
1:F:3558:ILE:O	1:F:3562:LEU:HG	2.20	0.42
2:O:11:VAL:HB	2:O:89:SER:HA	2.00	0.42
2:O:183:VAL:O	2:O:187:LYS:HG2	2.19	0.42
3:P:752:GLU:HG3	3:P:756:ARG:HH21	1.84	0.42
4:Q:28:PHE:O	4:Q:35:ALA:HB3	2.19	0.42
4:R:166:ASP:OD1	4:R:167:TYR:N	2.53	0.42
4:R:210:PHE:O	4:R:214:LEU:HB2	2.19	0.42
5:a:126:GLN:O	5:a:129:LYS:HB2	2.18	0.42
5:a:153:LEU:HA	5:a:156:ASP:OD2	2.19	0.42
5:a:189:LYS:O	5:a:193:LEU:HG	2.19	0.42
5:a:388:LYS:HE3	6:b:451:LEU:O	2.19	0.42
5:a:413:LEU:HB3	5:a:432:PHE:HD2	1.84	0.42
5:a:418:GLU:HB2	5:a:430:PRO:HB3	2.00	0.42
5:h:422:ASP:OD1	5:h:422:ASP:N	2.52	0.42
6:j:259:ILE:O	6:j:261:ILE:HG23	2.19	0.42
6:j:569:THR:HG23	6:j:571:GLN:H	1.84	0.42
11:J:24:DT:H6	11:J:24:DT:H2'	1.58	0.42
1:A:40:GLN:OE1	1:A:2427:ARG:HB2	2.19	0.42
1:A:71:LYS:HA	1:A:71:LYS:HD3	1.85	0.42
1:A:520:LYS:HD3	1:A:520:LYS:HA	1.67	0.42
1:A:525:LYS:O	1:A:528:VAL:HG22	2.19	0.42
1:A:902:LYS:HG2	1:F:2570:PRO:HB2	2.01	0.42
1:A:1689:LYS:HD3	1:A:1721:HIS:NE2	2.34	0.42
1:A:2208:ASP:OD1	1:A:2209:GLU:N	2.52	0.42
1:A:2214:ARG:HG2	1:A:2218:PHE:CE2	2.54	0.42
1:A:2731:ARG:HD3	1:A:2731:ARG:HA	1.74	0.42
1:A:2773:ARG:HD2	1:A:2789:SER:O	2.19	0.42
1:A:2792:THR:O	1:A:2795:GLN:HG2	2.19	0.42
1:A:2821:ASP:N	1:A:2821:ASP:OD1	2.50	0.42
1:A:3260:LYS:O	1:A:3264:LYS:NZ	2.48	0.42
1:A:3265:GLU:C	1:A:3272:TRP:HE1	2.26	0.42
1:F:794:PRO:HA	1:F:870:LEU:HD12	2.01	0.42
1:F:1013:ILE:O	1:F:1017:ILE:HB	2.20	0.42
1:F:1261:LEU:HD11	1:F:1337:VAL:HG22	2.02	0.42
1:F:1296:PHE:O	1:F:1300:SER:OG	2.33	0.42
1:F:1357:LYS:HD3	1:F:1410:PRO:HD2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1380:ALA:HA	1:F:1384:PHE:HA	2.01	0.42
1:F:2140:LEU:HA	1:F:2143:ARG:HB3	2.00	0.42
1:F:2228:ARG:NH1	10:I:44:DG:H21	2.17	0.42
1:F:2276:LEU:O	1:F:2280:VAL:HG23	2.19	0.42
1:F:2433:LYS:HB2	1:F:2433:LYS:HE2	1.86	0.42
1:F:2927:ALA:O	1:F:2931:ARG:N	2.37	0.42
1:F:3258:LEU:HA	1:F:3261:GLU:HG2	2.01	0.42
1:F:3423:GLN:NE2	1:F:3426:LYS:HE3	2.34	0.42
1:F:3444:ALA:HB2	1:F:3478:GLU:HB2	2.01	0.42
1:F:3459:ASN:HA	1:F:3462:ARG:HE	1.84	0.42
1:F:3575:LEU:HB2	1:F:3800:LEU:HD21	2.01	0.42
1:F:3962:ARG:HA	1:F:4124:TRP:CZ2	2.50	0.42
2:L:179:ARG:HA	3:M:781:ILE:HG21	2.00	0.42
2:O:102:LYS:HA	2:O:102:LYS:HD3	1.65	0.42
4:Q:112:LEU:HD22	4:Q:117:PHE:CE2	2.54	0.42
4:R:51:THR:O	4:R:55:SER:OG	2.27	0.42
4:R:81:ARG:CD	4:R:85:LYS:HG3	2.49	0.42
4:R:96:SER:OG	4:R:107:ARG:HD2	2.20	0.42
5:a:248:ALA:HB3	5:a:250:GLU:OE2	2.20	0.42
5:a:461:LYS:HB3	5:a:461:LYS:HE3	1.75	0.42
5:h:168:LEU:HD22	5:h:202:LEU:HD13	2.01	0.42
5:h:258:ARG:NE	10:I:34:DC:OP2	2.46	0.42
5:h:264:ASN:OD1	5:h:264:ASN:N	2.50	0.42
5:h:266:ASP:OD1	5:h:266:ASP:N	2.52	0.42
5:h:381:LEU:O	5:h:385:LEU:HG	2.18	0.42
5:h:419:GLU:O	5:h:427:VAL:N	2.53	0.42
8:D:16:DA:N1	9:E:41:DT:C4	2.87	0.42
8:D:27:DT:C4	9:E:30:DA:N6	2.88	0.42
11:J:29:DG:O6	11:J:30:DT:N3	2.46	0.42
1:A:70:ARG:HB3	1:A:71:LYS:HZ2	1.85	0.42
1:A:227:LEU:C	1:A:227:LEU:HD23	2.44	0.42
1:A:955:ALA:O	1:A:959:TYR:HB2	2.19	0.42
1:A:1583:MET:O	1:A:1586:SER:OG	2.34	0.42
1:A:1754:GLN:CD	1:A:1785:ILE:HB	2.44	0.42
1:A:2102:LYS:O	1:A:2106:ARG:HG2	2.19	0.42
1:A:2534:ASN:ND2	1:A:2537:ASP:H	2.17	0.42
1:A:2586:PHE:CD1	1:A:2782:ASP:HB3	2.54	0.42
1:A:3182:ILE:O	1:A:3186:ARG:HG2	2.19	0.42
1:A:3186:ARG:O	1:A:3190:LEU:HG	2.20	0.42
1:A:3509:ASP:OD1	1:A:3509:ASP:N	2.50	0.42
1:A:3589:SER:O	1:A:3592:VAL:HG12	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3593:ARG:HH21	1:A:3657:SER:C	2.27	0.42
1:A:3630:ARG:HD2	1:A:3633:ILE:HD11	2.01	0.42
1:A:3977:THR:HA	1:A:3981:TYR:HB2	2.01	0.42
1:F:58:VAL:HG11	1:F:3098:ARG:HD2	2.00	0.42
1:F:117:LYS:O	1:F:119:ARG:N	2.53	0.42
1:F:325:ASN:C	1:F:329:LYS:HZ2	2.26	0.42
1:F:338:LEU:HA	1:F:342:MET:HE1	2.01	0.42
1:F:649:PHE:O	1:F:653:LEU:HD23	2.20	0.42
1:F:1234:GLY:HA2	1:F:1237:ALA:HB3	2.01	0.42
1:F:1271:ILE:O	1:F:1274:ARG:HD2	2.20	0.42
1:F:1306:ILE:HG13	1:F:1307:ILE:N	2.35	0.42
1:F:1373:VAL:HA	1:F:1376:LEU:HB3	2.02	0.42
1:F:1663:THR:O	1:F:1665:HIS:ND1	2.37	0.42
1:F:2225:HIS:HE1	1:F:2234:ASN:HD21	1.67	0.42
1:F:2503:LYS:O	1:F:2507:ILE:HG13	2.19	0.42
1:F:2940:ARG:HH22	1:F:3982:SER:HB3	1.84	0.42
1:F:3001:CYS:HA	1:F:3004:HIS:ND1	2.35	0.42
1:F:3164:TRP:O	1:F:3167:ARG:N	2.47	0.42
1:F:3547:THR:O	1:F:3550:LYS:HB2	2.20	0.42
1:F:3555:VAL:O	1:F:3558:ILE:HB	2.19	0.42
1:F:3701:ILE:HD12	1:F:3717:VAL:HG13	2.01	0.42
1:F:3758:LEU:O	1:F:3762:GLN:N	2.39	0.42
1:F:3778:ASP:HB3	1:F:3781:CYS:SG	2.59	0.42
1:F:4003:ASP:HA	1:F:4007:LYS:HB2	2.02	0.42
1:F:4086:ASP:O	1:F:4089:ILE:HG12	2.19	0.42
2:K:137:ASN:HB3	2:L:141:ASN:HD21	1.84	0.42
2:L:44:THR:HB	2:L:116:VAL:HG11	2.01	0.42
2:N:32:PHE:CE1	2:N:74:LEU:HD21	2.54	0.42
4:Q:8:LEU:HD21	4:Q:37:LEU:HB2	1.99	0.42
5:a:71:TYR:HD2	5:a:116:ILE:HG12	1.84	0.42
5:a:95:ASN:CG	5:a:99:PHE:H	2.27	0.42
5:a:462:MET:CE	5:a:465:ILE:HD12	2.49	0.42
6:b:195:LYS:NZ	6:b:197:ILE:HD11	2.35	0.42
6:b:381:ILE:HG23	6:b:410:PRO:CB	2.48	0.42
5:h:249:LYS:HA	5:h:249:LYS:HD2	1.78	0.42
5:h:402:PRO:HG2	5:h:406:ILE:HG21	2.01	0.42
6:j:526:SER:C	6:j:529:PRO:HD2	2.43	0.42
6:j:666:VAL:O	6:j:675:TRP:NE1	2.52	0.42
8:D:16:DA:H2"	8:D:17:DT:C5	2.54	0.42
1:A:286:LEU:HD11	1:A:326:MET:HE1	2.02	0.42
1:A:340:TYR:HB3	1:A:344:GLN:OE1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:669:LEU:HA	1:A:672:ILE:HG22	2.01	0.42
1:A:749:VAL:O	1:A:753:GLN:HG2	2.19	0.42
1:A:787:PRO:HG2	1:A:788:TYR:CD1	2.54	0.42
1:A:1102:GLU:O	1:A:1106:ILE:HG12	2.20	0.42
1:A:1331:ASN:ND2	1:A:1384:PHE:N	2.67	0.42
1:A:1343:GLU:OE2	1:A:1398:VAL:HG21	2.19	0.42
1:A:1399:CYS:O	1:A:1403:MET:HG2	2.20	0.42
1:A:1468:LEU:HD12	1:A:1469:PRO:HD2	2.02	0.42
1:A:1627:LYS:NZ	1:A:1670:GLU:HB2	2.35	0.42
1:A:1756:PRO:O	1:A:1759:LEU:HB3	2.20	0.42
1:A:2219:LEU:HD12	1:A:2220:MET:N	2.35	0.42
1:A:3387:GLU:HA	1:A:3390:GLN:NE2	2.35	0.42
1:F:41:GLU:HA	1:F:44:LEU:HD12	2.01	0.42
1:F:395:MET:HE1	1:F:410:MET:HG3	2.00	0.42
1:F:410:MET:O	1:F:413:PHE:HB2	2.20	0.42
1:F:738:HIS:O	1:F:742:GLU:HG3	2.19	0.42
1:F:1769:GLU:N	1:F:1822:ARG:HH12	2.17	0.42
1:F:2349:LEU:HB3	1:F:2360:PHE:CE2	2.55	0.42
1:F:2475:ASN:HA	1:F:2478:MET:CE	2.49	0.42
1:F:2534:ASN:HD21	1:F:2536:LEU:HB3	1.84	0.42
1:F:3162:ASN:HA	1:F:3166:ASN:OD1	2.19	0.42
1:F:3493:TRP:HD1	1:F:3521:ILE:HG23	1.84	0.42
1:F:3810:VAL:HG13	1:F:3930:VAL:HG13	2.02	0.42
3:M:822:SER:HB3	3:M:838:LEU:HD22	2.01	0.42
2:N:88:PHE:CE2	2:N:90:LYS:HG2	2.55	0.42
4:Q:152:GLU:HB2	4:R:189:PHE:HZ	1.84	0.42
4:R:96:SER:O	4:R:107:ARG:NH1	2.50	0.42
5:a:430:PRO:HG2	6:b:438:LEU:HG	2.02	0.42
5:a:443:LYS:HG2	6:b:267:ILE:HD13	2.01	0.42
6:b:251:LEU:HG	6:b:253:ILE:HD11	2.01	0.42
6:b:653:GLN:OE1	6:b:653:GLN:N	2.51	0.42
6:j:612:ALA:HA	6:j:616:LEU:HD23	2.01	0.42
1:A:52:ALA:O	1:A:55:THR:OG1	2.31	0.42
1:A:149:ILE:HG13	1:A:150:GLY:N	2.33	0.42
1:A:195:ASN:HA	1:A:198:ARG:NE	2.34	0.42
1:A:252:VAL:HA	6:b:554:PHE:CB	2.48	0.42
1:A:993:HIS:ND1	1:A:2779:ASP:OD1	2.52	0.42
1:A:996:THR:HG21	1:A:1039:TRP:CD1	2.54	0.42
1:A:3313:SER:HB3	1:A:3316:LEU:HA	2.00	0.42
1:F:203:GLU:O	1:F:207:GLN:HG2	2.20	0.42
1:F:208:MET:HE3	6:j:552:GLU:H	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:371:GLY:O	1:F:375:VAL:HG23	2.20	0.42
1:F:614:PRO:HG2	1:F:617:PRO:HG3	2.01	0.42
1:F:737:PRO:O	1:F:740:ILE:HG22	2.20	0.42
1:F:847:SER:OG	1:F:850:GLU:HG2	2.19	0.42
1:F:1220:LEU:O	1:F:1224:PHE:HB2	2.19	0.42
1:F:1422:LYS:HD3	1:F:1422:LYS:HA	1.81	0.42
1:F:1589:ASN:OD1	1:F:1592:MET:HG3	2.20	0.42
1:F:1667:SER:O	1:F:1667:SER:OG	2.38	0.42
1:F:1783:ARG:HH21	1:F:1830:HIS:CD2	2.37	0.42
1:F:2730:ARG:O	1:F:2733:MET:HE3	2.20	0.42
1:F:2773:ARG:HB2	1:F:2775:TYR:CZ	2.55	0.42
1:F:2859:GLN:OE1	1:F:2888:VAL:HG13	2.20	0.42
1:F:2880:CYS:O	1:F:2885:GLN:N	2.52	0.42
1:F:3108:GLN:O	1:F:3111:MET:HG3	2.19	0.42
1:F:3393:GLU:HG2	1:F:3413:TYR:OH	2.20	0.42
1:F:3494:GLN:OE1	1:F:3709:GLY:HA2	2.19	0.42
2:K:106:PHE:HE1	4:R:110:SER:HB3	1.83	0.42
3:M:888:ILE:HD13	3:M:910:LEU:HG	2.01	0.42
2:N:30:SER:HA	2:N:49:GLU:HG2	2.01	0.42
2:O:54:GLN:H	2:O:54:GLN:CD	2.22	0.42
3:P:706:ASN:HA	5:h:498:MET:HA	2.02	0.42
3:P:818:VAL:O	3:P:853:VAL:HB	2.19	0.42
5:a:99:PHE:HB3	5:a:102:ILE:HD12	2.01	0.42
5:a:458:GLN:HE21	5:a:528:LEU:HB3	1.84	0.42
6:b:51:LYS:HA	6:b:85:LEU:HD21	2.02	0.42
5:h:37:SER:HB3	5:h:161:MET:HG3	2.02	0.42
5:h:75:ILE:HG21	6:j:316:TYR:CE1	2.54	0.42
5:h:328:ILE:C	5:h:329:LEU:HD12	2.44	0.42
6:j:267:ILE:HB	6:j:361:VAL:HB	2.00	0.42
8:D:15:DA:C8	8:D:16:DA:N6	2.88	0.42
11:J:25:DT:H3'	11:J:26:DT:C5	2.55	0.42
1:A:58:VAL:HG21	1:A:3098:ARG:HH11	1.85	0.42
1:A:386:VAL:O	1:A:390:GLN:HG2	2.20	0.42
1:A:573:LEU:O	1:A:577:GLU:HG2	2.20	0.42
1:A:580:ASP:HB3	1:A:619:ASP:OD2	2.20	0.42
1:A:712:LYS:HD3	1:A:712:LYS:HA	1.74	0.42
1:A:1015:ASP:OD1	1:A:1015:ASP:N	2.49	0.42
1:A:1297:PHE:HA	1:A:1301:ILE:CG1	2.50	0.42
1:A:1307:ILE:HD11	1:A:1311:LYS:H	1.84	0.42
1:A:1423:ILE:HD11	1:A:1427:SER:H	1.85	0.42
1:A:1443:VAL:HG22	1:A:1447:ARG:HD3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1869:LYS:HB3	1:A:1873:TYR:CZ	2.55	0.42
1:A:2579:HIS:CD2	1:F:947:GLN:HB2	2.54	0.42
1:A:3348:LEU:HD12	1:A:3349:ALA:N	2.35	0.42
1:A:3392:ALA:HB1	1:A:3409:VAL:HG22	2.01	0.42
1:A:3422:GLN:O	1:A:3426:LYS:HG2	2.20	0.42
1:A:3658:ASP:OD1	1:A:3658:ASP:N	2.50	0.42
1:F:133:LYS:O	1:F:137:THR:HG23	2.20	0.42
1:F:240:GLU:O	1:F:243:GLN:HB2	2.20	0.42
1:F:685:GLY:C	1:F:739:ASN:HB3	2.44	0.42
1:F:2428:ASP:O	1:F:2432:GLN:HG2	2.20	0.42
1:F:3553:GLU:HG3	1:F:3557:ARG:NH2	2.34	0.42
2:L:12:SER:OG	2:L:88:PHE:N	2.52	0.42
3:M:668:SER:HB3	3:M:702:ALA:HA	2.01	0.42
3:M:749:SER:HA	3:M:752:GLU:OE1	2.19	0.42
2:N:187:LYS:HB3	2:O:187:LYS:HB3	2.01	0.42
4:R:12:PRO:HA	4:R:219:MET:HE3	2.01	0.42
4:R:65:LEU:HA	4:R:117:PHE:CE2	2.55	0.42
4:R:218:TYR:HA	4:R:221:VAL:HB	2.01	0.42
5:a:116:ILE:H	5:a:116:ILE:HG13	1.69	0.42
5:a:369:TYR:CE1	6:b:435:PHE:HB3	2.54	0.42
5:a:505:ASP:HB3	5:a:508:LEU:HG	2.01	0.42
6:b:81:ARG:HH12	6:b:90:LEU:HB2	1.85	0.42
6:b:283:THR:HG23	6:b:285:LYS:HG2	2.02	0.42
5:h:303:PHE:HB2	5:h:310:LEU:HA	2.01	0.42
7:i:183:GLU:HA	7:i:191:LYS:HA	2.02	0.42
6:j:15:ASP:O	6:j:20:MET:HG3	2.20	0.42
1:A:11:SER:HA	1:A:14:ARG:NE	2.35	0.42
1:A:187:SER:HA	1:A:190:ILE:HB	2.02	0.42
1:A:738:HIS:HB2	1:A:780:ILE:HD11	2.01	0.42
1:A:791:ASP:C	1:A:794:PRO:HD2	2.44	0.42
1:A:924:ARG:NH2	1:A:2768:GLN:HA	2.35	0.42
1:A:990:GLN:NE2	1:A:2778:GLY:O	2.53	0.42
1:A:1352:SER:HB3	1:A:1356:TRP:HB2	2.00	0.42
1:A:1575:LEU:HD21	1:A:1617:LYS:CB	2.50	0.42
1:A:1664:SER:HA	1:A:1668:PHE:CD2	2.55	0.42
1:A:2140:LEU:HD23	1:A:2143:ARG:HD2	2.01	0.42
1:A:2411:LEU:HA	1:A:2414:GLN:CD	2.45	0.42
1:A:2595:TRP:CH2	1:A:2767:ALA:HA	2.55	0.42
1:A:2820:MET:HA	1:A:2823:PHE:CZ	2.54	0.42
1:A:2826:LEU:HD13	1:A:2829:LYS:HD2	2.00	0.42
1:A:3075:LYS:HE2	1:A:3075:LYS:HB3	1.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3231:ILE:O	1:A:3235:LYS:HD3	2.20	0.42
1:A:3593:ARG:HH22	1:A:3661:ASP:CG	2.28	0.42
1:A:3607:GLU:O	1:A:3611:GLU:HG2	2.20	0.42
1:A:3690:PHE:CE2	1:A:3696:ARG:HB3	2.54	0.42
1:A:3981:TYR:O	1:A:3985:VAL:HG23	2.20	0.42
1:F:407:VAL:CA	1:F:410:MET:HE1	2.50	0.42
1:F:900:GLU:OE1	1:F:900:GLU:N	2.53	0.42
1:F:1087:ARG:HA	1:F:1090:ARG:NE	2.35	0.42
1:F:1209:LYS:HA	1:F:1209:LYS:HD3	1.90	0.42
1:F:1783:ARG:HH21	1:F:1830:HIS:CG	2.37	0.42
1:F:1835:ALA:HA	1:F:1838:GLU:CD	2.44	0.42
1:F:1879:VAL:O	1:F:1882:SER:OG	2.32	0.42
1:F:2120:ARG:NH1	1:F:2160:TYR:HB2	2.34	0.42
1:F:2155:GLU:O	1:F:2158:ARG:HG2	2.20	0.42
1:F:2430:GLU:HA	1:F:2433:LYS:HE2	2.01	0.42
1:F:2749:ALA:HB1	1:F:2753:ARG:NH1	2.35	0.42
1:F:2974:GLU:HG3	1:F:2978:LYS:HZ2	1.85	0.42
1:F:3178:ILE:H	1:F:3178:ILE:HD12	1.84	0.42
1:F:3302:LYS:O	1:F:3303:THR:OG1	2.36	0.42
1:F:3460:GLU:O	1:F:3464:LYS:HD3	2.19	0.42
1:F:3552:LYS:HA	1:F:3555:VAL:HG22	2.01	0.42
2:K:45:GLY:HA2	2:K:114:GLU:H	1.85	0.42
2:K:95:PHE:H	2:K:113:LEU:HG	1.85	0.42
3:P:723:PRO:O	3:P:727:LEU:HG	2.20	0.42
3:P:890:LYS:HG2	3:P:904:GLN:O	2.20	0.42
4:Q:24:LEU:HB2	4:Q:211:VAL:HG12	2.00	0.42
4:R:20:GLU:H	4:R:97:CYS:HB3	1.85	0.42
4:R:95:PHE:HE1	4:R:108:VAL:HG13	1.85	0.42
5:a:35:ARG:O	5:a:162:SER:N	2.32	0.42
5:a:95:ASN:ND2	5:a:97:VAL:HB	2.35	0.42
6:b:30:PRO:HB3	6:b:227:PHE:HE2	1.85	0.42
6:b:55:ALA:N	6:b:83:LEU:HD12	2.35	0.42
5:h:60:PHE:O	5:h:64:ILE:HG12	2.20	0.42
5:h:318:ARG:HA	6:j:278:VAL:HA	2.01	0.42
5:h:471:PHE:CG	7:i:199:VAL:HG23	2.55	0.42
5:h:521:LEU:HA	5:h:524:GLU:OE1	2.19	0.42
6:j:598:PHE:CE2	6:j:616:LEU:HB3	2.54	0.42
1:A:79:ARG:NE	1:A:82:ARG:HE	2.14	0.42
1:A:616:LYS:O	1:A:620:PHE:HD1	2.03	0.42
1:A:1028:PHE:O	1:A:1031:ARG:HG2	2.20	0.42
1:A:1474:ASP:OD1	1:A:1474:ASP:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1819:PHE:O	1:A:1823:SER:OG	2.32	0.42
1:A:2321:GLU:HB2	1:A:2366:LYS:NZ	2.34	0.42
1:A:2340:SER:O	1:A:2344:LEU:HG	2.20	0.42
1:A:2405:VAL:O	1:A:2408:MET:HG2	2.20	0.42
1:A:3324:ARG:HA	1:A:3327:ASN:OD1	2.20	0.42
1:A:3457:ASN:HB3	1:A:3494:GLN:HE22	1.84	0.42
1:F:165:LYS:HA	1:F:165:LYS:HD3	1.76	0.42
1:F:623:PHE:O	1:F:626:LEU:HG	2.19	0.42
1:F:987:LEU:HA	1:F:990:GLN:HE21	1.85	0.42
1:F:1440:ASP:OD1	1:F:1441:ALA:N	2.48	0.42
1:F:1484:LEU:HA	1:F:1487:VAL:HG12	2.01	0.42
1:F:1538:LEU:O	1:F:1552:HIS:ND1	2.44	0.42
1:F:1690:GLY:O	1:F:1694:THR:HG23	2.19	0.42
1:F:1852:LYS:HZ1	1:F:1918:LEU:HB3	1.85	0.42
1:F:2386:LEU:HD23	1:F:2418:LYS:HB3	2.02	0.42
1:F:3237:SER:O	1:F:3241:LYS:HG2	2.19	0.42
1:F:3684:SER:HB3	1:F:3687:MET:HB2	2.01	0.42
1:F:3751:LEU:HB3	1:F:3803:ILE:HG12	2.02	0.42
2:L:154:ASP:O	2:L:158:VAL:HG12	2.20	0.42
2:N:55:GLU:HB2	2:N:61:MET:CE	2.49	0.42
3:P:812:MET:H	3:P:848:HIS:HB2	1.85	0.42
3:P:879:ARG:HB2	3:P:886:PHE:HE1	1.84	0.42
4:Q:18:LEU:HD11	4:Q:21:ASN:HB3	2.02	0.42
5:a:350:PHE:CZ	6:b:458:ILE:HG12	2.54	0.42
5:a:374:LEU:HA	6:b:542:ALA:HB3	2.01	0.42
5:h:265:LYS:HE2	5:h:265:LYS:HB3	1.87	0.42
6:j:352:GLN:HG2	6:j:354:ARG:NE	2.35	0.42
6:j:408:ALA:HB1	6:j:419:LEU:HD12	2.01	0.42
6:j:425:PRO:HB2	6:j:429:ASP:HB2	2.02	0.42
6:j:465:LYS:HD3	6:j:474:GLU:OE1	2.20	0.42
8:D:19:DA:N6	9:E:37:DT:H73	2.34	0.42
11:J:31:DT:C4	11:J:32:DT:C4	3.08	0.42
1:A:93:LEU:O	1:A:94:GLU:C	2.63	0.42
1:A:128:LEU:H	1:A:128:LEU:HD12	1.84	0.42
1:A:925:GLN:HA	1:A:2769:VAL:HG13	2.02	0.42
1:A:1064:TYR:HA	1:A:1106:ILE:HG21	2.02	0.42
1:A:1527:ARG:O	1:A:1530:SER:OG	2.30	0.42
1:A:1758:LEU:HA	1:A:1761:LEU:HD12	2.02	0.42
1:A:2576:MET:HE1	1:A:2787:HIS:CD2	2.55	0.42
1:A:2952:ILE:HD13	1:A:2975:ALA:HB2	2.02	0.42
1:A:3108:GLN:O	1:A:3111:MET:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3314:SER:OG	1:A:3318:LYS:HB2	2.19	0.42
1:A:3480:LEU:HA	1:A:3483:MET:HG2	2.01	0.42
1:A:3786:LEU:HD11	1:A:3906:SER:HB2	2.01	0.42
1:F:111:CYS:HB2	1:F:134:LEU:HD21	2.02	0.42
1:F:296:VAL:HG22	1:F:300:TRP:NE1	2.35	0.42
1:F:451:PRO:O	1:F:455:LEU:HG	2.20	0.42
1:F:1020:PRO:C	1:F:1026:ARG:HH22	2.27	0.42
1:F:1255:CYS:HA	1:F:1258:ASP:OD2	2.20	0.42
1:F:1395:LEU:O	1:F:1398:VAL:HG12	2.19	0.42
1:F:1471:GLN:H	1:F:1476:HIS:HD2	1.68	0.42
1:F:1762:MET:HB3	1:F:1778:PHE:HE2	1.85	0.42
1:F:1800:SER:O	1:F:1803:GLU:HG2	2.20	0.42
1:F:2420:PHE:HE2	1:F:2439:ILE:HD11	1.85	0.42
1:F:2757:ILE:HD13	1:F:2757:ILE:HA	1.94	0.42
1:F:2782:ASP:OD1	1:F:2782:ASP:N	2.53	0.42
1:F:3169:PRO:HB2	1:F:3179:TRP:CE2	2.55	0.42
1:F:3292:GLY:HA2	1:F:3295:GLU:CD	2.45	0.42
2:L:23:SER:OG	2:L:33:VAL:HB	2.20	0.42
2:L:153:ARG:NH2	2:L:156:ASN:HB3	2.35	0.42
3:M:800:GLU:HB3	3:M:806:ASP:N	2.35	0.42
3:M:827:ASN:CG	3:M:856:LEU:H	2.27	0.42
3:M:893:TRP:O	3:M:896:ASP:HB2	2.20	0.42
2:N:50:SER:C	2:N:52:ILE:H	2.28	0.42
2:N:66:TYR:CZ	2:N:70:LEU:HD21	2.55	0.42
2:N:181:ILE:HD11	3:P:771:LEU:HA	2.02	0.42
3:P:707:ILE:HD12	5:h:497:LEU:O	2.19	0.42
4:Q:57:ARG:HH22	4:Q:76:LEU:HD12	1.85	0.42
4:Q:134:HIS:N	4:R:40:ASP:O	2.52	0.42
5:a:78:SER:OG	5:a:80:ARG:HG2	2.20	0.42
5:a:82:LEU:HD22	5:a:109:ASP:HA	2.02	0.42
6:b:247:TRP:HB3	6:b:263:ALA:HB3	2.02	0.42
6:b:247:TRP:HE1	6:b:338:LYS:HZ2	1.67	0.42
5:h:131:PHE:CE2	5:h:135:MET:HG2	2.55	0.42
5:h:339:ARG:NH1	5:h:404:ARG:HB3	2.35	0.42
1:A:559:SER:O	1:A:562:HIS:HB3	2.19	0.41
1:A:774:GLU:O	1:A:778:ILE:HG12	2.19	0.41
1:A:1419:LEU:CD1	1:A:1467:ILE:HD13	2.50	0.41
1:A:1591:LYS:HG3	1:A:1592:MET:N	2.34	0.41
1:A:1731:PRO:HA	1:A:1736:PHE:CE2	2.55	0.41
1:A:2121:ASP:HB2	1:A:2127:LYS:HD3	2.01	0.41
1:A:2227:LYS:NZ	1:A:2736:GLN:OE1	2.31	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2382:VAL:HA	1:A:2385:LEU:HG	2.02	0.41
1:A:2965:TYR:HB3	1:A:3001:CYS:CB	2.43	0.41
1:A:2973:ASP:O	1:A:2976:LEU:HG	2.20	0.41
1:A:3459:ASN:O	1:A:3462:ARG:HB2	2.19	0.41
1:A:3725:ARG:HB3	1:A:3739:ILE:HD12	2.02	0.41
1:F:942:LEU:HD12	1:F:2783:ILE:HD11	2.02	0.41
1:F:1334:LYS:O	1:F:1338:VAL:HG23	2.18	0.41
1:F:1347:THR:O	1:F:1351:THR:OG1	2.22	0.41
1:F:1875:LYS:HE2	1:F:1875:LYS:HB3	1.68	0.41
1:F:1881:TYR:CD1	1:F:1881:TYR:C	2.97	0.41
1:F:1960:LYS:HD3	1:F:1961:PHE:H	1.85	0.41
1:F:2806:LYS:HB2	1:F:2857:CYS:HB2	2.02	0.41
1:F:3239:LYS:O	1:F:3242:MET:HB2	2.20	0.41
1:F:3459:ASN:O	1:F:3463:LEU:HG	2.20	0.41
1:F:3704:GLN:NE2	1:F:3717:VAL:O	2.38	0.41
2:K:104:VAL:HG11	4:R:75:HIS:NE2	2.35	0.41
2:L:61:MET:SD	2:L:66:TYR:HE1	2.43	0.41
2:L:187:LYS:HZ2	3:M:765:TYR:HA	1.84	0.41
3:M:838:LEU:CD2	3:M:867:GLU:H	2.33	0.41
2:N:84:TYR:HD1	2:N:97:PHE:HB2	1.85	0.41
2:N:176:LEU:HB3	2:N:180:PHE:CZ	2.55	0.41
3:P:769:THR:HA	3:P:773:GLN:OE1	2.19	0.41
5:a:255:ALA:HA	5:a:274:TYR:CE2	2.55	0.41
5:a:479:GLU:HA	6:b:426:PHE:HB3	2.02	0.41
5:a:520:SER:O	5:a:520:SER:OG	2.35	0.41
6:b:450:GLN:NE2	6:b:536:LEU:O	2.40	0.41
6:b:675:TRP:HA	6:b:678:VAL:HG12	2.02	0.41
5:h:35:ARG:CD	5:h:80:ARG:HE	2.26	0.41
5:h:238:LYS:HE2	5:h:238:LYS:HB3	1.83	0.41
8:D:22:DG:C8	8:D:23:DT:H71	2.55	0.41
1:A:53:LEU:O	1:A:57:LEU:HG	2.19	0.41
1:A:54:GLN:HB3	1:A:3097:ASP:C	2.45	0.41
1:A:212:VAL:HG23	1:A:214:GLU:HB2	2.01	0.41
1:A:493:LYS:HA	1:A:494:PRO:HD3	1.91	0.41
1:A:1727:ARG:HA	1:A:1727:ARG:CZ	2.49	0.41
1:A:1791:CYS:SG	1:A:1832:SER:OG	2.59	0.41
1:A:2195:SER:O	1:A:2722:ARG:HG3	2.20	0.41
1:A:2295:GLN:C	1:A:2297:SER:H	2.28	0.41
1:A:2310:VAL:HG13	1:A:2316:TYR:CE2	2.54	0.41
1:A:3183:ILE:HG13	1:A:3242:MET:HE2	2.02	0.41
1:A:3240:MET:SD	1:A:3241:LYS:HG3	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3738:ILE:HG12	1:A:3750:PHE:O	2.20	0.41
1:A:3914:SER:O	1:A:3918:LEU:HG	2.20	0.41
1:A:4055:ASN:ND2	1:A:4058:VAL:HG23	2.34	0.41
1:F:324:SER:OG	1:F:368:LEU:O	2.37	0.41
1:F:900:GLU:HB2	1:F:901:MET:CE	2.51	0.41
1:F:1212:LEU:HD12	1:F:1215:GLU:O	2.19	0.41
1:F:1816:ARG:HA	1:F:1819:PHE:CE2	2.55	0.41
1:F:2165:LEU:HD21	1:F:2202:PRO:HA	2.02	0.41
1:F:2181:GLY:HA3	1:F:2184:TYR:HD2	1.86	0.41
1:F:3111:MET:SD	1:F:3112:GLN:N	2.93	0.41
1:F:3465:PHE:CE1	1:F:3469:LEU:HD21	2.56	0.41
1:F:3506:LEU:HD21	1:F:3555:VAL:HG12	2.01	0.41
3:M:879:ARG:HH11	3:M:888:ILE:HD11	1.84	0.41
2:O:2:GLU:OE1	2:O:27:THR:N	2.53	0.41
2:O:166:VAL:HG12	2:O:170:GLU:OE2	2.20	0.41
4:Q:35:ALA:HB1	4:Q:48:GLN:NE2	2.35	0.41
4:Q:43:GLN:HG2	4:Q:126:ALA:HA	2.02	0.41
5:a:71:TYR:CD2	5:a:116:ILE:HG12	2.55	0.41
5:a:362:LEU:HD23	5:a:436:PHE:HB3	2.00	0.41
5:a:474:ARG:NH2	7:c:195:PRO:O	2.53	0.41
6:b:656:ASN:C	6:b:656:ASN:HD22	2.28	0.41
5:h:288:LEU:HD21	6:j:320:ILE:HG12	2.02	0.41
6:j:398:ASP:H	6:j:401:ALA:CB	2.33	0.41
6:j:404:GLN:HB3	6:j:423:GLN:HG3	2.02	0.41
6:j:409:PHE:C	6:j:419:LEU:HD13	2.44	0.41
6:j:506:PRO:HA	6:j:507:PRO:HD3	1.93	0.41
6:j:614:ASN:HB2	6:j:615:GLN:CD	2.44	0.41
10:I:43:DT:H2'	10:I:44:DG:N2	2.35	0.41
1:A:163:LYS:HG2	5:a:300:THR:O	2.19	0.41
1:A:1015:ASP:O	1:A:1019:ASP:HB2	2.21	0.41
1:A:1214:GLU:CD	1:A:1214:GLU:H	2.25	0.41
1:A:1677:SER:O	1:A:1681:ASP:N	2.53	0.41
1:A:1766:LEU:C	1:A:1768:ARG:H	2.28	0.41
1:A:2227:LYS:C	1:A:2229:ALA:H	2.29	0.41
1:A:2352:HIS:CD2	1:A:2353:GLN:HG3	2.55	0.41
1:A:2773:ARG:NH1	1:A:2775:TYR:OH	2.53	0.41
1:A:3699:LEU:O	1:A:3718:ARG:HB3	2.20	0.41
1:A:3778:ASP:HB3	1:A:3781:CYS:HB3	2.02	0.41
1:A:4038:TRP:HE3	1:A:4043:LYS:HZ3	1.68	0.41
1:F:965:THR:HG23	1:F:966:PHE:CD1	2.56	0.41
1:F:2206:PRO:HA	1:F:2209:GLU:CD	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2225:HIS:ND1	1:F:2230:VAL:HG23	2.35	0.41
1:F:2225:HIS:HB3	1:F:2227:LYS:H	1.85	0.41
1:F:2260:PHE:CD2	1:F:2277:LEU:HD11	2.55	0.41
1:F:3162:ASN:OD1	1:F:3163:THR:N	2.53	0.41
1:F:3253:SER:O	1:F:3253:SER:OG	2.37	0.41
1:F:3347:CYS:O	1:F:3351:ILE:HG13	2.20	0.41
1:F:3629:ARG:O	1:F:3633:ILE:HG23	2.20	0.41
1:F:3768:PHE:O	1:F:3771:MET:HG2	2.19	0.41
1:F:3970:LEU:HD23	1:F:3971:MET:H	1.84	0.41
1:F:4094:PRO:HB2	1:F:4098:LEU:HD13	2.01	0.41
2:K:127:ILE:HD11	2:L:126:LEU:HD13	2.02	0.41
2:K:189:THR:HA	2:K:192:ARG:HE	1.84	0.41
2:L:86:PHE:HB3	2:L:95:PHE:HE1	1.84	0.41
3:P:757:GLU:HG3	3:P:758:TYR:CD2	2.55	0.41
5:a:91:GLU:OE1	5:a:91:GLU:N	2.46	0.41
5:a:165:ARG:CZ	7:c:188:PRO:HD3	2.50	0.41
5:a:266:ASP:N	5:a:266:ASP:OD1	2.52	0.41
6:b:680:GLN:O	6:b:684:THR:HG23	2.19	0.41
5:h:71:TYR:CE2	5:h:119:LEU:HD11	2.55	0.41
5:h:276:LEU:HD23	5:h:276:LEU:HA	1.85	0.41
5:h:440:ALA:HB2	6:j:481:LYS:C	2.44	0.41
5:h:468:LYS:HD2	5:h:517:ARG:HG3	2.01	0.41
6:j:164:PHE:CD2	6:j:225:TYR:HB2	2.56	0.41
6:j:207:ILE:O	6:j:210:MET:HG3	2.20	0.41
8:D:29:DG:H2'	8:D:30:DT:H71	2.01	0.41
1:A:131:LEU:O	1:A:135:LEU:HD23	2.20	0.41
1:A:576:VAL:HA	1:A:579:LEU:HG	2.03	0.41
1:A:889:GLU:HB2	1:A:891:ARG:HE	1.85	0.41
1:A:1334:LYS:O	1:A:1338:VAL:HG23	2.21	0.41
1:A:1339:VAL:HA	1:A:1342:MET:HG3	2.01	0.41
1:A:1633:TRP:CE3	1:A:1674:THR:HG23	2.55	0.41
1:A:1783:ARG:O	1:A:1787:ARG:NE	2.48	0.41
1:A:2835:LYS:HD3	1:A:2839:ASP:OD2	2.20	0.41
1:A:2852:PRO:HG2	1:A:3116:SER:OG	2.21	0.41
1:A:2940:ARG:HD2	1:A:3977:THR:O	2.21	0.41
1:A:2998:SER:HA	1:A:3001:CYS:SG	2.61	0.41
1:A:3360:LEU:CD2	1:A:3373:VAL:HG11	2.50	0.41
1:F:238:MET:HA	1:F:243:GLN:HG3	2.02	0.41
1:F:621:SER:O	1:F:624:ILE:HG12	2.20	0.41
1:F:879:MET:HE2	1:F:881:LYS:N	2.34	0.41
1:F:977:ASP:HB3	1:F:980:THR:OG1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1055:ASN:ND2	1:F:1057:LYS:HG3	2.35	0.41
1:F:1104:LEU:HD11	1:F:1138:ILE:HD11	2.02	0.41
1:F:2349:LEU:O	1:F:2353:GLN:HB2	2.20	0.41
1:F:3033:GLU:HB2	1:F:3034:PRO:HD3	2.02	0.41
1:F:3104:GLN:HA	1:F:3107:ILE:HD12	2.01	0.41
1:F:3144:PHE:HD2	1:F:3150:ASN:ND2	2.18	0.41
1:F:3235:LYS:HB2	1:F:3235:LYS:HE2	1.79	0.41
1:F:3571:PHE:O	1:F:3575:LEU:HG	2.20	0.41
1:F:3631:LYS:HA	1:F:3634:GLN:CD	2.45	0.41
3:M:818:VAL:HG13	3:M:864:ILE:HG12	2.03	0.41
2:N:108:LEU:HG	2:N:109:GLY:H	1.84	0.41
2:N:133:THR:HA	2:N:136:GLU:HG3	2.03	0.41
2:O:124:ARG:HE	2:O:127:ILE:HD12	1.85	0.41
4:Q:29:ILE:HB	4:Q:77:ASP:CG	2.45	0.41
4:Q:157:LEU:CD2	4:R:157:LEU:HA	2.50	0.41
5:a:468:LYS:HD2	5:a:517:ARG:HG2	2.02	0.41
6:b:316:TYR:HB2	6:b:321:VAL:HG23	2.01	0.41
6:b:355:PHE:O	6:b:425:PRO:HD3	2.21	0.41
5:h:318:ARG:HD3	5:h:331:LYS:HB2	2.02	0.41
5:h:486:HIS:CD2	5:h:490:LEU:HD11	2.56	0.41
9:E:23:DT:H2"	9:E:25:DA:C2	2.55	0.41
1:A:416:SER:O	1:A:419:SER:OG	2.30	0.41
1:A:447:PRO:HD3	1:A:527:TYR:CE2	2.55	0.41
1:A:760:LEU:HD21	1:A:798:GLY:HA3	2.02	0.41
1:A:921:ALA:HB3	1:A:927:LYS:HD2	2.03	0.41
1:A:993:HIS:CD2	1:A:1039:TRP:CD2	3.09	0.41
1:A:997:ASN:O	1:A:1001:PHE:HB2	2.20	0.41
1:A:1100:VAL:HG23	1:A:1101:PHE:N	2.35	0.41
1:A:1626:TRP:CZ2	1:A:1674:THR:HG21	2.56	0.41
1:A:1771:GLN:HE22	1:A:1774:MET:H	1.67	0.41
1:A:2473:MET:HA	1:A:2476:ILE:HD12	2.01	0.41
1:A:2973:ASP:OD1	1:A:2977:ASN:ND2	2.54	0.41
1:A:3330:LEU:HG	1:A:3384:HIS:CE1	2.56	0.41
1:A:4013:TRP:HB2	1:A:4038:TRP:HE1	1.86	0.41
1:A:4059:ILE:HA	1:A:4062:ASP:OD2	2.20	0.41
1:F:243:GLN:O	1:F:246:ARG:HG2	2.19	0.41
1:F:374:LYS:NZ	1:F:423:TYR:O	2.40	0.41
1:F:899:ARG:HD2	1:F:2568:MET:C	2.45	0.41
1:F:1049:GLN:O	1:F:1052:SER:OG	2.27	0.41
1:F:2339:GLU:O	1:F:2342:CYS:N	2.54	0.41
1:F:2584:CYS:SG	1:F:2779:ASP:HB2	2.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3425:ARG:HA	1:F:3428:GLU:OE2	2.21	0.41
1:F:3874:ARG:O	1:F:3878:VAL:HG12	2.20	0.41
1:F:3974:MET:HE2	1:F:3978:GLY:H	1.85	0.41
3:P:699:CYS:HA	3:P:719:ASP:HB2	2.02	0.41
5:a:35:ARG:HG3	5:a:80:ARG:NH2	2.35	0.41
5:a:95:ASN:ND2	5:a:99:PHE:H	2.17	0.41
5:a:193:LEU:HB3	5:a:198:ILE:HD12	2.02	0.41
5:a:288:LEU:HD12	5:a:293:ASN:O	2.20	0.41
5:a:359:HIS:HA	6:b:409:PHE:HZ	1.85	0.41
7:i:180:CYS:HA	7:i:181:PRO:HD3	1.97	0.41
1:A:175:TYR:O	1:A:227:LEU:HD12	2.20	0.41
1:A:248:ILE:HA	1:A:251:PHE:CD2	2.56	0.41
1:A:890:LYS:HG2	1:A:3889:ARG:NH2	2.34	0.41
1:A:992:ILE:HD13	1:A:992:ILE:HA	1.95	0.41
1:A:1016:GLY:O	1:A:1026:ARG:HG2	2.21	0.41
1:A:1407:LYS:HA	1:A:1412:LYS:HB3	2.02	0.41
1:A:3080:LEU:HD23	1:A:3080:LEU:HA	1.94	0.41
1:A:3128:LYS:HA	1:A:3128:LYS:HD3	1.83	0.41
1:A:3192:LYS:HA	1:A:3195:GLU:CD	2.45	0.41
1:A:3226:ASP:O	1:A:3230:LEU:HG	2.20	0.41
1:A:3571:PHE:CZ	1:A:3575:LEU:HD11	2.56	0.41
1:A:3722:PHE:HA	1:A:3741:ARG:HB3	2.02	0.41
1:A:3920:ILE:HA	1:A:3944:HIS:O	2.20	0.41
1:A:3958:LEU:CD2	1:A:4115:ASN:HD22	2.34	0.41
1:F:32:HIS:O	1:F:36:ARG:HG2	2.21	0.41
1:F:333:MET:O	1:F:337:LYS:CB	2.69	0.41
1:F:405:ASP:OD1	1:F:406:ARG:N	2.53	0.41
1:F:990:GLN:HB3	1:F:2781:PRO:HD3	2.02	0.41
1:F:1333:SER:O	1:F:1337:VAL:HG23	2.21	0.41
1:F:1342:MET:O	1:F:1345:THR:OG1	2.27	0.41
1:F:2339:GLU:HA	1:F:2342:CYS:SG	2.61	0.41
1:F:2452:ARG:NE	1:F:2497:GLU:OE1	2.50	0.41
1:F:2492:ASP:OD2	1:F:2494:ASP:HB2	2.20	0.41
1:F:3106:GLY:O	1:F:3110:PHE:HD2	2.03	0.41
1:F:3289:ARG:H	1:F:3292:GLY:HA3	1.85	0.41
2:K:1:MET:N	2:K:26:LYS:HE2	2.35	0.41
2:K:130:CYS:SG	2:K:131:LEU:N	2.93	0.41
2:L:6:SER:O	2:L:7:ARG:HD2	2.20	0.41
2:L:134:ILE:HA	2:L:137:ASN:ND2	2.36	0.41
3:M:754:PHE:O	3:M:758:TYR:N	2.44	0.41
2:O:178:LYS:HE3	3:P:787:GLN:NE2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:96:SER:O	4:Q:107:ARG:N	2.32	0.41
5:a:325:ARG:HH11	6:b:498:ALA:HB1	1.85	0.41
5:a:426:GLN:NE2	6:b:435:PHE:O	2.54	0.41
5:a:483:LEU:HD23	5:a:483:LEU:HA	1.88	0.41
5:a:493:LEU:HD11	6:b:323:PHE:CD1	2.56	0.41
6:b:249:CYS:SG	6:b:250:ARG:N	2.93	0.41
6:b:376:ALA:O	6:b:380:LEU:HD23	2.19	0.41
6:b:679:VAL:O	6:b:683:ILE:HG12	2.21	0.41
6:b:698:ALA:HB1	6:b:702:LYS:NZ	2.36	0.41
5:h:269:ILE:HG22	5:h:375:VAL:HG11	2.01	0.41
5:h:279:LYS:HA	6:j:429:ASP:CG	2.46	0.41
5:h:420:LEU:HB3	5:h:424:LYS:HA	2.01	0.41
6:j:702:LYS:HA	6:j:704:PHE:CZ	2.55	0.41
1:A:220:LEU:HD12	1:A:223:CYS:SG	2.61	0.41
1:A:292:SER:OG	6:b:560:ASP:OD2	2.26	0.41
1:A:369:PHE:O	1:A:372:PRO:HD2	2.21	0.41
1:A:406:ARG:HA	1:A:409:GLN:HE22	1.86	0.41
1:A:848:LEU:O	1:A:851:ILE:HB	2.21	0.41
1:A:865:GLN:HB2	1:A:3168:TYR:O	2.20	0.41
1:A:886:TRP:CZ3	1:A:911:LEU:HB3	2.55	0.41
1:A:907:LEU:HD12	1:A:910:PHE:CD2	2.56	0.41
1:A:1278:ALA:O	1:A:1282:LEU:N	2.47	0.41
1:A:1375:THR:HA	1:A:1378:GLU:O	2.20	0.41
1:A:2166:SER:HB3	1:A:2207:LYS:NZ	2.36	0.41
1:A:2182:ILE:O	1:A:2186:VAL:HG23	2.21	0.41
1:A:3505:LEU:HG	1:A:3515:GLN:HE22	1.86	0.41
1:A:3603:LYS:H	1:A:3606:ILE:HB	1.86	0.41
1:A:3646:LYS:HD2	1:A:3647:GLY:C	2.46	0.41
1:F:79:ARG:NH2	1:F:82:ARG:HD2	2.35	0.41
1:F:718:MET:SD	1:F:719:LYS:HG3	2.61	0.41
1:F:959:TYR:O	1:F:963:LYS:HG3	2.21	0.41
1:F:1219:PHE:O	1:F:1223:THR:OG1	2.21	0.41
1:F:1457:GLN:N	1:F:1460:ARG:HH21	2.18	0.41
1:F:1934:LEU:HA	1:F:1937:ARG:NE	2.34	0.41
1:F:2586:PHE:HZ	1:F:2780:LEU:HB2	1.86	0.41
1:F:3837:CYS:HA	1:F:3841:ASP:HB2	2.03	0.41
1:F:4085:LYS:O	1:F:4089:ILE:HG23	2.19	0.41
2:K:133:THR:O	2:K:136:GLU:HG2	2.21	0.41
2:L:58:ASP:OD1	2:L:59:MET:N	2.54	0.41
2:N:192:ARG:NE	3:P:766:PHE:O	2.54	0.41
2:O:42:ALA:CB	2:O:122:VAL:HB	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:813:PHE:N	3:P:848:HIS:HB2	2.35	0.41
4:R:52:SER:O	4:R:56:GLN:HG2	2.20	0.41
4:R:84:LEU:HD11	4:R:86:ASP:HB2	2.03	0.41
5:a:68:GLN:O	5:a:72:ILE:HG12	2.21	0.41
6:b:242:ARG:NH2	6:b:273:LYS:H	2.17	0.41
6:b:328:GLU:O	6:b:332:LYS:HB2	2.21	0.41
6:b:640:ARG:O	6:b:643:ARG:HG2	2.20	0.41
7:c:184:SER:HB3	7:c:191:LYS:O	2.21	0.41
5:h:337:LEU:HB3	6:j:505:LEU:HD13	2.03	0.41
6:j:67:PRO:HD3	6:j:79:VAL:HG21	2.02	0.41
6:j:454:VAL:O	6:j:458:ILE:HG13	2.21	0.41
6:j:671:LEU:HB2	6:j:674:PHE:CD1	2.56	0.41
1:A:14:ARG:HG3	1:A:15:LEU:HD22	2.03	0.41
1:A:373:CYS:HB2	1:A:381:VAL:HG22	2.03	0.41
1:A:886:TRP:CD2	1:A:964:ARG:HG3	2.55	0.41
1:A:1384:PHE:HB3	1:A:1386:ILE:HG22	2.03	0.41
1:A:1627:LYS:HA	1:A:1627:LYS:HD3	1.89	0.41
1:A:2397:CYS:O	1:A:2401:VAL:HG23	2.21	0.41
1:A:2534:ASN:HD22	1:A:2537:ASP:HB2	1.85	0.41
1:A:2921:LEU:O	1:A:2924:VAL:HG12	2.21	0.41
1:A:2985:GLU:OE1	1:A:2985:GLU:N	2.52	0.41
1:A:3042:PRO:HA	1:A:3045:ILE:HG12	2.03	0.41
1:A:3238:MET:HA	1:A:3241:LYS:HD2	2.03	0.41
1:A:3557:ARG:O	1:A:3561:LYS:HG3	2.21	0.41
1:A:3806:LEU:HD11	1:A:3938:ILE:HD12	2.03	0.41
1:F:418:ALA:HB3	1:F:463:LYS:NZ	2.35	0.41
1:F:1209:LYS:NZ	1:F:1275:THR:O	2.36	0.41
1:F:1651:LYS:HA	1:F:1651:LYS:HD2	1.94	0.41
1:F:1783:ARG:HE	1:F:1830:HIS:CB	2.34	0.41
1:F:1805:PHE:CD1	1:F:1820:VAL:HB	2.56	0.41
1:F:2104:MET:SD	1:F:2105:HIS:N	2.93	0.41
1:F:2352:HIS:O	1:F:2356:MET:HE1	2.21	0.41
1:F:2524:PHE:O	1:F:2530:ARG:HD2	2.20	0.41
1:F:2527:HIS:HB3	1:F:2530:ARG:NH1	2.35	0.41
1:F:3378:TYR:CD1	1:F:3419:PHE:HE1	2.38	0.41
1:F:3422:GLN:NE2	1:F:3423:GLN:HG2	2.36	0.41
1:F:3449:LYS:HG2	1:F:3452:LYS:HZ3	1.86	0.41
1:F:3474:ARG:HG3	1:F:3475:TYR:CD2	2.56	0.41
1:F:3582:GLU:HG2	1:F:3671:ASN:HB3	2.03	0.41
1:F:3811:THR:OG1	1:F:3926:ASN:OD1	2.35	0.41
2:N:88:PHE:HE1	2:N:93:CYS:HA	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:99:LYS:HB2	2:N:108:LEU:HB2	2.02	0.41
3:P:727:LEU:HD22	3:P:731:LYS:HZ2	1.86	0.41
3:P:815:ARG:H	3:P:849:GLY:C	2.29	0.41
4:Q:170:SER:O	4:R:172:ALA:HA	2.21	0.41
4:R:24:LEU:HG	4:R:210:PHE:CZ	2.56	0.41
4:R:295:ARG:HD2	6:j:160:SER:OG	2.21	0.41
5:a:109:ASP:HB3	5:a:115:ARG:CZ	2.51	0.41
6:b:34:ALA:HA	6:b:37:VAL:HG22	2.03	0.41
6:b:81:ARG:HH21	6:b:84:MET:CG	2.33	0.41
5:h:269:ILE:HG21	5:h:381:LEU:HD23	2.02	0.41
5:h:349:GLY:HA2	6:j:461:MET:HG3	2.02	0.41
6:j:280:ASP:N	6:j:289:ILE:HD11	2.35	0.41
6:j:688:LYS:NZ	6:j:699:GLU:HB3	2.36	0.41
1:A:23:ASP:HB3	1:A:34:LEU:HD11	2.02	0.41
1:A:229:SER:HB2	1:A:277:LEU:HD12	2.02	0.41
1:A:637:LYS:HA	1:A:637:LYS:HD2	1.73	0.41
1:A:638:GLN:HB2	1:A:641:PHE:HD2	1.86	0.41
1:A:713:GLU:O	1:A:717:LYS:HG2	2.21	0.41
1:A:737:PRO:HG2	1:A:740:ILE:HG22	2.03	0.41
1:A:901:MET:HA	1:F:2570:PRO:HB3	2.03	0.41
1:A:925:GLN:CD	1:A:2769:VAL:HG13	2.46	0.41
1:A:1000:LYS:HA	1:A:1004:GLN:NE2	2.35	0.41
1:A:1112:ALA:HA	1:A:1180:GLN:HG2	2.03	0.41
1:A:1155:ARG:O	1:A:3693:GLU:HG2	2.20	0.41
1:A:2312:TYR:CE2	8:D:17:DT:P	3.14	0.41
1:A:2387:PRO:HG3	1:A:2418:LYS:HD2	2.03	0.41
1:A:2467:THR:N	1:A:2470:ARG:HH21	2.18	0.41
1:A:2739:LEU:HA	1:A:2742:MET:HG2	2.02	0.41
1:A:2893:LEU:HB3	1:A:2926:LEU:HD21	2.03	0.41
1:A:3192:LYS:O	1:A:3195:GLU:HG2	2.20	0.41
1:A:3257:LYS:O	1:A:3261:GLU:HG3	2.21	0.41
1:A:3503:VAL:HG22	1:A:3536:SER:HB3	2.02	0.41
1:A:3580:ASN:HB2	1:A:3583:LEU:HD12	2.03	0.41
1:A:3584:LEU:H	1:A:3584:LEU:HD12	1.85	0.41
1:A:3881:ASP:O	1:A:3885:ARG:HG3	2.21	0.41
1:A:4051:LEU:HD12	1:A:4051:LEU:HA	1.86	0.41
1:A:4064:LEU:O	1:A:4068:HIS:HB3	2.21	0.41
1:F:31:GLY:HA3	1:F:77:GLU:HB2	2.03	0.41
1:F:156:PHE:HA	1:F:159:GLU:HG3	2.02	0.41
1:F:238:MET:HG2	1:F:283:SER:N	2.36	0.41
1:F:392:CYS:HA	1:F:395:MET:HE3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:652:GLU:OE2	1:F:656:GLN:NE2	2.53	0.41
1:F:745:VAL:O	1:F:749:VAL:HG23	2.21	0.41
1:F:826:PHE:O	1:F:836:LYS:NZ	2.43	0.41
1:F:985:GLU:N	1:F:986:PRO:HD2	2.36	0.41
1:F:1058:SER:O	1:F:1062:ARG:HG2	2.21	0.41
1:F:1206:LEU:HA	1:F:1209:LYS:HG2	2.03	0.41
1:F:1418:HIS:O	1:F:1422:LYS:HG2	2.21	0.41
1:F:1591:LYS:HG3	1:F:1592:MET:H	1.85	0.41
1:F:1646:LEU:O	1:F:1649:LEU:HG	2.21	0.41
1:F:1710:LEU:O	1:F:1713:VAL:HG22	2.20	0.41
1:F:1712:ARG:NE	1:F:1712:ARG:O	2.54	0.41
1:F:1818:SER:HB2	1:F:1822:ARG:HE	1.86	0.41
1:F:2164:TRP:O	1:F:2168:LEU:HG	2.21	0.41
1:F:2214:ARG:HG2	1:F:2218:PHE:CZ	2.56	0.41
1:F:2284:ASP:OD1	1:F:2284:ASP:N	2.54	0.41
1:F:2420:PHE:CE2	1:F:2439:ILE:HD11	2.56	0.41
1:F:2859:GLN:O	1:F:2862:SER:OG	2.26	0.41
1:F:3384:HIS:HA	1:F:3387:GLU:OE1	2.21	0.41
1:F:3529:ILE:C	1:F:3532:PRO:HD2	2.45	0.41
1:F:3557:ARG:HG3	1:F:3561:LYS:NZ	2.36	0.41
1:F:3608:LYS:HG3	1:F:3612:ARG:CZ	2.50	0.41
1:F:3751:LEU:HD12	1:F:3751:LEU:HA	1.97	0.41
1:F:4115:ASN:OD1	1:F:4116:ILE:N	2.54	0.41
2:K:8:ILE:HG12	2:K:20:LEU:HD22	2.03	0.41
2:K:98:GLU:HA	2:K:108:LEU:HB2	2.03	0.41
2:K:150:ARG:HD3	2:K:153:ARG:HH21	1.85	0.41
2:L:13:GLU:O	2:L:16:ILE:HG22	2.21	0.41
2:L:179:ARG:O	2:L:183:VAL:HG12	2.21	0.41
3:M:723:PRO:O	3:M:727:LEU:HG	2.21	0.41
3:M:813:PHE:HB3	3:M:816:HIS:CG	2.56	0.41
2:N:32:PHE:HE1	2:N:74:LEU:HD21	1.86	0.41
2:N:93:CYS:O	2:N:113:LEU:HB2	2.21	0.41
2:N:151:LEU:HD12	2:O:148:ASN:OD1	2.21	0.41
2:O:104:VAL:HG13	2:O:106:PHE:CZ	2.56	0.41
3:P:715:SER:OG	3:P:718:HIS:HE1	2.03	0.41
3:P:733:LYS:HA	3:P:733:LYS:HD3	1.75	0.41
3:P:853:VAL:HG11	3:P:860:VAL:HG21	2.02	0.41
4:Q:131:VAL:HG23	4:R:136:ILE:HG12	2.03	0.41
4:R:11:GLN:HG3	4:R:26:LYS:HD2	2.02	0.41
4:R:65:LEU:CD2	4:R:119:TRP:HE3	2.33	0.41
5:a:299:LYS:HG3	6:b:294:VAL:HB	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:a:334:THR:O	5:a:337:LEU:HG	2.21	0.41
5:a:335:GLU:HA	5:a:338:LYS:HE2	2.03	0.41
5:a:414:VAL:CG1	5:a:433:GLN:HB3	2.51	0.41
5:a:482:VAL:HG22	6:b:333:TYR:HD2	1.86	0.41
6:b:280:ASP:OD1	6:b:281:ALA:N	2.54	0.41
6:b:413:LYS:HG2	6:b:416:TYR:CE2	2.55	0.41
6:b:497:ARG:HH11	6:b:501:PRO:C	2.28	0.41
5:h:94:LYS:N	5:h:103:TYR:HA	2.36	0.41
5:h:252:ARG:HH22	10:I:35:DT:H5'	1.86	0.41
5:h:317:LYS:HZ2	5:h:330:GLU:HG2	1.86	0.41
5:h:348:MET:HG3	5:h:410:PHE:CD1	2.56	0.41
5:h:369:TYR:CG	5:h:370:PRO:HD2	2.56	0.41
5:h:466:VAL:O	5:h:470:ARG:N	2.54	0.41
6:j:460:SER:OG	6:j:529:PRO:HG2	2.21	0.41
6:j:655:PHE:CZ	6:j:659:LEU:HD11	2.56	0.41
8:D:37:DG:N3	9:E:20:DT:H4'	2.36	0.41
9:E:18:DG:N3	9:E:19:DC:N4	2.69	0.41
10:I:32:DA:N1	11:J:25:DT:C4	2.89	0.41
11:J:17:DT:H6	11:J:17:DT:H2'	1.70	0.41
1:A:220:LEU:HD12	1:A:220:LEU:HA	1.88	0.41
1:A:327:VAL:HG13	1:A:372:PRO:HG3	2.02	0.41
1:A:489:ARG:O	1:A:493:LYS:NZ	2.54	0.41
1:A:1013:ILE:O	1:A:1017:ILE:HB	2.21	0.41
1:A:2330:VAL:O	1:A:2330:VAL:HG13	2.21	0.41
1:A:2752:LYS:O	1:A:2756:GLU:HG2	2.21	0.41
1:A:3179:TRP:HB3	1:A:3242:MET:HE1	2.02	0.41
1:A:3445:LEU:HA	1:A:3448:GLU:CD	2.45	0.41
1:A:3499:ILE:HA	1:A:3502:MET:SD	2.61	0.41
1:A:3571:PHE:CE1	1:A:3575:LEU:HD21	2.55	0.41
1:A:3789:ARG:HD3	1:A:3938:ILE:HD11	2.02	0.41
1:A:3929:MET:HG2	1:A:3940:ILE:HD13	2.03	0.41
1:A:3983:ILE:HG22	1:A:3984:MET:HE2	2.02	0.41
1:A:4011:PHE:HA	1:A:4014:LYS:HZ3	1.86	0.41
1:F:87:LYS:HD3	1:F:831:LEU:HD13	2.02	0.41
1:F:242:PRO:HB2	1:F:246:ARG:NH2	2.36	0.41
1:F:275:PHE:CE2	1:F:319:PHE:HB2	2.56	0.41
1:F:341:PHE:HB3	1:F:345:PHE:CE2	2.56	0.41
1:F:439:VAL:O	1:F:443:ILE:HG12	2.19	0.41
1:F:745:VAL:HA	1:F:748:TYR:CD2	2.52	0.41
1:F:774:GLU:O	1:F:777:SER:OG	2.36	0.41
1:F:1382:ILE:HD11	1:F:1385:ASN:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1867:ILE:HD11	1:F:1940:TYR:HB2	2.03	0.41
1:F:2251:ILE:HD12	1:F:2253:TYR:OH	2.21	0.41
1:F:2871:LEU:HD12	1:F:2871:LEU:HA	1.93	0.41
1:F:2923:TRP:CE3	1:F:2942:ILE:HG23	2.56	0.41
1:F:3142:ILE:O	1:F:3145:ILE:HG12	2.21	0.41
1:F:3235:LYS:HB3	1:F:3239:LYS:NZ	2.36	0.41
1:F:3516:HIS:HA	1:F:3554:PHE:HZ	1.86	0.41
1:F:4009:PRO:C	1:F:4011:PHE:H	2.29	0.41
2:K:188:LYS:O	2:K:192:ARG:HG3	2.21	0.41
2:O:22:VAL:HG21	2:O:34:ILE:HD12	2.03	0.41
3:P:878:PHE:O	3:P:881:THR:OG1	2.30	0.41
4:Q:132:SER:H	4:R:43:GLN:H	1.69	0.41
4:R:74:CYS:O	4:R:78:ASN:N	2.32	0.41
5:a:64:ILE:HG23	5:a:119:LEU:HG	2.03	0.41
5:a:95:ASN:HD21	5:a:99:PHE:N	2.18	0.41
5:a:143:LEU:HD23	5:a:176:HIS:CE1	2.56	0.41
5:a:179:ASP:OD2	5:a:182:LYS:HE3	2.20	0.41
5:a:498:MET:CE	5:a:498:MET:H	2.34	0.41
6:b:141:ARG:HD2	6:b:141:ARG:HA	1.80	0.41
6:b:151:ILE:HA	6:b:215:LEU:HD21	2.03	0.41
6:j:287:GLU:OE1	6:j:287:GLU:N	2.41	0.41
1:A:95:LYS:HA	1:A:95:LYS:CE	2.51	0.40
1:A:357:LYS:O	1:A:361:ILE:HG12	2.21	0.40
1:A:672:ILE:HA	1:A:675:ARG:HE	1.86	0.40
1:A:1468:LEU:HD21	1:A:1476:HIS:ND1	2.36	0.40
1:A:1569:THR:O	1:A:1573:LYS:HE2	2.20	0.40
1:A:2224:PHE:HA	1:A:2231:PHE:CE1	2.56	0.40
1:A:2481:HIS:NE2	1:A:2530:ARG:HG3	2.35	0.40
1:A:2500:LYS:HE2	1:A:2500:LYS:HB2	1.92	0.40
1:A:2761:LEU:HD12	1:A:2764:LYS:HD2	2.03	0.40
1:A:3044:MET:O	1:A:3047:SER:OG	2.35	0.40
1:A:3074:GLN:O	1:A:3077:ILE:HG12	2.21	0.40
1:A:3189:PHE:O	1:A:3193:ILE:HG12	2.21	0.40
1:A:3319:ASN:HB2	1:A:3321:LEU:HD23	2.02	0.40
1:A:3714:GLU:OE1	1:A:3714:GLU:N	2.54	0.40
1:A:4092:GLN:O	1:A:4095:GLU:HB2	2.21	0.40
1:F:32:HIS:O	1:F:35:ILE:HG22	2.21	0.40
1:F:393:LYS:O	1:F:396:PHE:HB3	2.21	0.40
1:F:738:HIS:HB2	1:F:780:ILE:HD11	2.03	0.40
1:F:1372:LEU:HD22	1:F:1402:LEU:HD21	2.03	0.40
1:F:2247:ASP:OD1	1:F:2247:ASP:N	2.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2413:PHE:HB2	5:h:148:TRP:CH2	2.56	0.40
1:F:3262:LEU:HD13	1:F:3272:TRP:HH2	1.86	0.40
1:F:3712:LEU:HD13	1:F:3712:LEU:HA	1.91	0.40
1:F:3980:MET:O	1:F:3983:ILE:HB	2.22	0.40
2:K:31:GLY:HA3	2:K:47:VAL:O	2.21	0.40
2:K:51:GLU:O	2:K:54:GLN:HG3	2.21	0.40
2:O:22:VAL:HG13	2:O:24:TRP:CZ3	2.57	0.40
5:a:149:VAL:O	5:a:153:LEU:HG	2.21	0.40
5:a:367:PHE:HZ	5:a:369:TYR:HD1	1.69	0.40
5:a:446:MET:HG3	5:a:448:PHE:HE2	1.85	0.40
6:b:60:GLY:N	6:b:76:ASN:O	2.53	0.40
6:b:315:ARG:NH2	6:b:320:ILE:HD11	2.36	0.40
5:h:304:ASN:CG	5:h:307:THR:HG22	2.46	0.40
6:j:122:THR:HG22	6:j:127:PHE:CD2	2.52	0.40
6:j:569:THR:C	6:j:571:GLN:H	2.29	0.40
1:A:774:GLU:HA	1:A:858:MET:HE1	2.04	0.40
1:A:887:ASP:CG	1:A:889:GLU:H	2.29	0.40
1:A:914:VAL:O	1:A:918:ALA:N	2.35	0.40
1:A:1087:ARG:O	1:A:1090:ARG:NE	2.53	0.40
1:A:1201:ASN:C	1:A:1204:PRO:HD2	2.46	0.40
1:A:1475:LEU:HD21	1:A:1527:ARG:HB2	2.03	0.40
1:A:2044:ASP:O	1:A:2048:GLY:N	2.53	0.40
1:A:2428:ASP:O	1:A:2432:GLN:HG2	2.21	0.40
1:A:2446:LEU:HA	1:A:2446:LEU:HD12	1.81	0.40
1:A:2461:PHE:HB2	1:A:2473:MET:SD	2.62	0.40
1:A:2834:GLN:HG3	1:A:2838:GLN:HE21	1.86	0.40
1:A:3312:VAL:O	1:A:3316:LEU:HD22	2.21	0.40
1:A:3420:CYS:HB3	1:A:3446:VAL:HG11	2.04	0.40
1:A:3999:THR:HA	1:A:4002:MET:SD	2.61	0.40
1:F:433:PRO:HA	1:F:436:GLU:HG3	2.03	0.40
1:F:584:GLU:C	1:F:613:HIS:HB3	2.47	0.40
1:F:634:LEU:N	1:F:635:PRO:HD2	2.36	0.40
1:F:1767:CYS:HA	1:F:1822:ARG:HD2	2.03	0.40
1:F:1851:LEU:HD11	1:F:1874:TYR:CE1	2.56	0.40
1:F:1963:GLN:HB2	1:F:2125:TRP:CE2	2.56	0.40
1:F:2101:VAL:HG11	1:F:2153:THR:HG22	2.02	0.40
1:F:2219:LEU:O	1:F:2223:VAL:N	2.53	0.40
1:F:2435:CYS:O	1:F:2439:ILE:HG12	2.22	0.40
1:F:2440:TYR:HA	1:F:2443:MET:CE	2.31	0.40
1:F:2564:GLU:HG2	1:F:2795:GLN:OE1	2.21	0.40
1:F:2850:PHE:CE2	1:F:2879:GLY:HA2	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3169:PRO:HB2	1:F:3179:TRP:CH2	2.57	0.40
2:K:124:ARG:O	2:K:127:ILE:HG22	2.21	0.40
2:K:192:ARG:NH2	3:M:768:ASP:OD1	2.36	0.40
3:M:678:LEU:HD23	3:M:681:ARG:NH2	2.37	0.40
2:N:36:LEU:HD23	2:N:36:LEU:H	1.86	0.40
3:P:681:ARG:HA	3:P:684:GLU:OE1	2.21	0.40
4:R:93:ALA:HA	4:R:111:GLU:HB3	2.03	0.40
5:a:358:LYS:O	6:b:353:ARG:NH1	2.51	0.40
5:a:370:PRO:HB3	5:a:382:PHE:CG	2.56	0.40
5:a:446:MET:HG3	5:a:446:MET:O	2.21	0.40
5:a:466:VAL:HG13	6:b:345:PHE:CG	2.56	0.40
6:b:10:VAL:HG22	6:b:131:HIS:HB2	2.03	0.40
6:b:280:ASP:OD2	6:b:283:THR:HG22	2.21	0.40
6:j:74:TYR:H	6:j:109:ASP:HB3	1.86	0.40
6:j:129:LYS:HD3	6:j:131:HIS:HE2	1.86	0.40
6:j:246:HIS:CE1	6:j:368:ARG:HD2	2.56	0.40
6:j:364:VAL:HB	6:j:419:LEU:HB2	2.02	0.40
11:J:31:DT:C5	11:J:32:DT:C4	3.09	0.40
1:A:57:LEU:O	1:A:60:SER:OG	2.29	0.40
1:A:321:LYS:HD3	1:A:325:ASN:HD21	1.86	0.40
1:A:406:ARG:O	1:A:410:MET:HE3	2.22	0.40
1:A:453:MET:HA	1:A:456:VAL:HB	2.03	0.40
1:A:527:TYR:HB2	1:A:629:PHE:CE2	2.56	0.40
1:A:531:PHE:HA	1:A:534:LEU:HD12	2.04	0.40
1:A:729:CYS:O	1:A:733:LEU:HD23	2.21	0.40
1:A:928:VAL:HB	1:A:2769:VAL:HG11	2.03	0.40
1:A:1430:GLU:N	1:A:1430:GLU:OE1	2.54	0.40
1:A:2268:LYS:HG2	1:A:2315:VAL:CG2	2.52	0.40
1:A:2356:MET:CE	1:A:2358:ASP:HB3	2.52	0.40
1:A:3300:VAL:HG23	1:A:3300:VAL:O	2.21	0.40
1:A:3358:ARG:O	1:A:3362:LEU:N	2.43	0.40
1:A:3517:SER:O	1:A:3521:ILE:HG13	2.21	0.40
1:A:3586:LYS:HG2	1:A:3664:ASN:HD21	1.87	0.40
1:A:3833:ARG:C	1:A:3836:PRO:HD2	2.46	0.40
1:F:51:LEU:HG	1:F:52:ALA:N	2.37	0.40
1:F:217:LEU:O	1:F:218:PRO:C	2.64	0.40
1:F:232:CYS:HA	1:F:235:THR:OG1	2.21	0.40
1:F:1093:GLU:O	1:F:1096:VAL:HG22	2.22	0.40
1:F:1098:GLN:OE1	1:F:1151:ARG:HA	2.22	0.40
1:F:1124:ILE:HG13	1:F:1125:GLN:N	2.37	0.40
1:F:1231:GLN:HG3	1:F:1235:ILE:HD11	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1583:MET:SD	1:F:1628:LYS:HB2	2.61	0.40
1:F:1751:GLU:HG2	1:F:1785:ILE:HG23	2.03	0.40
1:F:2920:VAL:HG12	1:F:2947:ILE:HA	2.02	0.40
1:F:3586:LYS:HD3	1:F:3586:LYS:HA	1.95	0.40
1:F:3774:ILE:HD11	1:F:3998:LEU:HD21	2.03	0.40
1:F:3806:LEU:C	1:F:3808:ASN:H	2.28	0.40
2:K:176:LEU:HD11	2:L:173:GLU:HG3	2.03	0.40
2:L:8:ILE:HG21	2:L:86:PHE:CE2	2.56	0.40
3:M:845:LEU:HD21	3:M:893:TRP:HZ3	1.87	0.40
2:N:179:ARG:O	2:N:182:LEU:HG	2.21	0.40
2:N:184:LEU:O	2:N:188:LYS:HE2	2.21	0.40
2:O:20:LEU:HD21	2:O:35:THR:HG22	2.04	0.40
4:Q:1:MET:HE1	4:Q:3:GLU:H	1.85	0.40
4:Q:54:VAL:HG13	4:Q:57:ARG:NH2	2.37	0.40
4:Q:65:LEU:HG	4:Q:66:THR:H	1.87	0.40
4:R:20:GLU:HB3	4:R:99:CYS:HB2	2.04	0.40
6:b:59:PHE:HB2	6:b:77:ILE:HG12	2.04	0.40
5:h:318:ARG:HG3	6:j:278:VAL:HG22	2.02	0.40
5:h:469:LEU:HG	5:h:518:LEU:HD21	2.03	0.40
6:j:144:LYS:HE3	6:j:207:ILE:HG13	2.02	0.40
6:j:660:LYS:HE2	6:j:660:LYS:HB2	1.87	0.40
8:D:24:DT:N3	9:E:33:DA:H2	2.18	0.40
11:J:24:DT:H2"	11:J:25:DT:N1	2.36	0.40
1:A:127:ALA:O	1:A:131:LEU:HG	2.22	0.40
1:A:160:LEU:HD12	1:A:161:ALA:N	2.35	0.40
1:A:643:GLU:O	1:A:646:VAL:HG22	2.22	0.40
1:A:717:LYS:HA	1:A:717:LYS:HD2	1.87	0.40
1:A:832:LYS:C	1:A:834:LEU:N	2.78	0.40
1:A:835:LYS:HB3	1:A:835:LYS:HE3	1.81	0.40
1:A:965:THR:C	1:A:969:LEU:HG	2.46	0.40
1:A:1017:ILE:HG23	1:A:1077:GLY:C	2.47	0.40
1:A:1693:VAL:HG11	1:A:1746:PHE:CG	2.56	0.40
1:A:1820:VAL:HG21	1:A:1872:GLY:HA2	2.03	0.40
1:A:2880:CYS:HA	1:A:2885:GLN:HB2	2.02	0.40
1:A:3088:LEU:HD21	1:A:3138:ILE:HG21	2.04	0.40
1:A:3164:TRP:O	1:A:3168:TYR:N	2.54	0.40
1:A:3483:MET:SD	1:A:3511:ALA:HA	2.62	0.40
1:A:3492:CYS:SG	1:A:3711:PRO:HD3	2.61	0.40
1:A:3958:LEU:HD22	1:A:4115:ASN:CB	2.50	0.40
1:A:3970:LEU:HD23	1:A:3971:MET:H	1.86	0.40
1:A:3995:PRO:O	1:A:3999:THR:HG23	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:208:MET:SD	1:F:252:VAL:HG11	2.62	0.40
1:F:217:LEU:N	1:F:218:PRO:HD2	2.35	0.40
1:F:341:PHE:O	1:F:344:GLN:N	2.55	0.40
1:F:763:THR:OG1	1:F:764:PRO:HD3	2.22	0.40
1:F:828:LYS:HE2	1:F:828:LYS:HA	2.04	0.40
1:F:1690:GLY:C	1:F:1745:LYS:HD3	2.47	0.40
1:F:2295:GLN:HG3	1:F:2298:GLU:H	1.85	0.40
1:F:2776:ARG:HE	1:F:2776:ARG:HB2	1.76	0.40
1:F:3320:ILE:HD13	1:F:3394:GLU:HB2	2.03	0.40
1:F:3463:LEU:HD23	1:F:3498:TRP:CH2	2.56	0.40
1:F:3508:LYS:HB3	1:F:3510:GLN:HG2	2.03	0.40
1:F:3551:ASN:O	1:F:3555:VAL:HG13	2.21	0.40
3:M:740:PRO:HD2	3:M:741:ARG:NH1	2.35	0.40
2:N:57:ASP:HB3	4:Q:62:ASN:OD1	2.22	0.40
2:O:166:VAL:O	2:O:170:GLU:HG3	2.21	0.40
4:R:31:LYS:HD2	4:R:31:LYS:HA	1.86	0.40
5:a:278:GLN:HB3	6:b:431:ARG:NH1	2.36	0.40
5:a:350:PHE:CE2	6:b:458:ILE:HG12	2.55	0.40
5:a:476:ASP:HA	6:b:427:MET:HB3	2.04	0.40
6:b:57:VAL:HA	6:b:79:VAL:HA	2.03	0.40
5:h:61:ASP:HB2	5:h:124:GLY:H	1.87	0.40
5:h:331:LYS:O	5:h:334:THR:HB	2.21	0.40
5:h:332:GLU:O	5:h:336:GLU:OE1	2.40	0.40
5:h:525:PHE:HZ	6:j:376:ALA:HA	1.86	0.40
1:A:114:VAL:O	1:A:119:ARG:HB3	2.22	0.40
1:A:225:LYS:HZ2	1:A:271:GLY:N	2.19	0.40
1:A:739:ASN:HA	1:A:742:GLU:CD	2.47	0.40
1:A:1020:PRO:HA	1:A:1073:PHE:CZ	2.57	0.40
1:A:1445:ARG:HB3	1:A:1510:LEU:HD11	2.03	0.40
1:A:1733:THR:HG22	6:b:580:SER:N	2.37	0.40
1:A:2217:ASN:O	1:A:2221:LYS:HG2	2.21	0.40
1:A:3035:PHE:HA	1:A:3038:GLU:CG	2.52	0.40
1:A:3325:ASP:O	1:A:3329:LEU:HG	2.21	0.40
1:A:3364:GLY:HA3	1:A:3373:VAL:HG13	2.03	0.40
1:A:3578:LEU:HD11	1:A:3681:LYS:HE3	2.04	0.40
1:A:4010:SER:O	1:A:4014:LYS:HG2	2.21	0.40
1:F:13:LEU:HB2	1:F:59:PHE:CZ	2.57	0.40
1:F:204:LEU:HD21	1:F:224:LEU:HD22	2.04	0.40
1:F:275:PHE:HE2	1:F:319:PHE:HB2	1.87	0.40
1:F:452:LYS:O	1:F:456:VAL:HG23	2.22	0.40
1:F:580:ASP:O	1:F:581:LEU:HD23	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:793:LEU:HD21	1:F:866:ILE:HG22	2.02	0.40
1:F:1184:ARG:HD3	1:F:1266:CYS:SG	2.61	0.40
1:F:1560:TYR:CZ	1:F:1596:VAL:HA	2.57	0.40
1:F:2925:GLU:O	1:F:2929:LEU:HG	2.22	0.40
1:F:3154:GLN:O	1:F:3156:PRO:HD3	2.21	0.40
1:F:3227:ILE:O	1:F:3231:ILE:HG23	2.22	0.40
1:F:3534:ILE:O	1:F:3538:GLU:HG3	2.20	0.40
1:F:3628:PHE:O	1:F:3631:LYS:HG2	2.21	0.40
1:F:3958:LEU:HB2	1:F:4115:ASN:ND2	2.35	0.40
3:M:659:PHE:HB2	3:M:685:PHE:O	2.21	0.40
3:M:815:ARG:NH1	3:M:815:ARG:HA	2.37	0.40
2:N:184:LEU:HB3	2:N:188:LYS:HZ1	1.86	0.40
2:O:43:TRP:HD1	2:O:116:VAL:H	1.69	0.40
2:O:55:GLU:HB3	2:O:66:TYR:CZ	2.56	0.40
4:Q:134:HIS:HA	4:Q:137:ARG:HH21	1.85	0.40
4:Q:176:ARG:NH2	5:h:177:GLY:HA2	2.37	0.40
5:a:251:THR:OG1	6:b:431:ARG:NE	2.53	0.40
6:b:523:THR:O	6:b:527:GLN:HG3	2.21	0.40
5:h:161:MET:HB2	5:h:164:LYS:HE3	2.04	0.40
5:h:167:MET:CE	5:h:203:MET:HB3	2.51	0.40
5:h:263:LEU:HD23	5:h:263:LEU:HA	1.82	0.40
5:h:461:LYS:NZ	5:h:524:GLU:HB2	2.37	0.40
9:E:43:DT:H2'	9:E:44:DG:N7	2.36	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	3436/4128 (83%)	3110 (90%)	321 (9%)	5 (0%)	48	83
1	F	3467/4128 (84%)	3148 (91%)	319 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	K	199/336 (59%)	179 (90%)	20 (10%)	0	100	100
2	L	191/336 (57%)	182 (95%)	9 (5%)	0	100	100
2	N	199/336 (59%)	186 (94%)	13 (6%)	0	100	100
2	O	190/336 (56%)	183 (96%)	7 (4%)	0	100	100
3	M	256/911 (28%)	238 (93%)	18 (7%)	0	100	100
3	P	242/911 (27%)	218 (90%)	21 (9%)	3 (1%)	10	43
4	Q	210/299 (70%)	185 (88%)	24 (11%)	1 (0%)	24	63
4	R	219/299 (73%)	192 (88%)	26 (12%)	1 (0%)	24	63
5	a	503/609 (83%)	464 (92%)	39 (8%)	0	100	100
5	h	503/609 (83%)	471 (94%)	32 (6%)	0	100	100
6	b	640/732 (87%)	599 (94%)	41 (6%)	0	100	100
6	j	624/732 (85%)	597 (96%)	27 (4%)	0	100	100
7	c	21/204 (10%)	21 (100%)	0	0	100	100
7	i	21/204 (10%)	21 (100%)	0	0	100	100
All	All	10921/15110 (72%)	9994 (92%)	917 (8%)	10 (0%)	49	83

All (10) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	218	PRO
3	P	814	ARG
4	Q	131	VAL
1	A	216	LYS
3	P	812	MET
3	P	813	PHE
4	R	42	GLN
1	A	3170	ASP
1	A	3168	TYR
1	A	3304	VAL

5.3.2 Protein sidechains ⓘ

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

The Analysed column shows the number of residues for which the sidechain conformation was

analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3097/3671 (84%)	3095 (100%)	2 (0%)	88	88
1	F	3109/3671 (85%)	3108 (100%)	1 (0%)	100	100
2	K	180/303 (59%)	180 (100%)	0	100	100
2	L	176/303 (58%)	176 (100%)	0	100	100
2	N	178/303 (59%)	178 (100%)	0	100	100
2	O	177/303 (58%)	177 (100%)	0	100	100
3	M	232/808 (29%)	232 (100%)	0	100	100
3	P	217/808 (27%)	216 (100%)	1 (0%)	81	81
4	Q	192/262 (73%)	191 (100%)	1 (0%)	81	81
4	R	200/262 (76%)	200 (100%)	0	100	100
5	a	445/548 (81%)	445 (100%)	0	100	100
5	h	445/548 (81%)	445 (100%)	0	100	100
6	b	583/649 (90%)	583 (100%)	0	100	100
6	j	562/649 (87%)	562 (100%)	0	100	100
7	c	18/160 (11%)	18 (100%)	0	100	100
7	i	17/160 (11%)	17 (100%)	0	100	100
All	All	9828/13408 (73%)	9823 (100%)	5 (0%)	87	88

All (5) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	217	LEU
1	A	218	PRO
1	F	2170	GLN
3	P	813	PHE
4	Q	131	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (141) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	40	GLN
1	A	207	GLN
1	A	250	ASN
1	A	325	ASN

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Mol	Chain	Res	Type
1	A	409	GLN
1	A	676	ASN
1	A	720	GLN
1	A	857	GLN
1	A	935	HIS
1	A	1071	ASN
1	A	1331	ASN
1	A	1465	HIS
1	A	1509	GLN
1	A	1603	GLN
1	A	2183	HIS
1	A	2217	ASN
1	A	2234	ASN
1	A	2348	GLN
1	A	2352	HIS
1	A	2354	ASN
1	A	2426	HIS
1	A	2472	GLN
1	A	2534	ASN
1	A	2574	ASN
1	A	2954	GLN
1	A	3084	GLN
1	A	3093	GLN
1	A	3133	GLN
1	A	3166	ASN
1	A	3263	HIS
1	A	3339	ASN
1	A	3384	HIS
1	A	3423	GLN
1	A	3494	GLN
1	A	3564	GLN
1	A	3660	ASN
1	A	3716	HIS
1	A	3743	HIS
1	A	4088	ASN
1	F	40	GLN
1	F	54	GLN
1	F	192	ASN
1	F	207	GLN
1	F	233	ASN
1	F	330	ASN
1	F	336	ASN

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Mol	Chain	Res	Type
1	F	399	GLN
1	F	720	GLN
1	F	753	GLN
1	F	839	ASN
1	F	960	GLN
1	F	982	GLN
1	F	990	GLN
1	F	1047	GLN
1	F	1071	ASN
1	F	1115	HIS
1	F	1126	GLN
1	F	1201	ASN
1	F	1268	ASN
1	F	1374	GLN
1	F	1426	GLN
1	F	1509	GLN
1	F	1568	ASN
1	F	1611	GLN
1	F	1614	GLN
1	F	1691	GLN
1	F	1770	GLN
1	F	1830	HIS
1	F	1957	ASN
1	F	2103	HIS
1	F	2152	ASN
1	F	2170	GLN
1	F	2213	ASN
1	F	2233	HIS
1	F	2234	ASN
1	F	2291	GLN
1	F	2295	GLN
1	F	2306	ASN
1	F	2432	GLN
1	F	2574	ASN
1	F	2864	GLN
1	F	2971	GLN
1	F	3093	GLN
1	F	3112	GLN
1	F	3113	ASN
1	F	3162	ASN
1	F	3326	GLN
1	F	3327	ASN

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Mol	Chain	Res	Type
1	F	3422	GLN
1	F	3459	ASN
1	F	3510	GLN
1	F	3515	GLN
1	F	3787	GLN
1	F	4088	ASN
2	K	118	ASN
2	L	18	HIS
2	L	141	ASN
2	L	185	ASN
3	M	718	HIS
2	N	18	HIS
2	N	54	GLN
2	N	137	ASN
2	O	21	GLN
2	O	196	ASN
3	P	691	GLN
3	P	718	HIS
3	P	907	ASN
4	Q	42	GLN
4	Q	43	GLN
4	Q	48	GLN
4	Q	56	GLN
4	Q	75	HIS
4	Q	78	ASN
4	Q	133	GLN
4	Q	215	GLN
4	R	32	GLN
4	R	62	ASN
4	R	78	ASN
5	a	110	ASN
5	a	137	HIS
5	a	359	HIS
6	b	22	ASN
6	b	76	ASN
6	b	246	HIS
6	b	350	GLN
6	b	411	HIS
6	b	488	GLN
6	b	500	HIS
6	b	551	GLN
6	b	618	ASN

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Mol	Chain	Res	Type
6	b	627	ASN
5	h	101	ASN
5	h	110	ASN
5	h	416	GLN
6	j	33	GLN
6	j	66	ASN
6	j	80	HIS
6	j	269	GLN
6	j	312	GLN
6	j	330	GLN
6	j	404	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](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

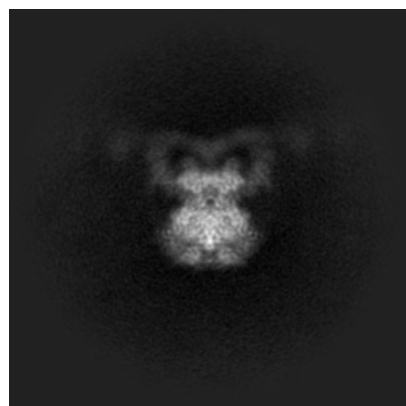
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-16070. These allow visual inspection of the internal detail of the map and identification of artifacts.

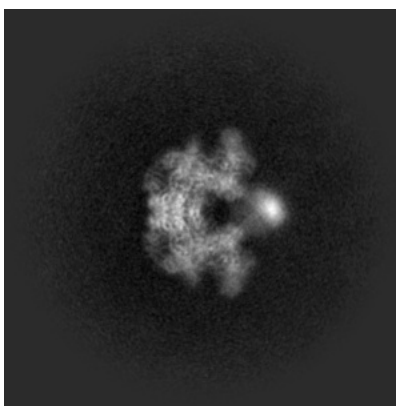
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

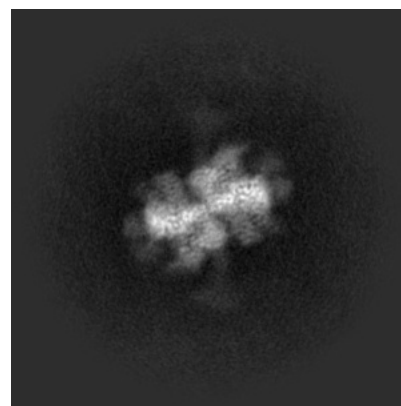
6.1.1 Primary map



X

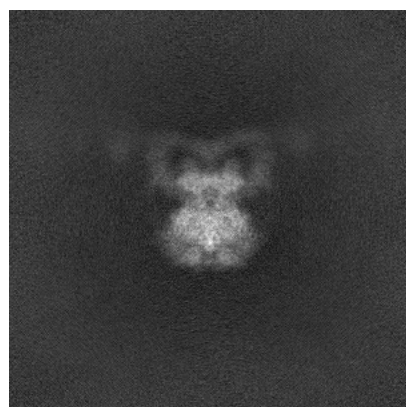


Y

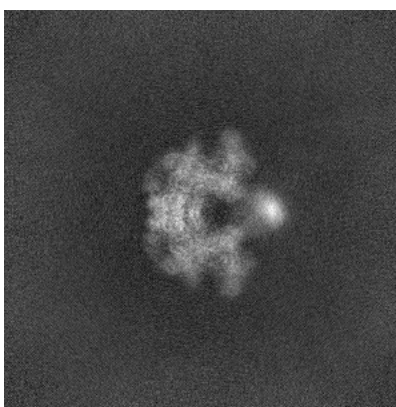


Z

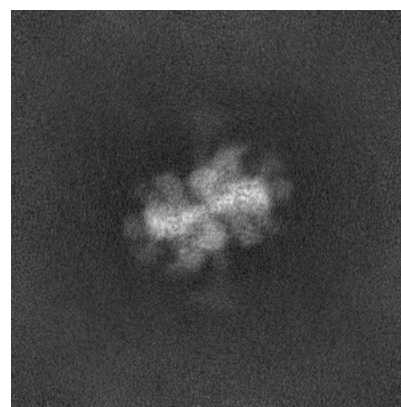
6.1.2 Raw map



X



Y

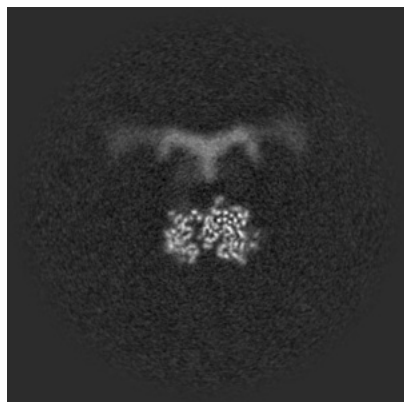


Z

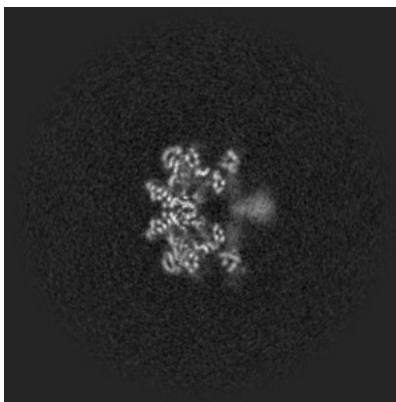
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

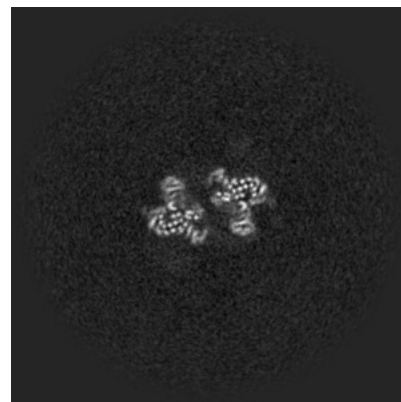
6.2.1 Primary map



X Index: 260

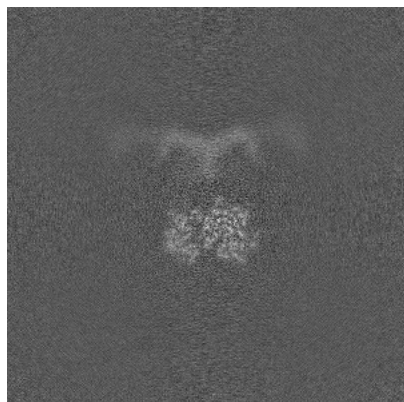


Y Index: 260

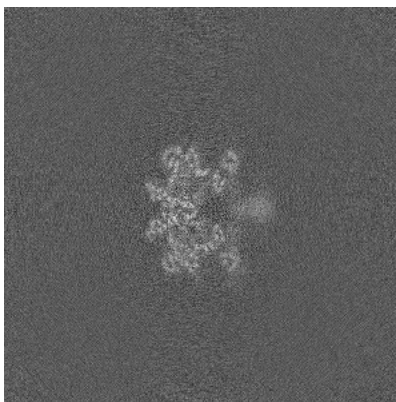


Z Index: 260

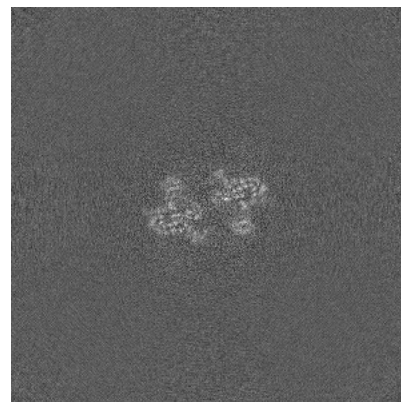
6.2.2 Raw map



X Index: 260



Y Index: 260

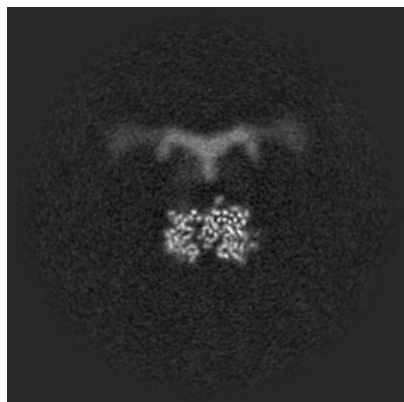


Z Index: 260

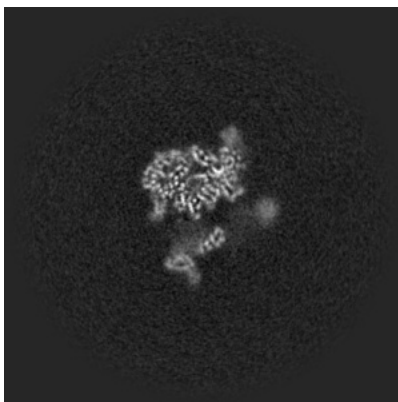
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

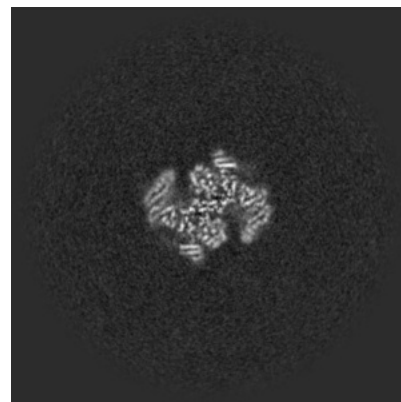
6.3.1 Primary map



X Index: 259

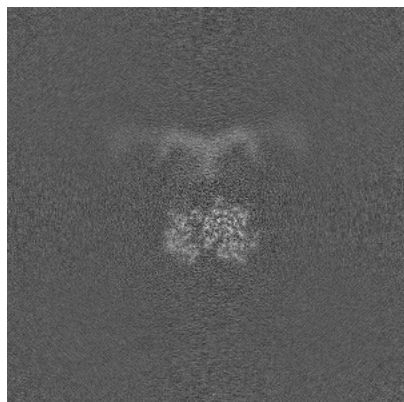


Y Index: 275

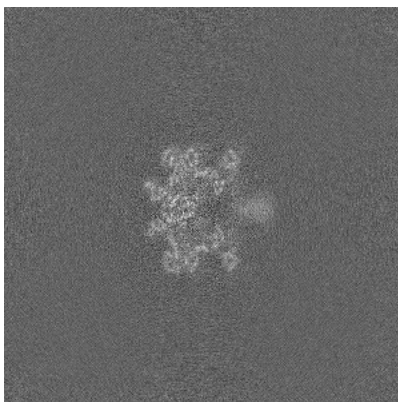


Z Index: 229

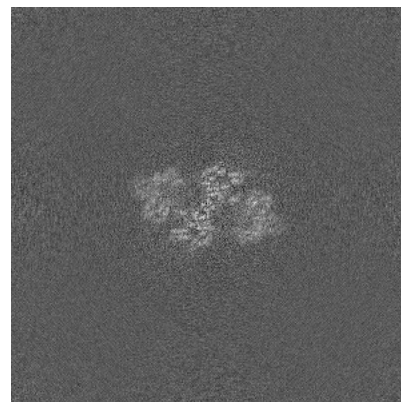
6.3.2 Raw map



X Index: 260



Y Index: 262

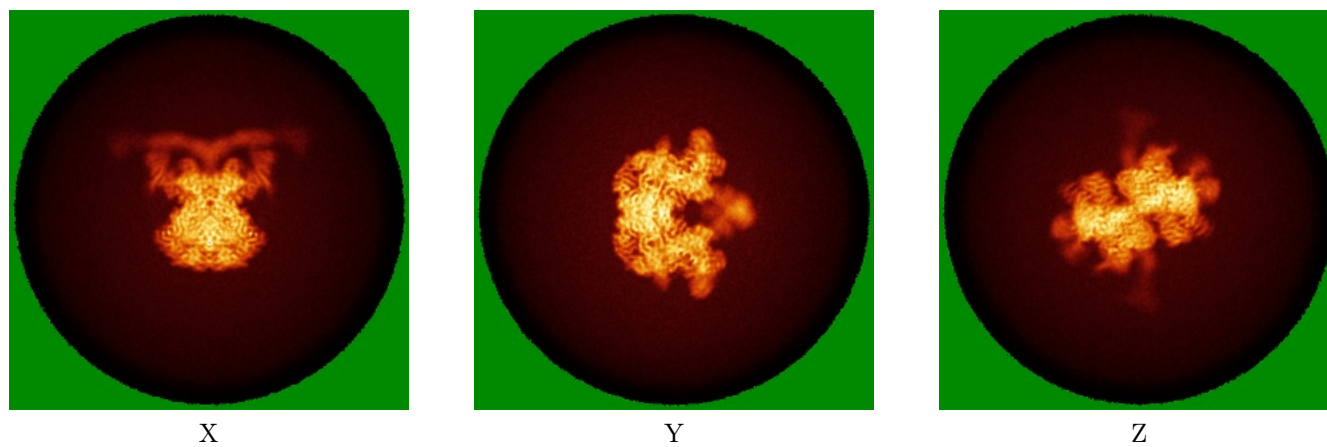


Z Index: 242

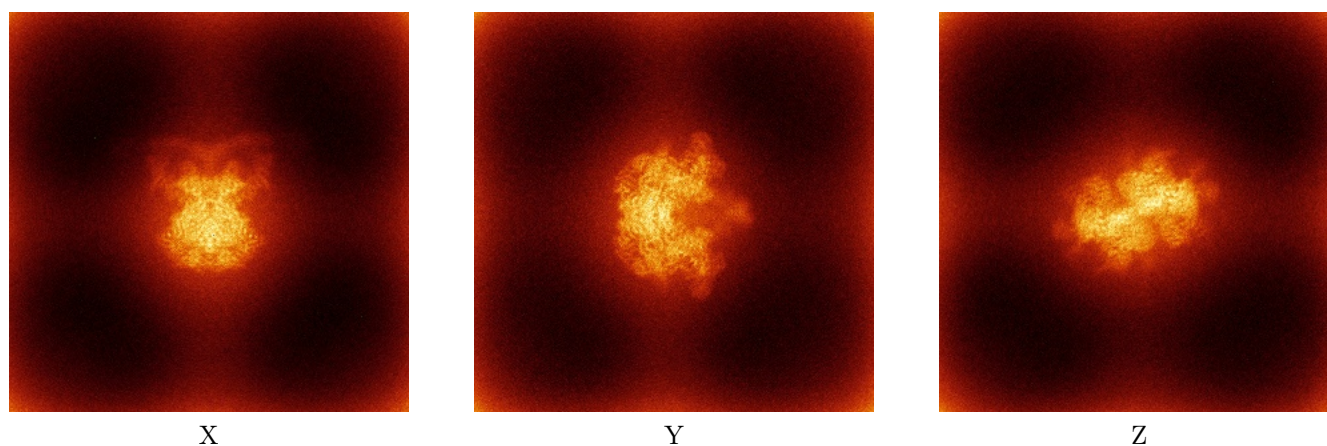
The images above show the largest variance slices of the map in three orthogonal directions.

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

6.4.1 Primary map



6.4.2 Raw map



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](#)

This section was not generated.

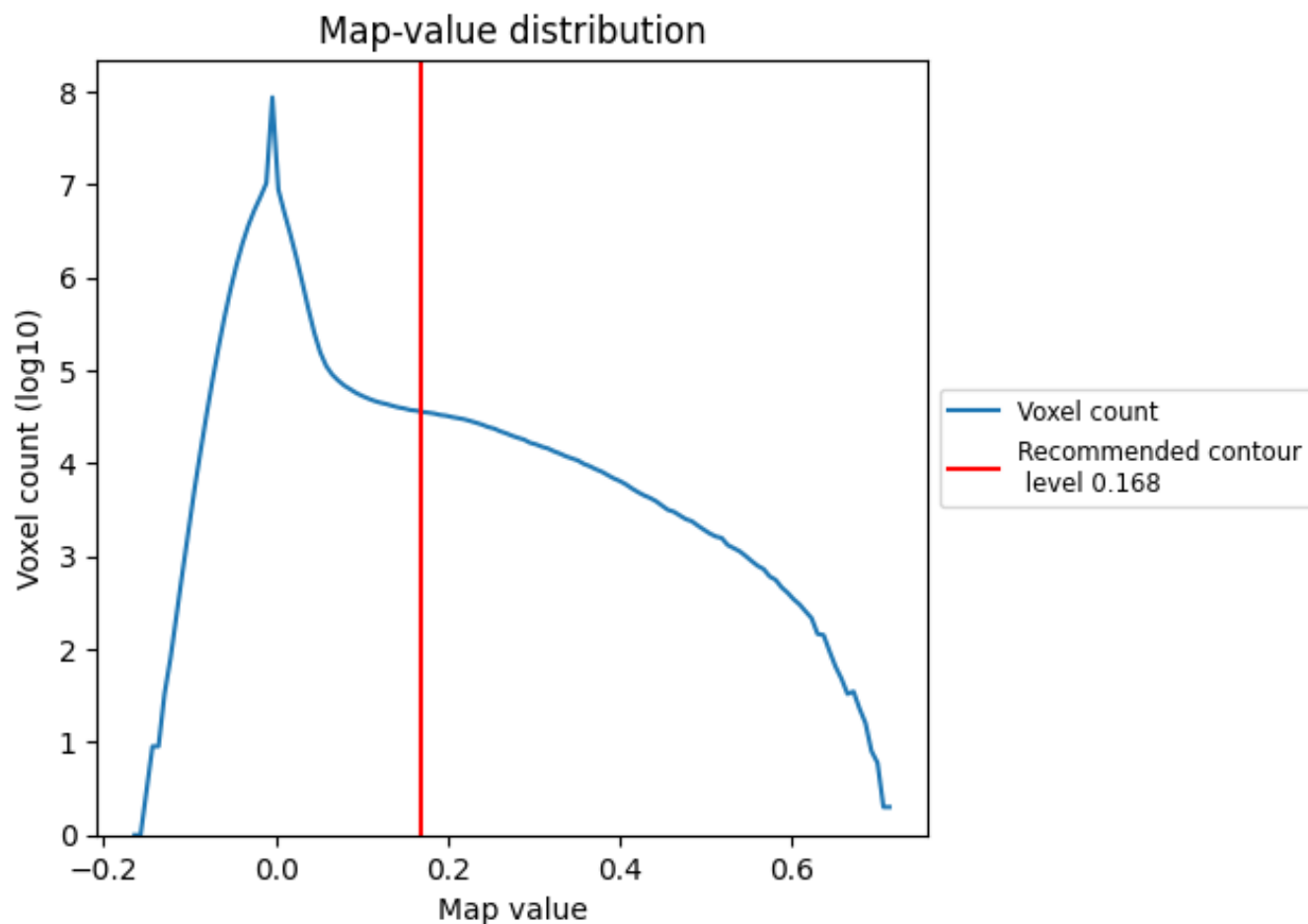
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

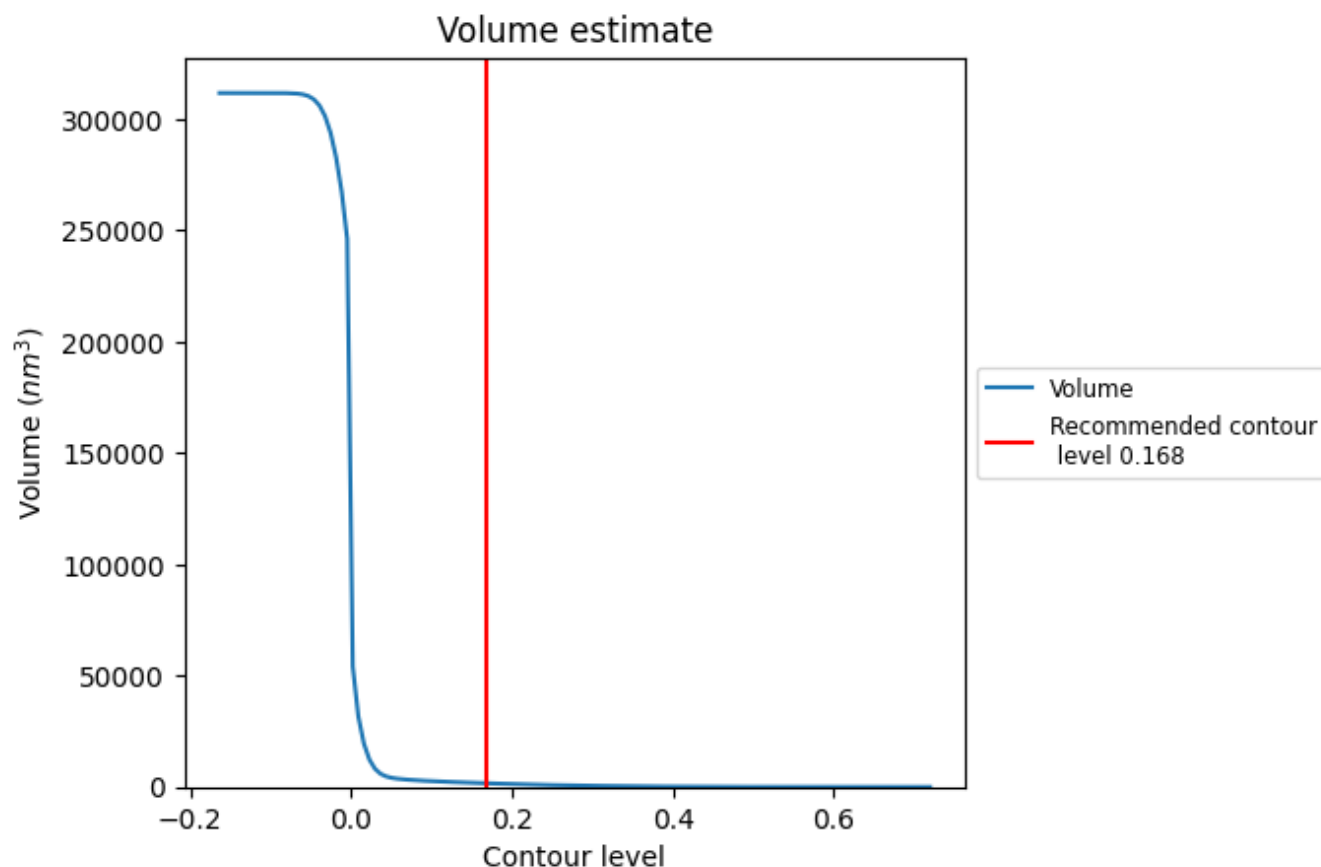
This section contains the results of statistical analysis of the map.

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.

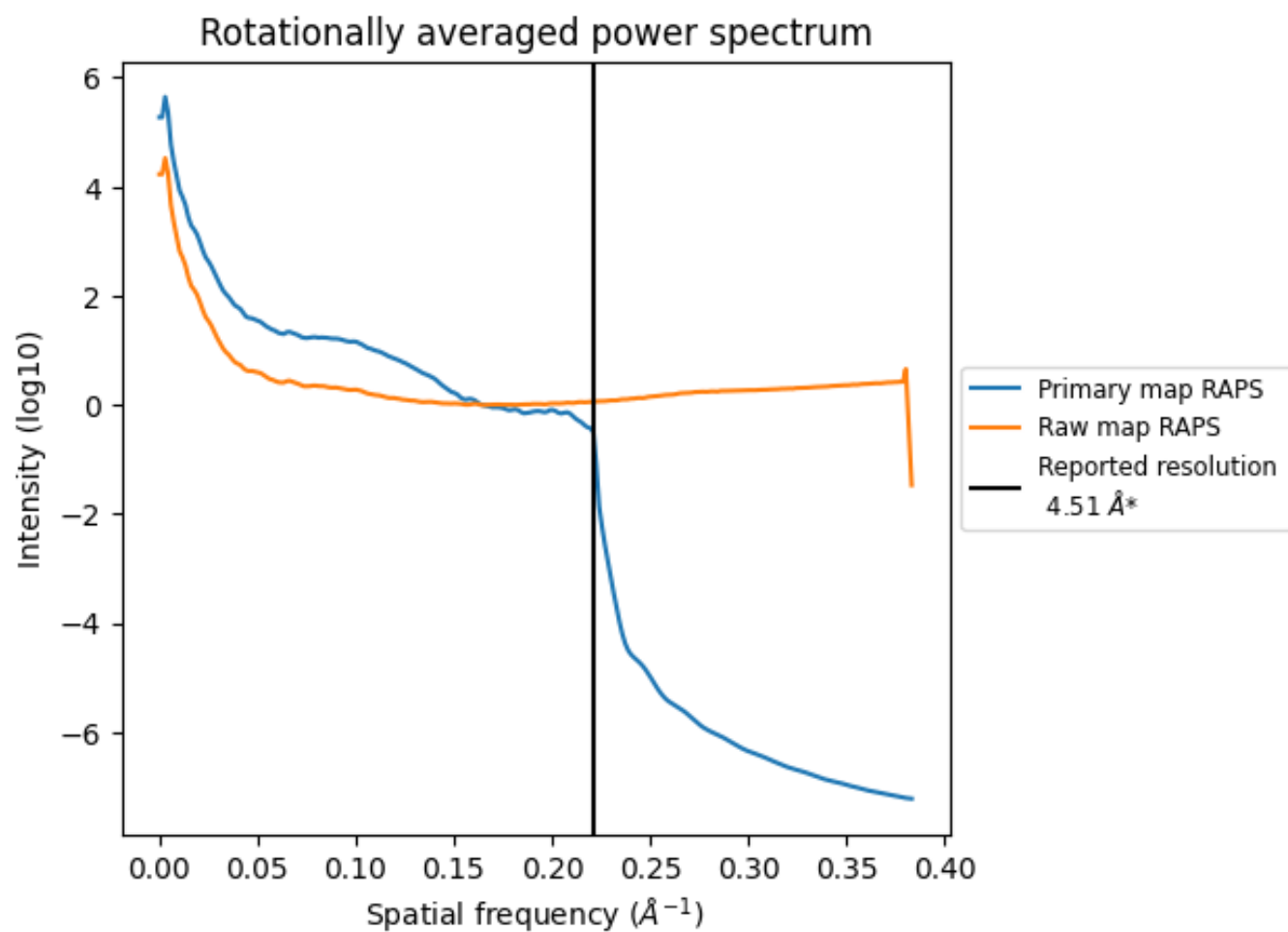
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1663 nm³; this corresponds to an approximate mass of 1502 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](#)

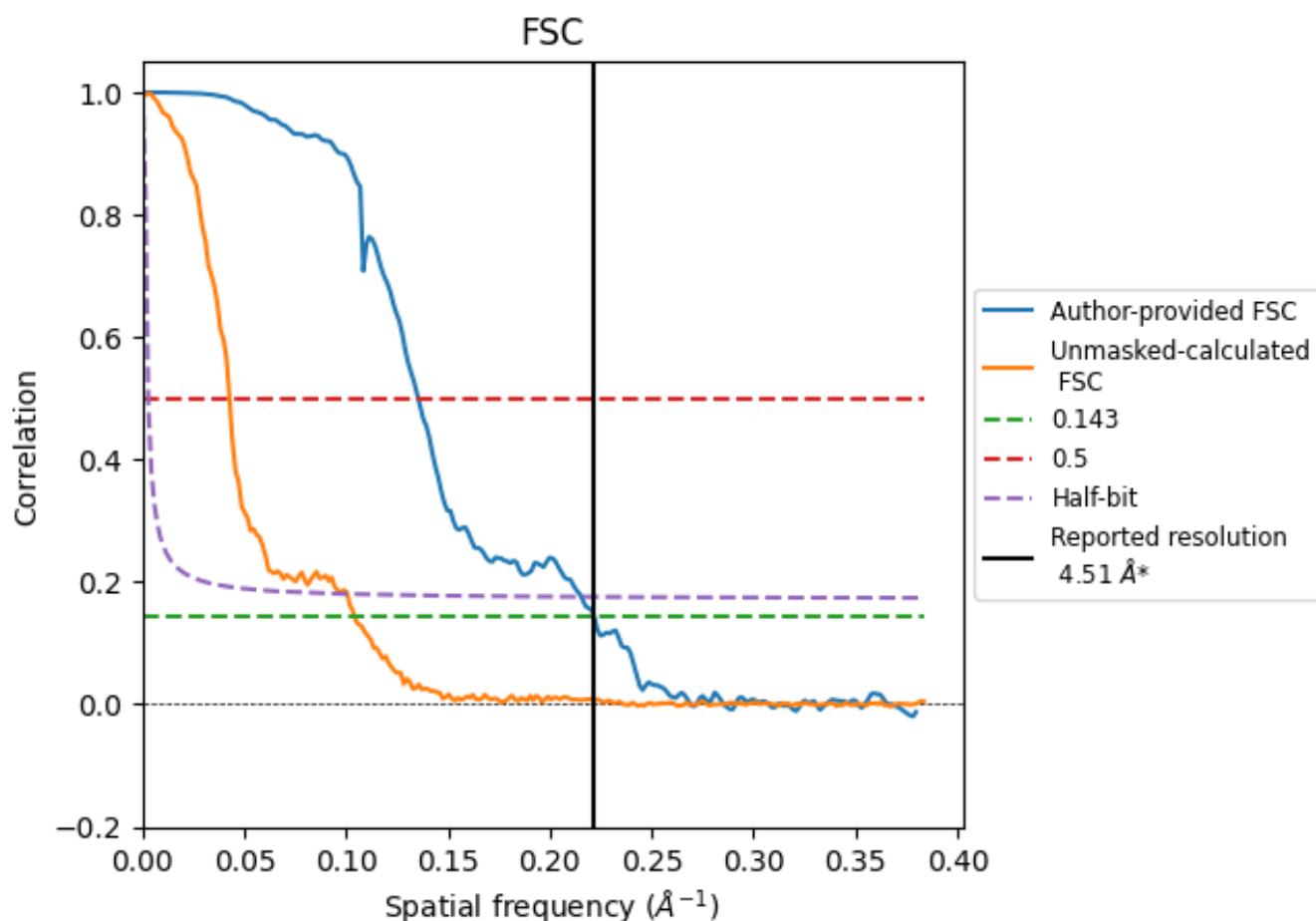


*Reported resolution corresponds to spatial frequency of 0.222 $\text{\AA}^{-1}$

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.222 Å⁻¹

8.2 Resolution estimates [i](#)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.51	-	-
Author-provided FSC curve	4.51	7.39	4.64
Unmasked-calculated*	9.60	23.42	9.95

*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 9.60 differs from the reported value 4.51 by more than 10 %

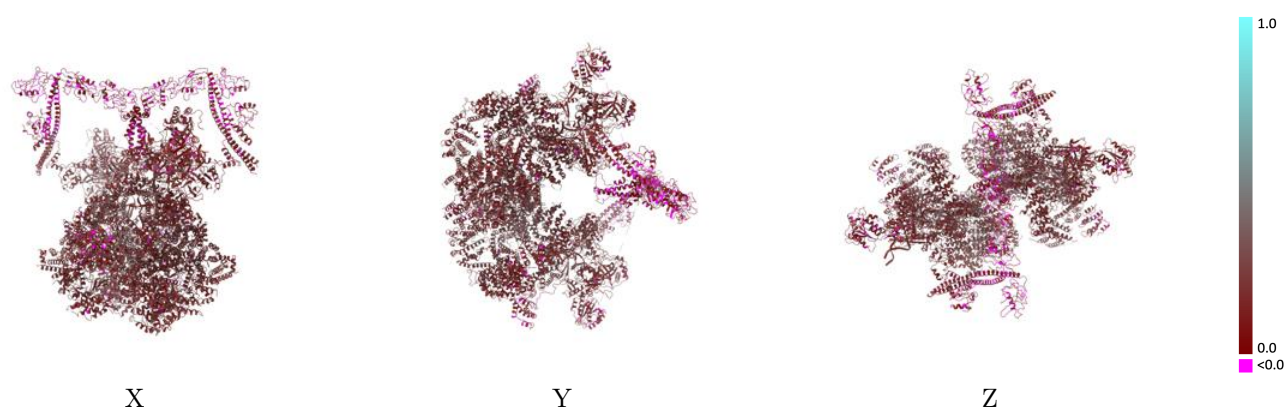
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-16070 and PDB model 8BHV. Per-residue inclusion information can be found in section 3 on page 7.

9.1 Map-model overlay [i](#)

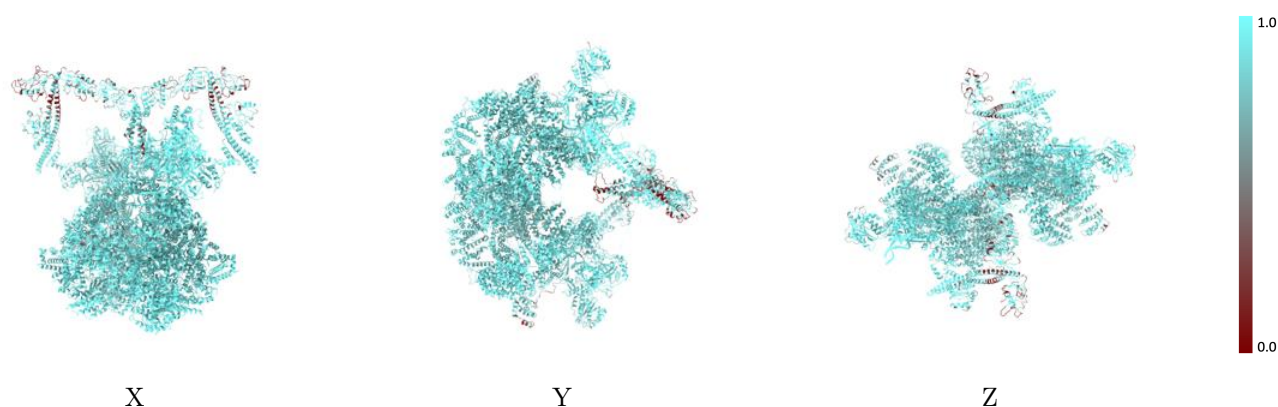
This section was not generated.

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



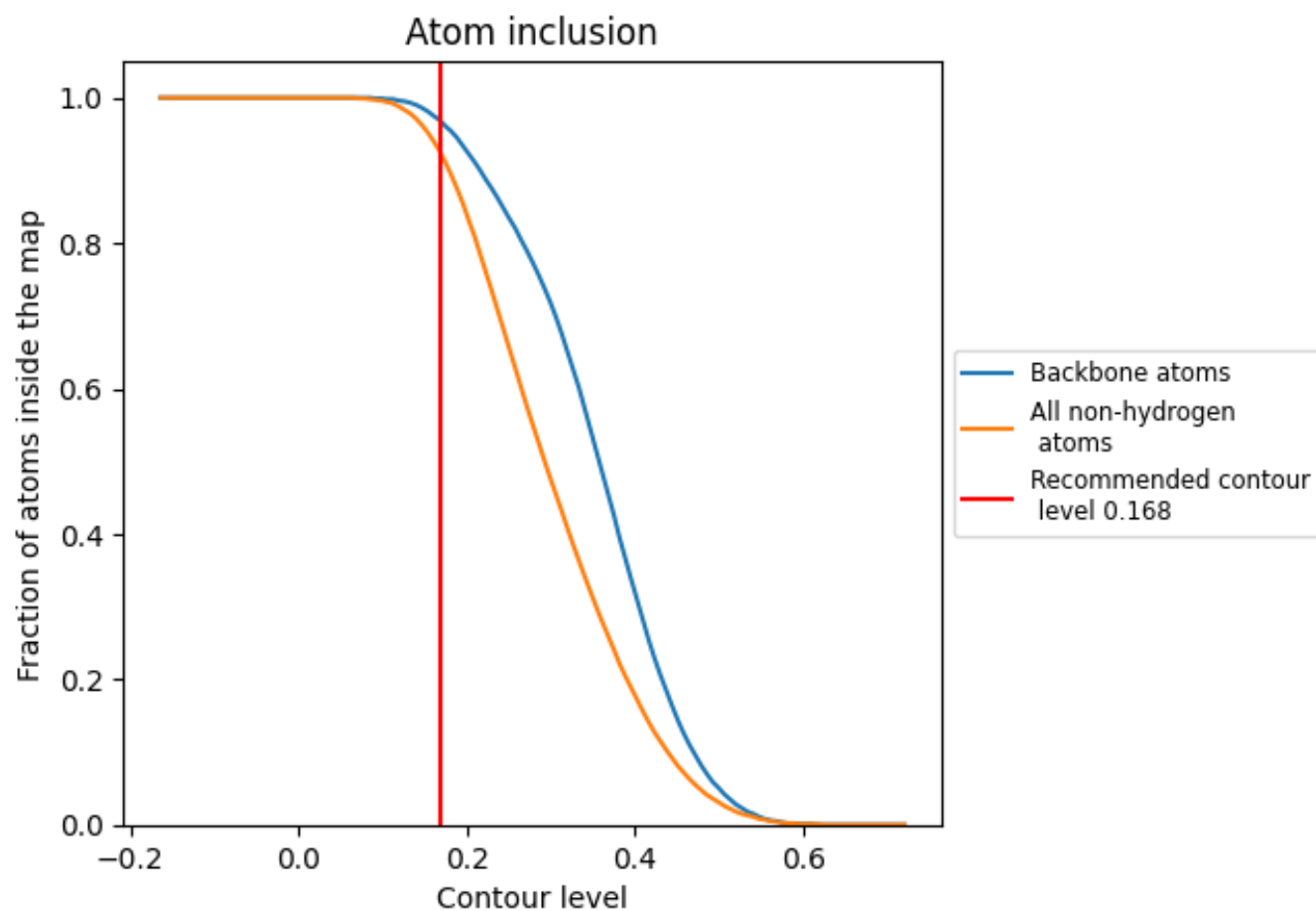
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.168).

9.4 Atom inclusion [i](#)



At the recommended contour level, 97% of all backbone atoms, 93% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.168) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9260	 0.2030
A	 0.9500	 0.2210
D	 0.9570	 0.2520
E	 0.9790	 0.2310
F	 0.9560	 0.2290
I	 0.9720	 0.2110
J	 0.9800	 0.2680
K	 0.7510	 0.0990
L	 0.6330	 0.1040
M	 0.9080	 0.1520
N	 0.8230	 0.0990
O	 0.6800	 0.1210
P	 0.9420	 0.1500
Q	 0.8030	 0.0910
R	 0.7830	 0.0720
a	 0.9610	 0.2170
b	 0.8810	 0.1760
c	 0.9700	 0.2440
h	 0.9610	 0.2310
i	 0.9940	 0.2550
j	 0.9380	 0.1920

