



Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 09:34 AM UTC

PDB ID : 5NP0 / pdb_00005np0
EMDB ID : EMD-3669
Title : Closed dimer of human ATM (Ataxia telangiectasia mutated)
Authors : Baretic, D.; Pollard, H.K.; Fisher, D.I.; Johnson, C.M.; Santhanam, B.; Truman, C.M.; Kouba, T.; Fersht, A.R.; Phillips, C.; Williams, R.L.
Deposited on : 2017-04-13
Resolution : 5.70 Å(reported)
Based on initial model : 4JSP

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

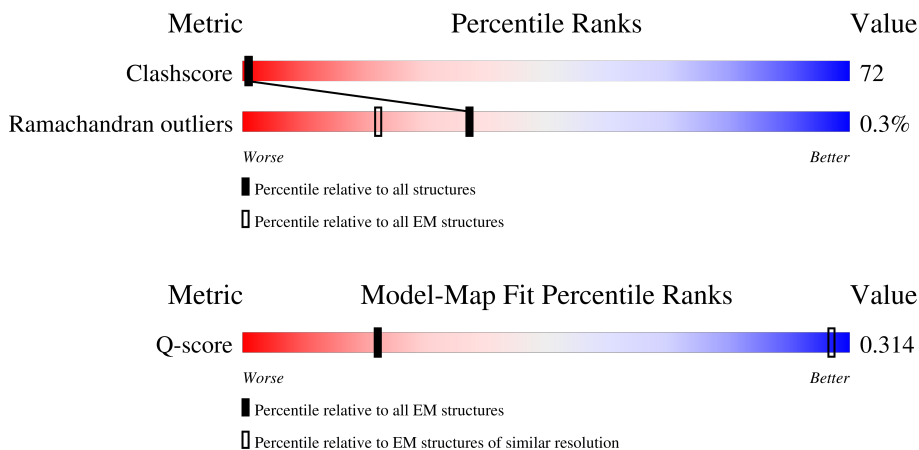
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 5.70 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	-
Q-score	-	25397	503 (5.20 - 6.20)

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	3066	
1	B	3066	

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 25074 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 Serine-protein kinase ATM.

Mol	Chain	Residues	Atoms				AltConf	Trace
1	A	2528	Total	C	N	O	0	0
			12537	7481	2528	2528		
1	B	2528	Total	C	N	O	0	0
			12537	7481	2528	2528		

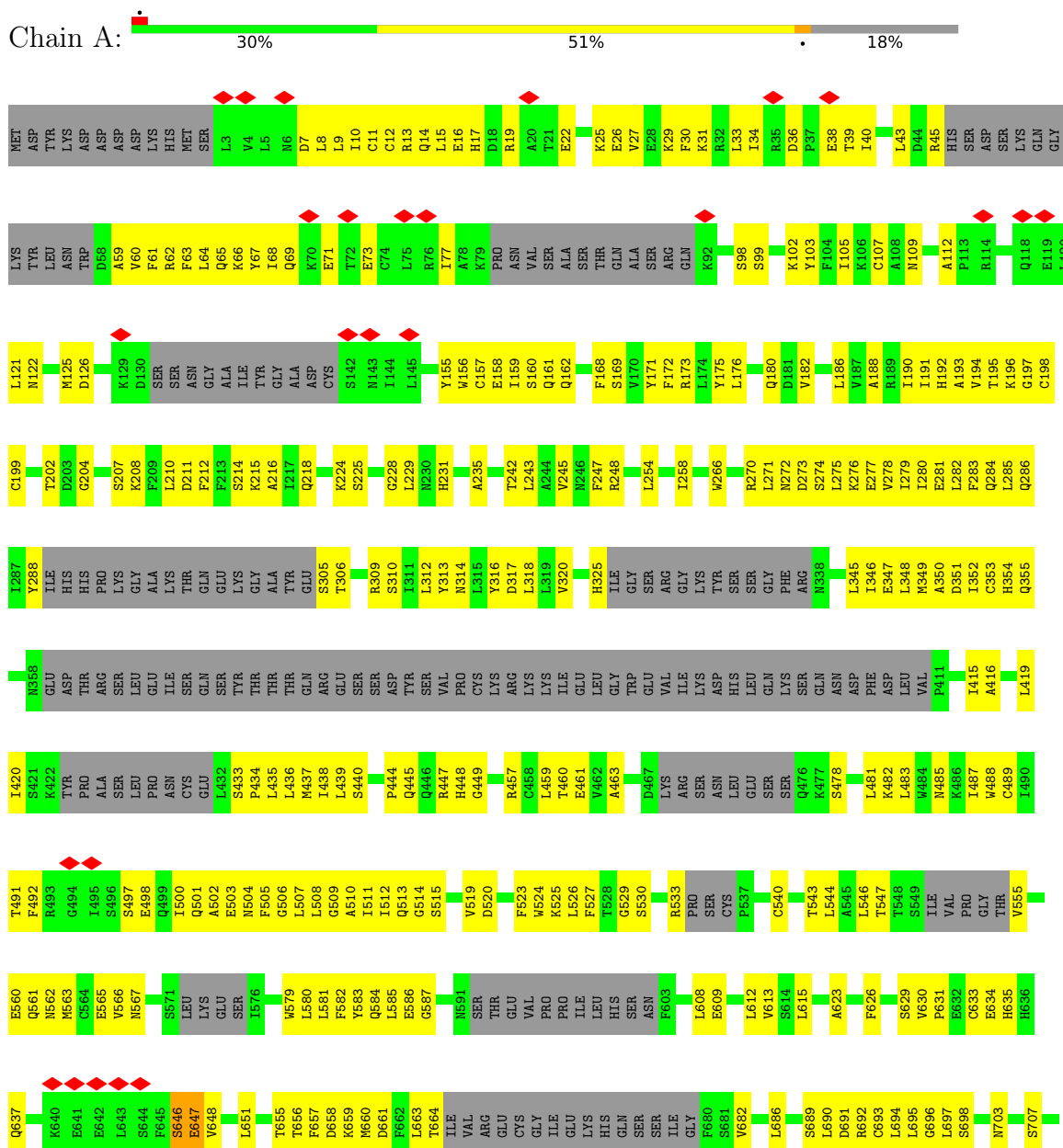
There are 20 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-9	MET	-	initiating methionine	UNP Q13315
A	-8	ASP	-	expression tag	UNP Q13315
A	-7	TYR	-	expression tag	UNP Q13315
A	-6	LYS	-	expression tag	UNP Q13315
A	-5	ASP	-	expression tag	UNP Q13315
A	-4	ASP	-	expression tag	UNP Q13315
A	-3	ASP	-	expression tag	UNP Q13315
A	-2	ASP	-	expression tag	UNP Q13315
A	-1	LYS	-	expression tag	UNP Q13315
A	0	HIS	-	expression tag	UNP Q13315
B	-9	MET	-	initiating methionine	UNP Q13315
B	-8	ASP	-	expression tag	UNP Q13315
B	-7	TYR	-	expression tag	UNP Q13315
B	-6	LYS	-	expression tag	UNP Q13315
B	-5	ASP	-	expression tag	UNP Q13315
B	-4	ASP	-	expression tag	UNP Q13315
B	-3	ASP	-	expression tag	UNP Q13315
B	-2	ASP	-	expression tag	UNP Q13315
B	-1	LYS	-	expression tag	UNP Q13315
B	0	HIS	-	expression tag	UNP Q13315

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: Serine-protein kinase ATM



E1704	R1619	D1548	Q1478	I1E	E1346	ALA	ASP	M1140	Q1076	H993	ASN	V849	ARG	S712
D1705	Q1620	N1549	R1479	LEU	L1347	ASN	PHE	P1141	F1077	Y994	THR	E850	CYS	E713
E1706	K1624	K1550	P1481	SER	T1350	GLN	M1210	T1143	L1078	L995	VAL	D851	LEU	V716
L1708	K1625	D1551	S1481	I1E	L1351	I1E	A1211	T1144	A1079	H996	SER	Q852	ASN	R717
E1709	E1552	C1482	C1483	S1411	L1352	T1276	H1213	D1145	D1080	V997	PHE	S853	CYS	C718
H1710	M1484	E1553	H1483	D1413	H1353	M1279	H1214	R1150	H1082	K999	ARG	S854	THR	L722
D1630	L1485	L1554	S1414	S1414	E1354	K1280	D1215	K1151	H1083	N1000	A921	M855	LYS	L722
F1712	V1486	V1556	V1415	S1416	P1354	K1281	Y1216	L1151	Q1084	L1001	D922	M856	LYS	V725
I1713	L1557	T1558	Q1416	K1417	A1355	L1282	V1217	L1154	V1085	Q1002	R924	F858	SER	V725
M1714	R1632	I1557	K1417	L1418	N1356	L1283	V1218	L1155	R1086	Q1003	R924	N859	PRO	
L1715	A1634	I1559	S1490	L1419	S1357	T1284	L1222	L1156	M1087	S1004	R925	D860	ASN	Y729
S1635	K1560	R1490	S1358	L1420	S1358	D1285	ASN	T1157	L1088	N1005	K926	Y861	LYS	C730
Y1717	L1561	F1491	A1359	A1421	A1359	C1286	LEU	L1158	A1089	M1006	L927	Y731	ILE	Y731
D1637	D1637	L1492	SER	A1421	SER	C1286	GLN	A1159	E1091	D1007	S933	M732	ALA	M732
M1638	L1493	L1493	GLN	A1421	GLN	C1286	ASP	A1159	SER	G1016	THR	G733	SER	G733
P1639	C1494	C1494	SER	E1424	SER	C1286	THR	V1160	ILE	Q1017	LEU	V734	PHE	V734
T1720	C1495	Q1425	THR	Q1425	THR	C1286	GLY	V1161	ASN	T1020	GLU	I735	PHE	I735
L1722	D1496	M1430	ASP	M1430	ASP	C1286	TYR	S1165	ARG	V1021	PRO	A736	LEU	A736
V1723	L1497	N1430	L1365	N1430	L1365	G1302	GLY	P1166	ARG	F1025	GLY	E737	LEU	E737
E1724	L1498	K1434	C1366	K1434	C1366	T1303	TYR	E1169	ASN	TRP	LEU	A740	LEU	A740
D1725	Q1500	K1435	D1367	K1435	D1367	R1304	ASN	Q1171	LEU	F1025	GLY	Q747	LYS	Q747
C1726	S1500	H1436	F1368	H1436	F1368	Q1309	SER	Q1171	THR	GLY	THR	K748	LYS	K748
L1727	V1501	R1437	S1369	R1437	S1369	A1310	SER	Q1171	ASP	GLY	THR	K749	LEU	K749
V1728	CYS	GLN	D1371	CYS	D1371	Q1312	PRO	A1172	LYS	LEU	THR	W750	LEU	W750
K1580	THR	ALA	L1372	K1580	L1372	E1313	F1236	L1173	GLY	THR	THR	K751	LEU	K751
I1581	VAL	ALA	D1373	I1581	D1373	T1314	I1237	F1174	ASP	GLY	THR	S751	ASN	S751
Y1583	THR	THR	P1374	Y1583	P1374	A1315	L1238	L1175	S1104	ARG	ASP	S752	ASP	S752
G1586	CYS	CYS	A1375	G1586	A1375	K1316	M1240	C1177	S1105	GLY	ALA	M753	ILE	M753
PRO	GLY	GLY	P1376	PRO	P1376	K1317	Y1241	GLY	L1107	K1033	ALA	W754	ALA	W754
PHE	GLY	GLY	ASN	PHE	ASN	VAL	T1242	LYS	L1108	V1038	ASP	C755	ASP	C755
SER	GLY	GLY	P1378	SER	P1378	TYR	T1242	VAL	K1109	L951	ILE	S759	ILE	S759
LEU	ASP	ASP	F1379	LEU	F1379	ASP	N1243	GLY	E953	Y889	CYS	I760	CYS	I760
L1591	L1513	L1513	H1381	L1591	H1381	MET	I1244	ASN	L954	L885	LYS	I761	LYS	I761
E1592	H1516	H1516	P1382	E1592	P1382	LYS	F1247	GLY	E958	SER	LEU	LEU	LEU	LEU
E1593	L1517	L1517	H1383	E1593	H1383	LYS	Y1248	LEU	K971	LYS	LEU	PHE	LYS	PHE
I1594	H1518	H1518	S1384	I1594	S1384	SER	R1249	LEU	S974	ASN	LEU	ASN	ASN	ASN
H1596	V1519	V1519	V1385	H1596	V1385	ASN	S1250	PRO	N975	LYS	LEU	LYS	LYS	LYS
F1597	G1456	G1456	I1386	F1597	I1386	LEU	K1253	HIS	N976	THR	LEU	THR	THR	THR
L1457	V1521	V1521	K1387	L1457	K1387	LEU	V1254	LEU	C977	ASN	PHE	ASN	ASN	ASN
S1599	G1522	G1522	A1388	S1599	A1388	GLY	L1255	V1190	F1120	D1053	LEU	K827	GLU	K827
S1600	Q1531	Q1531	PHE	S1600	PHE	LYS	I1256	K1191	F1121	P1054	LEU	P829	GLU	P829
S1601	V1532	V1532	T1389	S1601	T1389	GLN	P1257	K1192	N1122	Y1055	ASP	S824	GLU	S824
V1602	E1533	E1533	I1E	V1602	I1E	ILE	H1258	V1193	N1123	Y1056	ASP	F825	PHE	F825
F1603	V1534	V1534	ASP	F1603	ASP	ASP	L1259	L1194	A1123	S1056	LEU	D831	ARG	D831
D1604	Q1535	Q1535	HIS	D1604	HIS	HIS	V1260	E1195	Y1124	K1057	LYS	R832	ILE	R832
T1609	K1536	K1536	LEU	T1609	LEU	LEU	I1261	K1196	A1127	V1063	PHE	G833	GLY	G833
R1610	L1465	L1465	PHE	R1610	PHE	PHE	R1262	V1197		D1067	LEU	E834	SER	E834
L1611	R1466	R1466	ILE	L1611	ILE	ILE	S1263	S1198	G1130	D1067	GLN	S837	LEU	S837
E1612	D1467	D1467	SER	E1612	SER	SER	H1264	F1201	E1133	V1070	CYS	M838	ARG	M838
L1539	L1539	L1539	ASN	L1539	ASN	ASN	F1265	Y1201	E1133	N1071	VAL	N843	MET	N843
G1613	H1397	H1397	LYS	G1613	H1397	LYS	D1266	G1202	E1133	K988	THR	G844	GLN	G844
L1541	K1398	K1398	LEU	L1541	K1398	LEU	E1267	T197	E1072	T989	THR	N845	GLN	N845
L1614	Y1470	Y1470	P1341	L1614	P1341	ARG	E1268	ARG	F1073	L990	ALA	L846	CYS	L846
K1615	T1471	T1471	E1342	K1615	E1342	ARG	K1268	LEU	F1074	L991	THR	M847	GLN	M847
D1616	L1472	L1472	V1344	D1616	V1344	LEU	S1270	GLU	E1139	T1075	THR	E848	CYS	E848
L1617	L1473	L1473	V1345	L1617	V1345	LYS	I1271						THR	THR
R1618	SER	SER	ILE	R1618	ILE	ILE	LEU							
	LEU	LEU	GLU		GLU	GLU								







P2648	D2725	F2796	V2862	S2941	E3007
A2649	A2726	S2797	G2863	Q2942	R3008
D2650	V2727	A2798	L2866	L2945	V3009
T2654	M2728	F2799	Q2800	L2946	L3010
K2657	Q2729	Q2801	G2867	T2947	M3011
N2658	V2730	Q2802	H2872	L2948	R3012
L2659	V2731	M2806	N2875	V2949	L3013
E2660	Q2732	GLU	L2876	L2950	Q3014
D2661	Q2733	VAL	L2877	V2951	E3015
E2662	M2734	GLN	L2878	L2952	K3016
P2665	C2735	LYS	N2879	P2956	G3017
T2666	N2736	LYS	E2880	L2957	K3018
P2669	T2737	SER	Q2881	F2958	V3019
L2669	L2738	F2813	S2882	T2961	V3020
T2674	Q2740	E2814	A2883	L2962	G3023
Y2677	R2741	K2816	E2884	N2963	T3024
T2682	T2743	V2819	L2885	K2966	V3025
Q2684	E2744	F2820	H2887	A2967	L3026
S2685	T2745	N2821	L2888	L2968	S3027
F2686	K2746	D2822	F2894	Y2969	V3028
E2689	R2747	V2823	E2895	Q2971	G3029
R2690	K2748	C2824	L2899	Q2972	G3030
L2692	R2749	Q2825	L2900	P2974	Q3031
A2693	V2757	F2827	L2910	D2976	V3032
V2696	V2758	Q2828	T2911	E2975	N3033
K2700	S2761	V2830	D2912	D2976	L3034
L2701	Q2762	Y2833	D2913	E2979	L3035
L2702	R2763	F2834	T2914	L2980	Q3036
D2703	S2764	C2835	V2915	H2981	R3037
C2704	G2765	F2839	D2916	PRO	Q3038
V2705	V2766	L2840	G2917	THR	A3039
G2706	L2767	D2841	M2918	LEU	L3040
S2707	E2768	P2842	G2919	ASN	D3041
D2708	G2772	A2843	T2920	ALA	P3042
G2709	V2773	L2844	T2921	ASP	K3043
K2710	P2774	V2845	G2922	ASP	N3044
E2711	P2775	F2846	V2923	GLN	L3045
R2712	G2776	E2847	G2924	CYS	S3046
R2713	E2777	K2848	V2926	LYS	R3047
Q2714	L2778	R2849	F2927	ARG	L3048
L2715	E2784	L2850	R2928	ASN	F3049
V2716	D2785	A2851	C2930	LEU	P3050
R2719	G2786	Y2852	C2931	ASP	G3051
D2720	A2787	T2853	E2932	D2998	W3052
D2721	H2788	R2854	K2933	D2999	K3053
L2722	K2789	S2855	T2934	Q3000	A3054
N2723	P2793	V2856	M2935	S3001	W3055
Q2724	L2793	A2857	V2937	F3002	V3056
	S2859	T2858	M2938	N3003	
	S2860		R2939	K3004	
			N2940	V3005	
				A3006	

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	25315	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	2.1	Depositor
Minimum defocus (nm)	2500	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	35714	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.099	Depositor
Minimum map value	-0.029	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.004	Depositor
Recommended contour level	0.03	Depositor
Map size ($\text{\AA}$)	428.99997, 428.99997, 428.99997	wwPDB
Map dimensions	300, 300, 300	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.43, 1.43, 1.43	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	0.71	4/12490 (0.0%)	1.04	52/17349 (0.3%)
1	B	0.71	4/12490 (0.0%)	1.04	54/17349 (0.3%)
All	All	0.71	8/24980 (0.0%)	1.04	106/34698 (0.3%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	53
1	B	0	53
All	All	0	106

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	1650	ASN	CA-C	-8.96	1.40	1.52
1	A	1650	ASN	CA-C	-8.92	1.40	1.52
1	B	2169	LEU	N-CA	-5.38	1.40	1.46
1	A	2169	LEU	N-CA	-5.29	1.40	1.46
1	B	3028	VAL	C-O	-5.09	1.18	1.24
1	B	647	GLU	CA-C	-5.09	1.45	1.52
1	A	3028	VAL	C-O	-5.03	1.18	1.24
1	A	647	GLU	CA-C	-5.02	1.45	1.52

All (106) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1053	ASP	CA-C-N	-20.39	97.81	119.83
1	A	1053	ASP	C-N-CA	-20.39	97.81	119.83
1	B	1053	ASP	CA-C-N	-20.38	97.82	119.83
1	B	1053	ASP	C-N-CA	-20.38	97.82	119.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	1353	GLU	CA-C-N	19.84	144.63	119.84
1	B	1353	GLU	C-N-CA	19.84	144.63	119.84
1	A	1353	GLU	CA-C-N	19.81	144.61	119.84
1	A	1353	GLU	C-N-CA	19.81	144.61	119.84
1	A	2765	GLY	N-CA-C	17.95	136.44	115.08
1	B	2765	GLY	N-CA-C	17.90	136.38	115.08
1	A	1924	SER	CA-C-N	-11.44	110.68	120.98
1	A	1924	SER	C-N-CA	-11.44	110.68	120.98
1	B	1924	SER	CA-C-N	-11.42	110.70	120.98
1	B	1924	SER	C-N-CA	-11.42	110.70	120.98
1	A	1925	GLY	N-CA-C	-10.79	94.13	110.97
1	B	1925	GLY	N-CA-C	-10.78	94.15	110.97
1	B	2169	LEU	N-CA-C	-10.41	98.62	111.11
1	A	2169	LEU	N-CA-C	-10.39	98.64	111.11
1	B	1410	LYS	CA-C-N	-9.31	112.46	122.89
1	B	1410	LYS	C-N-CA	-9.31	112.46	122.89
1	A	1410	LYS	CA-C-N	-9.28	112.50	122.89
1	A	1410	LYS	C-N-CA	-9.28	112.50	122.89
1	A	2764	SER	N-CA-C	8.81	123.82	108.75
1	B	2764	SER	N-CA-C	8.80	123.80	108.75
1	B	1733	ALA	N-CA-C	-8.33	103.11	113.28
1	A	1733	ALA	N-CA-C	-8.31	103.14	113.28
1	A	1726	CYS	CA-C-N	-8.26	112.02	122.43
1	A	1726	CYS	C-N-CA	-8.26	112.02	122.43
1	B	1726	CYS	CA-C-N	-8.19	112.11	122.43
1	B	1726	CYS	C-N-CA	-8.19	112.11	122.43
1	B	2302	LYS	N-CA-C	-7.96	97.89	109.59
1	A	2302	LYS	N-CA-C	-7.95	97.90	109.59
1	A	1686	ILE	CA-C-N	-7.81	110.39	121.72
1	A	1686	ILE	C-N-CA	-7.81	110.39	121.72
1	B	1686	ILE	CA-C-N	-7.75	110.48	121.72
1	B	1686	ILE	C-N-CA	-7.75	110.48	121.72
1	B	1375	ALA	CA-C-N	7.65	128.26	120.38
1	B	1375	ALA	C-N-CA	7.65	128.26	120.38
1	A	1375	ALA	CA-C-N	7.63	128.24	120.38
1	A	1375	ALA	C-N-CA	7.63	128.24	120.38
1	A	2301	ALA	CA-C-N	-7.62	110.26	121.24
1	A	2301	ALA	C-N-CA	-7.62	110.26	121.24
1	B	2307	LEU	N-CA-C	-7.62	94.56	110.80
1	A	2307	LEU	N-CA-C	-7.61	94.59	110.80
1	B	2301	ALA	CA-C-N	-7.58	110.32	121.24
1	B	2301	ALA	C-N-CA	-7.58	110.32	121.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1758	ASP	N-CA-C	7.50	122.37	112.17
1	B	1758	ASP	N-CA-C	7.48	122.34	112.17
1	B	1302	GLY	N-CA-C	-7.15	104.21	112.50
1	A	1302	GLY	N-CA-C	-7.12	104.24	112.50
1	B	1818	GLY	N-CA-C	-7.05	103.19	113.48
1	A	1818	GLY	N-CA-C	-7.02	103.23	113.48
1	A	2700	LYS	CA-C-N	-6.75	112.36	121.80
1	A	2700	LYS	C-N-CA	-6.75	112.36	121.80
1	B	2700	LYS	CA-C-N	-6.71	112.41	121.80
1	B	2700	LYS	C-N-CA	-6.71	112.41	121.80
1	B	2092	CYS	N-CA-C	-6.42	104.52	113.45
1	A	2092	CYS	N-CA-C	-6.41	104.54	113.45
1	A	1855	ASN	N-CA-C	-6.36	100.25	109.59
1	B	1855	ASN	N-CA-C	-6.34	100.27	109.59
1	B	3027	SER	N-CA-C	-6.29	102.18	110.43
1	A	3027	SER	N-CA-C	-6.29	102.19	110.43
1	B	1828	LYS	N-CA-C	-6.24	104.26	112.75
1	A	1828	LYS	N-CA-C	-6.23	104.28	112.75
1	A	204	GLY	N-CA-C	6.22	117.86	111.95
1	B	204	GLY	N-CA-C	6.22	117.86	111.95
1	A	2284	VAL	CB-CA-C	-6.12	104.05	111.88
1	B	2284	VAL	CB-CA-C	-6.10	104.08	111.88
1	B	1687	ALA	N-CA-C	-6.03	100.03	109.25
1	A	1687	ALA	N-CA-C	-6.02	100.04	109.25
1	B	1639	PRO	CA-C-N	-5.71	114.82	122.42
1	B	1639	PRO	C-N-CA	-5.71	114.82	122.42
1	A	1639	PRO	CA-C-N	-5.71	114.83	122.42
1	A	1639	PRO	C-N-CA	-5.71	114.83	122.42
1	A	1842	LEU	N-CA-C	-5.67	105.11	113.16
1	B	1842	LEU	N-CA-C	-5.64	105.14	113.16
1	A	2786	GLY	N-CA-C	-5.63	101.88	112.64
1	B	2786	GLY	N-CA-C	-5.61	101.93	112.64
1	A	1936	LEU	CA-C-N	-5.56	115.22	123.11
1	A	1936	LEU	C-N-CA	-5.56	115.22	123.11
1	B	1936	LEU	CA-C-N	-5.54	115.24	123.11
1	B	1936	LEU	C-N-CA	-5.54	115.24	123.11
1	B	1824	LEU	N-CA-C	-5.54	104.62	111.33
1	A	1824	LEU	N-CA-C	-5.52	104.65	111.33
1	B	2029	PRO	N-CA-C	-5.47	101.19	112.47
1	A	2028	GLN	CA-C-N	5.47	126.68	119.84
1	A	2028	GLN	C-N-CA	5.47	126.68	119.84
1	A	2029	PRO	N-CA-C	-5.47	101.20	112.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	2028	GLN	CA-C-N	5.42	126.62	119.84
1	B	2028	GLN	C-N-CA	5.42	126.62	119.84
1	A	2570	GLU	N-CA-C	-5.39	98.98	108.20
1	A	1625	LYS	CA-C-N	-5.38	115.47	123.11
1	A	1625	LYS	C-N-CA	-5.38	115.47	123.11
1	B	2570	GLU	N-CA-C	-5.38	99.00	108.20
1	B	1625	LYS	CA-C-N	-5.36	115.50	123.11
1	B	1625	LYS	C-N-CA	-5.36	115.50	123.11
1	A	1130	GLY	N-CA-C	-5.34	105.68	113.48
1	B	1130	GLY	N-CA-C	-5.33	105.71	113.48
1	B	2270	LEU	N-CA-C	-5.24	105.72	113.16
1	A	2270	LEU	N-CA-C	-5.24	105.73	113.16
1	A	2899	ILE	N-CA-C	-5.03	106.69	112.98
1	B	2701	ILE	N-CA-C	-5.03	101.10	108.54
1	B	2899	ILE	N-CA-C	-5.03	106.70	112.98
1	A	2701	ILE	N-CA-C	-5.02	101.11	108.54
1	B	2763	ARG	CA-C-N	-5.01	113.13	121.94
1	B	2763	ARG	C-N-CA	-5.01	113.13	121.94

There are no chirality outliers.

All (106) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1001	LEU	Peptide
1	A	1053	ASP	Peptide
1	A	1054	PRO	Peptide
1	A	1254	VAL	Peptide
1	A	1303	THR	Peptide
1	A	1315	ALA	Peptide
1	A	1354	PRO	Peptide
1	A	1447	SER	Peptide
1	A	1454	LYS	Peptide
1	A	1456	GLY	Peptide
1	A	1482	CYS	Peptide
1	A	1512	ALA	Peptide
1	A	1591	LEU	Peptide
1	A	1624	HIS	Peptide
1	A	1629	VAL	Peptide
1	A	1687	ALA	Peptide
1	A	1727	VAL	Peptide
1	A	1728	LYS	Peptide
1	A	1758	ASP	Peptide

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Mol	Chain	Res	Type	Group
1	A	1839	GLN	Peptide
1	A	1900	CYS	Peptide
1	A	1901	LEU	Peptide
1	A	1934	LEU	Peptide
1	A	1935	ASP	Peptide
1	A	1936	LEU	Peptide
1	A	1997	THR	Peptide
1	A	2028	GLN	Peptide
1	A	2085	ASP	Peptide
1	A	2168	SER	Peptide
1	A	2268	THR	Peptide
1	A	2283	SER	Peptide
1	A	2301	ALA	Peptide
1	A	2357	MET	Peptide
1	A	2569	ASP	Peptide
1	A	2665	PRO	Peptide
1	A	2669	ILE	Peptide
1	A	2683	ILE	Peptide
1	A	2696	VAL	Peptide
1	A	2699	PRO	Peptide
1	A	2764	SER	Peptide
1	A	2774	VAL	Peptide
1	A	2888	ILE	Peptide
1	A	2900	LEU	Peptide
1	A	2922	GLY	Peptide
1	A	2941	SER	Peptide
1	A	2963	ASN	Peptide
1	A	3024	THR	Peptide
1	A	3026	LEU	Peptide
1	A	3027	SER	Peptide
1	A	3040	ILE	Peptide
1	A	39	THR	Peptide
1	A	497	SER	Peptide
1	A	646	SER	Peptide
1	B	1001	LEU	Peptide
1	B	1053	ASP	Peptide
1	B	1054	PRO	Peptide
1	B	1254	VAL	Peptide
1	B	1303	THR	Peptide
1	B	1315	ALA	Peptide
1	B	1354	PRO	Peptide
1	B	1447	SER	Peptide

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Mol	Chain	Res	Type	Group
1	B	1454	LYS	Peptide
1	B	1456	GLY	Peptide
1	B	1482	CYS	Peptide
1	B	1512	ALA	Peptide
1	B	1591	LEU	Peptide
1	B	1624	HIS	Peptide
1	B	1629	VAL	Peptide
1	B	1687	ALA	Peptide
1	B	1727	VAL	Peptide
1	B	1728	LYS	Peptide
1	B	1758	ASP	Peptide
1	B	1839	GLN	Peptide
1	B	1900	CYS	Peptide
1	B	1901	LEU	Peptide
1	B	1934	LEU	Peptide
1	B	1935	ASP	Peptide
1	B	1936	LEU	Peptide
1	B	1997	THR	Peptide
1	B	2028	GLN	Peptide
1	B	2085	ASP	Peptide
1	B	2168	SER	Peptide
1	B	2268	THR	Peptide
1	B	2283	SER	Peptide
1	B	2301	ALA	Peptide
1	B	2357	MET	Peptide
1	B	2569	ASP	Peptide
1	B	2665	PRO	Peptide
1	B	2669	ILE	Peptide
1	B	2683	ILE	Peptide
1	B	2696	VAL	Peptide
1	B	2699	PRO	Peptide
1	B	2764	SER	Peptide
1	B	2774	VAL	Peptide
1	B	2888	ILE	Peptide
1	B	2900	LEU	Peptide
1	B	2922	GLY	Peptide
1	B	2941	SER	Peptide
1	B	2963	ASN	Peptide
1	B	3024	THR	Peptide
1	B	3026	LEU	Peptide
1	B	3027	SER	Peptide
1	B	3040	ILE	Peptide

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Mol	Chain	Res	Type	Group
1	B	39	THR	Peptide
1	B	497	SER	Peptide
1	B	646	SER	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	12537	0	5446	1290	0
1	B	12537	0	5446	1289	0
All	All	25074	0	10892	2578	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 72.

All (2578) 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:B:2095:LEU:O	1:B:2099:HIS:N	1.93	1.02
1:B:3013:LEU:O	1:B:3017:LEU:N	1.92	1.02
1:A:2068:LEU:O	1:A:2072:GLY:N	1.93	1.01
1:A:3013:LEU:O	1:A:3017:LEU:N	1.92	1.01
1:A:1955:LEU:O	1:A:1959:GLU:N	1.94	1.01
1:A:2095:LEU:O	1:A:2099:HIS:N	1.93	1.00
1:B:1856:GLU:O	1:B:1860:ASN:N	1.93	1.00
1:A:1856:GLU:O	1:A:1860:ASN:N	1.93	1.00
1:A:2398:TYR:O	1:A:2402:GLU:N	1.95	0.99
1:B:2068:LEU:O	1:B:2072:GLY:N	1.93	0.99
1:B:1955:LEU:O	1:B:1959:GLU:N	1.94	0.98
1:B:2200:GLU:O	1:B:2204:LYS:N	1.95	0.98
1:B:2401:ILE:O	1:B:2405:MET:N	1.97	0.98
1:B:2398:TYR:O	1:B:2402:GLU:N	1.95	0.98
1:B:1596:HIS:O	1:B:1600:VAL:N	1.97	0.98
1:B:2337:CYS:O	1:B:2341:CYS:N	1.97	0.98
1:A:2401:ILE:O	1:A:2405:MET:N	1.97	0.97
1:A:2200:GLU:O	1:A:2204:LYS:N	1.95	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1596:HIS:O	1:A:1600:VAL:N	1.97	0.97
1:A:3009:VAL:O	1:A:3013:LEU:N	1.97	0.97
1:B:1927:ILE:O	1:B:1931:ALA:N	1.97	0.97
1:A:1823:ILE:O	1:A:1827:LEU:N	1.96	0.97
1:A:1633:ARG:O	1:A:1637:ASP:N	1.96	0.97
1:B:2317:LYS:O	1:B:2321:ALA:N	1.98	0.97
1:A:2337:CYS:O	1:A:2341:CYS:N	1.97	0.97
1:A:2312:LEU:O	1:A:2316:ILE:N	1.97	0.96
1:B:1823:ILE:O	1:B:1827:LEU:N	1.96	0.96
1:B:3009:VAL:O	1:B:3013:LEU:N	1.97	0.96
1:B:1633:ARG:O	1:B:1637:ASP:N	1.96	0.96
1:B:1812:ALA:O	1:B:1816:SER:N	1.98	0.96
1:A:2045:ALA:O	1:A:2049:TYR:N	1.98	0.96
1:A:2170:TYR:O	1:A:2174:SER:N	1.98	0.96
1:A:3028:VAL:O	1:A:3032:VAL:N	1.99	0.96
1:B:1611:LEU:O	1:B:1615:LYS:N	1.99	0.96
1:B:2006:LEU:O	1:B:2010:ARG:N	1.98	0.96
1:A:1611:LEU:O	1:A:1615:LYS:N	1.99	0.95
1:A:2317:LYS:O	1:A:2321:ALA:N	1.98	0.95
1:B:1600:VAL:O	1:B:1604:ASP:N	1.97	0.95
1:B:2170:TYR:O	1:B:2174:SER:N	1.99	0.95
1:B:2312:LEU:O	1:B:2316:ILE:N	1.97	0.95
1:A:1343:ILE:O	1:A:1347:LEU:N	1.99	0.95
1:A:1600:VAL:O	1:A:1604:ASP:N	1.97	0.95
1:B:1615:LYS:O	1:B:1619:ARG:N	2.00	0.95
1:B:3032:VAL:O	1:B:3036:ILE:N	1.99	0.95
1:A:2008:ILE:O	1:A:2012:ILE:N	1.99	0.95
1:A:1927:ILE:O	1:A:1931:ALA:N	1.97	0.95
1:A:2006:LEU:O	1:A:2010:ARG:N	1.98	0.95
1:B:2005:LEU:O	1:B:2009:TYR:N	1.98	0.95
1:B:2967:ALA:O	1:B:2971:GLN:N	1.99	0.95
1:A:1812:ALA:O	1:A:1816:SER:N	1.98	0.95
1:A:2005:LEU:O	1:A:2009:TYR:N	1.98	0.95
1:A:2033:LEU:O	1:A:2037:GLU:N	1.99	0.95
1:A:3032:VAL:O	1:A:3036:ILE:N	1.99	0.95
1:A:2967:ALA:O	1:A:2971:GLN:N	1.99	0.94
1:A:2276:PHE:O	1:A:2280:GLN:N	2.00	0.94
1:A:1958:ALA:O	1:A:1962:ALA:N	2.00	0.94
1:A:2298:VAL:HA	1:A:2301:ALA:HB3	1.49	0.94
1:A:2306:SER:H	1:A:2309:LEU:H	1.16	0.94
1:A:2627:TYR:O	1:A:2631:ALA:N	2.00	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1368:PHE:O	1:A:1372:LEU:N	2.01	0.94
1:A:1712:PHE:O	1:A:1715:LEU:N	2.00	0.94
1:B:1712:PHE:O	1:B:1715:LEU:N	2.00	0.94
1:B:1343:ILE:O	1:B:1347:LEU:N	1.99	0.94
1:B:2033:LEU:O	1:B:2037:GLU:N	1.99	0.94
1:B:1863:SER:O	1:B:1867:GLN:N	2.01	0.94
1:B:2045:ALA:O	1:B:2049:TYR:N	1.98	0.94
1:B:2202:TYR:O	1:B:2206:GLN:N	2.01	0.94
1:B:2306:SER:H	1:B:2309:LEU:H	1.16	0.94
1:B:2310:SER:O	1:B:2314:GLN:N	2.00	0.94
1:B:3028:VAL:O	1:B:3032:VAL:N	1.99	0.94
1:A:1863:SER:O	1:A:1867:GLN:N	2.01	0.93
1:B:2627:TYR:O	1:B:2631:ALA:N	2.00	0.93
1:A:2077:LEU:O	1:A:2081:LEU:N	2.00	0.93
1:B:1722:LEU:O	1:B:1726:CYS:N	2.01	0.93
1:B:2008:ILE:O	1:B:2012:ILE:N	1.99	0.93
1:A:2310:SER:O	1:A:2314:GLN:N	2.00	0.93
1:A:2042:TRP:O	1:A:2046:LEU:N	2.01	0.93
1:A:2743:THR:O	1:A:2747:LYS:N	2.02	0.93
1:B:1822:GLU:O	1:B:1825:GLN:N	2.01	0.93
1:B:1866:VAL:O	1:B:1870:PHE:N	2.02	0.93
1:B:2077:LEU:O	1:B:2081:LEU:N	2.00	0.93
1:B:1368:PHE:O	1:B:1372:LEU:N	2.01	0.93
1:B:1749:PHE:O	1:B:1753:TYR:N	2.01	0.93
1:B:2298:VAL:HA	1:B:2301:ALA:HB3	1.49	0.93
1:B:2851:ALA:O	1:B:2855:SER:N	2.02	0.93
1:B:2001:LEU:O	1:B:2005:LEU:N	2.01	0.93
1:A:274:SER:O	1:A:279:ILE:N	2.03	0.92
1:A:1615:LYS:O	1:A:1619:ARG:N	2.00	0.92
1:A:1866:VAL:O	1:A:1870:PHE:N	2.02	0.92
1:A:2318:LYS:O	1:A:2322:SER:N	2.01	0.92
1:B:1867:GLN:O	1:B:1871:THR:N	2.02	0.92
1:A:2355:VAL:O	1:A:2359:THR:N	2.02	0.92
1:B:2276:PHE:O	1:B:2280:GLN:N	2.00	0.92
1:B:2998:ILE:O	1:B:3002:PHE:N	2.02	0.92
1:A:2001:LEU:O	1:A:2005:LEU:N	2.01	0.92
1:B:2743:THR:O	1:B:2747:LYS:N	2.02	0.92
1:A:2354:ALA:O	1:A:2358:GLN:N	2.02	0.92
1:B:2355:VAL:O	1:B:2359:THR:N	2.02	0.92
1:A:1822:GLU:O	1:A:1825:GLN:N	2.01	0.92
1:B:1958:ALA:O	1:B:1962:ALA:N	2.00	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2042:TRP:O	1:B:2046:LEU:N	2.01	0.92
1:A:1717:TYR:O	1:A:1721:THR:N	2.01	0.92
1:A:2202:TYR:O	1:A:2206:GLN:N	2.01	0.92
1:B:2358:GLN:O	1:B:2362:GLU:N	2.01	0.92
1:B:3031:GLN:O	1:B:3035:LEU:N	2.03	0.92
1:A:1960:ILE:O	1:A:1964:LYS:N	2.02	0.92
1:A:2998:ILE:O	1:A:3002:PHE:N	2.03	0.92
1:A:1749:PHE:O	1:A:1753:TYR:N	2.01	0.92
1:A:1867:GLN:O	1:A:1871:THR:N	2.02	0.92
1:B:2252:THR:O	1:B:2256:VAL:N	2.03	0.92
1:B:2354:ALA:O	1:B:2358:GLN:N	2.02	0.92
1:B:2924:GLU:HA	1:B:2928:ARG:H	1.34	0.92
1:B:274:SER:O	1:B:279:ILE:N	2.03	0.91
1:B:2309:LEU:O	1:B:2313:LYS:N	2.03	0.91
1:B:2318:LYS:O	1:B:2322:SER:N	2.01	0.91
1:B:2395:ASP:O	1:B:2399:GLN:N	2.02	0.91
1:A:1412:PRO:O	1:A:1416:GLN:N	2.03	0.91
1:A:1722:LEU:O	1:A:1726:CYS:N	2.01	0.91
1:A:2927:PHE:O	1:A:2931:CYS:N	2.03	0.91
1:B:1491:PHE:O	1:B:1495:CYS:N	2.03	0.91
1:A:2924:GLU:HA	1:A:2928:ARG:H	1.34	0.91
1:B:1717:TYR:O	1:B:1721:THR:N	2.01	0.91
1:B:1960:ILE:O	1:B:1964:LYS:N	2.03	0.91
1:A:1910:LEU:O	1:A:1914:ASP:N	2.02	0.91
1:A:2358:GLN:O	1:A:2362:GLU:N	2.01	0.91
1:A:2395:ASP:O	1:A:2399:GLN:N	2.02	0.91
1:A:2912:ARG:O	1:A:2916:ASP:N	2.03	0.91
1:A:2309:LEU:O	1:A:2313:LYS:N	2.03	0.91
1:B:2843:ALA:O	1:B:2847:GLU:N	2.04	0.91
1:B:2927:PHE:O	1:B:2931:CYS:N	2.03	0.91
1:B:3034:LEU:O	1:B:3038:GLN:N	2.03	0.91
1:A:1491:PHE:O	1:A:1495:CYS:N	2.03	0.91
1:A:2843:ALA:O	1:A:2847:GLU:N	2.04	0.91
1:A:3031:GLN:O	1:A:3035:LEU:N	2.03	0.91
1:A:2004:LEU:O	1:A:2008:ILE:N	2.04	0.91
1:A:2458:ASP:O	1:A:2462:PHE:N	2.04	0.91
1:A:2851:ALA:O	1:A:2855:SER:N	2.02	0.91
1:B:2004:LEU:O	1:B:2008:ILE:N	2.04	0.91
1:B:2816:LYS:O	1:B:2820:PHE:N	2.04	0.91
1:A:2500:VAL:O	1:A:2504:MET:N	2.04	0.91
1:A:3011:MET:O	1:A:3015:GLU:N	2.03	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3012:ARG:O	1:B:3016:LYS:N	2.04	0.91
1:B:2203:ILE:O	1:B:2207:LYS:N	2.03	0.91
1:B:2969:TYR:O	1:B:2973:ARG:N	2.04	0.91
1:A:2097:GLU:O	1:A:2101:GLN:N	2.04	0.91
1:A:2252:THR:O	1:A:2256:VAL:N	2.03	0.91
1:B:2500:VAL:O	1:B:2504:MET:N	2.04	0.91
1:B:3011:MET:O	1:B:3015:GLU:N	2.03	0.91
1:A:2314:GLN:O	1:A:2318:LYS:N	2.04	0.90
1:B:1412:PRO:O	1:B:1416:GLN:N	2.03	0.90
1:B:1661:HIS:O	1:B:1665:LYS:N	2.04	0.90
1:B:2412:ASN:O	1:B:2416:LEU:N	2.04	0.90
1:B:2912:ARG:O	1:B:2916:ASP:N	2.03	0.90
1:A:1458:GLY:O	1:A:1462:ALA:N	2.05	0.90
1:A:1864:THR:O	1:A:1868:GLY:N	2.04	0.90
1:A:1612:GLU:O	1:A:1616:ASP:N	2.04	0.90
1:A:2816:LYS:O	1:A:2820:PHE:N	2.04	0.90
1:A:2203:ILE:O	1:A:2207:LYS:N	2.03	0.90
1:B:1465:LEU:O	1:B:1469:ILE:N	2.05	0.90
1:B:1910:LEU:O	1:B:1914:ASP:N	2.02	0.90
1:B:2714:GLN:HA	1:B:2768:GLU:HA	1.54	0.90
1:A:2714:GLN:HA	1:A:2768:GLU:HA	1.54	0.90
1:A:3034:LEU:O	1:A:3038:GLN:N	2.03	0.90
1:A:1465:LEU:O	1:A:1469:ILE:N	2.05	0.90
1:B:1609:THR:O	1:B:1613:GLY:N	2.03	0.90
1:A:278:VAL:O	1:A:282:LEU:N	2.04	0.90
1:A:1609:THR:O	1:A:1613:GLY:N	2.03	0.90
1:A:3012:ARG:O	1:A:3016:LYS:N	2.04	0.90
1:B:1864:THR:O	1:B:1868:GLY:N	2.04	0.90
1:B:2484:VAL:O	1:B:2488:CYS:N	2.04	0.90
1:B:2852:TYR:O	1:B:2856:VAL:N	2.04	0.90
1:A:1371:ASP:O	1:A:1375:ALA:N	2.05	0.90
1:A:1467:ASP:O	1:A:1471:THR:N	2.05	0.90
1:B:2201:VAL:O	1:B:2205:TRP:N	2.04	0.90
1:B:2458:ASP:O	1:B:2462:PHE:N	2.04	0.90
1:A:1661:HIS:O	1:A:1665:LYS:N	2.04	0.90
1:A:2852:TYR:O	1:A:2856:VAL:N	2.04	0.90
1:B:278:VAL:O	1:B:282:LEU:N	2.04	0.90
1:B:1458:GLY:O	1:B:1462:ALA:N	2.05	0.90
1:B:2968:LEU:O	1:B:2972:GLN:N	2.05	0.90
1:A:2412:ASN:O	1:A:2416:LEU:N	2.04	0.90
1:B:1612:GLU:O	1:B:1616:ASP:N	2.04	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2966:LYS:O	1:B:2970:LEU:N	2.05	0.90
1:A:2101:GLN:O	1:A:2105:ARG:N	2.05	0.89
1:A:2923:VAL:O	1:A:2927:PHE:N	2.05	0.89
1:B:2249:ASP:O	1:B:2253:LYS:N	2.05	0.89
1:B:2314:GLN:O	1:B:2318:LYS:N	2.04	0.89
1:B:2466:ALA:O	1:B:2470:TYR:N	2.05	0.89
1:B:2923:VAL:O	1:B:2927:PHE:N	2.05	0.89
1:A:2030:ILE:O	1:A:2034:ARG:N	2.05	0.89
1:A:2201:VAL:O	1:A:2205:TRP:N	2.04	0.89
1:A:2628:ILE:O	1:A:2632:ASN:N	2.05	0.89
1:B:2340:VAL:O	1:B:2344:TRP:N	2.05	0.89
1:A:2313:LYS:O	1:A:2317:LYS:N	2.05	0.89
1:A:2969:TYR:O	1:A:2973:ARG:N	2.04	0.89
1:A:2098:LEU:O	1:A:2102:ALA:N	2.06	0.89
1:A:2100:TYR:O	1:A:2104:TRP:N	2.06	0.89
1:B:2031:THR:O	1:B:2035:THR:N	2.04	0.89
1:A:1133:GLU:O	1:A:1137:SER:N	2.05	0.89
1:B:2313:LYS:O	1:B:2317:LYS:N	2.05	0.89
1:B:2457:GLU:O	1:B:2461:ARG:N	2.06	0.89
1:B:2775:PRO:O	1:B:2779:PHE:N	2.04	0.89
1:A:1262:ARG:O	1:A:1266:ASP:N	2.06	0.89
1:A:2031:THR:O	1:A:2035:THR:N	2.05	0.89
1:A:2966:LYS:O	1:A:2970:LEU:N	2.05	0.89
1:B:1262:ARG:O	1:B:1266:ASP:N	2.06	0.89
1:B:1467:ASP:O	1:B:1471:THR:N	2.05	0.89
1:B:2030:ILE:O	1:B:2034:ARG:N	2.05	0.89
1:A:2457:GLU:O	1:A:2461:ARG:N	2.06	0.89
1:A:2466:ALA:O	1:A:2470:TYR:N	2.05	0.89
1:A:2775:PRO:O	1:A:2779:PHE:N	2.04	0.89
1:B:2014:GLU:O	1:B:2018:LEU:N	2.06	0.89
1:B:2101:GLN:O	1:B:2105:ARG:N	2.05	0.89
1:B:2625:ASP:O	1:B:2629:ILE:N	2.06	0.89
1:B:2913:ASP:O	1:B:2917:GLY:N	2.05	0.89
1:A:1495:CYS:O	1:A:1499:SER:N	2.05	0.89
1:A:2913:ASP:O	1:A:2917:GLY:N	2.05	0.89
1:B:2624:CYS:O	1:B:2628:ILE:N	2.05	0.89
1:A:2484:VAL:O	1:A:2488:CYS:N	2.04	0.88
1:A:2777:GLY:O	1:A:2781:VAL:N	2.06	0.88
1:B:2628:ILE:O	1:B:2632:ASN:N	2.05	0.88
1:A:2173:LEU:O	1:A:2177:GLN:N	2.07	0.88
1:B:1133:GLU:O	1:B:1137:SER:N	2.05	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2340:VAL:O	1:A:2344:TRP:N	2.05	0.88
1:A:2408:SER:O	1:A:2412:ASN:N	2.07	0.88
1:A:1630:ASP:O	1:A:1634:ALA:N	2.07	0.88
1:A:2014:GLU:O	1:A:2018:LEU:N	2.06	0.88
1:B:188:ALA:O	1:B:192:HIS:N	2.07	0.88
1:B:1371:ASP:O	1:B:1375:ALA:N	2.05	0.88
1:B:2097:GLU:O	1:B:2101:GLN:N	2.04	0.88
1:A:2624:CYS:O	1:A:2628:ILE:N	2.05	0.88
1:A:1911:ALA:O	1:A:1915:TYR:N	2.07	0.88
1:A:2003:ASP:O	1:A:2007:GLU:N	2.07	0.88
1:A:2625:ASP:O	1:A:2629:ILE:N	2.06	0.88
1:B:1495:CYS:O	1:B:1499:SER:N	2.05	0.88
1:B:2737:THR:O	1:B:2741:ARG:N	2.07	0.88
1:A:2968:LEU:O	1:A:2972:GLN:N	2.05	0.88
1:A:2975:GLU:O	1:A:2979:GLU:N	2.07	0.88
1:B:2003:ASP:O	1:B:2007:GLU:N	2.06	0.88
1:B:2341:CYS:O	1:B:2345:LEU:N	2.06	0.88
1:B:2076:ILE:O	1:B:2080:TYR:N	2.07	0.88
1:A:1999:ILE:O	1:A:2003:ASP:N	2.06	0.88
1:A:2076:ILE:O	1:A:2080:TYR:N	2.07	0.88
1:B:2100:TYR:O	1:B:2104:TRP:N	2.06	0.88
1:B:2204:LYS:O	1:B:2208:HIS:N	2.07	0.88
1:B:2379:LEU:O	1:B:2383:LYS:N	2.07	0.88
1:B:2382:GLY:O	1:B:2386:ALA:N	2.06	0.88
1:B:2848:LYS:O	1:B:2852:TYR:N	2.07	0.88
1:A:1494:CYS:O	1:A:1498:LEU:N	2.07	0.87
1:A:1746:GLY:O	1:A:1750:TRP:N	2.07	0.87
1:A:2498:SER:O	1:A:2501:ASN:N	2.07	0.87
1:A:2545:ILE:O	1:A:2549:SER:N	2.07	0.87
1:A:247:PHE:HA	1:A:278:VAL:HA	1.56	0.87
1:A:2204:LYS:O	1:A:2208:HIS:N	2.07	0.87
1:A:2341:CYS:O	1:A:2345:LEU:N	2.06	0.87
1:A:2397:GLN:O	1:A:2401:ILE:N	2.07	0.87
1:B:2397:GLN:O	1:B:2401:ILE:N	2.07	0.87
1:B:2777:GLY:O	1:B:2781:VAL:N	2.06	0.87
1:A:1490:SER:O	1:A:1494:CYS:N	2.07	0.87
1:A:2848:LYS:O	1:A:2852:TYR:N	2.07	0.87
1:B:1911:ALA:O	1:B:1915:TYR:N	2.07	0.87
1:B:1999:ILE:O	1:B:2003:ASP:N	2.06	0.87
1:B:2074:CYS:O	1:B:2078:SER:N	2.07	0.87
1:B:2096:GLU:O	1:B:2100:TYR:N	2.08	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2408:SER:O	1:B:2412:ASN:N	2.07	0.87
1:B:2780:LEU:O	1:B:2784:GLU:N	2.07	0.87
1:A:2780:LEU:O	1:A:2784:GLU:N	2.08	0.87
1:B:1366:CYS:O	1:B:1370:GLY:N	2.07	0.87
1:B:1462:ALA:O	1:B:1466:ARG:N	2.07	0.87
1:B:2468:GLU:O	1:B:2472:ASN:N	2.07	0.87
1:A:1462:ALA:O	1:A:1466:ARG:N	2.07	0.87
1:A:3006:ALA:O	1:A:3010:LEU:N	2.07	0.87
1:B:3006:ALA:O	1:B:3010:LEU:N	2.07	0.87
1:A:2382:GLY:O	1:A:2386:ALA:N	2.06	0.87
1:B:2079:VAL:O	1:B:2083:GLY:N	2.08	0.87
1:B:2333:THR:O	1:B:2337:CYS:N	2.08	0.87
1:B:2558:PHE:O	1:B:2562:ALA:N	2.08	0.87
1:B:1824:LEU:O	1:B:1828:LYS:N	2.07	0.87
1:B:2098:LEU:O	1:B:2102:ALA:N	2.06	0.87
1:B:2216:ASP:O	1:B:2220:GLN:N	2.07	0.87
1:B:2545:ILE:O	1:B:2549:SER:N	2.07	0.87
1:A:2125:HIS:O	1:A:2129:TYR:N	2.08	0.87
1:A:2333:THR:O	1:A:2337:CYS:N	2.08	0.87
1:A:2379:LEU:O	1:A:2383:LYS:N	2.07	0.87
1:B:247:PHE:HA	1:B:278:VAL:HA	1.56	0.87
1:B:2353:PRO:O	1:B:2357:MET:N	2.07	0.87
1:B:2498:SER:O	1:B:2501:ASN:N	2.07	0.87
1:A:2353:PRO:O	1:A:2357:MET:N	2.07	0.86
1:B:2034:ARG:O	1:B:2038:HIS:N	2.08	0.86
1:B:2344:TRP:O	1:B:2348:THR:N	2.07	0.86
1:B:2394:SER:O	1:B:2398:TYR:N	2.08	0.86
1:A:2080:TYR:O	1:A:2084:LEU:N	2.08	0.86
1:A:2216:ASP:O	1:A:2220:GLN:N	2.07	0.86
1:A:2468:GLU:O	1:A:2472:ASN:N	2.06	0.86
1:A:1824:LEU:O	1:A:1828:LYS:N	2.07	0.86
1:A:2065:ILE:O	1:A:2069:GLN:N	2.08	0.86
1:A:2249:ASP:O	1:A:2253:LYS:N	2.05	0.86
1:A:2737:THR:O	1:A:2741:ARG:N	2.07	0.86
1:B:1494:CYS:O	1:B:1498:LEU:N	2.07	0.86
1:B:2975:GLU:O	1:B:2979:GLU:N	2.07	0.86
1:A:188:ALA:O	1:A:192:HIS:N	2.07	0.86
1:A:849:VAL:O	1:A:853:SER:N	2.08	0.86
1:A:2058:SER:O	1:A:2062:ALA:N	2.08	0.86
1:A:2091:TRP:O	1:A:2095:LEU:N	2.08	0.86
1:B:3007:GLU:O	1:B:3011:MET:N	2.07	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1366:CYS:O	1:A:1370:GLY:N	2.07	0.86
1:A:1595:ASN:O	1:A:1599:SER:N	2.08	0.86
1:A:2451:ALA:O	1:A:2455:LEU:N	2.09	0.86
1:B:2080:TYR:O	1:B:2084:LEU:N	2.08	0.86
1:B:2125:HIS:O	1:B:2129:TYR:N	2.08	0.86
1:A:1492:SER:O	1:A:1496:ASP:N	2.08	0.86
1:A:2274:ALA:O	1:A:2278:ILE:N	2.09	0.86
1:B:1738:LYS:O	1:B:1742:ALA:N	2.09	0.86
1:A:2394:SER:O	1:A:2398:TYR:N	2.08	0.86
1:B:1887:ALA:O	1:B:1891:SER:N	2.08	0.86
1:B:2058:SER:O	1:B:2062:ALA:N	2.08	0.86
1:B:2065:ILE:O	1:B:2069:GLN:N	2.08	0.86
1:B:2102:ALA:O	1:B:2106:ASN:N	2.08	0.86
1:B:2173:LEU:O	1:B:2177:GLN:N	2.07	0.86
1:A:2344:TRP:O	1:A:2348:THR:N	2.07	0.86
1:A:2034:ARG:O	1:A:2038:HIS:N	2.08	0.86
1:A:2400:ARG:O	1:A:2404:TYR:N	2.08	0.86
1:A:2795:ASP:O	1:A:2799:PHE:N	2.09	0.86
1:A:211:ASP:O	1:A:215:LYS:N	2.09	0.86
1:A:3002:PHE:O	1:A:3006:ALA:N	2.08	0.86
1:A:3005:VAL:O	1:A:3009:VAL:N	2.08	0.86
1:B:1461:TRP:O	1:B:1465:LEU:N	2.07	0.86
1:B:1490:SER:O	1:B:1494:CYS:N	2.07	0.86
1:B:1630:ASP:O	1:B:1634:ALA:N	2.07	0.86
1:B:2537:PHE:O	1:B:2541:LEU:N	2.08	0.86
1:A:2602:ALA:O	1:A:2606:ILE:N	2.09	0.85
1:A:3000:GLN:O	1:A:3004:LYS:N	2.08	0.85
1:B:2094:GLU:O	1:B:2098:LEU:N	2.09	0.85
1:B:2451:ALA:O	1:B:2455:LEU:N	2.09	0.85
1:B:2729:GLN:O	1:B:2733:GLN:N	2.09	0.85
1:A:1715:LEU:O	1:A:1719:ASN:N	2.10	0.85
1:A:1902:ASP:O	1:A:1906:GLN:N	2.09	0.85
1:A:2537:PHE:O	1:A:2541:LEU:N	2.08	0.85
1:B:2131:ALA:O	1:B:2135:LEU:N	2.09	0.85
1:B:3005:VAL:O	1:B:3009:VAL:N	2.08	0.85
1:A:1461:TRP:O	1:A:1465:LEU:N	2.07	0.85
1:A:1703:PHE:O	1:A:1707:GLU:N	2.09	0.85
1:A:1887:ALA:O	1:A:1891:SER:N	2.08	0.85
1:A:2007:GLU:O	1:A:2011:SER:N	2.08	0.85
1:A:2388:LEU:O	1:A:2392:ARG:N	2.09	0.85
1:B:1746:GLY:O	1:B:1750:TRP:N	2.07	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2096:GLU:O	1:A:2100:TYR:N	2.08	0.85
1:B:849:VAL:O	1:B:853:SER:N	2.08	0.85
1:B:2128:LEU:O	1:B:2132:LEU:N	2.08	0.85
1:A:2128:LEU:O	1:A:2132:LEU:N	2.08	0.85
1:B:1492:SER:O	1:B:1496:ASP:N	2.08	0.85
1:A:2794:ASN:O	1:A:2798:ALA:N	2.09	0.85
1:B:1702:LEU:O	1:B:1706:LYS:N	2.10	0.85
1:B:2388:LEU:O	1:B:2392:ARG:N	2.09	0.85
1:B:3000:GLN:O	1:B:3004:LYS:N	2.08	0.85
1:B:3002:PHE:O	1:B:3006:ALA:N	2.08	0.85
1:A:2319:LEU:O	1:A:2323:CYS:N	2.09	0.85
1:A:3007:GLU:O	1:A:3011:MET:N	2.07	0.85
1:B:1658:ALA:O	1:B:1662:THR:N	2.09	0.85
1:B:2794:ASN:O	1:B:2798:ALA:N	2.09	0.85
1:A:2607:CYS:O	1:A:2611:SER:N	2.10	0.85
1:B:1157:LEU:O	1:B:1161:VAL:N	2.09	0.85
1:B:1902:ASP:O	1:B:1906:GLN:N	2.09	0.85
1:B:1963:ASP:O	1:B:1967:MET:N	2.08	0.85
1:B:2091:TRP:O	1:B:2095:LEU:N	2.08	0.85
1:A:647:GLU:O	1:A:651:LEU:N	2.10	0.85
1:B:2454:ALA:O	1:B:2458:ASP:N	2.10	0.85
1:B:2607:CYS:O	1:B:2611:SER:N	2.10	0.85
1:B:2405:MET:O	1:B:2409:GLU:N	2.11	0.84
1:A:1956:LEU:O	1:A:1960:ILE:N	2.10	0.84
1:A:2102:ALA:O	1:A:2106:ASN:N	2.08	0.84
1:B:2007:GLU:O	1:B:2011:SER:N	2.08	0.84
1:A:2454:ALA:O	1:A:2458:ASP:N	2.10	0.84
1:B:1595:ASN:O	1:B:1599:SER:N	2.08	0.84
1:A:1658:ALA:O	1:A:1662:THR:N	2.09	0.84
1:A:2131:ALA:O	1:A:2135:LEU:N	2.10	0.84
1:A:2079:VAL:O	1:A:2083:GLY:N	2.08	0.84
1:A:2729:GLN:O	1:A:2733:GLN:N	2.09	0.84
1:B:211:ASP:O	1:B:215:LYS:N	2.09	0.84
1:B:647:GLU:O	1:B:651:LEU:N	2.10	0.84
1:B:1534:VAL:O	1:B:1538:VAL:N	2.10	0.84
1:B:2365:VAL:O	1:B:2369:GLY:N	2.10	0.84
1:B:2400:ARG:O	1:B:2404:TYR:N	2.08	0.84
1:A:2094:GLU:O	1:A:2098:LEU:N	2.09	0.84
1:A:2074:CYS:O	1:A:2078:SER:N	2.07	0.84
1:B:192:HIS:O	1:B:196:LYS:N	2.08	0.84
1:B:2360:TYR:O	1:B:2364:ALA:N	2.11	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1720:ASN:O	1:A:1724:GLU:N	2.10	0.84
1:B:1715:LEU:O	1:B:1719:ASN:N	2.10	0.84
1:A:2225:ALA:O	1:A:2229:VAL:N	2.10	0.84
1:A:2835:CYS:O	1:A:2839:PHE:N	2.11	0.84
1:A:3043:LYS:O	1:A:3047:ARG:N	2.10	0.84
1:B:1663:GLY:O	1:B:1667:VAL:N	2.11	0.84
1:B:2319:LEU:O	1:B:2323:CYS:N	2.09	0.84
1:B:2602:ALA:O	1:B:2606:ILE:N	2.09	0.84
1:B:2795:ASP:O	1:B:2799:PHE:N	2.09	0.84
1:A:1157:LEU:O	1:A:1161:VAL:N	2.09	0.83
1:A:1963:ASP:O	1:A:1967:MET:N	2.08	0.83
1:A:2289:SER:O	1:A:2293:LEU:N	2.10	0.83
1:B:2206:GLN:O	1:B:2210:GLN:N	2.10	0.83
1:A:1665:LYS:O	1:A:1669:GLU:N	2.11	0.83
1:B:2274:ALA:O	1:B:2278:ILE:N	2.09	0.83
1:B:2782:ASN:O	1:B:2786:GLY:N	2.11	0.83
1:A:192:HIS:O	1:A:196:LYS:N	2.09	0.83
1:A:1369:SER:O	1:A:1373:ASP:N	2.12	0.83
1:A:1942:ALA:O	1:A:1946:GLN:N	2.10	0.83
1:A:2782:ASN:O	1:A:2786:GLY:N	2.12	0.83
1:B:436:LEU:O	1:B:440:SER:N	2.11	0.83
1:B:2745:THR:O	1:B:2749:LYS:N	2.11	0.83
1:A:2558:PHE:O	1:A:2562:ALA:N	2.08	0.83
1:B:2391:ALA:O	1:B:2395:ASP:N	2.08	0.83
1:A:1965:LYS:O	1:A:1969:ASP:N	2.10	0.83
1:A:2776:ILE:O	1:A:2780:LEU:N	2.11	0.83
1:B:2447:LEU:O	1:B:2451:ALA:N	2.10	0.83
1:B:1739:ASN:O	1:B:1743:THR:N	2.10	0.83
1:B:2935:MET:O	1:B:2939:ARG:N	2.11	0.83
1:A:2143:PHE:O	1:A:2147:LEU:N	2.10	0.83
1:A:2275:ILE:O	1:A:2279:LYS:N	2.11	0.83
1:A:2935:MET:O	1:A:2939:ARG:N	2.11	0.83
1:B:196:LYS:O	1:B:202:THR:N	2.11	0.83
1:A:843:ASN:O	1:A:847:MET:N	2.11	0.83
1:B:1665:LYS:O	1:B:1669:GLU:N	2.11	0.83
1:B:2002:GLN:O	1:B:2006:LEU:N	2.09	0.83
1:A:1739:ASN:O	1:A:1743:THR:N	2.10	0.83
1:A:2447:LEU:O	1:A:2451:ALA:N	2.10	0.83
1:A:2745:THR:O	1:A:2749:LYS:N	2.11	0.83
1:B:947:TYR:O	1:B:951:LEU:N	2.11	0.83
1:B:2835:CYS:O	1:B:2839:PHE:N	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2360:TYR:O	1:A:2364:ALA:N	2.11	0.83
1:A:2365:VAL:O	1:A:2369:GLY:N	2.10	0.83
1:A:2846:PHE:O	1:A:2850:LEU:N	2.11	0.83
1:B:1380:HIS:O	1:B:1384:HIS:N	2.12	0.83
1:A:2779:PHE:O	1:A:2783:ASN:N	2.11	0.82
1:B:1870:PHE:O	1:B:1874:LEU:N	2.11	0.82
1:B:1962:ALA:O	1:B:1966:SER:N	2.11	0.82
1:B:2502:GLY:O	1:B:2506:ARG:N	2.12	0.82
1:A:1870:PHE:O	1:A:1874:LEU:N	2.11	0.82
1:A:2405:MET:O	1:A:2409:GLU:N	2.11	0.82
1:A:1702:LEU:O	1:A:1706:LYS:N	2.10	0.82
1:A:2409:GLU:O	1:A:2413:LYS:N	2.12	0.82
1:B:105:ILE:O	1:B:109:ASN:N	2.12	0.82
1:B:3043:LYS:O	1:B:3047:ARG:N	2.10	0.82
1:B:2275:ILE:O	1:B:2279:LYS:N	2.11	0.82
1:A:436:LEU:O	1:A:440:SER:N	2.11	0.82
1:A:1738:LYS:O	1:A:1742:ALA:N	2.09	0.82
1:A:2224:MET:O	1:A:2228:THR:N	2.11	0.82
1:A:2566:ALA:O	1:A:2762:GLN:N	2.12	0.82
1:B:2207:LYS:O	1:B:2211:LEU:N	2.12	0.82
1:A:1464:VAL:O	1:A:1468:VAL:N	2.10	0.82
1:A:1751:GLU:O	1:A:1755:MET:N	2.11	0.82
1:A:1752:ILE:O	1:A:1756:THR:N	2.13	0.82
1:A:2157:GLU:O	1:A:2161:ARG:N	2.12	0.82
1:B:1714:MET:O	1:B:1718:LEU:N	2.12	0.82
1:A:1599:SER:O	1:A:1603:TYR:N	2.11	0.82
1:B:1106:ARG:O	1:B:1110:ALA:N	2.13	0.82
1:A:105:ILE:O	1:A:109:ASN:N	2.12	0.82
1:A:196:LYS:O	1:A:202:THR:N	2.12	0.82
1:A:581:LEU:O	1:A:585:LEU:N	2.12	0.82
1:A:2486:ARG:O	1:A:2490:LEU:N	2.12	0.82
1:A:2502:GLY:O	1:A:2506:ARG:N	2.12	0.82
1:B:1703:PHE:O	1:B:1707:GLU:N	2.09	0.82
1:B:2143:PHE:O	1:B:2147:LEU:N	2.10	0.82
1:B:2486:ARG:O	1:B:2490:LEU:N	2.12	0.82
1:B:2910:LEU:O	1:B:2914:ILE:N	2.12	0.82
1:B:1369:SER:O	1:B:1373:ASP:N	2.12	0.82
1:B:1752:ILE:O	1:B:1756:THR:N	2.13	0.82
1:B:2936:GLU:O	1:B:2940:ASN:N	2.10	0.82
1:A:1380:HIS:O	1:A:1384:HIS:N	2.11	0.82
1:A:1663:GLY:O	1:A:1667:VAL:N	2.11	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2206:GLN:O	1:A:2210:GLN:N	2.10	0.82
1:B:1971:GLU:O	1:B:1975:LEU:N	2.12	0.82
1:B:1716:THR:O	1:B:1720:ASN:N	2.12	0.81
1:B:1720:ASN:O	1:B:1724:GLU:N	2.10	0.81
1:B:2157:GLU:O	1:B:2161:ARG:N	2.12	0.81
1:B:2850:LEU:O	1:B:2854:ARG:N	2.12	0.81
1:A:2152:VAL:O	1:A:2156:GLU:N	2.12	0.81
1:A:2491:TRP:O	1:A:2495:SER:N	2.14	0.81
1:A:2910:LEU:O	1:A:2914:ILE:N	2.12	0.81
1:B:172:PHE:O	1:B:176:LEU:N	2.13	0.81
1:B:279:ILE:O	1:B:283:PHE:N	2.12	0.81
1:B:843:ASN:O	1:B:847:MET:N	2.11	0.81
1:B:3042:PRO:O	1:B:3046:SER:N	2.11	0.81
1:A:2850:LEU:O	1:A:2854:ARG:N	2.12	0.81
1:B:1109:LYS:O	1:B:1113:LEU:N	2.11	0.81
1:B:1645:VAL:O	1:B:1649:VAL:N	2.12	0.81
1:B:2736:ASN:O	1:B:2740:GLN:N	2.12	0.81
1:A:498:GLU:O	1:A:502:ALA:N	2.13	0.81
1:A:1570:VAL:O	1:A:1574:LEU:N	2.13	0.81
1:A:1645:VAL:O	1:A:1649:VAL:N	2.12	0.81
1:A:2736:ASN:O	1:A:2740:GLN:N	2.12	0.81
1:A:3010:LEU:O	1:A:3014:GLN:N	2.12	0.81
1:B:1265:PHE:O	1:B:1269:LYS:N	2.13	0.81
1:B:2152:VAL:O	1:B:2156:GLU:N	2.12	0.81
1:B:2169:LEU:O	1:B:2173:LEU:N	2.12	0.81
1:B:2222:PRO:HA	1:B:2225:ALA:HB3	1.63	0.81
1:B:2491:TRP:O	1:B:2495:SER:N	2.14	0.81
1:A:502:ALA:O	1:A:506:GLY:N	2.12	0.81
1:A:1106:ARG:O	1:A:1110:ALA:N	2.13	0.81
1:B:2048:THR:O	1:B:2052:GLU:N	2.14	0.81
1:A:947:TYR:O	1:A:951:LEU:N	2.11	0.81
1:B:498:GLU:O	1:B:502:ALA:N	2.13	0.81
1:B:1954:ALA:O	1:B:1958:ALA:N	2.12	0.81
1:B:2289:SER:O	1:B:2293:LEU:N	2.10	0.81
1:A:1150:ARG:O	1:A:1154:LEU:N	2.13	0.81
1:A:2720:ASP:N	1:A:2763:ARG:O	2.14	0.81
1:B:878:THR:O	1:B:882:ILE:N	2.14	0.81
1:B:2231:LEU:O	1:B:2235:MET:N	2.13	0.81
1:B:2409:GLU:O	1:B:2413:LYS:N	2.12	0.81
1:A:279:ILE:O	1:A:283:PHE:N	2.12	0.81
1:A:852:GLN:O	1:A:856:ASN:N	2.14	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2169:LEU:O	1:A:2173:LEU:N	2.12	0.81
1:A:2207:LYS:O	1:A:2211:LEU:N	2.12	0.81
1:A:2336:GLU:O	1:A:2340:VAL:N	2.12	0.81
1:A:2936:GLU:O	1:A:2940:ASN:N	2.10	0.81
1:B:581:LEU:O	1:B:585:LEU:N	2.12	0.81
1:A:1951:HIS:O	1:A:1955:LEU:N	2.14	0.81
1:A:2231:LEU:O	1:A:2235:MET:N	2.13	0.81
1:B:1464:VAL:O	1:B:1468:VAL:N	2.10	0.81
1:A:1397:HIS:O	1:A:1512:ALA:N	2.14	0.80
1:A:2277:GLN:O	1:A:2281:TYR:N	2.13	0.80
1:A:2872:HIS:O	1:A:2876:ILE:N	2.14	0.80
1:B:1397:HIS:O	1:B:1512:ALA:N	2.15	0.80
1:B:1442:TYR:O	1:B:1446:VAL:N	2.13	0.80
1:B:1751:GLU:O	1:B:1755:MET:N	2.12	0.80
1:B:2248:LYS:O	1:B:2252:THR:N	2.12	0.80
1:B:3008:ARG:O	1:B:3012:ARG:N	2.13	0.80
1:B:1926:THR:O	1:B:1930:ASP:N	2.12	0.80
1:B:1956:LEU:O	1:B:1960:ILE:N	2.10	0.80
1:A:830:PHE:O	1:A:834:GLU:N	2.15	0.80
1:A:1265:PHE:O	1:A:1269:LYS:N	2.14	0.80
1:A:2222:PRO:HA	1:A:2225:ALA:HB3	1.63	0.80
1:A:2391:ALA:O	1:A:2395:ASP:N	2.08	0.80
1:B:502:ALA:O	1:B:506:GLY:N	2.12	0.80
1:B:1888:ASN:O	1:B:1892:GLU:N	2.15	0.80
1:B:1943:LYS:O	1:B:1947:SER:N	2.14	0.80
1:B:2174:SER:O	1:B:2178:ALA:N	2.11	0.80
1:B:2339:ARG:O	1:B:2343:ASN:N	2.12	0.80
1:B:2383:LYS:O	1:B:2387:PHE:N	2.14	0.80
1:B:2735:CYS:O	1:B:2739:LEU:N	2.12	0.80
1:B:2123:SER:O	1:B:2127:SER:N	2.12	0.80
1:B:2127:SER:O	1:B:2131:ALA:N	2.13	0.80
1:B:2330:LEU:O	1:B:2334:TYR:N	2.14	0.80
1:A:878:THR:O	1:A:882:ILE:N	2.14	0.80
1:A:1962:ALA:O	1:A:1966:SER:N	2.11	0.80
1:A:2626:ALA:O	1:A:2630:LEU:N	2.11	0.80
1:B:1599:SER:O	1:B:1603:TYR:N	2.11	0.80
1:B:1828:LYS:O	1:B:1832:GLU:N	2.14	0.80
1:B:2277:GLN:O	1:B:2281:TYR:N	2.13	0.80
1:A:509:GLY:O	1:A:513:GLN:N	2.14	0.80
1:B:2411:GLU:O	1:B:2415:ALA:N	2.14	0.80
1:B:2622:ALA:O	1:B:2626:ALA:N	2.12	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2062:ALA:O	1:A:2066:GLN:N	2.13	0.80
1:A:2377:ASP:O	1:A:2381:ASN:N	2.11	0.80
1:A:2999:ASP:O	1:A:3003:ASN:N	2.12	0.80
1:B:282:LEU:O	1:B:286:GLN:N	2.14	0.80
1:B:1537:GLN:O	1:B:1541:LEU:N	2.15	0.80
1:A:2000:SER:O	1:A:2004:LEU:N	2.13	0.80
1:A:2295:GLU:O	1:A:2298:VAL:N	2.14	0.80
1:B:62:ARG:O	1:B:66:LYS:N	2.15	0.80
1:B:1593:GLU:O	1:B:1597:PHE:N	2.15	0.80
1:B:1662:THR:O	1:B:1666:GLU:N	2.13	0.80
1:A:1484:MET:O	1:A:1488:LEU:N	2.12	0.80
1:A:1559:ILE:O	1:A:1563:ASP:N	2.13	0.80
1:B:2295:GLU:O	1:B:2298:VAL:N	2.14	0.80
1:B:2377:ASP:O	1:B:2381:ASN:N	2.11	0.80
1:A:1457:LEU:O	1:A:1461:TRP:N	2.12	0.80
1:A:1469:ILE:O	1:A:1473:ILE:N	2.14	0.80
1:A:1534:VAL:O	1:A:1538:VAL:N	2.10	0.80
1:A:1593:GLU:O	1:A:1597:PHE:N	2.15	0.80
1:A:2557:LEU:O	1:A:2561:LEU:N	2.15	0.80
1:B:509:GLY:O	1:B:513:GLN:N	2.14	0.80
1:B:630:VAL:O	1:B:634:GLU:N	2.16	0.80
1:B:852:GLN:O	1:B:856:ASN:N	2.14	0.80
1:B:1264:HIS:O	1:B:1268:VAL:N	2.15	0.80
1:B:2172:THR:O	1:B:2176:LEU:N	2.14	0.80
1:B:2720:ASP:H	1:B:2763:ARG:C	1.90	0.80
1:B:2872:HIS:O	1:B:2876:ILE:N	2.14	0.80
1:A:282:LEU:O	1:A:286:GLN:N	2.14	0.79
1:A:1938:TYR:O	1:A:1942:ALA:N	2.15	0.79
1:A:2339:ARG:O	1:A:2343:ASN:N	2.12	0.79
1:B:1496:ASP:O	1:B:1500:GLN:N	2.16	0.79
1:B:1559:ILE:O	1:B:1563:ASP:N	2.13	0.79
1:B:2362:GLU:O	1:B:2366:GLU:N	2.14	0.79
1:B:2566:ALA:O	1:B:2762:GLN:N	2.12	0.79
1:A:172:PHE:O	1:A:176:LEU:N	2.13	0.79
1:A:444:PRO:O	1:A:448:HIS:N	2.14	0.79
1:A:1264:HIS:O	1:A:1268:VAL:N	2.15	0.79
1:A:2002:GLN:O	1:A:2006:LEU:N	2.09	0.79
1:A:2048:THR:O	1:A:2052:GLU:N	2.14	0.79
1:B:1938:TYR:O	1:B:1942:ALA:N	2.15	0.79
1:B:2224:MET:O	1:B:2228:THR:N	2.11	0.79
1:B:2776:ILE:O	1:B:2780:LEU:N	2.11	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2107:MET:O	1:A:2111:HIS:N	2.16	0.79
1:A:2273:ARG:O	1:A:2277:GLN:N	2.14	0.79
1:A:2386:ALA:O	1:A:2390:LEU:N	2.15	0.79
1:A:2503:MET:O	1:A:2507:ASP:N	2.14	0.79
1:B:1965:LYS:O	1:B:1969:ASP:N	2.10	0.79
1:A:1660:ASN:O	1:A:1664:GLU:N	2.15	0.79
1:B:1570:VAL:O	1:B:1574:LEU:N	2.13	0.79
1:A:62:ARG:O	1:A:66:LYS:N	2.15	0.79
1:A:630:VAL:O	1:A:634:GLU:N	2.15	0.79
1:A:1862:LEU:O	1:A:1866:VAL:N	2.15	0.79
1:A:2735:CYS:O	1:A:2739:LEU:N	2.12	0.79
1:B:830:PHE:O	1:B:834:GLU:N	2.15	0.79
1:B:1110:ALA:O	1:B:1114:LYS:N	2.16	0.79
1:B:2225:ALA:O	1:B:2229:VAL:N	2.10	0.79
1:B:2720:ASP:N	1:B:2763:ARG:O	2.14	0.79
1:A:845:ASN:O	1:A:849:VAL:N	2.16	0.79
1:A:1954:ALA:O	1:A:1958:ALA:N	2.12	0.79
1:A:1971:GLU:O	1:A:1975:LEU:N	2.12	0.79
1:A:2720:ASP:H	1:A:2763:ARG:C	1.90	0.79
1:B:845:ASN:O	1:B:849:VAL:N	2.16	0.79
1:B:1469:ILE:O	1:B:1473:ILE:N	2.14	0.79
1:B:1550:LYS:O	1:B:1554:ASN:N	2.12	0.79
1:B:2798:ALA:O	1:B:2802:GLN:N	2.15	0.79
1:B:2999:ASP:O	1:B:3003:ASN:N	2.12	0.79
1:A:1613:GLY:O	1:A:1617:LEU:N	2.14	0.79
1:A:1888:ASN:O	1:A:1892:GLU:N	2.15	0.79
1:A:1998:GLY:O	1:A:2002:GLN:N	2.15	0.79
1:A:2123:SER:O	1:A:2127:SER:N	2.12	0.79
1:B:1150:ARG:O	1:B:1154:LEU:N	2.13	0.79
1:B:1517:LEU:O	1:B:1521:VAL:N	2.14	0.79
1:A:1258:HIS:O	1:A:1262:ARG:N	2.15	0.79
1:B:2948:ILE:O	1:B:2952:LEU:N	2.15	0.79
1:A:834:GLU:O	1:A:838:MET:N	2.16	0.78
1:A:1496:ASP:O	1:A:1500:GLN:N	2.15	0.78
1:A:1550:LYS:O	1:A:1554:ASN:N	2.12	0.78
1:A:3003:ASN:O	1:A:3007:GLU:N	2.10	0.78
1:B:1942:ALA:O	1:B:1946:GLN:N	2.10	0.78
1:B:2254:HIS:O	1:B:2258:LEU:N	2.14	0.78
1:A:1110:ALA:O	1:A:1114:LYS:N	2.16	0.78
1:A:2362:GLU:O	1:A:2366:GLU:N	2.14	0.78
1:A:2946:LEU:O	1:A:2950:GLU:N	2.16	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1951:HIS:O	1:B:1955:LEU:N	2.14	0.78
1:B:2779:PHE:O	1:B:2783:ASN:N	2.11	0.78
1:A:2411:GLU:O	1:A:2415:ALA:N	2.15	0.78
1:A:1517:LEU:O	1:A:1521:VAL:N	2.14	0.78
1:B:1944:VAL:O	1:B:1948:CYS:N	2.15	0.78
1:B:1945:ALA:O	1:B:1949:ALA:N	2.16	0.78
1:A:1259:LEU:O	1:A:1263:SER:N	2.11	0.78
1:A:2383:LYS:O	1:A:2387:PHE:N	2.14	0.78
1:B:444:PRO:O	1:B:448:HIS:N	2.14	0.78
1:B:1660:ASN:O	1:B:1664:GLU:N	2.15	0.78
1:A:348:LEU:O	1:A:352:ILE:N	2.12	0.78
1:A:1828:LYS:O	1:A:1832:GLU:N	2.14	0.78
1:A:2692:LEU:HA	1:A:2700:LYS:HA	1.66	0.78
1:A:3008:ARG:O	1:A:3012:ARG:N	2.12	0.78
1:B:1484:MET:O	1:B:1488:LEU:N	2.12	0.78
1:B:2015:PRO:O	1:B:2019:TYR:N	2.17	0.78
1:B:2046:LEU:O	1:B:2050:ASP:N	2.14	0.78
1:A:1109:LYS:O	1:A:1113:LEU:N	2.12	0.78
1:A:2702:ILE:O	1:A:2714:GLN:N	2.16	0.78
1:A:2798:ALA:O	1:A:2802:GLN:N	2.15	0.78
1:B:1259:LEU:O	1:B:1263:SER:N	2.11	0.78
1:B:2000:SER:O	1:B:2004:LEU:N	2.13	0.78
1:B:3029:GLY:O	1:B:3033:ASN:N	2.13	0.78
1:A:2948:ILE:O	1:A:2952:LEU:N	2.15	0.78
1:B:348:LEU:O	1:B:352:ILE:N	2.12	0.78
1:B:2824:CYS:O	1:B:2827:PHE:O	2.02	0.78
1:A:1436:HIS:O	1:A:1440:LYS:N	2.13	0.78
1:A:2824:CYS:O	1:A:2827:PHE:O	2.01	0.78
1:B:853:SER:O	1:B:857:LEU:N	2.14	0.78
1:B:1353:GLU:O	1:B:1356:ASN:N	2.13	0.78
1:B:2503:MET:O	1:B:2507:ASP:N	2.14	0.78
1:B:2692:LEU:HA	1:B:2700:LYS:HA	1.66	0.78
1:A:1139:GLU:O	1:A:1143:THR:N	2.13	0.78
1:A:1944:VAL:O	1:A:1948:CYS:N	2.15	0.78
1:B:1826:LEU:O	1:B:1830:MET:N	2.17	0.78
1:B:1966:SER:O	1:B:1970:GLN:N	2.13	0.78
1:A:1353:GLU:O	1:A:1356:ASN:N	2.13	0.77
1:A:3035:LEU:O	1:A:3039:ALA:N	2.14	0.77
1:B:1436:HIS:O	1:B:1440:LYS:N	2.13	0.77
1:B:2557:LEU:O	1:B:2561:LEU:N	2.15	0.77
1:B:2702:ILE:O	1:B:2714:GLN:N	2.16	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2015:PRO:O	1:A:2019:TYR:N	2.17	0.77
1:B:658:ASP:O	1:B:663:LEU:N	2.16	0.77
1:B:2336:GLU:O	1:B:2340:VAL:N	2.12	0.77
1:B:2485:PHE:O	1:B:2489:SER:N	2.15	0.77
1:A:1716:THR:O	1:A:1720:ASN:N	2.12	0.77
1:A:1826:LEU:O	1:A:1830:MET:N	2.17	0.77
1:A:1945:ALA:O	1:A:1949:ALA:N	2.16	0.77
1:A:2046:LEU:O	1:A:2050:ASP:N	2.14	0.77
1:A:2485:PHE:O	1:A:2489:SER:N	2.15	0.77
1:A:2847:GLU:O	1:A:2851:ALA:N	2.12	0.77
1:B:2361:LEU:O	1:B:2365:VAL:N	2.17	0.77
1:A:478:SER:O	1:A:482:LYS:N	2.16	0.77
1:A:853:SER:O	1:A:857:LEU:N	2.14	0.77
1:B:2315:MET:O	1:B:2319:LEU:N	2.18	0.77
1:A:224:LYS:O	1:A:228:GLY:N	2.17	0.77
1:A:1293:ASN:O	1:A:1297:TYR:N	2.17	0.77
1:A:1869:PHE:O	1:A:1873:CYS:N	2.16	0.77
1:B:1614:LEU:O	1:B:1618:ARG:N	2.16	0.77
1:A:346:ILE:O	1:A:350:ALA:N	2.13	0.77
1:A:501:GLN:O	1:A:505:PHE:N	2.17	0.77
1:B:2142:THR:O	1:B:2146:SER:N	2.14	0.77
1:B:2623:LEU:O	1:B:2627:TYR:N	2.14	0.77
1:A:1878:SER:O	1:A:1882:ARG:N	2.17	0.77
1:A:2174:SER:O	1:A:2178:ALA:N	2.11	0.77
1:B:191:ILE:O	1:B:195:THR:N	2.15	0.77
1:B:501:GLN:O	1:B:505:PHE:N	2.17	0.77
1:B:1646:LYS:O	1:B:1650:ASN:N	2.18	0.77
1:B:3004:LYS:O	1:B:3008:ARG:N	2.14	0.77
1:A:1140:ASN:O	1:A:1145:ASP:N	2.17	0.77
1:A:1535:GLN:O	1:A:1539:LEU:N	2.16	0.77
1:A:2315:MET:O	1:A:2319:LEU:N	2.18	0.77
1:B:2386:ALA:O	1:B:2390:LEU:N	2.15	0.77
1:B:2626:ALA:O	1:B:2630:LEU:N	2.11	0.77
1:A:1714:MET:O	1:A:1718:LEU:N	2.12	0.77
1:A:2330:LEU:O	1:A:2334:TYR:N	2.14	0.77
1:A:2361:LEU:O	1:A:2365:VAL:N	2.17	0.77
1:A:3042:PRO:O	1:A:3046:SER:N	2.11	0.77
1:B:1941:VAL:O	1:B:1945:ALA:N	2.14	0.77
1:B:2453:ARG:O	1:B:2457:GLU:N	2.13	0.77
1:A:519:VAL:O	1:A:523:PHE:N	2.15	0.76
1:A:1076:GLN:O	1:A:1080:ASP:N	2.17	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3028:VAL:O	1:A:3031:GLN:N	2.18	0.76
1:B:1140:ASN:O	1:B:1145:ASP:N	2.17	0.76
1:B:2066:GLN:O	1:B:2070:ASN:N	2.14	0.76
1:B:2867:GLY:HA3	1:B:2894:PHE:HA	1.65	0.76
1:B:1139:GLU:O	1:B:1143:THR:N	2.13	0.76
1:A:2723:ARG:HA	1:A:2726:ALA:HB3	1.66	0.76
1:A:2867:GLY:HA3	1:A:2894:PHE:HA	1.65	0.76
1:B:3028:VAL:O	1:B:3031:GLN:N	2.18	0.76
1:A:1646:LYS:O	1:A:1650:ASN:N	2.18	0.76
1:B:1076:GLN:O	1:B:1080:ASP:N	2.17	0.76
1:B:1394:SER:O	1:B:1396:CYS:N	2.18	0.76
1:B:2863:GLY:O	1:B:2867:GLY:N	2.19	0.76
1:A:1394:SER:O	1:A:1396:CYS:N	2.18	0.76
1:A:2862:VAL:O	1:A:2866:LEU:N	2.14	0.76
1:B:834:GLU:O	1:B:838:MET:N	2.16	0.76
1:B:1713:ILE:O	1:B:1717:TYR:N	2.16	0.76
1:B:1869:PHE:O	1:B:1873:CYS:N	2.16	0.76
1:B:2208:HIS:O	1:B:2212:LEU:N	2.19	0.76
1:A:10:ILE:O	1:A:14:GLN:N	2.19	0.76
1:B:3003:ASN:O	1:B:3007:GLU:N	2.11	0.76
1:A:561:GLN:O	1:A:565:GLU:N	2.19	0.76
1:A:2194:THR:O	1:A:2198:LEU:N	2.16	0.76
1:A:2308:ALA:O	1:A:2312:LEU:N	2.17	0.76
1:A:2863:GLY:O	1:A:2867:GLY:N	2.19	0.76
1:B:851:ASP:O	1:B:855:MET:N	2.17	0.76
1:B:1293:ASN:O	1:B:1297:TYR:N	2.17	0.76
1:A:1634:ALA:O	1:A:1638:ASN:N	2.14	0.76
1:B:1457:LEU:O	1:B:1461:TRP:N	2.12	0.76
1:A:1926:THR:O	1:A:1930:ASP:N	2.12	0.76
1:A:2622:ALA:O	1:A:2626:ALA:N	2.12	0.76
1:B:10:ILE:O	1:B:14:GLN:N	2.19	0.76
1:B:1862:LEU:O	1:B:1866:VAL:N	2.15	0.76
1:A:155:TYR:O	1:A:159:ILE:N	2.17	0.76
1:A:3029:GLY:O	1:A:3033:ASN:N	2.14	0.76
1:A:1212:SER:O	1:A:1216:TYR:N	2.18	0.75
1:B:2846:PHE:O	1:B:2850:LEU:N	2.11	0.75
1:A:658:ASP:O	1:A:663:LEU:N	2.16	0.75
1:A:1943:LYS:O	1:A:1947:SER:N	2.14	0.75
1:A:2501:ASN:O	1:A:2505:LYS:N	2.17	0.75
1:B:224:LYS:O	1:B:228:GLY:N	2.17	0.75
1:B:2501:ASN:O	1:B:2505:LYS:N	2.17	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2946:LEU:O	1:B:2950:GLU:N	2.16	0.75
1:B:3010:LEU:O	1:B:3014:GLN:N	2.12	0.75
1:A:1516:HIS:O	1:A:1520:ILE:N	2.15	0.75
1:A:1558:THR:O	1:A:1562:LEU:N	2.17	0.75
1:A:2069:GLN:O	1:A:2073:LEU:N	2.18	0.75
1:A:2606:ILE:O	1:A:2610:ARG:N	2.18	0.75
1:A:3049:PHE:O	1:A:3053:LYS:N	2.19	0.75
1:B:64:LEU:O	1:B:68:ILE:N	2.19	0.75
1:B:1878:SER:O	1:B:1882:ARG:N	2.17	0.75
1:B:2156:GLU:O	1:B:2160:LYS:N	2.15	0.75
1:A:2248:LYS:O	1:A:2252:THR:N	2.12	0.75
1:A:2254:HIS:O	1:A:2258:LEU:N	2.14	0.75
1:B:1258:HIS:O	1:B:1262:ARG:N	2.15	0.75
1:B:2797:SER:O	1:B:2801:CYS:N	2.16	0.75
1:B:2924:GLU:CA	1:B:2928:ARG:H	2.00	0.75
1:A:1003:GLN:O	1:A:1007:ASP:N	2.20	0.75
1:A:2331:LYS:O	1:A:2335:THR:N	2.12	0.75
1:B:1613:GLY:O	1:B:1617:LEU:N	2.14	0.75
1:B:2194:THR:O	1:B:2198:LEU:N	2.16	0.75
1:B:2847:GLU:O	1:B:2851:ALA:N	2.12	0.75
1:A:1644:MET:O	1:A:1648:VAL:N	2.15	0.75
1:A:2412:ASN:HA	1:A:2415:ALA:HB3	1.69	0.75
1:A:2453:ARG:O	1:A:2457:GLU:N	2.13	0.75
1:B:736:ALA:O	1:B:740:ALA:N	2.19	0.75
1:B:1260:VAL:O	1:B:1264:HIS:N	2.16	0.75
1:B:2062:ALA:O	1:B:2066:GLN:N	2.13	0.75
1:B:2107:MET:O	1:B:2111:HIS:N	2.16	0.75
1:B:2519:LEU:O	1:B:2523:LEU:N	2.20	0.75
1:B:2734:MET:O	1:B:2738:LEU:N	2.15	0.75
1:B:478:SER:O	1:B:482:LYS:N	2.16	0.75
1:B:1704:GLU:O	1:B:1708:LEU:N	2.20	0.75
1:B:2686:PHE:HA	1:B:2704:CYS:HA	1.69	0.75
1:B:2723:ARG:HA	1:B:2726:ALA:HB3	1.66	0.75
1:A:280:ILE:O	1:A:284:GLN:N	2.19	0.75
1:A:736:ALA:O	1:A:740:ALA:N	2.19	0.75
1:A:1941:VAL:O	1:A:1945:ALA:N	2.14	0.75
1:A:2066:GLN:O	1:A:2070:ASN:N	2.14	0.75
1:A:2691:ARG:O	1:A:2701:ILE:N	2.19	0.75
1:B:155:TYR:O	1:B:159:ILE:N	2.17	0.75
1:A:485:ASN:O	1:A:489:CYS:N	2.20	0.74
1:A:2172:THR:O	1:A:2176:LEU:N	2.14	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:629:SER:O	1:B:633:CYS:N	2.18	0.74
1:B:1598:LEU:O	1:B:1602:VAL:N	2.19	0.74
1:B:1721:THR:O	1:B:1725:ASP:N	2.17	0.74
1:B:2384:MET:O	1:B:2388:LEU:N	2.15	0.74
1:B:3035:LEU:O	1:B:3039:ALA:N	2.14	0.74
1:A:207:SER:O	1:A:211:ASP:N	2.19	0.74
1:A:1442:TYR:O	1:A:1446:VAL:N	2.13	0.74
1:A:2519:LEU:O	1:A:2523:LEU:N	2.20	0.74
1:B:1003:GLN:O	1:B:1007:ASP:N	2.20	0.74
1:B:1558:THR:O	1:B:1562:LEU:N	2.17	0.74
1:B:2862:VAL:O	1:B:2866:LEU:N	2.14	0.74
1:A:2208:HIS:O	1:A:2212:LEU:N	2.19	0.74
1:B:2273:ARG:O	1:B:2277:GLN:N	2.14	0.74
1:B:2621:GLU:O	1:B:2625:ASP:N	2.19	0.74
1:A:846:LEU:O	1:A:850:GLU:N	2.19	0.74
1:B:2487:LEU:O	1:B:2491:TRP:N	2.15	0.74
1:B:2412:ASN:HA	1:B:2415:ALA:HB3	1.69	0.74
1:B:3049:PHE:O	1:B:3053:LYS:N	2.19	0.74
1:A:2384:MET:O	1:A:2388:LEU:N	2.15	0.74
1:A:2541:LEU:O	1:A:2545:ILE:N	2.15	0.74
1:B:346:ILE:O	1:B:350:ALA:N	2.13	0.74
1:B:2222:PRO:O	1:B:2226:LEU:N	2.21	0.74
1:A:1904:LYS:O	1:A:1908:THR:N	2.20	0.74
1:A:2686:PHE:HA	1:A:2704:CYS:HA	1.70	0.74
1:B:2402:GLU:O	1:B:2406:LYS:N	2.16	0.74
1:B:2598:ARG:O	1:B:2602:ALA:N	2.15	0.74
1:A:64:LEU:O	1:A:68:ILE:N	2.19	0.74
1:A:1111:LEU:O	1:A:1116:GLN:N	2.19	0.74
1:A:2597:ASP:O	1:A:2601:ALA:N	2.19	0.74
1:A:2815:GLU:O	1:A:2819:VAL:N	2.16	0.74
1:B:1111:LEU:O	1:B:1116:GLN:N	2.19	0.74
1:B:1904:LYS:O	1:B:1908:THR:N	2.20	0.74
1:B:2933:LYS:O	1:B:2937:VAL:N	2.18	0.74
1:A:1342:GLU:O	1:A:1346:GLU:N	2.20	0.74
1:A:1704:GLU:O	1:A:1708:LEU:N	2.20	0.74
1:A:1831:CYS:O	1:A:1835:THR:N	2.17	0.74
1:A:1857:SER:O	1:A:1861:LEU:N	2.18	0.74
1:A:2156:GLU:O	1:A:2160:LYS:N	2.15	0.74
1:B:485:ASN:O	1:B:489:CYS:N	2.20	0.74
1:B:2147:LEU:O	1:B:2151:ARG:N	2.21	0.74
1:A:1107:LEU:O	1:A:1111:LEU:N	2.16	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1614:LEU:O	1:A:1618:ARG:N	2.16	0.74
1:A:2402:GLU:O	1:A:2406:LYS:N	2.16	0.74
1:A:2598:ARG:O	1:A:2602:ALA:N	2.15	0.74
1:A:3004:LYS:O	1:A:3008:ARG:N	2.14	0.74
1:B:2363:LYS:O	1:B:2367:VAL:N	2.21	0.74
1:A:2009:TYR:O	1:A:2013:GLY:N	2.21	0.73
1:B:280:ILE:O	1:B:284:GLN:N	2.19	0.73
1:B:1342:GLU:O	1:B:1346:GLU:N	2.20	0.73
1:B:2043:GLY:O	1:B:2047:VAL:N	2.17	0.73
1:A:1537:GLN:O	1:A:1541:LEU:N	2.15	0.73
1:B:1535:GLN:O	1:B:1539:LEU:N	2.16	0.73
1:B:2308:ALA:O	1:B:2312:LEU:N	2.17	0.73
1:B:1456:GLY:O	1:B:1460:ALA:N	2.19	0.73
1:B:1998:GLY:O	1:B:2002:GLN:N	2.15	0.73
1:A:1966:SER:O	1:A:1970:GLN:N	2.13	0.73
1:A:2924:GLU:CA	1:A:2928:ARG:H	2.00	0.73
1:A:2933:LYS:O	1:A:2937:VAL:N	2.18	0.73
1:B:272:ASN:O	1:B:276:LYS:N	2.21	0.73
1:B:2815:GLU:O	1:B:2819:VAL:N	2.16	0.73
1:A:272:ASN:O	1:A:276:LYS:N	2.21	0.73
1:A:2147:LEU:O	1:A:2151:ARG:N	2.21	0.73
1:A:2623:LEU:O	1:A:2627:TYR:N	2.14	0.73
1:A:2844:ILE:HA	1:A:2848:LYS:H	1.53	0.73
1:A:1945:ALA:HB1	1:A:1954:ALA:HA	1.70	0.73
1:B:692:ARG:O	1:B:696:GLY:N	2.21	0.73
1:B:943:HIS:O	1:B:947:TYR:N	2.17	0.73
1:B:1516:HIS:O	1:B:1520:ILE:N	2.15	0.73
1:A:1117:GLN:O	1:A:1121:GLU:N	2.18	0.73
1:A:2142:THR:O	1:A:2146:SER:N	2.14	0.73
1:B:2075:HIS:O	1:B:2079:VAL:N	2.17	0.73
1:B:2534:GLY:O	1:B:2538:HIS:N	2.21	0.73
1:A:1957:TYR:O	1:A:1961:TYR:N	2.17	0.73
1:A:2256:VAL:O	1:A:2260:ILE:N	2.20	0.73
1:A:2335:THR:O	1:A:2339:ARG:N	2.18	0.73
1:B:1679:GLY:O	1:B:1683:PHE:N	2.22	0.73
1:B:2844:ILE:HA	1:B:2848:LYS:H	1.53	0.73
1:A:629:SER:O	1:A:633:CYS:N	2.19	0.73
1:A:633:CYS:O	1:A:637:GLN:N	2.22	0.73
1:A:1260:VAL:O	1:A:1264:HIS:N	2.16	0.73
1:A:2539:GLU:O	1:A:2543:ASN:N	2.19	0.73
1:A:2733:GLN:O	1:A:2737:THR:N	2.17	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2757:VAL:HA	1:A:2767:LEU:HA	1.70	0.73
1:B:171:TYR:O	1:B:175:TYR:N	2.22	0.73
1:B:633:CYS:O	1:B:637:GLN:N	2.22	0.73
1:B:2334:TYR:O	1:B:2338:LEU:N	2.16	0.73
1:B:2796:PHE:O	1:B:2800:GLN:N	2.19	0.73
1:A:1765:GLN:O	1:A:1769:THR:N	2.22	0.72
1:A:2654:THR:O	1:A:2658:ASN:N	2.22	0.72
1:B:1945:ALA:HB1	1:B:1954:ALA:HA	1.70	0.72
1:B:1964:LYS:O	1:B:1968:ASP:N	2.13	0.72
1:B:2597:ASP:O	1:B:2601:ALA:N	2.19	0.72
1:A:191:ILE:O	1:A:195:THR:N	2.15	0.72
1:A:1395:ASN:O	1:A:1399:THR:N	2.19	0.72
1:A:1398:LYS:HA	1:A:1513:LEU:H	1.54	0.72
1:A:1678:VAL:O	1:A:1682:ASP:N	2.17	0.72
1:B:1831:CYS:O	1:B:1835:THR:N	2.17	0.72
1:B:2332:LEU:O	1:B:2336:GLU:N	2.16	0.72
1:A:563:MET:O	1:A:567:ASN:N	2.22	0.72
1:A:2621:GLU:O	1:A:2625:ASP:N	2.19	0.72
1:B:158:GLU:O	1:B:162:GLN:N	2.22	0.72
1:A:828:LYS:O	1:A:832:ARG:N	2.20	0.72
1:A:1001:LEU:O	1:A:1005:ASN:N	2.21	0.72
1:A:1679:GLY:O	1:A:1683:PHE:N	2.22	0.72
1:A:2534:GLY:O	1:A:2538:HIS:N	2.21	0.72
1:A:2619:SER:O	1:A:2623:LEU:N	2.16	0.72
1:B:1001:LEU:O	1:B:1005:ASN:N	2.21	0.72
1:B:1354:PRO:O	1:B:1358:SER:N	2.23	0.72
1:B:1678:VAL:O	1:B:1682:ASP:N	2.17	0.72
1:B:1765:GLN:O	1:B:1769:THR:N	2.22	0.72
1:B:2331:LYS:O	1:B:2335:THR:N	2.12	0.72
1:B:2342:GLY:O	1:B:2346:ALA:N	2.18	0.72
1:A:156:TRP:O	1:A:160:SER:N	2.22	0.72
1:A:2544:LEU:O	1:A:2548:ILE:N	2.16	0.72
1:B:190:ILE:O	1:B:194:VAL:N	2.22	0.72
1:B:276:LYS:O	1:B:281:GLU:N	2.23	0.72
1:B:1398:LYS:HA	1:B:1513:LEU:H	1.54	0.72
1:B:1857:SER:O	1:B:1861:LEU:N	2.18	0.72
1:B:2691:ARG:O	1:B:2701:ILE:N	2.19	0.72
1:A:2342:GLY:O	1:A:2346:ALA:N	2.18	0.72
1:A:2559:ILE:O	1:A:2563:LEU:N	2.22	0.72
1:B:582:PHE:O	1:B:586:GLU:N	2.20	0.72
1:B:846:LEU:O	1:B:850:GLU:N	2.19	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1957:TYR:O	1:B:1961:TYR:N	2.17	0.72
1:B:2539:GLU:O	1:B:2543:ASN:N	2.19	0.72
1:B:2733:GLN:O	1:B:2737:THR:N	2.17	0.72
1:A:171:TYR:O	1:A:175:TYR:N	2.22	0.72
1:B:345:LEU:O	1:B:349:MET:N	2.16	0.72
1:B:2654:THR:O	1:B:2658:ASN:N	2.22	0.72
1:A:1662:THR:O	1:A:1666:GLU:N	2.13	0.72
1:A:2035:THR:O	1:A:2039:GLU:N	2.18	0.72
1:A:2487:LEU:O	1:A:2491:TRP:N	2.15	0.72
1:A:2734:MET:O	1:A:2738:LEU:N	2.15	0.72
1:A:2911:THR:O	1:A:2915:VAL:N	2.17	0.72
1:B:1597:PHE:O	1:B:1601:SER:N	2.18	0.72
1:B:1644:MET:O	1:B:1648:VAL:N	2.15	0.72
1:B:2559:ILE:O	1:B:2563:LEU:N	2.22	0.72
1:A:2043:GLY:O	1:A:2047:VAL:N	2.17	0.72
1:B:9:LEU:O	1:B:13:ARG:N	2.18	0.72
1:B:3030:GLY:O	1:B:3034:LEU:N	2.16	0.72
1:A:481:LEU:O	1:A:485:ASN:N	2.17	0.72
1:A:2797:SER:O	1:A:2801:CYS:N	2.16	0.72
1:B:60:VAL:O	1:B:64:LEU:N	2.17	0.72
1:B:2009:TYR:O	1:B:2013:GLY:N	2.21	0.72
1:A:158:GLU:O	1:A:162:GLN:N	2.22	0.71
1:B:2256:VAL:O	1:B:2260:ILE:N	2.20	0.71
1:B:2619:SER:O	1:B:2623:LEU:N	2.16	0.71
1:A:2222:PRO:O	1:A:2226:LEU:N	2.21	0.71
1:B:182:VAL:O	1:B:186:LEU:N	2.22	0.71
1:B:563:MET:O	1:B:567:ASN:N	2.22	0.71
1:B:1213:HIS:O	1:B:1217:LEU:N	2.23	0.71
1:B:2335:THR:O	1:B:2339:ARG:N	2.18	0.71
1:B:2606:ILE:O	1:B:2610:ARG:N	2.18	0.71
1:A:190:ILE:O	1:A:194:VAL:N	2.22	0.71
1:A:2064:ILE:O	1:A:2068:LEU:N	2.17	0.71
1:A:1912:VAL:O	1:A:1916:MET:N	2.24	0.71
1:A:2603:ASN:O	1:A:2607:CYS:N	2.23	0.71
1:A:2878:ILE:HA	1:A:2885:LEU:HA	1.73	0.71
1:B:519:VAL:O	1:B:523:PHE:N	2.15	0.71
1:A:1213:HIS:O	1:A:1217:LEU:N	2.23	0.71
1:A:2127:SER:O	1:A:2131:ALA:N	2.12	0.71
1:A:2399:GLN:O	1:A:2403:ASN:N	2.18	0.71
1:B:207:SER:O	1:B:211:ASP:N	2.19	0.71
1:A:851:ASP:O	1:A:855:MET:N	2.18	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1354:PRO:O	1:A:1358:SER:N	2.23	0.71
1:B:1395:ASN:O	1:B:1399:THR:N	2.19	0.71
1:B:1912:VAL:O	1:B:1916:MET:N	2.24	0.71
1:B:2617:VAL:O	1:B:2620:VAL:N	2.18	0.71
1:A:1676:GLY:O	1:A:1679:GLY:N	2.23	0.71
1:B:61:PHE:O	1:B:65:GLN:N	2.19	0.71
1:B:1117:GLN:O	1:B:1121:GLU:N	2.18	0.71
1:B:2449:GLU:O	1:B:2453:ARG:N	2.17	0.71
1:A:243:LEU:O	1:A:247:PHE:N	2.24	0.71
1:B:2757:VAL:HA	1:B:2767:LEU:HA	1.70	0.71
1:A:579:TRP:O	1:A:583:TYR:N	2.19	0.71
1:A:582:PHE:O	1:A:586:GLU:N	2.20	0.71
1:A:978:SER:O	1:A:982:ARG:N	2.20	0.71
1:A:1263:SER:O	1:A:1267:GLU:N	2.17	0.71
1:A:1964:LYS:O	1:A:1968:ASP:N	2.13	0.71
1:A:2297:GLN:O	1:A:2301:ALA:N	2.22	0.71
1:B:156:TRP:O	1:B:160:SER:N	2.22	0.71
1:B:243:LEU:O	1:B:247:PHE:N	2.24	0.71
1:B:2292:GLN:O	1:B:2295:GLU:N	2.24	0.71
1:B:2364:ALA:O	1:B:2368:ALA:N	2.20	0.71
1:A:2194:THR:N	1:A:2197:GLN:H	1.89	0.70
1:A:2819:VAL:O	1:A:2823:VAL:N	2.19	0.70
1:B:313:TYR:O	1:B:317:ASP:N	2.20	0.70
1:B:579:TRP:O	1:B:583:TYR:N	2.19	0.70
1:B:656:THR:O	1:B:660:MET:N	2.20	0.70
1:B:1736:CYS:O	1:B:1740:ILE:N	2.19	0.70
1:B:1847:HIS:O	1:B:1851:LEU:N	2.16	0.70
1:A:2334:TYR:O	1:A:2338:LEU:N	2.16	0.70
1:A:2841:ASP:O	1:A:2844:ILE:N	2.23	0.70
1:A:2928:ARG:O	1:A:2932:GLU:N	2.21	0.70
1:B:275:LEU:O	1:B:280:ILE:N	2.24	0.70
1:B:583:TYR:O	1:B:587:GLY:N	2.24	0.70
1:B:2541:LEU:O	1:B:2545:ILE:N	2.15	0.70
1:A:2359:THR:O	1:A:2363:LYS:N	2.20	0.70
1:B:1531:GLN:O	1:B:1534:VAL:N	2.19	0.70
1:B:2297:GLN:O	1:B:2301:ALA:N	2.22	0.70
1:B:2878:ILE:HA	1:B:2885:LEU:HA	1.73	0.70
1:A:1736:CYS:O	1:A:1740:ILE:N	2.19	0.70
1:A:2363:LYS:O	1:A:2367:VAL:N	2.21	0.70
1:B:1198:SER:O	1:B:1202:GLY:N	2.20	0.70
1:A:508:LEU:O	1:A:512:ILE:N	2.19	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:943:HIS:O	1:A:947:TYR:N	2.17	0.70
1:A:1557:ILE:O	1:A:1561:LEU:N	2.23	0.70
1:B:1136:HIS:O	1:B:1140:ASN:N	2.16	0.70
1:B:1634:ALA:O	1:B:1638:ASN:N	2.14	0.70
1:B:2261:LEU:O	1:B:2265:PHE:N	2.20	0.70
1:B:2841:ASP:O	1:B:2844:ILE:N	2.23	0.70
1:A:61:PHE:O	1:A:65:GLN:N	2.19	0.70
1:A:2772:GLY:O	1:A:2879:ASN:HA	1.92	0.70
1:B:2194:THR:N	1:B:2197:GLN:H	1.89	0.70
1:B:2306:SER:H	1:B:2309:LEU:N	1.89	0.70
1:B:2445:LEU:O	1:B:2449:GLU:N	2.18	0.70
1:A:2449:GLU:O	1:A:2453:ARG:N	2.17	0.70
1:A:2685:SER:N	1:A:2705:VAL:O	2.19	0.70
1:A:2926:VAL:O	1:A:2930:CYS:N	2.21	0.70
1:B:2343:ASN:O	1:B:2347:GLU:N	2.17	0.70
1:B:2413:LYS:O	1:B:2417:LEU:N	2.21	0.70
1:A:345:LEU:O	1:A:349:MET:N	2.16	0.70
1:A:1881:SER:O	1:A:1885:THR:N	2.18	0.70
1:B:2150:ALA:O	1:B:2154:GLU:N	2.21	0.70
1:B:2359:THR:O	1:B:2363:LYS:N	2.20	0.70
1:B:2603:ASN:O	1:B:2607:CYS:N	2.23	0.70
1:B:2926:VAL:O	1:B:2930:CYS:N	2.21	0.70
1:A:275:LEU:O	1:A:280:ILE:N	2.24	0.70
1:A:276:LYS:O	1:A:281:GLU:N	2.23	0.70
1:A:692:ARG:O	1:A:696:GLY:N	2.21	0.70
1:A:1713:ILE:O	1:A:1717:TYR:N	2.16	0.70
1:A:2251:LEU:O	1:A:2255:LEU:N	2.20	0.70
1:A:2292:GLN:O	1:A:2295:GLU:N	2.24	0.70
1:B:2512:PRO:O	1:B:2516:PHE:N	2.22	0.70
1:A:67:TYR:O	1:A:71:GLU:N	2.24	0.70
1:A:182:VAL:O	1:A:186:LEU:N	2.22	0.70
1:A:284:GLN:O	1:A:288:TYR:N	2.23	0.70
1:A:1552:ASN:O	1:A:1556:TYR:N	2.21	0.70
1:A:1724:GLU:O	1:A:1727:VAL:N	2.24	0.70
1:A:2617:VAL:O	1:A:2620:VAL:N	2.18	0.70
1:B:194:VAL:O	1:B:198:CYS:N	2.25	0.70
1:B:561:GLN:O	1:B:565:GLU:N	2.19	0.70
1:B:989:THR:O	1:B:993:HIS:N	2.19	0.70
1:B:1107:LEU:O	1:B:1111:LEU:N	2.16	0.70
1:B:1586:GLY:O	1:B:1591:LEU:N	2.25	0.70
1:B:1676:GLY:O	1:B:1679:GLY:N	2.23	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1155:LEU:O	1:B:1159:ALA:N	2.23	0.69
1:B:2472:ASN:O	1:B:2476:SER:N	2.25	0.69
1:B:2544:LEU:O	1:B:2548:ILE:N	2.16	0.69
1:B:2731:VAL:O	1:B:2735:CYS:N	2.19	0.69
1:B:3036:ILE:O	1:B:3040:ILE:N	2.25	0.69
1:A:1170:LYS:O	1:A:1174:PHE:N	2.18	0.69
1:A:1456:GLY:O	1:A:1460:ALA:N	2.19	0.69
1:A:2075:HIS:O	1:A:2079:VAL:N	2.17	0.69
1:A:2257:GLU:O	1:A:2261:LEU:N	2.21	0.69
1:A:194:VAL:O	1:A:198:CYS:N	2.25	0.69
1:A:712:SER:O	1:A:716:VAL:N	2.20	0.69
1:A:2973:ARG:O	1:A:2975:GLU:N	2.25	0.69
1:B:993:HIS:O	1:B:997:VAL:N	2.24	0.69
1:B:2199:SER:O	1:B:2203:ILE:N	2.18	0.69
1:A:656:THR:O	1:A:660:MET:N	2.20	0.69
1:B:506:GLY:O	1:B:510:ALA:N	2.24	0.69
1:B:1912:VAL:O	1:B:1917:ARG:N	2.26	0.69
1:A:8:LEU:O	1:A:12:CYS:N	2.25	0.69
1:A:2258:LEU:O	1:A:2262:ALA:N	2.25	0.69
1:B:2258:LEU:O	1:B:2262:ALA:N	2.24	0.69
1:B:2973:ARG:O	1:B:2975:GLU:N	2.25	0.69
1:A:1439:LEU:O	1:A:1443:HIS:N	2.21	0.69
1:A:1586:GLY:O	1:A:1591:LEU:N	2.25	0.69
1:B:1397:HIS:C	1:B:1400:LYS:H	2.01	0.69
1:A:1271:ILE:O	1:A:1276:GLN:N	2.26	0.69
1:A:1531:GLN:O	1:A:1534:VAL:N	2.19	0.69
1:B:281:GLU:O	1:B:285:LEU:N	2.26	0.69
1:B:1557:ILE:O	1:B:1561:LEU:N	2.23	0.69
1:B:2911:THR:O	1:B:2915:VAL:N	2.17	0.69
1:A:457:ARG:O	1:A:461:GLU:N	2.23	0.69
1:A:2914:ILE:O	1:A:2918:MET:N	2.25	0.69
1:B:8:LEU:O	1:B:12:CYS:N	2.25	0.69
1:B:1485:ASP:O	1:B:1489:ARG:N	2.25	0.69
1:B:1724:GLU:O	1:B:1727:VAL:N	2.24	0.69
1:B:2270:LEU:O	1:B:2274:ALA:N	2.19	0.69
1:B:2682:THR:O	1:B:2707:SER:N	2.21	0.69
1:A:2294:GLU:O	1:A:2297:GLN:N	2.20	0.69
1:A:2306:SER:H	1:A:2309:LEU:N	1.89	0.69
1:B:1212:SER:O	1:B:1216:TYR:N	2.18	0.69
1:A:11:CYS:O	1:A:15:LEU:N	2.21	0.69
1:A:540:CYS:O	1:A:544:LEU:N	2.21	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1151:LYS:O	1:A:1155:LEU:N	2.27	0.69
1:B:540:CYS:O	1:B:544:LEU:N	2.21	0.69
1:B:1271:ILE:O	1:B:1276:GLN:N	2.26	0.69
1:B:2728:MET:O	1:B:2732:PHE:N	2.18	0.69
1:A:506:GLY:O	1:A:510:ALA:N	2.24	0.68
1:A:1397:HIS:C	1:A:1400:LYS:H	2.01	0.68
1:A:3030:GLY:O	1:A:3034:LEU:N	2.16	0.68
1:B:748:LYS:O	1:B:752:LEU:N	2.23	0.68
1:A:3036:ILE:O	1:A:3040:ILE:N	2.24	0.68
1:B:435:LEU:O	1:B:439:LEU:N	2.26	0.68
1:B:2035:THR:O	1:B:2039:GLU:N	2.18	0.68
1:A:583:TYR:O	1:A:587:GLY:N	2.24	0.68
1:A:2793:PRO:O	1:A:2797:SER:N	2.23	0.68
1:B:2772:GLY:O	1:B:2879:ASN:HA	1.92	0.68
1:A:1136:HIS:O	1:A:1140:ASN:N	2.16	0.68
1:A:2311:ILE:O	1:A:2315:MET:N	2.22	0.68
1:A:2472:ASN:O	1:A:2476:SER:N	2.25	0.68
1:A:2859:SER:O	1:A:2862:VAL:N	2.27	0.68
1:B:7:ASP:O	1:B:11:CYS:N	2.24	0.68
1:B:312:LEU:O	1:B:316:TYR:N	2.26	0.68
1:B:828:LYS:O	1:B:832:ARG:N	2.20	0.68
1:B:2064:ILE:O	1:B:2068:LEU:N	2.17	0.68
1:A:921:ALA:O	1:A:925:ARG:N	2.23	0.68
1:A:949:MET:O	1:A:953:GLU:N	2.22	0.68
1:B:1664:GLU:O	1:B:1668:LEU:N	2.22	0.68
1:B:2047:VAL:O	1:B:2051:LEU:N	2.22	0.68
1:A:281:GLU:O	1:A:285:LEU:N	2.26	0.68
1:A:2261:LEU:O	1:A:2265:PHE:N	2.20	0.68
1:A:2513:THR:O	1:A:2517:LEU:N	2.27	0.68
1:B:2842:PRO:O	1:B:2846:PHE:N	2.27	0.68
1:A:312:LEU:O	1:A:316:TYR:N	2.26	0.68
1:A:993:HIS:O	1:A:997:VAL:N	2.24	0.68
1:A:1598:LEU:O	1:A:1602:VAL:N	2.19	0.68
1:A:2205:TRP:O	1:A:2209:SER:N	2.26	0.68
1:A:2450:LEU:O	1:A:2454:ALA:N	2.16	0.68
1:A:2620:VAL:O	1:A:2624:CYS:N	2.23	0.68
1:B:1170:LYS:O	1:B:1174:PHE:N	2.18	0.68
1:B:1881:SER:O	1:B:1885:THR:N	2.19	0.68
1:B:2243:GLN:O	1:B:2247:ILE:N	2.22	0.68
1:A:1173:LEU:O	1:A:1177:CYS:N	2.20	0.68
1:A:2150:ALA:O	1:A:2154:GLU:N	2.21	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2311:ILE:O	1:B:2315:MET:N	2.22	0.68
1:B:2859:SER:O	1:B:2862:VAL:N	2.27	0.68
1:A:2396:THR:O	1:A:2400:ARG:N	2.20	0.68
1:B:1263:SER:O	1:B:1267:GLU:N	2.17	0.68
1:B:2880:GLU:C	1:B:2883:ALA:H	2.02	0.68
1:A:2880:GLU:C	1:A:2883:ALA:H	2.02	0.67
1:B:2069:GLN:O	1:B:2073:LEU:N	2.18	0.67
1:A:9:LEU:O	1:A:13:ARG:N	2.18	0.67
1:A:313:TYR:O	1:A:317:ASP:N	2.20	0.67
1:A:523:PHE:O	1:A:527:PHE:N	2.25	0.67
1:A:1309:ALA:HB1	1:A:1314:THR:HA	1.76	0.67
1:A:1764:LEU:O	1:A:1768:ARG:N	2.25	0.67
1:A:1912:VAL:O	1:A:1917:ARG:N	2.25	0.67
1:A:2199:SER:O	1:A:2203:ILE:N	2.18	0.67
1:A:2243:GLN:O	1:A:2247:ILE:N	2.22	0.67
1:B:508:LEU:O	1:B:512:ILE:N	2.19	0.67
1:B:2399:GLN:O	1:B:2403:ASN:N	2.18	0.67
1:A:1847:HIS:O	1:A:1851:LEU:N	2.16	0.67
1:A:2842:PRO:O	1:A:2846:PHE:N	2.27	0.67
1:B:284:GLN:O	1:B:288:TYR:N	2.23	0.67
1:B:885:LEU:O	1:B:889:TYR:N	2.25	0.67
1:B:1554:ASN:O	1:B:1558:THR:N	2.24	0.67
1:B:2854:ARG:O	1:B:2858:THR:N	2.28	0.67
1:A:43:LEU:HA	1:A:59:ALA:HB3	1.77	0.67
1:A:1721:THR:O	1:A:1725:ASP:N	2.17	0.67
1:A:2854:ARG:O	1:A:2858:THR:N	2.28	0.67
1:B:978:SER:O	1:B:982:ARG:N	2.20	0.67
1:B:1115:LEU:O	1:B:1119:ALA:N	2.22	0.67
1:B:1439:LEU:O	1:B:1443:HIS:N	2.21	0.67
1:B:2179:ILE:O	1:B:2183:GLU:N	2.22	0.67
1:B:3050:PRO:O	1:B:3054:ALA:N	2.27	0.67
1:B:1072:GLU:O	1:B:1076:GLN:N	2.20	0.67
1:A:944:LEU:O	1:A:948:LEU:N	2.23	0.67
1:A:992:ASN:O	1:A:996:HIS:N	2.22	0.67
1:A:1437:ARG:O	1:A:1441:ILE:N	2.18	0.67
1:A:1731:SER:C	1:A:1733:ALA:H	2.03	0.67
1:A:2356:ILE:O	1:A:2361:LEU:N	2.24	0.67
1:B:659:LYS:O	1:B:664:THR:N	2.28	0.67
1:B:2513:THR:O	1:B:2517:LEU:N	2.27	0.67
1:B:2685:SER:N	1:B:2705:VAL:O	2.19	0.67
1:B:2895:GLU:O	1:B:2899:ILE:N	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:212:PHE:O	1:A:216:ALA:N	2.25	0.67
1:A:435:LEU:O	1:A:439:LEU:N	2.26	0.67
1:A:1155:LEU:O	1:A:1159:ALA:N	2.23	0.67
1:A:2332:LEU:O	1:A:2336:GLU:N	2.17	0.67
1:A:2512:PRO:O	1:A:2516:PHE:N	2.22	0.67
1:A:2599:THR:O	1:A:2603:ASN:N	2.26	0.67
1:B:43:LEU:HA	1:B:59:ALA:HB3	1.77	0.67
1:B:1173:LEU:O	1:B:1177:CYS:N	2.20	0.67
1:A:231:HIS:O	1:A:235:ALA:N	2.26	0.67
1:A:1664:GLU:O	1:A:1668:LEU:N	2.22	0.67
1:A:2488:CYS:O	1:A:2492:LEU:N	2.27	0.67
1:B:231:HIS:O	1:B:235:ALA:N	2.26	0.67
1:A:1739:ASN:HA	1:A:1742:ALA:HB3	1.76	0.67
1:A:2364:ALA:O	1:A:2368:ALA:N	2.20	0.67
1:B:30:PHE:O	1:B:34:ILE:N	2.28	0.67
1:B:1579:GLN:O	1:B:1583:TYR:N	2.19	0.67
1:B:2356:ILE:O	1:B:2361:LEU:N	2.24	0.67
1:B:457:ARG:O	1:B:461:GLU:N	2.23	0.66
1:B:954:LEU:O	1:B:958:GLU:N	2.24	0.66
1:B:1151:LYS:O	1:B:1155:LEU:N	2.27	0.66
1:B:2205:TRP:O	1:B:2209:SER:N	2.26	0.66
1:A:30:PHE:O	1:A:34:ILE:N	2.28	0.66
1:A:2895:GLU:O	1:A:2899:ILE:N	2.27	0.66
1:B:992:ASN:O	1:B:996:HIS:N	2.22	0.66
1:A:1518:HIS:O	1:A:1522:GLY:N	2.29	0.66
1:A:1868:GLY:O	1:A:1872:SER:N	2.18	0.66
1:A:2067:ALA:O	1:A:2071:LEU:N	2.18	0.66
1:B:2488:CYS:O	1:B:2492:LEU:N	2.27	0.66
1:A:885:LEU:O	1:A:889:TYR:N	2.25	0.66
1:B:974:SER:O	1:B:978:SER:N	2.21	0.66
1:B:1569:VAL:O	1:B:1573:ASP:N	2.18	0.66
1:B:1739:ASN:HA	1:B:1742:ALA:HB3	1.76	0.66
1:B:2251:LEU:O	1:B:2255:LEU:N	2.20	0.66
1:A:659:LYS:O	1:A:664:THR:N	2.28	0.66
1:A:1493:LEU:O	1:A:1497:LEU:N	2.19	0.66
1:A:2308:ALA:O	1:A:2311:ILE:N	2.29	0.66
1:A:2343:ASN:O	1:A:2347:GLU:N	2.17	0.66
1:A:2445:LEU:O	1:A:2449:GLU:N	2.18	0.66
1:B:67:TYR:O	1:B:71:GLU:N	2.24	0.66
1:B:991:LEU:O	1:B:995:LEU:N	2.23	0.66
1:B:1552:ASN:O	1:B:1556:TYR:N	2.21	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:212:PHE:O	1:B:216:ALA:N	2.25	0.66
1:B:350:ALA:O	1:B:354:HIS:N	2.29	0.66
1:B:655:THR:O	1:B:659:LYS:N	2.23	0.66
1:B:2376:SER:O	1:B:2380:ARG:N	2.21	0.66
1:A:2376:SER:O	1:A:2380:ARG:N	2.22	0.66
1:A:2413:LYS:O	1:A:2417:LEU:N	2.21	0.66
1:A:3050:PRO:O	1:A:3054:ALA:N	2.27	0.66
1:A:1054:PRO:O	1:A:1057:LYS:N	2.29	0.66
1:A:1930:ASP:O	1:A:1934:LEU:N	2.29	0.66
1:B:1518:HIS:O	1:B:1522:GLY:N	2.29	0.66
1:B:1657:MET:O	1:B:1660:ASN:N	2.29	0.66
1:A:45:ARG:O	1:A:60:VAL:N	2.28	0.66
1:A:2167:TYR:C	1:A:2169:LEU:H	2.04	0.66
1:B:1309:ALA:HB1	1:B:1314:THR:HA	1.76	0.66
1:B:1764:LEU:O	1:B:1768:ARG:N	2.25	0.66
1:B:2180:GLY:O	1:B:2184:SER:N	2.25	0.66
1:A:7:ASP:O	1:A:11:CYS:N	2.24	0.66
1:A:827:LYS:O	1:A:831:ASP:N	2.22	0.66
1:A:1632:MET:O	1:A:1636:GLN:N	2.19	0.66
1:B:523:PHE:O	1:B:527:PHE:N	2.25	0.66
1:B:1842:LEU:O	1:B:1846:ILE:N	2.29	0.66
1:B:3041:ASP:O	1:B:3045:LEU:N	2.24	0.66
1:A:1597:PHE:O	1:A:1601:SER:N	2.18	0.65
1:A:2731:VAL:O	1:A:2735:CYS:N	2.19	0.65
1:B:1054:PRO:O	1:B:1057:LYS:N	2.29	0.65
1:B:1969:ASP:O	1:B:1973:ARG:N	2.24	0.65
1:B:2744:GLU:O	1:B:2748:ARG:N	2.20	0.65
1:A:350:ALA:O	1:A:354:HIS:N	2.29	0.65
1:A:655:THR:O	1:A:659:LYS:N	2.23	0.65
1:A:2338:LEU:O	1:A:2342:GLY:N	2.21	0.65
1:B:1731:SER:C	1:B:1733:ALA:H	2.03	0.65
1:B:2061:GLN:O	1:B:2065:ILE:N	2.22	0.65
1:B:2308:ALA:O	1:B:2311:ILE:N	2.29	0.65
1:A:2682:THR:O	1:A:2707:SER:N	2.21	0.65
1:B:1382:PRO:O	1:B:1386:ILE:N	2.23	0.65
1:A:169:SER:O	1:A:173:ARG:N	2.23	0.65
1:B:1354:PRO:HA	1:B:1357:SER:H	1.61	0.65
1:B:1632:MET:O	1:B:1636:GLN:N	2.19	0.65
1:B:2167:TYR:C	1:B:2169:LEU:H	2.04	0.65
1:A:2092:CYS:O	1:A:2096:GLU:N	2.30	0.65
1:A:160:SER:O	1:A:199:CYS:N	2.28	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1211:ALA:O	1:A:1215:ASP:N	2.26	0.65
1:B:11:CYS:O	1:B:15:LEU:N	2.21	0.65
1:A:1354:PRO:HA	1:A:1357:SER:H	1.61	0.65
1:A:1382:PRO:O	1:A:1386:ILE:N	2.23	0.65
1:A:3033:ASN:O	1:A:3037:GLN:N	2.18	0.65
1:B:2444:GLU:O	1:B:2448:ASP:N	2.25	0.65
1:B:2450:LEU:O	1:B:2454:ALA:N	2.16	0.65
1:A:1579:GLN:O	1:A:1583:TYR:N	2.19	0.65
1:B:2793:PRO:O	1:B:2797:SER:N	2.22	0.65
1:A:60:VAL:O	1:A:64:LEU:N	2.17	0.65
1:A:2047:VAL:O	1:A:2051:LEU:N	2.22	0.65
1:A:2099:HIS:O	1:A:2103:ALA:N	2.24	0.65
1:B:2092:CYS:O	1:B:2096:GLU:N	2.30	0.65
1:A:2253:LYS:O	1:A:2257:GLU:N	2.18	0.65
1:B:944:LEU:O	1:B:948:LEU:N	2.23	0.65
1:A:1554:ASN:O	1:A:1558:THR:N	2.24	0.64
1:A:2187:GLU:O	1:A:2191:ARG:N	2.26	0.64
1:A:1082:HIS:O	1:A:1086:ARG:N	2.24	0.64
1:A:1913:VAL:O	1:A:1918:ARG:N	2.31	0.64
1:A:2060:ARG:O	1:A:2064:ILE:N	2.21	0.64
1:B:160:SER:O	1:B:199:CYS:N	2.28	0.64
1:B:511:ILE:O	1:B:515:SER:N	2.29	0.64
1:B:1166:PRO:O	1:B:1170:LYS:N	2.25	0.64
1:A:609:GLU:O	1:A:613:VAL:N	2.31	0.64
1:A:2796:PHE:O	1:A:2800:GLN:N	2.19	0.64
1:B:481:LEU:O	1:B:485:ASN:N	2.17	0.64
1:B:1900:CYS:O	1:B:1902:ASP:N	2.29	0.64
1:B:1913:VAL:O	1:B:1918:ARG:N	2.31	0.64
1:B:2819:VAL:O	1:B:2823:VAL:N	2.19	0.64
1:A:1072:GLU:O	1:A:1076:GLN:N	2.20	0.64
1:A:1900:CYS:O	1:A:1902:ASP:N	2.29	0.64
1:B:1930:ASP:O	1:B:1934:LEU:N	2.29	0.64
1:B:2250:ILE:O	1:B:2254:HIS:N	2.20	0.64
1:B:2538:HIS:O	1:B:2542:ASN:N	2.17	0.64
1:B:2727:VAL:O	1:B:2731:VAL:N	2.20	0.64
1:B:2914:ILE:O	1:B:2918:MET:N	2.25	0.64
1:A:271:LEU:O	1:A:275:LEU:N	2.25	0.64
1:A:2378:GLU:O	1:A:2382:GLY:N	2.23	0.64
1:A:2650:ASP:H	1:A:2689:GLU:HA	1.62	0.64
1:B:2778:GLU:O	1:B:2782:ASN:N	2.25	0.64
1:B:1951:HIS:HA	1:B:1954:ALA:HB3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2133:GLN:O	1:B:2136:ARG:N	2.31	0.64
1:A:1198:SER:O	1:A:1202:GLY:N	2.21	0.64
1:B:2682:THR:C	1:B:2707:SER:H	2.05	0.64
1:B:2879:ASN:N	1:B:2884:GLU:O	2.31	0.64
1:B:755:CYS:O	1:B:759:SER:N	2.30	0.64
1:B:2937:VAL:O	1:B:2941:SER:N	2.29	0.64
1:A:316:TYR:O	1:A:320:VAL:N	2.30	0.64
1:A:1115:LEU:O	1:A:1119:ALA:N	2.22	0.64
1:A:2728:MET:O	1:A:2732:PHE:N	2.18	0.64
1:B:2403:ASN:O	1:B:2407:SER:N	2.31	0.64
1:B:2528:GLY:O	1:B:2533:GLY:N	2.30	0.64
1:A:511:ILE:O	1:A:515:SER:N	2.29	0.64
1:A:2392:ARG:O	1:A:2396:THR:N	2.23	0.64
1:A:2528:GLY:O	1:A:2533:GLY:N	2.31	0.64
1:B:609:GLU:O	1:B:613:VAL:N	2.31	0.64
1:B:686:LEU:O	1:B:690:LEU:N	2.31	0.64
1:B:2294:GLU:O	1:B:2297:GLN:N	2.20	0.64
1:B:2620:VAL:O	1:B:2624:CYS:N	2.23	0.64
1:B:2650:ASP:H	1:B:2689:GLU:HA	1.63	0.64
1:B:2941:SER:O	1:B:2945:LEU:N	2.18	0.64
1:A:1745:THR:O	1:A:1749:PHE:N	2.27	0.63
1:A:1842:LEU:O	1:A:1846:ILE:N	2.29	0.63
1:A:2716:VAL:HA	1:A:2765:GLY:O	1.97	0.63
1:B:1437:ARG:O	1:B:1441:ILE:N	2.18	0.63
1:B:2298:VAL:CA	1:B:2301:ALA:HB3	2.27	0.63
1:B:921:ALA:O	1:B:925:ARG:N	2.23	0.63
1:B:1256:ILE:O	1:B:1260:VAL:N	2.26	0.63
1:B:2356:ILE:HA	1:B:2360:TYR:H	1.63	0.63
1:A:1532:VAL:O	1:A:1536:LYS:N	2.26	0.63
1:A:2403:ASN:O	1:A:2407:SER:N	2.31	0.63
1:A:2682:THR:C	1:A:2707:SER:H	2.05	0.63
1:B:1281:SER:O	1:B:1285:ASP:N	2.32	0.63
1:B:1813:PHE:O	1:B:1817:GLY:N	2.31	0.63
1:B:2396:THR:O	1:B:2400:ARG:N	2.20	0.63
1:B:2693:ALA:N	1:B:2699:PRO:O	2.32	0.63
1:B:2716:VAL:HA	1:B:2765:GLY:O	1.97	0.63
1:A:2693:ALA:N	1:A:2699:PRO:O	2.32	0.63
1:A:2879:ASN:N	1:A:2884:GLU:O	2.31	0.63
1:B:1877:PHE:O	1:B:1881:SER:N	2.25	0.63
1:B:2504:MET:O	1:B:2508:GLY:N	2.32	0.63
1:A:13:ARG:O	1:A:17:HIS:N	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:488:TRP:O	1:A:492:PHE:N	2.24	0.63
1:A:1398:LYS:HA	1:A:1513:LEU:N	2.13	0.63
1:A:1485:ASP:O	1:A:1489:ARG:N	2.25	0.63
1:B:1868:GLY:O	1:B:1872:SER:N	2.18	0.63
1:B:2155:VAL:O	1:B:2159:CYS:N	2.24	0.63
1:B:2226:LEU:O	1:B:2230:ILE:N	2.25	0.63
1:A:1463:PHE:O	1:A:1467:ASP:N	2.23	0.63
1:B:13:ARG:O	1:B:17:HIS:N	2.32	0.63
1:B:1398:LYS:HA	1:B:1513:LEU:N	2.13	0.63
1:B:1591:LEU:O	1:B:1594:ILE:N	2.30	0.63
1:A:1813:PHE:O	1:A:1817:GLY:N	2.31	0.63
1:A:1951:HIS:HA	1:A:1954:ALA:HB3	1.80	0.63
1:B:1341:PRO:O	1:B:1345:VAL:N	2.31	0.63
1:B:1493:LEU:O	1:B:1497:LEU:N	2.19	0.63
1:B:2599:THR:O	1:B:2603:ASN:N	2.26	0.63
1:A:755:CYS:O	1:A:759:SER:N	2.30	0.63
1:A:1279:TRP:O	1:A:1283:LEU:N	2.18	0.63
1:A:2744:GLU:O	1:A:2748:ARG:N	2.20	0.63
1:B:45:ARG:O	1:B:60:VAL:N	2.28	0.63
1:B:1532:VAL:O	1:B:1536:LYS:N	2.26	0.63
1:B:2822:ASP:O	1:B:2826:ASN:N	2.18	0.63
1:A:686:LEU:O	1:A:690:LEU:N	2.31	0.63
1:A:691:ASP:O	1:A:695:LEU:N	2.25	0.63
1:A:989:THR:O	1:A:993:HIS:N	2.19	0.63
1:B:488:TRP:O	1:B:492:PHE:N	2.24	0.63
1:A:1812:ALA:O	1:A:1815:ASP:N	2.32	0.62
1:A:2504:MET:O	1:A:2508:GLY:N	2.32	0.62
1:B:2830:VAL:O	1:B:2833:TYR:N	2.31	0.62
1:A:2155:VAL:O	1:A:2159:CYS:N	2.23	0.62
1:A:1341:PRO:O	1:A:1345:VAL:N	2.31	0.62
1:A:1750:TRP:O	1:A:1754:LYS:N	2.26	0.62
1:B:712:SER:O	1:B:716:VAL:N	2.20	0.62
1:B:949:MET:O	1:B:953:GLU:N	2.22	0.62
1:B:2057:SER:O	1:B:2061:GLN:N	2.29	0.62
1:B:2480:HIS:O	1:B:2483:TRP:N	2.33	0.62
1:A:2298:VAL:CA	1:A:2301:ALA:HB3	2.27	0.62
1:A:2830:VAL:O	1:A:2833:TYR:N	2.31	0.62
1:A:2941:SER:O	1:A:2945:LEU:N	2.18	0.62
1:B:1082:HIS:O	1:B:1086:ARG:N	2.24	0.62
1:A:1955:LEU:HA	1:A:1958:ALA:HB3	1.81	0.62
1:A:2356:ILE:HA	1:A:2360:TYR:H	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1812:ALA:O	1:B:1815:ASP:N	2.32	0.62
1:A:848:GLU:O	1:A:852:GLN:N	2.25	0.62
1:A:2061:GLN:O	1:A:2065:ILE:N	2.22	0.62
1:B:2067:ALA:O	1:B:2071:LEU:N	2.18	0.62
1:B:2257:GLU:O	1:B:2261:LEU:N	2.21	0.62
1:A:273:ASP:O	1:A:277:GLU:N	2.33	0.62
1:A:954:LEU:O	1:A:958:GLU:N	2.24	0.62
1:A:2538:HIS:O	1:A:2542:ASN:N	2.17	0.62
1:A:2958:PHE:O	1:A:2961:THR:N	2.32	0.62
1:B:1279:TRP:O	1:B:1283:LEU:N	2.18	0.62
1:B:2148:LYS:O	1:B:2151:ARG:N	2.33	0.62
1:A:2250:ILE:O	1:A:2254:HIS:N	2.20	0.62
1:A:2480:HIS:O	1:A:2483:TRP:N	2.33	0.62
1:B:827:LYS:O	1:B:831:ASP:N	2.22	0.62
1:B:1967:MET:O	1:B:1971:GLU:N	2.18	0.62
1:B:2660:GLU:O	1:B:2686:PHE:N	2.33	0.62
1:B:2958:PHE:O	1:B:2961:THR:N	2.32	0.62
1:A:1281:SER:O	1:A:1285:ASP:N	2.32	0.61
1:B:1487:SER:O	1:B:1490:SER:N	2.32	0.61
1:A:1569:VAL:O	1:A:1573:ASP:N	2.18	0.61
1:A:2133:GLN:O	1:A:2136:ARG:N	2.31	0.61
1:B:169:SER:O	1:B:173:ARG:N	2.23	0.61
1:B:1086:ARG:O	1:B:1090:ALA:N	2.31	0.61
1:B:2078:SER:O	1:B:2082:LYS:N	2.27	0.61
1:B:3041:ASP:CB	1:B:3044:ASN:H	2.14	0.61
1:A:459:LEU:O	1:A:463:ALA:N	2.25	0.61
1:A:2822:ASP:O	1:A:2826:ASN:N	2.18	0.61
1:A:751:SER:O	1:A:755:CYS:N	2.33	0.61
1:A:948:LEU:O	1:A:952:LYS:N	2.27	0.61
1:A:1237:ILE:O	1:A:1241:TYR:N	2.28	0.61
1:A:2148:LYS:O	1:A:2151:ARG:N	2.33	0.61
1:A:3041:ASP:CB	1:A:3044:ASN:H	2.14	0.61
1:B:1237:ILE:O	1:B:1241:TYR:N	2.28	0.61
1:A:27:VAL:O	1:A:31:LYS:N	2.33	0.61
1:A:500:ILE:O	1:A:504:ASN:N	2.23	0.61
1:A:1657:MET:O	1:A:1660:ASN:N	2.29	0.61
1:A:2180:GLY:O	1:A:2184:SER:N	2.25	0.61
1:A:2727:VAL:O	1:A:2731:VAL:N	2.20	0.61
1:A:2937:VAL:O	1:A:2941:SER:N	2.29	0.61
1:B:1243:ASN:O	1:B:1247:PHE:N	2.34	0.61
1:B:2253:LYS:O	1:B:2257:GLU:N	2.18	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2378:GLU:O	1:B:2382:GLY:N	2.23	0.61
1:A:1107:LEU:HA	1:A:1110:ALA:HB3	1.83	0.61
1:A:1456:GLY:O	1:A:1459:GLY:N	2.34	0.61
1:B:459:LEU:O	1:B:463:ALA:N	2.25	0.61
1:B:487:ILE:O	1:B:491:THR:N	2.26	0.61
1:B:999:LYS:O	1:B:1002:GLY:N	2.26	0.61
1:B:2924:GLU:HA	1:B:2928:ARG:N	2.13	0.61
1:A:1591:LEU:O	1:A:1594:ILE:N	2.30	0.61
1:A:2786:GLY:O	1:A:2789:LYS:N	2.31	0.61
1:A:991:LEU:O	1:A:995:LEU:N	2.23	0.61
1:A:1877:PHE:O	1:A:1881:SER:N	2.25	0.61
1:A:1959:GLU:O	1:A:1963:ASP:N	2.19	0.61
1:B:271:LEU:O	1:B:275:LEU:N	2.25	0.61
1:B:525:LYS:O	1:B:529:GLY:N	2.33	0.61
1:B:751:SER:O	1:B:755:CYS:N	2.33	0.61
1:B:1420:LEU:O	1:B:1425:GLN:N	2.30	0.61
1:A:999:LYS:O	1:A:1002:GLY:N	2.26	0.61
1:A:1256:ILE:O	1:A:1260:VAL:N	2.26	0.61
1:B:27:VAL:O	1:B:31:LYS:N	2.33	0.61
1:B:1827:LEU:O	1:B:1831:CYS:N	2.24	0.61
1:B:1961:TYR:O	1:B:1965:LYS:N	2.19	0.61
1:B:2099:HIS:O	1:B:2103:ALA:N	2.24	0.61
1:A:98:SER:O	1:A:102:LYS:N	2.32	0.60
1:A:1243:ASN:O	1:A:1247:PHE:N	2.34	0.60
1:A:2924:GLU:HA	1:A:2928:ARG:N	2.12	0.60
1:B:273:ASP:O	1:B:277:GLU:N	2.33	0.60
1:B:948:LEU:O	1:B:952:LYS:N	2.27	0.60
1:B:1107:LEU:HA	1:B:1110:ALA:HB3	1.83	0.60
1:B:1456:GLY:O	1:B:1459:GLY:N	2.34	0.60
1:B:1955:LEU:HA	1:B:1958:ALA:HB3	1.81	0.60
1:B:1959:GLU:O	1:B:1963:ASP:N	2.19	0.60
1:B:2732:PHE:O	1:B:2736:ASN:N	2.22	0.60
1:A:1166:PRO:O	1:A:1170:LYS:N	2.25	0.60
1:A:2444:GLU:O	1:A:2448:ASP:N	2.25	0.60
1:B:316:TYR:O	1:B:320:VAL:N	2.31	0.60
1:B:855:MET:O	1:B:859:ASN:N	2.34	0.60
1:B:2928:ARG:O	1:B:2932:GLU:N	2.21	0.60
1:A:1827:LEU:HA	1:A:1830:MET:CB	2.31	0.60
1:A:2179:ILE:O	1:A:2183:GLU:N	2.21	0.60
1:B:718:CYS:O	1:B:722:LEU:N	2.35	0.60
1:B:1827:LEU:HA	1:B:1830:MET:CB	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2973:ARG:O	1:B:2976:ASP:N	2.33	0.60
1:A:2078:SER:O	1:A:2082:LYS:N	2.27	0.60
1:A:2660:GLU:O	1:A:2686:PHE:N	2.33	0.60
1:A:718:CYS:O	1:A:722:LEU:N	2.35	0.60
1:A:2684:GLN:H	1:A:2707:SER:N	2.00	0.60
1:B:193:ALA:O	1:B:197:GLY:N	2.35	0.60
1:B:1381:PHE:O	1:B:1385:VAL:N	2.22	0.60
1:B:2356:ILE:O	1:B:2360:TYR:N	2.34	0.60
1:A:210:LEU:O	1:A:214:SER:N	2.34	0.60
1:B:2719:ARG:N	1:B:2763:ARG:O	2.35	0.60
1:A:525:LYS:O	1:A:529:GLY:N	2.33	0.60
1:A:855:MET:O	1:A:859:ASN:N	2.34	0.60
1:A:1016:GLY:O	1:A:1020:THR:N	2.29	0.60
1:A:214:SER:O	1:A:218:GLN:N	2.35	0.60
1:A:314:ASN:O	1:A:318:LEU:N	2.27	0.60
1:B:2242:SER:O	1:B:2246:CYS:N	2.24	0.60
1:B:3001:SER:O	1:B:3005:VAL:N	2.22	0.60
1:A:1086:ARG:O	1:A:1090:ALA:N	2.31	0.59
1:A:2553:PRO:O	1:A:2557:LEU:N	2.35	0.59
1:A:193:ALA:O	1:A:197:GLY:N	2.35	0.59
1:A:1309:ALA:HA	1:A:1312:ARG:O	2.01	0.59
1:A:2057:SER:O	1:A:2061:GLN:N	2.29	0.59
1:A:2226:LEU:O	1:A:2230:ILE:N	2.25	0.59
1:B:1309:ALA:HA	1:B:1312:ARG:O	2.01	0.59
1:B:2553:PRO:O	1:B:2557:LEU:N	2.35	0.59
1:A:1487:SER:O	1:A:1490:SER:N	2.33	0.59
1:A:2778:GLU:O	1:A:2782:ASN:N	2.25	0.59
1:A:2719:ARG:N	1:A:2763:ARG:O	2.35	0.59
1:B:2175:ARG:O	1:B:2178:ALA:HB3	2.02	0.59
1:B:2684:GLN:H	1:B:2707:SER:N	2.00	0.59
1:A:2356:ILE:O	1:A:2360:TYR:N	2.34	0.59
1:A:2934:THR:O	1:A:2938:MET:N	2.19	0.59
1:B:3033:ASN:O	1:B:3037:GLN:N	2.18	0.59
1:B:214:SER:O	1:B:218:GLN:N	2.35	0.59
1:B:1616:ASP:O	1:B:1620:GLN:N	2.36	0.59
1:A:748:LYS:O	1:A:752:LEU:N	2.23	0.59
1:B:2392:ARG:O	1:B:2396:THR:N	2.23	0.59
1:A:1686:ILE:O	1:A:2177:GLN:HA	2.03	0.59
1:A:974:SER:O	1:A:978:SER:N	2.21	0.58
1:A:1967:MET:O	1:A:1971:GLU:N	2.18	0.58
1:A:2459:ARG:O	1:A:2464:CYS:N	2.32	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:623:ALA:O	1:B:626:PHE:N	2.36	0.58
1:B:1745:THR:O	1:B:1749:PHE:N	2.27	0.58
1:A:1616:ASP:O	1:A:1620:GLN:N	2.36	0.58
1:A:2167:TYR:C	1:A:2169:LEU:N	2.61	0.58
1:B:1556:TYR:O	1:B:1560:LYS:N	2.27	0.58
1:B:2786:GLY:O	1:B:2789:LYS:N	2.31	0.58
1:A:208:LYS:O	1:A:212:PHE:N	2.32	0.58
1:A:1815:ASP:O	1:A:1818:GLY:N	2.33	0.58
1:A:1928:PHE:O	1:A:1932:PHE:N	2.30	0.58
1:B:2060:ARG:O	1:B:2064:ILE:N	2.21	0.58
1:A:19:ARG:O	1:A:77:ILE:N	2.37	0.58
1:A:157:CYS:O	1:A:161:GLN:N	2.34	0.58
1:A:3020:VAL:CB	1:A:3024:THR:H	2.17	0.58
1:B:646:SER:O	1:B:648:VAL:N	2.37	0.58
1:B:1282:LEU:O	1:B:1286:CYS:N	2.33	0.58
1:B:2171:PRO:O	1:B:2175:ARG:N	2.22	0.58
1:B:2338:LEU:O	1:B:2342:GLY:N	2.21	0.58
1:A:40:ILE:C	1:A:112:ALA:HB3	2.28	0.58
1:A:487:ILE:O	1:A:491:THR:N	2.26	0.58
1:A:646:SER:O	1:A:648:VAL:N	2.37	0.58
1:A:1084:GLN:O	1:A:1088:LEU:N	2.25	0.58
1:B:40:ILE:C	1:B:112:ALA:HB3	2.28	0.58
1:B:848:GLU:O	1:B:852:GLN:N	2.25	0.58
1:B:1016:GLY:O	1:B:1020:THR:N	2.29	0.58
1:B:1211:ALA:O	1:B:1215:ASP:N	2.26	0.58
1:B:1583:TYR:O	1:B:1592:GLU:HA	2.03	0.58
1:B:1750:TRP:O	1:B:1754:LYS:N	2.26	0.58
1:A:1190:VAL:O	1:A:1194:LEU:N	2.21	0.58
1:A:1549:ASN:O	1:A:1553:GLU:N	2.24	0.58
1:B:1073:VAL:O	1:B:1077:PHE:N	2.22	0.58
1:B:2389:SER:O	1:B:2393:PHE:N	2.26	0.58
1:A:1420:LEU:O	1:A:1425:GLN:N	2.30	0.58
1:A:1583:TYR:O	1:A:1592:GLU:HA	2.03	0.58
1:B:2934:THR:O	1:B:2938:MET:N	2.19	0.58
1:A:623:ALA:O	1:A:626:PHE:N	2.36	0.58
1:A:1832:GLU:O	1:A:1836:ASP:N	2.32	0.58
1:B:157:CYS:O	1:B:161:GLN:N	2.34	0.58
1:A:2389:SER:O	1:A:2393:PHE:N	2.26	0.58
1:B:1832:GLU:O	1:B:1836:ASP:N	2.32	0.58
1:B:3020:VAL:CB	1:B:3024:THR:H	2.17	0.58
1:A:2270:LEU:O	1:A:2274:ALA:N	2.19	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3001:SER:O	1:A:3005:VAL:N	2.22	0.58
1:A:3020:VAL:C	1:A:3023:GLY:H	2.12	0.58
1:B:2470:TYR:O	1:B:2474:LEU:N	2.21	0.58
1:B:2649:ALA:N	1:B:2689:GLU:HA	2.19	0.58
1:A:270:ARG:O	1:A:274:SER:N	2.27	0.57
1:A:682:VAL:HA	1:A:738:GLU:HA	1.86	0.57
1:A:1398:LYS:N	1:A:1512:ALA:HB3	2.19	0.57
1:B:433:SER:HA	1:B:437:MET:H	1.69	0.57
1:B:2298:VAL:HA	1:B:2302:LYS:H	1.69	0.57
1:B:3020:VAL:C	1:B:3023:GLY:H	2.12	0.57
1:A:433:SER:HA	1:A:437:MET:H	1.69	0.57
1:A:1823:ILE:HA	1:A:1826:LEU:H	1.70	0.57
1:A:2175:ARG:O	1:A:2178:ALA:HB3	2.02	0.57
1:A:2242:SER:O	1:A:2246:CYS:N	2.24	0.57
1:B:210:LEU:O	1:B:214:SER:N	2.34	0.57
1:B:276:LYS:HA	1:B:280:ILE:CB	2.35	0.57
1:B:1398:LYS:N	1:B:1512:ALA:HB3	2.19	0.57
1:B:2829:PRO:CB	1:B:2912:ARG:N	2.67	0.57
1:A:555:VAL:O	1:A:560:GLU:N	2.37	0.57
1:A:2246:CYS:O	1:A:2249:ASP:N	2.30	0.57
1:A:2649:ALA:N	1:A:2689:GLU:HA	2.19	0.57
1:B:19:ARG:O	1:B:77:ILE:N	2.36	0.57
1:B:98:SER:O	1:B:102:LYS:N	2.33	0.57
1:B:1686:ILE:O	1:B:2177:GLN:HA	2.03	0.57
1:A:3003:ASN:HA	1:A:3006:ALA:HB3	1.85	0.57
1:B:691:ASP:O	1:B:695:LEU:N	2.25	0.57
1:B:12:CYS:O	1:B:16:GLU:N	2.35	0.57
1:B:309:ARG:O	1:B:313:TYR:N	2.25	0.57
1:A:1969:ASP:O	1:A:1973:ARG:N	2.24	0.57
1:A:2706:GLY:C	1:A:2709:GLY:H	2.12	0.57
1:B:971:LYS:O	1:B:975:ASN:N	2.33	0.57
1:B:2167:TYR:C	1:B:2169:LEU:N	2.61	0.57
1:A:103:TYR:O	1:A:107:CYS:N	2.32	0.57
1:A:416:ALA:O	1:A:420:ILE:N	2.24	0.57
1:A:878:THR:HA	1:A:881:ALA:HB3	1.87	0.57
1:A:1631:ILE:O	1:A:1635:SER:N	2.29	0.57
1:A:2154:GLU:O	1:A:2157:GLU:N	2.38	0.57
1:A:121:LEU:O	1:A:125:MET:N	2.31	0.57
1:A:1580:LYS:HA	1:A:1596:HIS:HA	1.86	0.57
1:A:2780:LEU:O	1:A:2783:ASN:N	2.37	0.57
1:B:1551:ASP:O	1:B:1555:LEU:N	2.24	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2780:LEU:O	1:B:2783:ASN:N	2.37	0.57
1:A:2128:LEU:HA	1:A:2131:ALA:HB3	1.86	0.57
1:A:2300:TRP:O	1:A:2303:LYS:HA	2.05	0.57
1:B:729:TYR:O	1:B:732:MET:N	2.38	0.57
1:B:1815:ASP:O	1:B:1818:GLY:N	2.33	0.57
1:B:2187:GLU:O	1:B:2191:ARG:N	2.25	0.57
1:B:2300:TRP:O	1:B:2303:LYS:HA	2.05	0.57
1:A:2365:VAL:HA	1:A:2368:ALA:HB3	1.87	0.57
1:B:270:ARG:O	1:B:274:SER:N	2.27	0.57
1:B:1190:VAL:O	1:B:1194:LEU:N	2.21	0.57
1:B:2246:CYS:O	1:B:2249:ASP:N	2.30	0.57
1:B:3003:ASN:HA	1:B:3006:ALA:HB3	1.86	0.57
1:A:1381:PHE:O	1:A:1385:VAL:N	2.22	0.56
1:A:2598:ARG:HA	1:A:2601:ALA:HB3	1.86	0.56
1:A:2829:PRO:CB	1:A:2912:ARG:N	2.68	0.56
1:A:2647:ILE:H	1:A:2691:ARG:HA	1.70	0.56
1:A:2848:LYS:HA	1:A:2851:ALA:HB3	1.87	0.56
1:B:682:VAL:HA	1:B:738:GLU:HA	1.86	0.56
1:B:2481:ASP:O	1:B:2485:PHE:N	2.34	0.56
1:B:2647:ILE:H	1:B:2691:ARG:HA	1.70	0.56
1:A:122:ASN:O	1:A:126:ASP:N	2.38	0.56
1:A:276:LYS:HA	1:A:280:ILE:CB	2.35	0.56
1:A:729:TYR:O	1:A:732:MET:N	2.38	0.56
1:A:1282:LEU:O	1:A:1286:CYS:N	2.33	0.56
1:A:1551:ASP:O	1:A:1555:LEU:N	2.24	0.56
1:B:555:VAL:O	1:B:560:GLU:N	2.37	0.56
1:B:844:GLY:O	1:B:848:GLU:N	2.28	0.56
1:B:1171:GLN:O	1:B:1175:ALA:N	2.17	0.56
1:B:2128:LEU:HA	1:B:2131:ALA:HB3	1.86	0.56
1:B:2598:ARG:HA	1:B:2601:ALA:HB3	1.86	0.56
1:A:2732:PHE:O	1:A:2736:ASN:N	2.22	0.56
1:B:254:LEU:O	1:B:258:ILE:N	2.38	0.56
1:A:309:ARG:O	1:A:313:TYR:N	2.25	0.56
1:A:854:SER:O	1:A:858:PHE:N	2.36	0.56
1:B:122:ASN:O	1:B:126:ASP:N	2.39	0.56
1:B:1928:PHE:O	1:B:1932:PHE:N	2.30	0.56
1:B:2848:LYS:HA	1:B:2851:ALA:HB3	1.88	0.56
1:A:254:LEU:O	1:A:258:ILE:N	2.38	0.56
1:A:1544:TYR:O	1:A:1548:ASP:N	2.39	0.56
1:A:3027:SER:O	1:A:3029:GLY:N	2.39	0.56
1:B:1544:TYR:O	1:B:1548:ASP:N	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2262:ALA:O	1:B:2266:LYS:N	2.39	0.56
1:B:2365:VAL:HA	1:B:2368:ALA:HB3	1.87	0.56
1:A:3041:ASP:O	1:A:3045:LEU:N	2.24	0.56
1:B:314:ASN:O	1:B:318:LEU:N	2.27	0.56
1:B:1823:ILE:HA	1:B:1826:LEU:H	1.69	0.56
1:B:3015:GLU:O	1:B:3019:GLY:N	2.39	0.56
1:A:1827:LEU:O	1:A:1831:CYS:N	2.24	0.56
1:A:2152:VAL:O	1:A:2155:VAL:N	2.39	0.56
1:B:2306:SER:N	1:B:2309:LEU:H	1.97	0.56
1:A:2298:VAL:HA	1:A:2302:LYS:H	1.69	0.56
1:A:3015:GLU:O	1:A:3019:GLY:N	2.39	0.56
1:B:103:TYR:O	1:B:107:CYS:N	2.32	0.56
1:B:878:THR:HA	1:B:881:ALA:HB3	1.87	0.56
1:A:520:ASP:HA	1:A:524:TRP:H	1.70	0.55
1:A:1073:VAL:O	1:A:1077:PHE:N	2.22	0.55
1:A:2017:SER:HA	1:A:2021:CYS:CB	2.36	0.55
1:A:2176:LEU:O	1:A:2179:ILE:N	2.40	0.55
1:B:2255:LEU:O	1:B:2259:SER:N	2.30	0.55
1:A:1556:TYR:O	1:A:1560:LYS:N	2.27	0.55
1:A:3020:VAL:H	1:A:3023:GLY:HA2	1.72	0.55
1:B:1463:PHE:O	1:B:1467:ASP:N	2.23	0.55
1:B:1580:LYS:HA	1:B:1596:HIS:HA	1.86	0.55
1:A:99:SER:O	1:A:103:TYR:N	2.26	0.55
1:A:1171:GLN:O	1:A:1175:ALA:N	2.17	0.55
1:A:2262:ALA:O	1:A:2266:LYS:N	2.39	0.55
1:B:520:ASP:HA	1:B:524:TRP:H	1.70	0.55
1:B:854:SER:O	1:B:858:PHE:N	2.36	0.55
1:B:2154:GLU:O	1:B:2157:GLU:N	2.38	0.55
1:B:2685:SER:O	1:B:2705:VAL:N	2.40	0.55
1:B:3027:SER:O	1:B:3029:GLY:N	2.39	0.55
1:B:121:LEU:O	1:B:125:MET:N	2.31	0.55
1:B:1084:GLN:O	1:B:1088:LEU:N	2.25	0.55
1:B:1549:ASN:O	1:B:1553:GLU:N	2.24	0.55
1:B:500:ILE:O	1:B:504:ASN:N	2.23	0.55
1:B:1343:ILE:O	1:B:1346:GLU:N	2.39	0.55
1:B:2706:GLY:C	1:B:2709:GLY:H	2.12	0.55
1:A:703:ASN:O	1:A:707:SER:N	2.35	0.55
1:A:1343:ILE:O	1:A:1346:GLU:N	2.39	0.55
1:A:2973:ARG:O	1:A:2976:ASP:N	2.33	0.55
1:B:2017:SER:HA	1:B:2021:CYS:CB	2.36	0.55
1:B:2152:VAL:O	1:B:2155:VAL:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2228:THR:O	1:A:2231:LEU:N	2.37	0.55
1:A:2922:GLY:O	1:A:2924:GLU:N	2.40	0.55
1:A:3028:VAL:C	1:A:3032:VAL:H	2.06	0.55
1:B:657:PHE:O	1:B:661:ASP:N	2.34	0.55
1:B:2783:ASN:C	1:B:2786:GLY:H	2.15	0.55
1:A:2685:SER:O	1:A:2705:VAL:N	2.40	0.55
1:B:33:LEU:HA	1:B:36:ASP:HA	1.89	0.55
1:B:1138:ALA:O	1:B:1142:GLU:N	2.28	0.55
1:B:2168:SER:HA	1:B:2171:PRO:N	2.22	0.55
1:A:14:GLN:HA	1:A:17:HIS:CB	2.38	0.54
1:A:1112:PRO:O	1:A:1117:GLN:N	2.37	0.54
1:A:2168:SER:HA	1:A:2171:PRO:N	2.22	0.54
1:A:2608:THR:O	1:A:2612:ARG:N	2.29	0.54
1:B:1643:ILE:O	1:B:1647:LEU:N	2.32	0.54
1:B:2018:LEU:O	1:B:2022:GLY:HA3	2.07	0.54
1:B:2608:THR:O	1:B:2612:ARG:N	2.29	0.54
1:A:689:SER:O	1:A:693:CYS:N	2.23	0.54
1:A:1237:ILE:HA	1:A:1240:ASN:CB	2.38	0.54
1:B:2922:GLY:O	1:B:2924:GLU:N	2.40	0.54
1:B:3020:VAL:H	1:B:3023:GLY:HA2	1.72	0.54
1:A:12:CYS:O	1:A:16:GLU:N	2.35	0.54
1:A:33:LEU:HA	1:A:36:ASP:HA	1.89	0.54
1:A:1901:LEU:HA	1:A:1904:LYS:CB	2.37	0.54
1:A:2018:LEU:O	1:A:2022:GLY:HA3	2.07	0.54
1:A:2305:GLN:C	1:A:2307:LEU:H	2.15	0.54
1:B:1453:ILE:HA	1:B:1456:GLY:C	2.32	0.54
1:B:1901:LEU:HA	1:B:1904:LYS:CB	2.37	0.54
1:B:2176:LEU:O	1:B:2179:ILE:N	2.40	0.54
1:B:2542:ASN:O	1:B:2546:SER:N	2.24	0.54
1:B:2877:LEU:H	1:B:2887:HIS:HA	1.72	0.54
1:A:2470:TYR:O	1:A:2474:LEU:N	2.21	0.54
1:B:2376:SER:N	1:B:2379:LEU:H	2.06	0.54
1:A:1453:ILE:HA	1:A:1456:GLY:C	2.32	0.54
1:A:2063:GLY:O	1:A:2067:ALA:N	2.29	0.54
1:A:2315:MET:HA	1:A:2319:LEU:H	1.72	0.54
1:A:2783:ASN:C	1:A:2786:GLY:H	2.15	0.54
1:B:1038:VAL:HA	1:B:1042:LEU:H	1.73	0.54
1:B:1237:ILE:HA	1:B:1240:ASN:CB	2.38	0.54
1:A:2722:LEU:O	1:A:2726:ALA:N	2.39	0.54
1:B:415:ILE:O	1:B:419:LEU:N	2.37	0.54
1:B:2305:GLN:C	1:B:2307:LEU:H	2.15	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:834:GLU:O	1:A:837:SER:N	2.41	0.54
1:A:2415:ALA:O	1:A:2419:ARG:N	2.41	0.54
1:A:2967:ALA:HB3	1:A:2970:LEU:HA	1.89	0.54
1:B:208:LYS:O	1:B:212:PHE:N	2.32	0.54
1:B:416:ALA:O	1:B:420:ILE:N	2.24	0.54
1:B:460:THR:HA	1:B:463:ALA:HB3	1.89	0.54
1:A:2699:PRO:HA	1:A:2716:VAL:O	2.07	0.54
1:B:2415:ALA:O	1:B:2419:ARG:N	2.41	0.54
1:A:1842:LEU:O	1:A:1845:LEU:N	2.41	0.54
1:B:1123:ALA:O	1:B:1127:ALA:N	2.41	0.54
1:A:1123:ALA:O	1:A:1127:ALA:N	2.41	0.54
1:A:1677:GLU:O	1:A:1681:ILE:N	2.27	0.54
1:A:1961:TYR:O	1:A:1965:LYS:N	2.19	0.54
1:A:2384:MET:HA	1:A:2473:CYS:HA	1.90	0.54
1:B:834:GLU:O	1:B:837:SER:N	2.41	0.54
1:B:2469:ASN:O	1:B:2473:CYS:N	2.26	0.54
1:B:2629:ILE:O	1:B:2633:LEU:N	2.41	0.54
1:B:14:GLN:HA	1:B:17:HIS:CB	2.37	0.53
1:B:1842:LEU:O	1:B:1845:LEU:N	2.41	0.53
1:A:460:THR:HA	1:A:463:ALA:HB3	1.89	0.53
1:A:1583:TYR:CB	1:A:1596:HIS:H	2.21	0.53
1:A:2877:LEU:H	1:A:2887:HIS:HA	1.72	0.53
1:B:703:ASN:O	1:B:707:SER:N	2.35	0.53
1:A:1138:ALA:O	1:A:1142:GLU:N	2.28	0.53
1:A:2629:ILE:O	1:A:2633:LEU:N	2.41	0.53
1:B:503:GLU:O	1:B:507:LEU:N	2.41	0.53
1:B:2010:ARG:O	1:B:2013:GLY:N	2.41	0.53
1:B:2315:MET:HA	1:B:2319:LEU:H	1.72	0.53
1:B:2520:MET:O	1:B:2523:LEU:N	2.42	0.53
1:A:1478:GLN:O	1:A:1482:CYS:N	2.42	0.53
1:B:1583:TYR:CB	1:B:1596:HIS:H	2.21	0.53
1:A:25:LYS:O	1:A:29:LYS:N	2.23	0.53
1:A:415:ILE:O	1:A:419:LEU:N	2.37	0.53
1:A:503:GLU:O	1:A:507:LEU:N	2.40	0.53
1:A:844:GLY:O	1:A:848:GLU:N	2.28	0.53
1:A:1643:ILE:O	1:A:1647:LEU:N	2.32	0.53
1:A:2520:MET:O	1:A:2523:LEU:N	2.42	0.53
1:A:2922:GLY:O	1:A:2925:GLY:N	2.26	0.53
1:B:1112:PRO:O	1:B:1117:GLN:N	2.37	0.53
1:B:2384:MET:HA	1:B:2473:CYS:HA	1.90	0.53
1:B:2726:ALA:O	1:B:2729:GLN:N	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:69:GLN:O	1:A:73:GLU:N	2.42	0.53
1:A:1997:THR:O	1:A:1999:ILE:N	2.42	0.53
1:A:2376:SER:N	1:A:2379:LEU:H	2.06	0.53
1:B:2381:ASN:O	1:B:2385:LYS:N	2.26	0.53
1:B:2967:ALA:HB3	1:B:2970:LEU:HA	1.89	0.53
1:A:1907:ARG:O	1:A:1910:LEU:N	2.35	0.53
1:A:2171:PRO:O	1:A:2175:ARG:N	2.22	0.53
1:A:2469:ASN:O	1:A:2473:CYS:N	2.26	0.53
1:A:2683:ILE:O	1:A:2685:SER:N	2.42	0.53
1:B:729:TYR:H	1:B:733:GLY:H	1.57	0.53
1:B:1631:ILE:O	1:B:1635:SER:N	2.29	0.53
1:B:1731:SER:C	1:B:1733:ALA:N	2.67	0.53
1:B:2683:ILE:O	1:B:2685:SER:N	2.42	0.53
1:B:2702:ILE:C	1:B:2714:GLN:H	2.16	0.53
1:A:1063:VAL:O	1:A:1067:ASP:N	2.42	0.53
1:A:2682:THR:H	1:A:2707:SER:CB	2.21	0.53
1:A:2702:ILE:C	1:A:2714:GLN:H	2.16	0.53
1:B:1070:VAL:H	1:B:1073:VAL:CB	2.22	0.53
1:A:631:PRO:O	1:A:635:HIS:N	2.29	0.53
1:A:2010:ARG:O	1:A:2013:GLY:N	2.41	0.53
1:A:2306:SER:N	1:A:2309:LEU:H	1.97	0.53
1:A:2704:CYS:O	1:A:2711:GLU:HA	2.09	0.53
1:B:693:CYS:O	1:B:697:LEU:N	2.41	0.53
1:B:2228:THR:O	1:B:2231:LEU:N	2.37	0.53
1:B:2704:CYS:O	1:B:2711:GLU:HA	2.09	0.53
1:B:2780:LEU:C	1:B:2784:GLU:H	2.17	0.53
1:A:1038:VAL:HA	1:A:1042:LEU:H	1.73	0.52
1:B:1063:VAL:O	1:B:1067:ASP:N	2.42	0.52
1:B:1478:GLN:O	1:B:1482:CYS:N	2.42	0.52
1:B:2471:ILE:O	1:B:2475:LEU:N	2.32	0.52
1:B:2806:MET:O	1:B:2816:LYS:N	2.43	0.52
1:A:2780:LEU:C	1:A:2784:GLU:H	2.17	0.52
1:B:69:GLN:O	1:B:73:GLU:N	2.42	0.52
1:B:433:SER:O	1:B:437:MET:N	2.42	0.52
1:B:1420:LEU:C	1:B:1425:GLN:H	2.17	0.52
1:B:2217:PHE:O	1:B:2221:GLU:N	2.43	0.52
1:B:2699:PRO:HA	1:B:2716:VAL:O	2.08	0.52
1:A:693:CYS:O	1:A:697:LEU:N	2.41	0.52
1:A:2844:ILE:O	1:A:2848:LYS:N	2.43	0.52
1:B:1732:ALA:N	1:B:1734:VAL:H	2.07	0.52
1:B:1907:ARG:O	1:B:1910:LEU:N	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2722:LEU:O	1:B:2726:ALA:N	2.39	0.52
1:A:729:TYR:H	1:A:733:GLY:H	1.57	0.52
1:A:2103:ALA:HA	1:A:2106:ASN:O	2.10	0.52
1:A:2217:PHE:O	1:A:2221:GLU:N	2.43	0.52
1:A:2255:LEU:O	1:A:2259:SER:N	2.30	0.52
1:A:2726:ALA:O	1:A:2729:GLN:N	2.42	0.52
1:A:2880:GLU:HA	1:A:2883:ALA:HA	1.92	0.52
1:A:433:SER:O	1:A:437:MET:N	2.42	0.52
1:A:2481:ASP:O	1:A:2485:PHE:N	2.34	0.52
1:B:2103:ALA:HA	1:B:2106:ASN:O	2.09	0.52
1:B:2703:ASP:HA	1:B:2712:ARG:O	2.10	0.52
1:B:2880:GLU:HA	1:B:2883:ALA:HA	1.92	0.52
1:B:2682:THR:H	1:B:2707:SER:CB	2.21	0.52
1:A:505:PHE:O	1:A:509:GLY:HA3	2.10	0.52
1:A:657:PHE:O	1:A:661:ASP:N	2.34	0.52
1:A:1732:ALA:N	1:A:1734:VAL:H	2.08	0.52
1:A:2247:ILE:O	1:A:2250:ILE:N	2.43	0.52
1:A:2648:PRO:HA	1:A:2689:GLU:O	2.10	0.52
1:A:2761:SER:C	1:A:2764:SER:H	2.18	0.52
1:B:2074:CYS:O	1:B:2077:LEU:N	2.43	0.52
1:B:2829:PRO:CB	1:B:2912:ARG:CA	2.88	0.52
1:B:2844:ILE:O	1:B:2848:LYS:N	2.43	0.52
1:A:977:CYS:O	1:A:981:ARG:N	2.39	0.52
1:A:1420:LEU:C	1:A:1425:GLN:H	2.17	0.52
1:A:1731:SER:C	1:A:1733:ALA:N	2.67	0.52
1:A:1968:ASP:O	1:A:1972:LYS:N	2.23	0.52
1:A:2793:PRO:CB	1:A:2796:PHE:H	2.23	0.52
1:B:168:PHE:O	1:B:172:PHE:N	2.27	0.52
1:B:505:PHE:O	1:B:509:GLY:HA3	2.10	0.52
1:B:1421:ALA:C	1:B:1424:GLU:H	2.18	0.52
1:A:2074:CYS:O	1:A:2077:LEU:N	2.43	0.52
1:A:2604:ARG:O	1:A:2608:THR:N	2.42	0.52
1:A:3028:VAL:O	1:A:3029:GLY:C	2.50	0.52
1:B:2247:ILE:O	1:B:2250:ILE:N	2.43	0.52
1:A:1070:VAL:H	1:A:1073:VAL:CB	2.22	0.51
1:A:1421:ALA:C	1:A:1424:GLU:H	2.18	0.51
1:B:1637:ASP:O	1:B:1640:GLN:N	2.42	0.51
1:B:3028:VAL:O	1:B:3029:GLY:C	2.50	0.51
1:A:580:LEU:O	1:A:584:GLN:N	2.29	0.51
1:A:1825:GLN:O	1:A:1829:PRO:N	2.44	0.51
1:B:2298:VAL:HA	1:B:2301:ALA:CB	2.33	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2628:ILE:HA	1:B:2631:ALA:HB3	1.92	0.51
1:A:971:LYS:O	1:A:975:ASN:N	2.34	0.51
1:A:483:LEU:HA	1:A:524:TRP:HA	1.92	0.51
1:A:2829:PRO:CB	1:A:2912:ARG:CA	2.88	0.51
1:B:1968:ASP:O	1:B:1972:LYS:N	2.23	0.51
1:B:2761:SER:C	1:B:2764:SER:H	2.18	0.51
1:B:2793:PRO:CB	1:B:2796:PHE:H	2.23	0.51
1:A:168:PHE:O	1:A:172:PHE:N	2.27	0.51
1:A:2290:GLU:HA	1:A:2293:LEU:CB	2.41	0.51
1:B:2459:ARG:O	1:B:2464:CYS:N	2.32	0.51
1:A:2924:GLU:O	1:A:2928:ARG:N	2.44	0.51
1:B:282:LEU:HA	1:B:285:LEU:CB	2.40	0.51
1:B:1997:THR:O	1:B:1999:ILE:N	2.42	0.51
1:A:749:ALA:O	1:A:753:MET:N	2.25	0.51
1:A:1637:ASP:O	1:A:1640:GLN:N	2.42	0.51
1:A:1908:THR:O	1:A:1911:ALA:N	2.43	0.51
1:A:282:LEU:HA	1:A:285:LEU:CB	2.40	0.51
1:A:608:LEU:O	1:A:612:LEU:N	2.33	0.51
1:A:1951:HIS:O	1:A:1954:ALA:N	2.44	0.51
1:A:2703:ASP:HA	1:A:2712:ARG:O	2.10	0.51
1:B:2693:ALA:H	1:B:2700:LYS:HA	1.76	0.51
1:A:1156:THR:O	1:A:1160:VAL:N	2.36	0.51
1:B:25:LYS:O	1:B:29:LYS:N	2.23	0.51
1:B:310:SER:O	1:B:314:ASN:N	2.30	0.51
1:B:1908:THR:O	1:B:1911:ALA:N	2.43	0.51
1:B:2648:PRO:HA	1:B:2689:GLU:O	2.10	0.51
1:A:1383:SER:O	1:A:1387:LYS:N	2.42	0.51
1:A:2628:ILE:HA	1:A:2631:ALA:HB3	1.92	0.51
1:A:2786:GLY:O	1:A:2788:HIS:N	2.44	0.51
1:A:2872:HIS:CB	1:A:2875:ASN:H	2.24	0.51
1:B:1124:TYR:C	1:B:1127:ALA:H	2.19	0.51
1:B:1383:SER:O	1:B:1387:LYS:N	2.42	0.51
1:A:1116:GLN:HA	1:A:1119:ALA:HB3	1.93	0.50
1:A:2879:ASN:CB	1:A:2882:SER:H	2.24	0.50
1:A:159:ILE:O	1:A:195:THR:HA	2.11	0.50
1:A:1124:TYR:C	1:A:1127:ALA:H	2.19	0.50
1:B:1951:HIS:O	1:B:1954:ALA:N	2.44	0.50
1:A:1198:SER:HA	1:A:1201:PHE:CB	2.41	0.50
1:A:2841:ASP:O	1:A:2843:ALA:N	2.45	0.50
1:B:689:SER:O	1:B:693:CYS:N	2.23	0.50
1:B:1825:GLN:O	1:B:1829:PRO:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2924:GLU:O	1:B:2928:ARG:N	2.44	0.50
1:A:2092:CYS:HA	1:A:2095:LEU:CB	2.41	0.50
1:B:242:THR:H	1:B:1105:SER:CB	2.25	0.50
1:B:1677:GLU:O	1:B:1681:ILE:N	2.27	0.50
1:B:2290:GLU:HA	1:B:2293:LEU:CB	2.41	0.50
1:A:2016:ASP:O	1:A:2021:CYS:N	2.44	0.50
1:B:2092:CYS:HA	1:B:2095:LEU:CB	2.41	0.50
1:B:2604:ARG:O	1:B:2608:THR:N	2.42	0.50
1:B:2786:GLY:O	1:B:2788:HIS:N	2.44	0.50
1:B:1489:ARG:O	1:B:1493:LEU:N	2.33	0.50
1:B:1905:SER:O	1:B:1908:THR:N	2.45	0.50
1:A:1953:THR:O	1:A:1957:TYR:N	2.37	0.50
1:B:159:ILE:O	1:B:195:THR:HA	2.11	0.50
1:B:483:LEU:HA	1:B:524:TRP:HA	1.93	0.50
1:A:325:HIS:O	1:A:438:ILE:N	2.44	0.50
1:A:2387:PHE:O	1:A:2391:ALA:N	2.24	0.50
1:B:2306:SER:HA	1:B:2310:SER:H	1.77	0.50
1:B:1198:SER:HA	1:B:1201:PHE:CB	2.41	0.50
1:B:2394:SER:CB	1:B:2466:ALA:HB2	2.42	0.50
1:B:2841:ASP:O	1:B:2843:ALA:N	2.45	0.50
1:A:2082:LYS:CB	1:B:2083:GLY:HA2	2.42	0.49
1:B:608:LEU:O	1:B:612:LEU:N	2.33	0.49
1:B:2879:ASN:CB	1:B:2882:SER:H	2.24	0.49
1:A:1087:MET:O	1:A:1090:ALA:HB3	2.12	0.49
1:A:2391:ALA:HA	1:A:2466:ALA:HA	1.94	0.49
1:A:2394:SER:CB	1:A:2466:ALA:HB2	2.42	0.49
1:B:325:HIS:O	1:B:438:ILE:N	2.44	0.49
1:A:1905:SER:O	1:A:1908:THR:N	2.45	0.49
1:A:2233:ILE:O	1:A:2236:GLU:N	2.45	0.49
1:A:2774:VAL:N	1:A:2878:ILE:H	2.09	0.49
1:B:977:CYS:O	1:B:981:ARG:N	2.40	0.49
1:B:1250:SER:O	1:B:1253:LYS:N	2.46	0.49
1:A:1250:SER:O	1:A:1253:LYS:N	2.46	0.49
1:A:1489:ARG:O	1:A:1493:LEU:N	2.33	0.49
1:A:2823:VAL:O	1:A:2827:PHE:N	2.45	0.49
1:B:1116:GLN:HA	1:B:1119:ALA:HB3	1.93	0.49
1:A:1452:ASP:O	1:A:1456:GLY:HA3	2.12	0.49
1:A:2318:LYS:HA	1:A:2321:ALA:HB3	1.95	0.49
1:A:347:GLU:O	1:A:351:ASP:N	2.35	0.49
1:A:2459:ARG:O	1:A:2463:LEU:N	2.46	0.49
1:B:1452:ASP:O	1:B:1456:GLY:HA3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2391:ALA:HA	1:B:2466:ALA:HA	1.94	0.49
1:B:2459:ARG:O	1:B:2463:LEU:N	2.46	0.49
1:B:2774:VAL:N	1:B:2878:ILE:H	2.09	0.49
1:B:2973:ARG:C	1:B:2976:ASP:H	2.19	0.49
1:A:2306:SER:HA	1:A:2310:SER:H	1.77	0.49
1:B:1112:PRO:HA	1:B:1116:GLN:CB	2.42	0.49
1:B:1586:GLY:O	1:B:1592:GLU:N	2.45	0.49
1:B:2318:LYS:HA	1:B:2321:ALA:HB3	1.94	0.49
1:A:510:ALA:O	1:A:514:GLY:N	2.37	0.49
1:A:2693:ALA:H	1:A:2700:LYS:HA	1.76	0.49
1:B:225:SER:O	1:B:229:LEU:N	2.46	0.49
1:B:1859:ARG:O	1:B:1862:LEU:N	2.46	0.49
1:A:1112:PRO:HA	1:A:1116:GLN:CB	2.42	0.49
1:A:2085:ASP:O	1:A:2087:GLU:N	2.43	0.49
1:A:2692:LEU:CA	1:A:2700:LYS:HA	2.40	0.49
1:A:847:MET:O	1:A:851:ASP:N	2.32	0.49
1:A:242:THR:H	1:A:1105:SER:CB	2.25	0.48
1:A:1453:ILE:C	1:A:1456:GLY:H	2.21	0.48
1:A:2298:VAL:CA	1:A:2302:LYS:H	2.26	0.48
1:A:2607:CYS:HA	1:A:2610:ARG:CB	2.43	0.48
1:A:2867:GLY:HA3	1:A:2894:PHE:CA	2.41	0.48
1:A:2973:ARG:C	1:A:2976:ASP:H	2.19	0.48
1:B:1451:LYS:C	1:B:1453:ILE:H	2.21	0.48
1:B:1945:ALA:HB1	1:B:1954:ALA:CA	2.40	0.48
1:B:2233:ILE:O	1:B:2236:GLU:N	2.45	0.48
1:B:3020:VAL:H	1:B:3023:GLY:CA	2.26	0.48
1:A:228:GLY:HA3	1:A:266:TRP:CB	2.43	0.48
1:A:2806:MET:O	1:A:2816:LYS:N	2.43	0.48
1:B:228:GLY:HA3	1:B:266:TRP:CB	2.43	0.48
1:B:729:TYR:C	1:B:732:MET:H	2.20	0.48
1:B:1156:THR:O	1:B:1160:VAL:N	2.36	0.48
1:B:2823:VAL:O	1:B:2827:PHE:N	2.45	0.48
1:B:2859:SER:O	1:B:2860:SER:C	2.57	0.48
1:B:2872:HIS:CB	1:B:2875:ASN:H	2.24	0.48
1:A:225:SER:O	1:A:229:LEU:N	2.46	0.48
1:A:351:ASP:O	1:A:355:GLN:N	2.47	0.48
1:A:2174:SER:O	1:A:2177:GLN:N	2.46	0.48
1:A:3020:VAL:H	1:A:3023:GLY:CA	2.26	0.48
1:B:1087:MET:O	1:B:1090:ALA:HB3	2.12	0.48
1:A:729:TYR:C	1:A:732:MET:H	2.20	0.48
1:A:1586:GLY:O	1:A:1592:GLU:N	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1192:LYS:O	1:A:1196:LYS:N	2.46	0.48
1:A:1859:ARG:O	1:A:1862:LEU:N	2.46	0.48
1:A:1942:ALA:HA	1:A:1945:ALA:HB3	1.95	0.48
1:B:1192:LYS:O	1:B:1196:LYS:N	2.46	0.48
1:B:1453:ILE:C	1:B:1456:GLY:H	2.21	0.48
1:A:254:LEU:HA	1:A:258:ILE:H	1.79	0.48
1:B:59:ALA:O	1:B:63:PHE:N	2.38	0.48
1:B:254:LEU:HA	1:B:258:ILE:H	1.79	0.48
1:B:1942:ALA:HA	1:B:1945:ALA:HB3	1.95	0.48
1:B:2174:SER:O	1:B:2177:GLN:N	2.46	0.48
1:B:2224:MET:O	1:B:2225:ALA:C	2.56	0.48
1:B:2607:CYS:HA	1:B:2610:ARG:CB	2.43	0.48
1:B:2674:THR:H	1:B:2677:TYR:CB	2.27	0.48
1:A:2381:ASN:O	1:A:2385:LYS:N	2.26	0.48
1:B:159:ILE:HA	1:B:195:THR:CB	2.44	0.48
1:B:1156:THR:O	1:B:1159:ALA:HB3	2.14	0.48
1:A:1156:THR:O	1:A:1159:ALA:HB3	2.14	0.48
1:A:2877:LEU:H	1:A:2888:ILE:H	1.62	0.48
1:B:351:ASP:O	1:B:355:GLN:N	2.47	0.48
1:B:543:THR:HA	1:B:546:LEU:CB	2.44	0.48
1:B:631:PRO:O	1:B:635:HIS:N	2.29	0.48
1:B:1712:PHE:C	1:B:1714:MET:N	2.71	0.48
1:B:2044:LYS:O	1:B:2048:THR:N	2.26	0.48
1:B:2650:ASP:H	1:B:2689:GLU:CA	2.27	0.48
1:B:2877:LEU:H	1:B:2888:ILE:H	1.62	0.48
1:A:3024:THR:O	1:A:3026:LEU:N	2.47	0.48
1:B:1191:LYS:O	1:B:1195:GLU:N	2.46	0.48
1:B:2172:THR:O	1:B:2175:ARG:N	2.47	0.48
1:B:2298:VAL:CA	1:B:2302:LYS:H	2.26	0.48
1:A:713:GLU:O	1:A:717:ARG:N	2.47	0.47
1:A:1191:LYS:O	1:A:1195:GLU:N	2.46	0.47
1:A:1310:GLN:HA	1:A:1314:THR:CB	2.44	0.47
1:A:1945:ALA:HB1	1:A:1954:ALA:CA	2.40	0.47
1:A:2224:MET:O	1:A:2225:ALA:C	2.56	0.47
1:B:2016:ASP:O	1:B:2021:CYS:N	2.44	0.47
1:B:3024:THR:O	1:B:3026:LEU:N	2.47	0.47
1:A:159:ILE:HA	1:A:195:THR:CB	2.44	0.47
1:A:310:SER:O	1:A:314:ASN:N	2.30	0.47
1:A:543:THR:HA	1:A:546:LEU:CB	2.44	0.47
1:A:2172:THR:O	1:A:2175:ARG:N	2.47	0.47
1:A:2928:ARG:O	1:A:2931:CYS:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:99:SER:O	1:B:103:TYR:N	2.27	0.47
1:B:1829:PRO:O	1:B:1833:VAL:N	2.47	0.47
1:B:2029:PRO:C	1:B:2031:THR:N	2.71	0.47
1:B:2795:ASP:HA	1:B:2798:ALA:HB3	1.96	0.47
1:A:1719:ASN:O	1:A:1722:LEU:N	2.47	0.47
1:A:2091:TRP:C	1:A:2093:PRO:N	2.71	0.47
1:A:2320:ASP:O	1:A:2324:ALA:N	2.44	0.47
1:B:2692:LEU:CA	1:B:2700:LYS:HA	2.40	0.47
1:B:2857:ALA:O	1:B:2860:SER:N	2.47	0.47
1:A:1712:PHE:C	1:A:1714:MET:N	2.71	0.47
1:A:2298:VAL:HA	1:A:2301:ALA:CB	2.32	0.47
1:B:1122:ASN:O	1:B:1126:LYS:N	2.34	0.47
1:B:1553:GLU:O	1:B:1557:ILE:N	2.30	0.47
1:B:1719:ASN:O	1:B:1722:LEU:N	2.47	0.47
1:B:2829:PRO:CB	1:B:2912:ARG:CB	2.92	0.47
1:A:2029:PRO:C	1:A:2031:THR:N	2.70	0.47
1:A:2859:SER:O	1:A:2860:SER:C	2.57	0.47
1:B:2855:SER:O	1:B:2858:THR:N	2.44	0.47
1:A:1451:LYS:C	1:A:1453:ILE:H	2.21	0.47
1:A:2674:THR:H	1:A:2677:TYR:CB	2.27	0.47
1:A:2739:LEU:O	1:A:2742:ASN:N	2.46	0.47
1:B:2739:LEU:O	1:B:2742:ASN:N	2.46	0.47
1:B:2928:ARG:O	1:B:2931:CYS:N	2.47	0.47
1:A:2174:SER:O	1:A:2175:ARG:C	2.58	0.47
1:A:2650:ASP:H	1:A:2689:GLU:CA	2.27	0.47
1:A:2879:ASN:O	1:A:2884:GLU:N	2.28	0.47
1:A:3052:TRP:O	1:A:3055:TRP:N	2.48	0.47
1:B:17:HIS:HA	1:B:22:GLU:HA	1.97	0.47
1:B:176:LEU:HA	1:B:180:GLN:O	2.15	0.47
1:B:510:ALA:O	1:B:514:GLY:N	2.37	0.47
1:B:1214:LEU:O	1:B:1218:VAL:N	2.48	0.47
1:B:1958:ALA:O	1:B:1961:TYR:N	2.47	0.47
1:B:2524:ALA:O	1:B:2527:MET:N	2.36	0.47
1:B:3028:VAL:C	1:B:3032:VAL:H	2.06	0.47
1:B:3052:TRP:O	1:B:3055:TRP:N	2.47	0.47
1:A:45:ARG:O	1:A:59:ALA:N	2.48	0.47
1:A:1553:GLU:O	1:A:1557:ILE:N	2.30	0.47
1:A:1958:ALA:O	1:A:1961:TYR:N	2.47	0.47
1:A:2758:VAL:N	1:A:2766:VAL:O	2.27	0.47
1:B:713:GLU:O	1:B:717:ARG:N	2.47	0.47
1:B:1444:LEU:O	1:B:1447:SER:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2879:ASN:O	1:B:2884:GLU:N	2.28	0.47
1:B:1958:ALA:O	1:B:1959:GLU:C	2.58	0.47
1:B:2626:ALA:HB1	1:B:2654:THR:HA	1.97	0.47
1:B:2867:GLY:HA3	1:B:2894:PHE:CA	2.41	0.47
1:A:1444:LEU:O	1:A:1447:SER:N	2.48	0.47
1:A:2091:TRP:O	1:A:2094:GLU:N	2.47	0.47
1:A:2505:LYS:C	1:A:2508:GLY:H	2.23	0.47
1:B:580:LEU:O	1:B:584:GLN:N	2.29	0.47
1:B:2091:TRP:O	1:B:2094:GLU:N	2.47	0.47
1:B:2320:ASP:O	1:B:2324:ALA:N	2.44	0.47
1:B:2380:ARG:O	1:B:2384:MET:N	2.31	0.47
1:A:1054:PRO:O	1:A:1055:TYR:C	2.57	0.46
1:A:2795:ASP:HA	1:A:2798:ALA:HB3	1.96	0.46
1:A:2829:PRO:CB	1:A:2912:ARG:CB	2.93	0.46
1:B:847:MET:O	1:B:851:ASP:N	2.32	0.46
1:B:2849:ARG:O	1:B:2853:THR:N	2.23	0.46
1:A:1609:THR:O	1:A:1612:GLU:N	2.48	0.46
1:A:2650:ASP:N	1:A:2689:GLU:HA	2.30	0.46
1:B:45:ARG:O	1:B:59:ALA:N	2.48	0.46
1:B:1609:THR:O	1:B:1612:GLU:N	2.48	0.46
1:B:1849:ILE:O	1:B:1852:GLN:N	2.48	0.46
1:A:1862:LEU:O	1:A:1865:HIS:N	2.49	0.46
1:A:2471:ILE:O	1:A:2475:LEU:N	2.32	0.46
1:A:2647:ILE:N	1:A:2691:ARG:HA	2.29	0.46
1:A:2857:ALA:O	1:A:2860:SER:N	2.47	0.46
1:A:59:ALA:O	1:A:63:PHE:N	2.38	0.46
1:A:1214:LEU:O	1:A:1218:VAL:N	2.48	0.46
1:B:1054:PRO:O	1:B:1055:TYR:C	2.57	0.46
1:B:1923:SER:H	1:B:1929:ASN:CB	2.29	0.46
1:A:1829:PRO:O	1:A:1833:VAL:N	2.47	0.46
1:B:1310:GLN:HA	1:B:1314:THR:CB	2.44	0.46
1:B:2647:ILE:H	1:B:2692:LEU:H	1.64	0.46
1:B:2914:ILE:O	1:B:2917:GLY:N	2.48	0.46
1:A:1900:CYS:C	1:A:1902:ASP:N	2.74	0.46
1:B:194:VAL:O	1:B:197:GLY:N	2.49	0.46
1:B:1376:PRO:C	1:B:1379:PRO:N	2.74	0.46
1:B:1900:CYS:C	1:B:1902:ASP:N	2.74	0.46
1:A:17:HIS:HA	1:A:22:GLU:HA	1.97	0.46
1:B:1583:TYR:O	1:B:1586:GLY:N	2.49	0.46
1:B:2085:ASP:O	1:B:2087:GLU:N	2.43	0.46
1:B:2126:GLU:O	1:B:2130:ASN:N	2.26	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:40:ILE:CB	1:A:112:ALA:H	2.29	0.46
1:A:176:LEU:HA	1:A:180:GLN:O	2.15	0.46
1:A:1583:TYR:O	1:A:1586:GLY:N	2.49	0.46
1:A:1609:THR:O	1:A:1610:ARG:C	2.59	0.46
1:A:1951:HIS:O	1:A:1952:PHE:C	2.59	0.46
1:A:2855:SER:O	1:A:2858:THR:N	2.43	0.46
1:B:306:THR:N	1:B:310:SER:H	2.14	0.46
1:B:975:ASN:O	1:B:979:LEU:N	2.26	0.46
1:B:2305:GLN:C	1:B:2307:LEU:N	2.74	0.46
1:B:2535:LEU:HA	1:B:2539:GLU:CB	2.45	0.46
1:A:1849:ILE:O	1:A:1852:GLN:N	2.48	0.46
1:A:1999:ILE:HA	1:A:2002:GLN:CB	2.46	0.46
1:A:2626:ALA:HB1	1:A:2654:THR:HA	1.97	0.46
1:A:2647:ILE:H	1:A:2692:LEU:H	1.64	0.46
1:B:1862:LEU:O	1:B:1865:HIS:N	2.49	0.46
1:B:1999:ILE:HA	1:B:2002:GLN:CB	2.46	0.46
1:B:2008:ILE:HA	1:B:2011:SER:CB	2.46	0.46
1:B:2505:LYS:C	1:B:2508:GLY:H	2.23	0.46
1:B:2647:ILE:N	1:B:2691:ARG:HA	2.29	0.46
1:B:2922:GLY:O	1:B:2925:GLY:N	2.26	0.46
1:A:2305:GLN:C	1:A:2307:LEU:N	2.74	0.46
1:A:2684:GLN:H	1:A:2706:GLY:C	2.24	0.46
1:A:2914:ILE:O	1:A:2917:GLY:N	2.48	0.46
1:B:1456:GLY:O	1:B:1457:LEU:C	2.59	0.46
1:A:1480:PRO:HA	1:A:1484:MET:N	2.31	0.45
1:A:1923:SER:H	1:A:1929:ASN:CB	2.29	0.45
1:A:2224:MET:O	1:A:2227:ARG:N	2.49	0.45
1:B:694:LEU:O	1:B:698:SER:N	2.49	0.45
1:B:1044:ASN:O	1:B:1048:THR:N	2.28	0.45
1:B:1970:GLN:O	1:B:1974:SER:N	2.22	0.45
1:B:2758:VAL:N	1:B:2766:VAL:O	2.27	0.45
1:A:1376:PRO:C	1:A:1379:PRO:N	2.74	0.45
1:A:194:VAL:O	1:A:197:GLY:N	2.49	0.45
1:A:306:THR:N	1:A:310:SER:H	2.14	0.45
1:A:2017:SER:O	1:A:2022:GLY:N	2.49	0.45
1:A:2126:GLU:O	1:A:2130:ASN:N	2.26	0.45
1:A:2226:LEU:O	1:A:2229:VAL:N	2.50	0.45
1:A:2270:LEU:O	1:A:2273:ARG:N	2.50	0.45
1:B:2224:MET:O	1:B:2227:ARG:N	2.49	0.45
1:B:2226:LEU:O	1:B:2229:VAL:N	2.50	0.45
1:B:2270:LEU:O	1:B:2273:ARG:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1456:GLY:O	1:A:1457:LEU:C	2.59	0.45
1:A:2505:LYS:O	1:A:2508:GLY:N	2.49	0.45
1:A:2535:LEU:HA	1:A:2539:GLU:CB	2.45	0.45
1:B:279:ILE:HA	1:B:282:LEU:CB	2.47	0.45
1:B:1643:ILE:O	1:B:1646:LYS:N	2.49	0.45
1:B:1696:TYR:HA	1:B:2164:GLU:O	2.16	0.45
1:B:2226:LEU:O	1:B:2227:ARG:C	2.58	0.45
1:B:2387:PHE:O	1:B:2391:ALA:N	2.24	0.45
1:B:2783:ASN:HA	1:B:2786:GLY:HA3	1.99	0.45
1:A:1309:ALA:C	1:A:1314:THR:HA	2.42	0.45
1:A:2292:GLN:C	1:A:2295:GLU:H	2.24	0.45
1:B:306:THR:O	1:B:310:SER:N	2.50	0.45
1:B:2305:GLN:O	1:B:2307:LEU:N	2.47	0.45
1:A:2524:ALA:O	1:A:2527:MET:N	2.36	0.45
1:A:3051:GLY:O	1:A:3054:ALA:HB3	2.17	0.45
1:B:659:LYS:HA	1:B:663:LEU:CB	2.47	0.45
1:B:999:LYS:C	1:B:1002:GLY:H	2.21	0.45
1:B:2017:SER:O	1:B:2022:GLY:N	2.49	0.45
1:B:2150:ALA:O	1:B:2151:ARG:C	2.60	0.45
1:B:2216:ASP:O	1:B:2217:PHE:C	2.58	0.45
1:A:1533:GLU:O	1:A:1537:GLN:N	2.22	0.45
1:A:1643:ILE:O	1:A:1646:LYS:N	2.49	0.45
1:A:1696:TYR:HA	1:A:2164:GLU:O	2.16	0.45
1:A:2499:GLU:O	1:A:2502:GLY:N	2.50	0.45
1:A:2783:ASN:HA	1:A:2786:GLY:HA3	1.98	0.45
1:B:183:HIS:O	1:B:187:VAL:N	2.26	0.45
1:B:615:LEU:HA	1:B:1342:GLU:O	2.17	0.45
1:B:1862:LEU:O	1:B:1863:SER:C	2.60	0.45
1:A:1044:ASN:O	1:A:1048:THR:N	2.28	0.45
1:A:1309:ALA:O	1:A:1312:ARG:N	2.50	0.45
1:A:1862:LEU:O	1:A:1863:SER:C	2.60	0.45
1:A:2222:PRO:O	1:A:2225:ALA:N	2.49	0.45
1:B:40:ILE:CB	1:B:112:ALA:H	2.29	0.45
1:B:747:GLN:O	1:B:751:SER:N	2.35	0.45
1:B:2063:GLY:O	1:B:2067:ALA:N	2.29	0.45
1:B:2222:PRO:O	1:B:2225:ALA:N	2.50	0.45
1:A:2294:GLU:O	1:A:2296:ALA:N	2.50	0.45
1:B:1309:ALA:C	1:B:1314:THR:HA	2.42	0.45
1:B:1951:HIS:O	1:B:1952:PHE:C	2.59	0.45
1:B:1960:ILE:O	1:B:1961:TYR:C	2.59	0.45
1:B:2746:ARG:C	1:B:2749:LYS:H	2.24	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3051:GLY:O	1:B:3054:ALA:HB3	2.17	0.45
1:A:26:GLU:O	1:A:30:PHE:N	2.38	0.45
1:A:694:LEU:O	1:A:698:SER:N	2.49	0.45
1:A:1717:TYR:O	1:A:1720:ASN:N	2.50	0.45
1:A:2008:ILE:HA	1:A:2011:SER:CB	2.46	0.45
1:B:1309:ALA:O	1:B:1312:ARG:N	2.50	0.45
1:B:1468:VAL:O	1:B:1472:LEU:N	2.22	0.45
1:A:279:ILE:HA	1:A:282:LEU:CB	2.47	0.44
1:A:615:LEU:HA	1:A:1342:GLU:O	2.17	0.44
1:A:1960:ILE:O	1:A:1961:TYR:C	2.59	0.44
1:A:2057:SER:O	1:A:2060:ARG:N	2.50	0.44
1:A:2226:LEU:O	1:A:2227:ARG:C	2.58	0.44
1:B:2091:TRP:C	1:B:2093:PRO:N	2.71	0.44
1:A:562:ASN:O	1:A:566:VAL:N	2.32	0.44
1:A:2016:ASP:O	1:A:2019:TYR:N	2.50	0.44
1:A:2045:ALA:O	1:A:2046:LEU:C	2.60	0.44
1:A:2216:ASP:O	1:A:2217:PHE:C	2.58	0.44
1:A:2456:LYS:O	1:A:2460:LYS:N	2.29	0.44
1:A:2746:ARG:C	1:A:2749:LYS:H	2.24	0.44
1:B:1070:VAL:O	1:B:1074:PHE:N	2.23	0.44
1:B:1076:GLN:HA	1:B:1079:ALA:HB3	2.00	0.44
1:B:1124:TYR:O	1:B:1127:ALA:N	2.50	0.44
1:B:2057:SER:O	1:B:2060:ARG:N	2.50	0.44
1:A:526:LEU:C	1:A:529:GLY:H	2.25	0.44
1:A:2703:ASP:HA	1:A:2712:ARG:C	2.43	0.44
1:B:1480:PRO:HA	1:B:1484:MET:N	2.32	0.44
1:B:1717:TYR:O	1:B:1720:ASN:N	2.50	0.44
1:B:3050:PRO:HA	1:B:3053:LYS:CB	2.47	0.44
1:A:1076:GLN:HA	1:A:1079:ALA:HB3	2.00	0.44
1:A:1434:LYS:C	1:A:1436:HIS:H	2.25	0.44
1:A:2044:LYS:O	1:A:2048:THR:N	2.26	0.44
1:A:1822:GLU:C	1:A:1824:LEU:N	2.76	0.44
1:A:2294:GLU:C	1:A:2296:ALA:N	2.73	0.44
1:B:2016:ASP:O	1:B:2019:TYR:N	2.50	0.44
1:B:2092:CYS:CA	1:B:2096:GLU:H	2.30	0.44
1:B:2308:ALA:O	1:B:2309:LEU:C	2.60	0.44
1:B:2499:GLU:O	1:B:2502:GLY:N	2.50	0.44
1:A:1578:GLN:O	1:A:1582:LYS:N	2.32	0.44
1:A:2308:ALA:O	1:A:2309:LEU:C	2.60	0.44
1:B:353:CYS:CB	1:B:449:GLY:HA3	2.48	0.44
1:B:1192:LYS:HA	1:B:1195:GLU:CB	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1434:LYS:C	1:B:1436:HIS:H	2.25	0.44
1:B:1609:THR:O	1:B:1610:ARG:C	2.59	0.44
1:B:2525:ALA:HB1	1:B:2956:PRO:CB	2.48	0.44
1:A:306:THR:O	1:A:310:SER:N	2.50	0.44
1:A:1124:TYR:O	1:A:1127:ALA:N	2.50	0.44
1:A:1192:LYS:HA	1:A:1195:GLU:CB	2.48	0.44
1:A:2305:GLN:O	1:A:2307:LEU:N	2.47	0.44
1:A:2466:ALA:O	1:A:2467:VAL:C	2.61	0.44
1:A:2693:ALA:H	1:A:2699:PRO:C	2.25	0.44
1:A:2784:GLU:HA	1:A:2788:HIS:CB	2.48	0.44
1:B:1822:GLU:C	1:B:1824:LEU:N	2.76	0.44
1:B:2131:ALA:HA	1:B:2134:SER:CB	2.48	0.44
1:B:2216:ASP:O	1:B:2219:PHE:N	2.51	0.44
1:B:2270:LEU:O	1:B:2271:PRO:C	2.61	0.44
1:B:2292:GLN:C	1:B:2295:GLU:H	2.24	0.44
1:A:2150:ALA:O	1:A:2151:ARG:C	2.59	0.44
1:B:2209:SER:O	1:B:2213:LYS:N	2.51	0.44
1:B:2294:GLU:O	1:B:2296:ALA:N	2.50	0.44
1:A:1580:LYS:HA	1:A:1596:HIS:CA	2.47	0.44
1:A:2092:CYS:CA	1:A:2096:GLU:H	2.30	0.44
1:A:2131:ALA:HA	1:A:2134:SER:CB	2.48	0.44
1:A:2209:SER:O	1:A:2213:LYS:N	2.51	0.44
1:A:2216:ASP:O	1:A:2219:PHE:N	2.51	0.44
1:A:2302:LYS:O	1:A:2303:LYS:C	2.61	0.44
1:A:3050:PRO:HA	1:A:3053:LYS:CB	2.47	0.44
1:B:1467:ASP:O	1:B:1470:TYR:N	2.51	0.44
1:B:1580:LYS:HA	1:B:1596:HIS:CA	2.47	0.44
1:B:1907:ARG:O	1:B:1908:THR:C	2.61	0.44
1:B:2033:LEU:O	1:B:2034:ARG:C	2.60	0.44
1:B:2693:ALA:H	1:B:2699:PRO:C	2.25	0.44
1:A:659:LYS:HA	1:A:663:LEU:CB	2.47	0.43
1:A:1851:LEU:O	1:A:1854:THR:N	2.47	0.43
1:A:2033:LEU:O	1:A:2034:ARG:C	2.60	0.43
1:A:2702:ILE:C	1:A:2713:ARG:HA	2.43	0.43
1:B:1580:LYS:O	1:B:1584:SER:N	2.20	0.43
1:B:2391:ALA:HB2	1:B:2470:TYR:N	2.33	0.43
1:B:2684:GLN:H	1:B:2706:GLY:C	2.24	0.43
1:B:2921:THR:O	1:B:2922:GLY:C	2.61	0.43
1:A:734:VAL:O	1:A:738:GLU:N	2.32	0.43
1:A:1303:THR:O	1:A:1304:ARG:C	2.62	0.43
1:A:1467:ASP:O	1:A:1470:TYR:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2101:GLN:HA	1:A:2104:TRP:CB	2.48	0.43
1:A:2178:ALA:O	1:A:2179:ILE:C	2.60	0.43
1:A:2185:ILE:O	1:A:2188:LEU:N	2.39	0.43
1:A:2459:ARG:HA	1:A:2463:LEU:H	1.83	0.43
1:B:526:LEU:C	1:B:529:GLY:H	2.25	0.43
1:B:543:THR:O	1:B:547:THR:N	2.51	0.43
1:B:2459:ARG:HA	1:B:2463:LEU:H	1.83	0.43
1:B:2722:LEU:O	1:B:2725:ASP:N	2.51	0.43
1:A:1970:GLN:O	1:A:1974:SER:N	2.22	0.43
1:A:2281:TYR:C	1:A:2283:SER:N	2.76	0.43
1:A:2513:THR:HA	1:A:2516:PHE:CB	2.48	0.43
1:A:2524:ALA:O	1:A:2525:ALA:C	2.61	0.43
1:A:2525:ALA:HB1	1:A:2956:PRO:CB	2.48	0.43
1:A:2666:THR:C	1:A:2682:THR:HA	2.43	0.43
1:B:734:VAL:O	1:B:738:GLU:N	2.32	0.43
1:B:749:ALA:O	1:B:753:MET:N	2.25	0.43
1:B:2302:LYS:O	1:B:2303:LYS:C	2.61	0.43
1:A:543:THR:O	1:A:547:THR:N	2.51	0.43
1:A:1041:ALA:C	1:A:1043:VAL:N	2.77	0.43
1:A:1955:LEU:O	1:A:1958:ALA:HB3	2.18	0.43
1:A:2520:MET:O	1:A:2521:TYR:C	2.61	0.43
1:A:2722:LEU:O	1:A:2725:ASP:N	2.51	0.43
1:B:38:GLU:HA	1:B:43:LEU:N	2.33	0.43
1:B:1165:SER:O	1:B:1169:GLU:N	2.33	0.43
1:B:1953:THR:O	1:B:1957:TYR:N	2.37	0.43
1:B:2174:SER:O	1:B:2175:ARG:C	2.58	0.43
1:B:2386:ALA:O	1:B:2387:PHE:C	2.62	0.43
1:B:2513:THR:HA	1:B:2516:PHE:CB	2.48	0.43
1:B:2666:THR:C	1:B:2682:THR:HA	2.44	0.43
1:A:1907:ARG:O	1:A:1908:THR:C	2.61	0.43
1:A:2099:HIS:O	1:A:2102:ALA:HB3	2.19	0.43
1:A:2391:ALA:HB2	1:A:2470:TYR:N	2.33	0.43
1:B:1477:ASN:O	1:B:1481:SER:N	2.43	0.43
1:B:2466:ALA:O	1:B:2467:VAL:C	2.61	0.43
1:B:2703:ASP:HA	1:B:2712:ARG:C	2.43	0.43
1:B:2916:ASP:O	1:B:2917:GLY:C	2.62	0.43
1:A:353:CYS:CB	1:A:449:GLY:HA3	2.48	0.43
1:A:1370:GLY:HA2	1:A:1373:ASP:CB	2.49	0.43
1:A:2295:GLU:C	1:A:2297:GLN:N	2.76	0.43
1:A:2410:PHE:O	1:A:2414:GLN:N	2.35	0.43
1:B:530:SER:HA	1:B:533:ARG:C	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2092:CYS:HA	1:B:2096:GLU:H	1.84	0.43
1:B:2524:ALA:O	1:B:2525:ALA:C	2.61	0.43
1:B:2842:PRO:HA	1:B:2845:TRP:CB	2.48	0.43
1:A:2928:ARG:O	1:A:2929:ARG:C	2.59	0.43
1:A:3015:GLU:O	1:A:3016:LYS:C	2.59	0.43
1:B:280:ILE:HA	1:B:283:PHE:CB	2.49	0.43
1:B:1736:CYS:O	1:B:1739:ASN:N	2.52	0.43
1:B:2092:CYS:C	1:B:2096:GLU:H	2.27	0.43
1:B:2496:GLY:H	1:B:2537:PHE:CB	2.31	0.43
1:B:2702:ILE:C	1:B:2713:ARG:HA	2.43	0.43
1:B:2928:ARG:O	1:B:2929:ARG:C	2.59	0.43
1:A:38:GLU:HA	1:A:43:LEU:N	2.33	0.43
1:A:280:ILE:HA	1:A:283:PHE:CB	2.49	0.43
1:A:1938:TYR:HA	1:A:1941:VAL:CB	2.49	0.43
1:A:2496:GLY:H	1:A:2537:PHE:CB	2.31	0.43
1:B:347:GLU:O	1:B:351:ASP:N	2.35	0.43
1:B:1938:TYR:HA	1:B:1941:VAL:CB	2.49	0.43
1:B:2505:LYS:O	1:B:2508:GLY:N	2.49	0.43
1:B:2841:ASP:O	1:B:2842:PRO:C	2.61	0.43
1:B:3014:GLN:O	1:B:3017:LEU:O	2.37	0.43
1:A:1435:LYS:C	1:A:1437:ARG:H	2.25	0.43
1:A:1736:CYS:O	1:A:1739:ASN:N	2.52	0.43
1:A:2473:CYS:O	1:A:2476:SER:N	2.52	0.43
1:A:2842:PRO:HA	1:A:2845:TRP:CB	2.48	0.43
1:B:2361:LEU:HA	1:B:2364:ALA:HB3	2.00	0.43
1:B:2784:GLU:HA	1:B:2788:HIS:CB	2.48	0.43
1:B:3015:GLU:O	1:B:3016:LYS:C	2.59	0.43
1:A:1414:SER:O	1:A:1418:ILE:N	2.52	0.43
1:A:2222:PRO:O	1:A:2223:ILE:C	2.61	0.43
1:A:2272:GLU:O	1:A:2275:ILE:N	2.51	0.43
1:A:2361:LEU:HA	1:A:2364:ALA:HB3	2.00	0.43
1:A:2844:ILE:O	1:A:2849:ARG:N	2.42	0.43
1:B:1370:GLY:HA2	1:B:1373:ASP:CB	2.49	0.43
1:B:1532:VAL:HA	1:B:1535:GLN:H	1.84	0.43
1:B:2298:VAL:O	1:B:2302:LYS:N	2.52	0.43
1:B:2729:GLN:O	1:B:2730:GLN:C	2.61	0.43
1:A:530:SER:HA	1:A:533:ARG:C	2.44	0.42
1:B:1041:ALA:C	1:B:1043:VAL:N	2.77	0.42
1:B:1043:VAL:O	1:B:1047:LYS:N	2.34	0.42
1:B:2099:HIS:O	1:B:2102:ALA:HB3	2.19	0.42
1:A:975:ASN:O	1:A:979:LEU:N	2.26	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:999:LYS:C	1:A:1002:GLY:H	2.21	0.42
1:A:1244:ILE:HA	1:A:1248:TYR:N	2.34	0.42
1:B:1003:GLN:HA	1:B:1006:MET:CB	2.50	0.42
1:B:1397:HIS:O	1:B:1400:LYS:C	2.62	0.42
1:B:1435:LYS:C	1:B:1437:ARG:H	2.26	0.42
1:B:2101:GLN:HA	1:B:2104:TRP:CB	2.48	0.42
1:B:2855:SER:O	1:B:2856:VAL:C	2.62	0.42
1:A:2661:ASP:O	1:A:2684:GLN:C	2.63	0.42
1:A:2867:GLY:CA	1:A:2894:PHE:HA	2.43	0.42
1:A:2970:LEU:O	1:A:2974:PRO:N	2.52	0.42
1:A:3014:GLN:O	1:A:3017:LEU:O	2.37	0.42
1:B:26:GLU:O	1:B:30:PHE:N	2.38	0.42
1:B:1303:THR:O	1:B:1304:ARG:C	2.62	0.42
1:B:1397:HIS:C	1:B:1512:ALA:HB3	2.45	0.42
1:B:1414:SER:O	1:B:1418:ILE:N	2.52	0.42
1:B:1948:CYS:C	1:B:1950:ALA:H	2.27	0.42
1:B:2354:ALA:HA	1:B:2357:MET:CB	2.48	0.42
1:B:2410:PHE:O	1:B:2414:GLN:N	2.35	0.42
1:A:663:LEU:O	1:A:1341:PRO:HA	2.19	0.42
1:A:1050:LEU:O	1:A:1056:SER:HA	2.19	0.42
1:A:1366:CYS:C	1:A:1370:GLY:H	2.14	0.42
1:A:1956:LEU:O	1:A:1957:TYR:C	2.63	0.42
1:A:2298:VAL:O	1:A:2302:LYS:N	2.52	0.42
1:B:1244:ILE:HA	1:B:1248:TYR:N	2.34	0.42
1:B:1366:CYS:C	1:B:1370:GLY:H	2.14	0.42
1:B:1544:TYR:O	1:B:1545:LEU:C	2.62	0.42
1:B:1955:LEU:O	1:B:1958:ALA:HB3	2.18	0.42
1:B:1956:LEU:O	1:B:1957:TYR:C	2.63	0.42
1:B:2294:GLU:C	1:B:2296:ALA:N	2.73	0.42
1:B:2309:LEU:HA	1:B:2312:LEU:CB	2.50	0.42
1:A:731:TYR:O	1:A:735:ILE:N	2.53	0.42
1:A:923:ILE:O	1:A:927:LEU:N	2.29	0.42
1:A:2150:ALA:O	1:A:2153:LYS:N	2.53	0.42
1:A:2309:LEU:HA	1:A:2312:LEU:CB	2.50	0.42
1:A:2857:ALA:O	1:A:2858:THR:C	2.62	0.42
1:B:1050:LEU:O	1:B:1056:SER:HA	2.19	0.42
1:B:1295:LEU:O	1:B:1298:PHE:N	2.50	0.42
1:B:1878:SER:O	1:B:1879:GLN:C	2.63	0.42
1:B:2152:VAL:O	1:B:2153:LYS:C	2.63	0.42
1:B:2297:GLN:O	1:B:2299:PHE:N	2.53	0.42
1:A:1070:VAL:O	1:A:1074:PHE:N	2.24	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1532:VAL:HA	1:A:1535:GLN:H	1.84	0.42
1:A:1948:CYS:C	1:A:1950:ALA:H	2.27	0.42
1:A:2386:ALA:O	1:A:2389:SER:N	2.53	0.42
1:A:2729:GLN:O	1:A:2730:GLN:C	2.61	0.42
1:B:325:HIS:CB	1:B:434:PRO:HA	2.50	0.42
1:B:1453:ILE:HA	1:B:1458:GLY:N	2.35	0.42
1:B:1465:LEU:O	1:B:1468:VAL:N	2.53	0.42
1:A:1544:TYR:O	1:A:1545:LEU:C	2.62	0.42
1:A:1958:ALA:O	1:A:1959:GLU:C	2.58	0.42
1:A:2092:CYS:HA	1:A:2096:GLU:H	1.84	0.42
1:B:923:ILE:O	1:B:927:LEU:N	2.29	0.42
1:B:2045:ALA:O	1:B:2046:LEU:C	2.60	0.42
1:B:2661:ASP:O	1:B:2684:GLN:C	2.63	0.42
1:A:1165:SER:O	1:A:1169:GLU:N	2.33	0.42
1:A:1397:HIS:O	1:A:1400:LYS:C	2.62	0.42
1:A:1453:ILE:HA	1:A:1458:GLY:N	2.35	0.42
1:A:1465:LEU:O	1:A:1468:VAL:N	2.53	0.42
1:A:1556:TYR:O	1:A:1559:ILE:N	2.53	0.42
1:A:1715:LEU:O	1:A:1718:LEU:N	2.53	0.42
1:A:2391:ALA:O	1:A:2392:ARG:C	2.62	0.42
1:B:731:TYR:O	1:B:735:ILE:N	2.53	0.42
1:B:1533:GLU:O	1:B:1537:GLN:N	2.23	0.42
1:B:1556:TYR:O	1:B:1559:ILE:N	2.53	0.42
1:B:2222:PRO:O	1:B:2223:ILE:C	2.61	0.42
1:B:2259:SER:O	1:B:2262:ALA:HB3	2.19	0.42
1:B:2272:GLU:O	1:B:2275:ILE:N	2.51	0.42
1:B:2401:ILE:O	1:B:2402:GLU:C	2.62	0.42
1:B:2520:MET:O	1:B:2521:TYR:C	2.61	0.42
1:B:2970:LEU:O	1:B:2974:PRO:N	2.52	0.42
1:A:325:HIS:CB	1:A:434:PRO:HA	2.50	0.42
1:A:1088:LEU:HA	1:A:1114:LYS:HA	2.01	0.42
1:A:1765:GLN:O	1:A:1768:ARG:N	2.53	0.42
1:A:1913:VAL:HA	1:A:1917:ARG:CB	2.50	0.42
1:A:2270:LEU:O	1:A:2271:PRO:C	2.61	0.42
1:A:2297:GLN:O	1:A:2299:PHE:N	2.53	0.42
1:A:2354:ALA:HA	1:A:2357:MET:CB	2.48	0.42
1:A:2552:HIS:O	1:A:2556:THR:N	2.43	0.42
1:B:1578:GLN:O	1:B:1582:LYS:N	2.32	0.42
1:B:2348:THR:O	1:B:2349:CYS:C	2.63	0.42
1:B:2522:GLN:O	1:B:2523:LEU:C	2.62	0.42
1:A:2841:ASP:O	1:A:2842:PRO:C	2.61	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2855:SER:O	1:A:2856:VAL:C	2.62	0.42
1:B:2473:CYS:O	1:B:2476:SER:N	2.52	0.42
1:B:2857:ALA:O	1:B:2858:THR:C	2.62	0.42
1:B:3029:GLY:HA2	1:B:3032:VAL:CB	2.50	0.42
1:A:1003:GLN:HA	1:A:1006:MET:CB	2.50	0.41
1:A:1397:HIS:C	1:A:1512:ALA:HB3	2.45	0.41
1:A:1749:PHE:HA	1:A:1752:ILE:CB	2.50	0.41
1:A:1850:LEU:O	1:A:1854:THR:N	2.53	0.41
1:A:2209:SER:O	1:A:2212:LEU:N	2.53	0.41
1:A:2401:ILE:O	1:A:2402:GLU:C	2.62	0.41
1:A:2522:GLN:O	1:A:2523:LEU:C	2.62	0.41
1:B:1715:LEU:O	1:B:1718:LEU:N	2.53	0.41
1:B:2209:SER:O	1:B:2212:LEU:N	2.53	0.41
1:B:2295:GLU:C	1:B:2297:GLN:N	2.76	0.41
1:B:2386:ALA:O	1:B:2389:SER:N	2.53	0.41
1:B:2403:ASN:O	1:B:2408:SER:N	2.46	0.41
1:A:1091:GLU:O	1:A:1110:ALA:HB1	2.20	0.41
1:A:1465:LEU:O	1:A:1466:ARG:C	2.64	0.41
1:A:1912:VAL:C	1:A:1917:ARG:H	2.28	0.41
1:A:2783:ASN:O	1:A:2786:GLY:C	2.63	0.41
1:A:2932:GLU:O	1:A:2933:LYS:C	2.63	0.41
1:B:1375:ALA:C	1:B:1378:PRO:N	2.78	0.41
1:B:1878:SER:C	1:B:1882:ARG:H	2.27	0.41
1:B:1912:VAL:C	1:B:1917:ARG:H	2.28	0.41
1:B:3032:VAL:O	1:B:3033:ASN:C	2.63	0.41
1:A:325:HIS:HA	1:A:434:PRO:HA	2.03	0.41
1:A:2092:CYS:C	1:A:2096:GLU:H	2.27	0.41
1:A:2259:SER:O	1:A:2262:ALA:HB3	2.19	0.41
1:A:2457:GLU:HA	1:A:2460:LYS:CB	2.50	0.41
1:A:3032:VAL:O	1:A:3033:ASN:C	2.63	0.41
1:B:1850:LEU:O	1:B:1854:THR:N	2.53	0.41
1:B:1913:VAL:HA	1:B:1917:ARG:CB	2.50	0.41
1:B:1948:CYS:C	1:B:1950:ALA:N	2.77	0.41
1:B:2010:ARG:O	1:B:2011:SER:C	2.62	0.41
1:B:2647:ILE:O	1:B:2691:ARG:HA	2.21	0.41
1:B:2650:ASP:N	1:B:2689:GLU:HA	2.30	0.41
1:B:2922:GLY:C	1:B:2924:GLU:N	2.77	0.41
1:A:1939:LEU:O	1:A:1942:ALA:HB3	2.20	0.41
1:B:725:VAL:HA	1:B:733:GLY:HA2	2.01	0.41
1:B:1088:LEU:HA	1:B:1114:LYS:HA	2.01	0.41
1:B:1091:GLU:O	1:B:1110:ALA:HB1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1953:THR:O	1:B:1954:ALA:C	2.64	0.41
1:B:2344:TRP:HA	1:B:2347:GLU:CB	2.50	0.41
1:B:2742:ASN:CB	1:B:2745:THR:H	2.34	0.41
1:A:725:VAL:HA	1:A:733:GLY:HA2	2.01	0.41
1:A:747:GLN:O	1:A:751:SER:N	2.35	0.41
1:A:1925:GLY:O	1:A:1928:PHE:N	2.53	0.41
1:A:1931:ALA:O	1:A:1934:LEU:N	2.54	0.41
1:A:2298:VAL:HA	1:A:2302:LYS:N	2.35	0.41
1:A:2855:SER:C	1:A:2858:THR:H	2.28	0.41
1:B:476:GLN:O	1:B:480:LEU:N	2.36	0.41
1:B:1648:VAL:C	1:B:1650:ASN:N	2.77	0.41
1:A:1453:ILE:HA	1:A:1458:GLY:H	1.86	0.41
1:A:1730:ARG:O	1:A:1733:ALA:HB3	2.21	0.41
1:A:1925:GLY:C	1:A:1927:ILE:N	2.75	0.41
1:A:2010:ARG:O	1:A:2011:SER:C	2.62	0.41
1:A:3029:GLY:HA2	1:A:3032:VAL:CB	2.50	0.41
1:B:161:GLN:HA	1:B:199:CYS:CB	2.50	0.41
1:B:325:HIS:HA	1:B:434:PRO:HA	2.02	0.41
1:B:1765:GLN:O	1:B:1768:ARG:N	2.53	0.41
1:B:1822:GLU:O	1:B:1824:LEU:N	2.54	0.41
1:B:1939:LEU:O	1:B:1942:ALA:HB3	2.20	0.41
1:B:2657:LYS:O	1:B:2658:ASN:C	2.64	0.41
1:B:2715:LEU:N	1:B:2767:LEU:O	2.54	0.41
1:A:242:THR:CB	1:A:245:VAL:H	2.33	0.41
1:A:1430:ASN:O	1:A:1434:LYS:N	2.54	0.41
1:A:1824:LEU:HA	1:A:1827:LEU:CB	2.51	0.41
1:A:2292:GLN:O	1:A:2293:LEU:C	2.63	0.41
1:A:2647:ILE:O	1:A:2691:ARG:HA	2.21	0.41
1:A:2941:SER:O	1:A:2942:GLN:C	2.64	0.41
1:B:1882:ARG:O	1:B:1883:SER:C	2.62	0.41
1:B:1925:GLY:O	1:B:1928:PHE:N	2.53	0.41
1:B:2123:SER:O	1:B:2124:TYR:C	2.64	0.41
1:B:2178:ALA:O	1:B:2179:ILE:C	2.60	0.41
1:B:2878:ILE:CA	1:B:2885:LEU:HA	2.48	0.41
1:B:3042:PRO:HA	1:B:3045:LEU:CB	2.51	0.41
1:A:43:LEU:HA	1:A:59:ALA:CB	2.48	0.41
1:A:1467:ASP:O	1:A:1468:VAL:C	2.63	0.41
1:A:1617:LEU:C	1:A:1620:GLN:H	2.28	0.41
1:A:2386:ALA:O	1:A:2387:PHE:C	2.62	0.41
1:A:2517:LEU:O	1:A:2518:PRO:C	2.63	0.41
1:A:2738:LEU:O	1:A:2742:ASN:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2742:ASN:CB	1:A:2745:THR:H	2.34	0.41
1:A:3042:PRO:HA	1:A:3045:LEU:CB	2.51	0.41
1:B:242:THR:CB	1:B:245:VAL:H	2.33	0.41
1:B:1458:GLY:O	1:B:1461:TRP:N	2.54	0.41
1:B:2391:ALA:O	1:B:2392:ARG:C	2.62	0.41
1:B:2941:SER:O	1:B:2942:GLN:C	2.64	0.41
1:A:248:ARG:HA	1:A:305:SER:HA	2.03	0.41
1:A:444:PRO:HA	1:A:447:ARG:CB	2.51	0.41
1:A:1043:VAL:O	1:A:1047:LYS:N	2.34	0.41
1:A:1375:ALA:C	1:A:1378:PRO:N	2.78	0.41
1:A:1648:VAL:C	1:A:1650:ASN:N	2.77	0.41
1:A:1851:LEU:C	1:A:1854:THR:H	2.29	0.41
1:A:1878:SER:O	1:A:1881:SER:N	2.54	0.41
1:A:1912:VAL:HA	1:A:1916:MET:H	1.86	0.41
1:A:2123:SER:O	1:A:2124:TYR:C	2.64	0.41
1:A:2542:ASN:O	1:A:2546:SER:N	2.24	0.41
1:A:2878:ILE:CA	1:A:2885:LEU:HA	2.48	0.41
1:B:663:LEU:O	1:B:1341:PRO:HA	2.20	0.41
1:B:1878:SER:O	1:B:1881:SER:N	2.54	0.41
1:B:1912:VAL:HA	1:B:1916:MET:H	1.86	0.41
1:B:2150:ALA:O	1:B:2153:LYS:N	2.53	0.41
1:B:2220:GLN:O	1:B:2221:GLU:C	2.63	0.41
1:B:2657:LYS:O	1:B:2660:GLU:N	2.54	0.41
1:B:2855:SER:C	1:B:2858:THR:H	2.28	0.41
1:B:2867:GLY:CA	1:B:2894:PHE:HA	2.43	0.41
1:A:1458:GLY:O	1:A:1461:TRP:N	2.54	0.41
1:A:2220:GLN:O	1:A:2221:GLU:C	2.63	0.41
1:A:2380:ARG:O	1:A:2384:MET:N	2.31	0.41
1:A:2498:SER:O	1:A:2500:VAL:N	2.54	0.41
1:A:2551:ASP:O	1:A:2552:HIS:C	2.64	0.41
1:B:1421:ALA:HA	1:B:1424:GLU:HA	2.03	0.41
1:B:2188:LEU:O	1:B:2191:ARG:N	2.54	0.41
1:B:2482:MET:O	1:B:2485:PHE:N	2.54	0.41
1:B:2783:ASN:O	1:B:2786:GLY:C	2.63	0.41
1:B:2924:GLU:C	1:B:2928:ARG:H	2.29	0.41
1:A:1452:ASP:O	1:A:1454:LYS:N	2.54	0.40
1:A:1453:ILE:O	1:A:1454:LYS:C	2.63	0.40
1:A:1901:LEU:CA	1:A:1904:LYS:H	2.34	0.40
1:A:1948:CYS:C	1:A:1950:ALA:N	2.77	0.40
1:A:2344:TRP:HA	1:A:2347:GLU:CB	2.50	0.40
1:A:2849:ARG:O	1:A:2853:THR:N	2.23	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2916:ASP:O	1:A:2917:GLY:C	2.62	0.40
1:B:562:ASN:O	1:B:566:VAL:N	2.32	0.40
1:B:1452:ASP:O	1:B:1454:LYS:N	2.54	0.40
1:B:1537:GLN:O	1:B:1538:VAL:C	2.63	0.40
1:B:2457:GLU:HA	1:B:2460:LYS:CB	2.50	0.40
1:B:2923:VAL:O	1:B:2926:VAL:N	2.54	0.40
1:B:3026:LEU:O	1:B:3027:SER:C	2.64	0.40
1:A:444:PRO:O	1:A:445:GLN:C	2.64	0.40
1:A:1878:SER:O	1:A:1879:GLN:C	2.63	0.40
1:A:2048:THR:O	1:A:2049:TYR:C	2.65	0.40
1:B:248:ARG:HA	1:B:305:SER:HA	2.03	0.40
1:B:1430:ASN:O	1:B:1434:LYS:N	2.54	0.40
1:B:2647:ILE:H	1:B:2691:ARG:CA	2.33	0.40
1:B:2738:LEU:O	1:B:2742:ASN:N	2.53	0.40
1:A:208:LYS:HA	1:A:211:ASP:CB	2.51	0.40
1:A:1041:ALA:O	1:A:1043:VAL:N	2.54	0.40
1:A:1236:PHE:O	1:A:1239:LEU:N	2.55	0.40
1:A:1396:CYS:O	1:A:1400:LYS:N	2.55	0.40
1:A:1421:ALA:HA	1:A:1424:GLU:HA	2.03	0.40
1:A:1707:GLU:O	1:A:1710:TRP:N	2.51	0.40
1:A:2384:MET:O	1:A:2385:LYS:C	2.64	0.40
1:A:2657:LYS:O	1:A:2660:GLU:N	2.54	0.40
1:A:2828:GLN:O	1:A:2830:VAL:N	2.55	0.40
1:B:1395:ASN:HA	1:B:1398:LYS:CB	2.52	0.40
1:B:1453:ILE:HA	1:B:1458:GLY:H	1.86	0.40
1:B:1453:ILE:O	1:B:1454:LYS:C	2.63	0.40
1:B:1749:PHE:HA	1:B:1752:ILE:CB	2.50	0.40
1:B:1925:GLY:C	1:B:1927:ILE:N	2.75	0.40
1:B:2254:HIS:O	1:B:2255:LEU:C	2.65	0.40
1:B:2394:SER:O	1:B:2395:ASP:C	2.64	0.40
1:B:2615:GLN:C	1:B:2617:VAL:N	2.78	0.40
1:B:2877:LEU:N	1:B:2888:ILE:H	2.19	0.40
1:A:1017:GLN:O	1:A:1021:VAL:N	2.54	0.40
1:A:1822:GLU:O	1:A:1824:LEU:N	2.54	0.40
1:A:2036:TYR:O	1:A:2039:GLU:O	2.40	0.40
1:A:2148:LYS:C	1:A:2151:ARG:H	2.29	0.40
1:A:2152:VAL:O	1:A:2153:LYS:C	2.63	0.40
1:A:2541:LEU:O	1:A:2542:ASN:C	2.64	0.40
1:A:2704:CYS:C	1:A:2711:GLU:HA	2.46	0.40
1:A:2722:LEU:O	1:A:2723:ARG:C	2.64	0.40
1:B:444:PRO:HA	1:B:447:ARG:CB	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1617:LEU:C	1:B:1620:GLN:H	2.28	0.40
1:B:2036:TYR:O	1:B:2039:GLU:O	2.40	0.40
1:B:2125:HIS:O	1:B:2126:GLU:C	2.64	0.40
1:B:2552:HIS:O	1:B:2555:HIS:N	2.54	0.40
1:A:161:GLN:HA	1:A:199:CYS:CB	2.51	0.40
1:A:1695:SER:O	1:A:2166:VAL:HA	2.22	0.40
1:A:1847:HIS:O	1:A:1848:ASP:C	2.64	0.40
1:A:2657:LYS:O	1:A:2658:ASN:C	2.64	0.40
1:A:2923:VAL:O	1:A:2926:VAL:N	2.54	0.40
1:A:3026:LEU:O	1:A:3027:SER:C	2.64	0.40
1:B:208:LYS:HA	1:B:211:ASP:CB	2.51	0.40
1:B:1041:ALA:O	1:B:1043:VAL:N	2.54	0.40
1:B:1396:CYS:O	1:B:1400:LYS:N	2.54	0.40
1:B:1746:GLY:HA2	1:B:1749:PHE:CB	2.52	0.40
1:B:1931:ALA:O	1:B:1934:LEU:N	2.54	0.40
1:B:2289:SER:O	1:B:2292:GLN:N	2.55	0.40
1:B:2456:LYS:O	1:B:2460:LYS:N	2.29	0.40
1:B:3011:MET:O	1:B:3012:ARG:C	2.63	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	2435/3066 (79%)	2231 (92%)	197 (8%)	7 (0%)	36	72
1	B	2435/3066 (79%)	2232 (92%)	196 (8%)	7 (0%)	36	72
All	All	4870/6132 (79%)	4463 (92%)	393 (8%)	14 (0%)	37	72

All (14) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	1367	ASP
1	A	1376	PRO
1	A	1378	PRO
1	B	1367	ASP
1	B	1376	PRO
1	B	1378	PRO
1	A	2645	ILE
1	A	2829	PRO
1	B	2645	ILE
1	B	2829	PRO
1	A	1688	ILE
1	B	1688	ILE
1	A	2920	ILE
1	B	2920	ILE

5.3.2 Protein sidechains [i](#)

There are no protein residues with a non-rotameric sidechain to report in this entry.

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

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	A	3
1	B	3

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A	305:SER	C	306:THR	N	6.20
1	B	305:SER	C	306:THR	N	6.20
1	A	163:GLN	C	164:TRP	N	3.12
1	B	163:GLN	C	164:TRP	N	3.12
1	A	1394:SER	C	1395:ASN	N	2.99
1	B	1394:SER	C	1395:ASN	N	2.99

6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-3669. These allow visual inspection of the internal detail of the map and identification of artifacts.

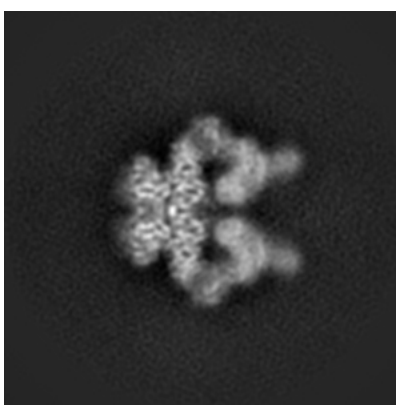
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

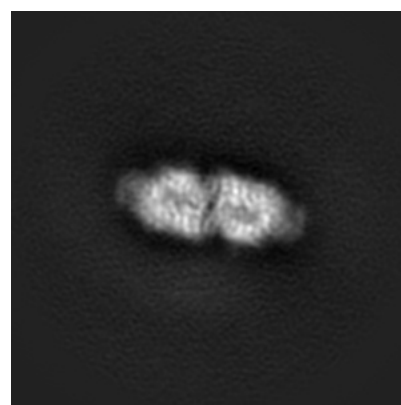
6.1.1 Primary map



X



Y

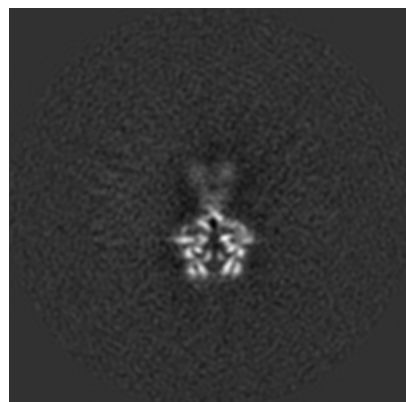


Z

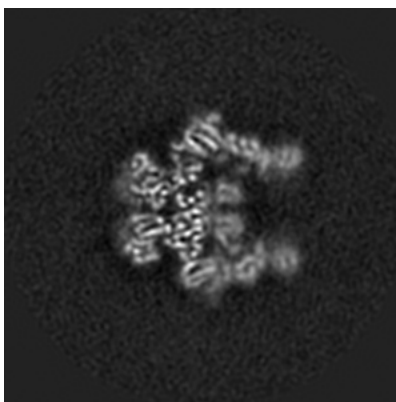
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

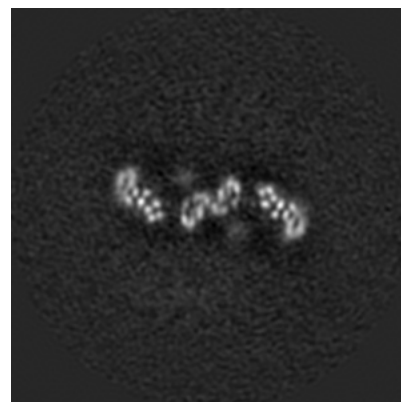
6.2.1 Primary map



X Index: 150



Y Index: 150

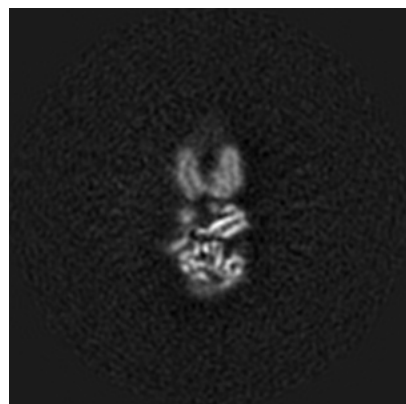


Z Index: 150

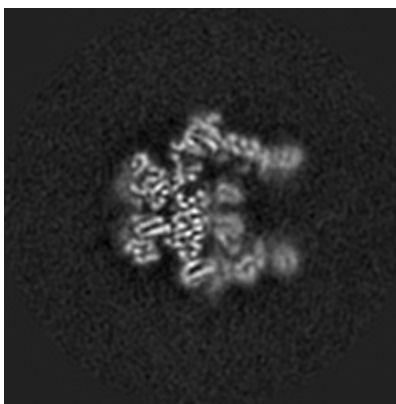
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

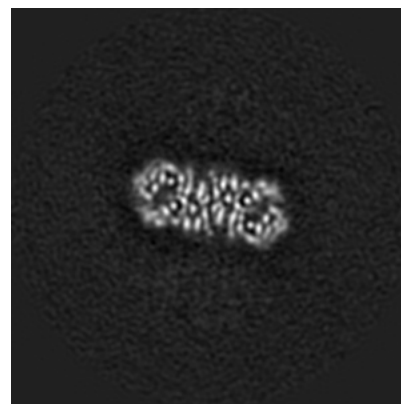
6.3.1 Primary map



X Index: 168



Y Index: 149

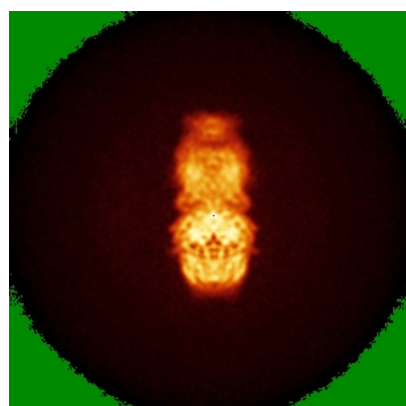


Z Index: 133

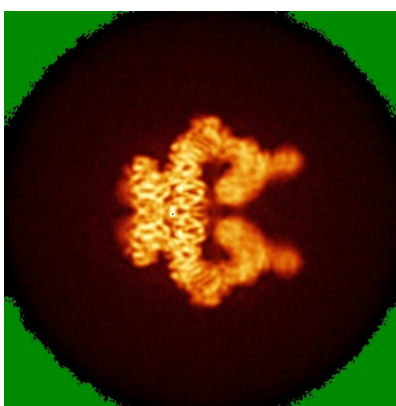
The images above show the largest variance slices of the map in three orthogonal directions.

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

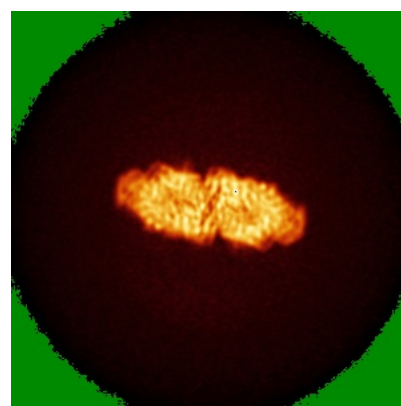
6.4.1 Primary map



X



Y

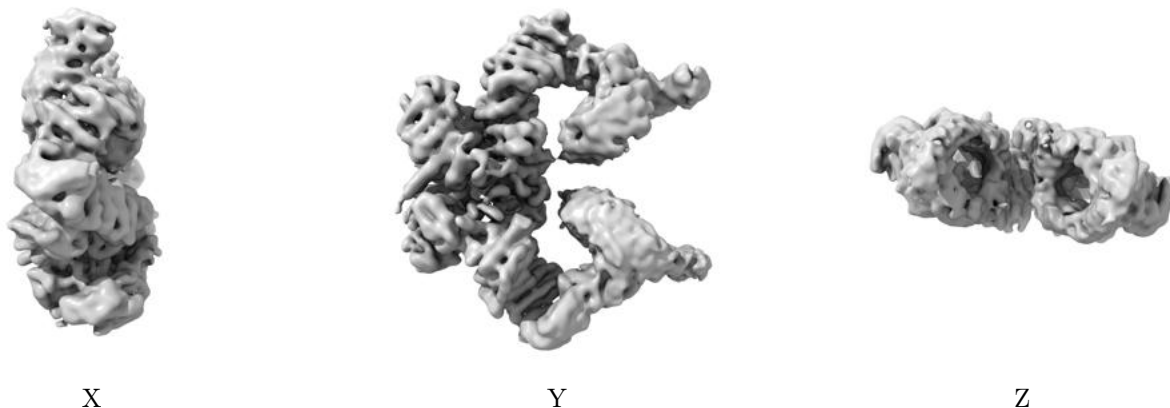


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.03. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

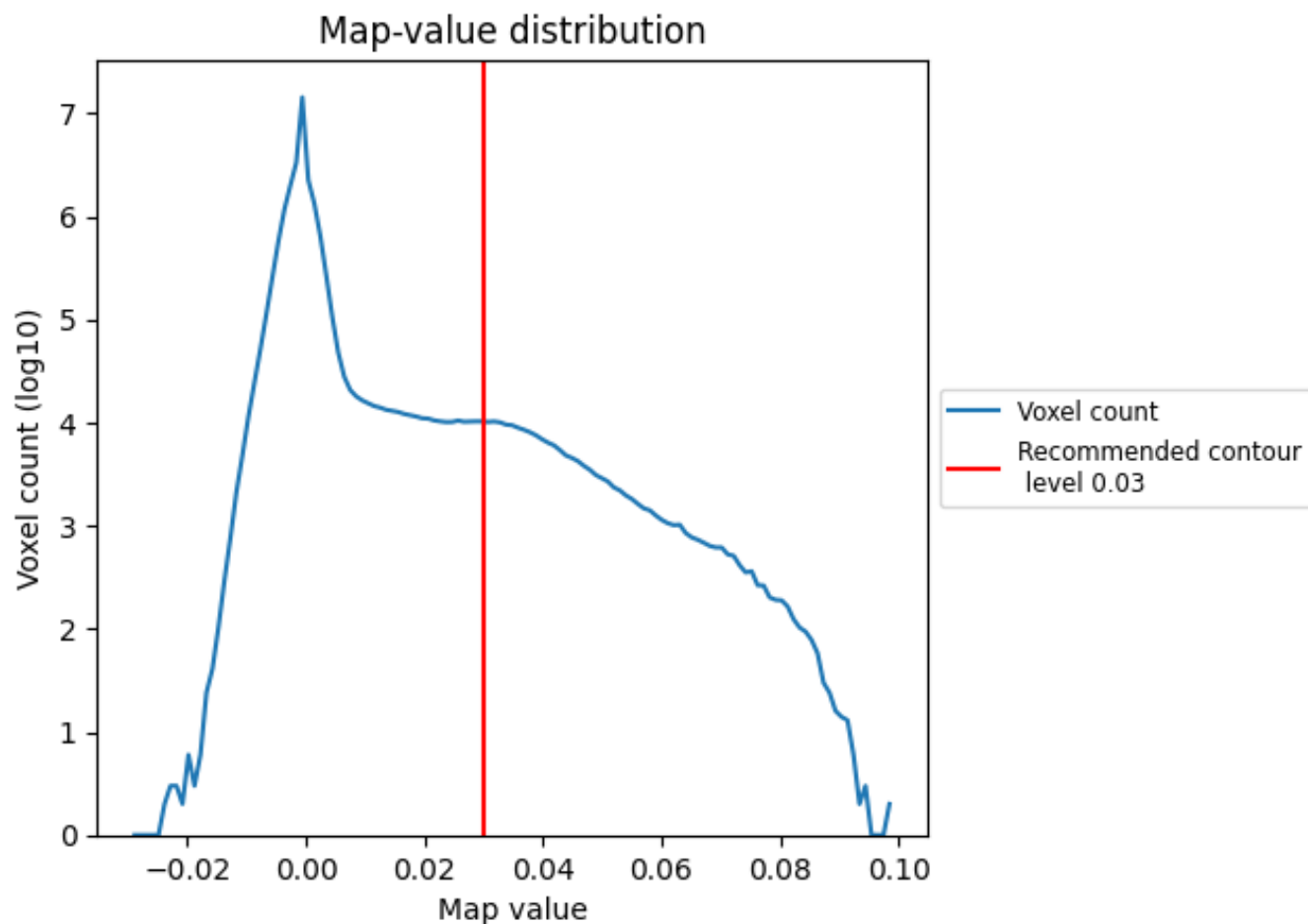
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

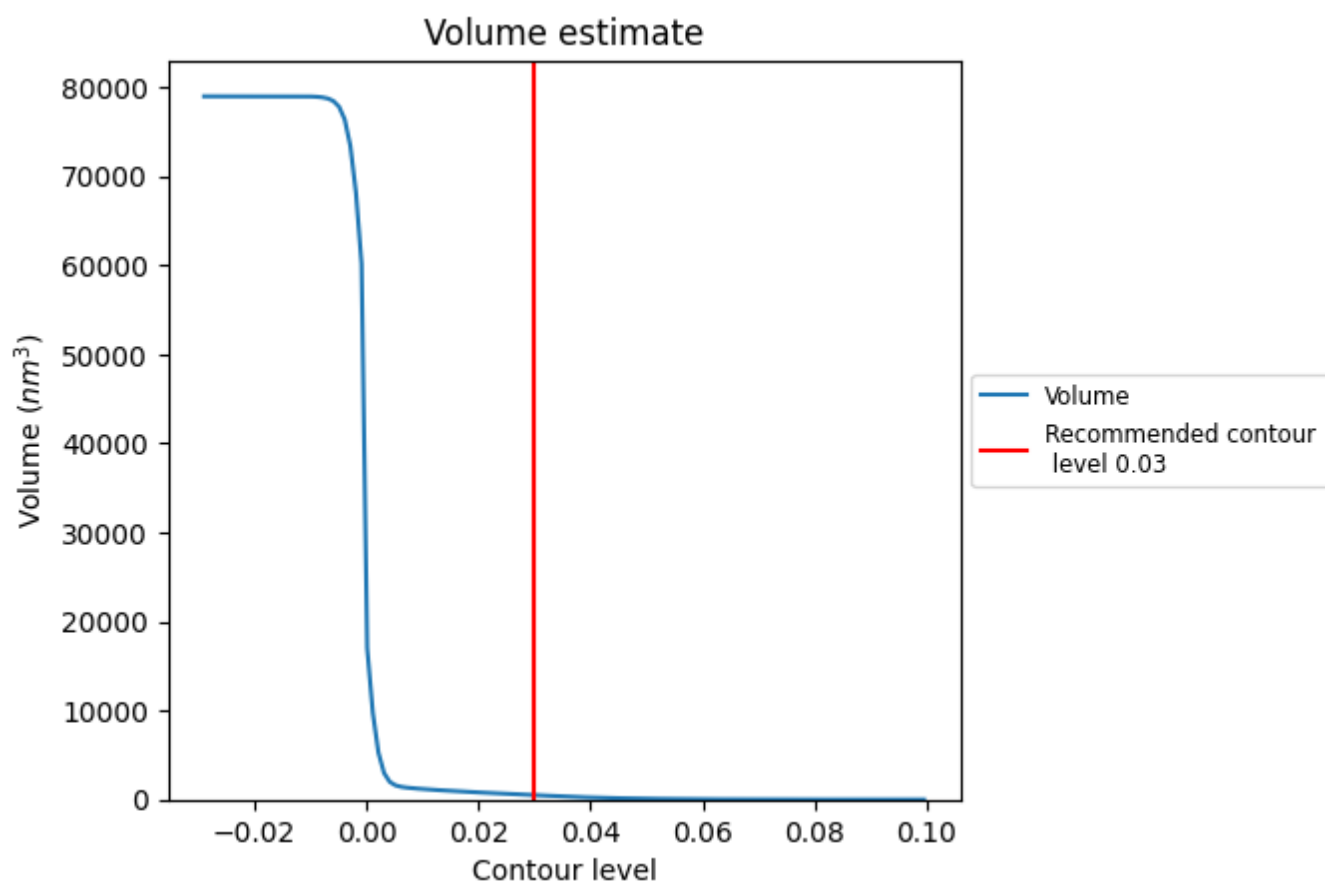
This section contains the results of statistical analysis of the map.

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.

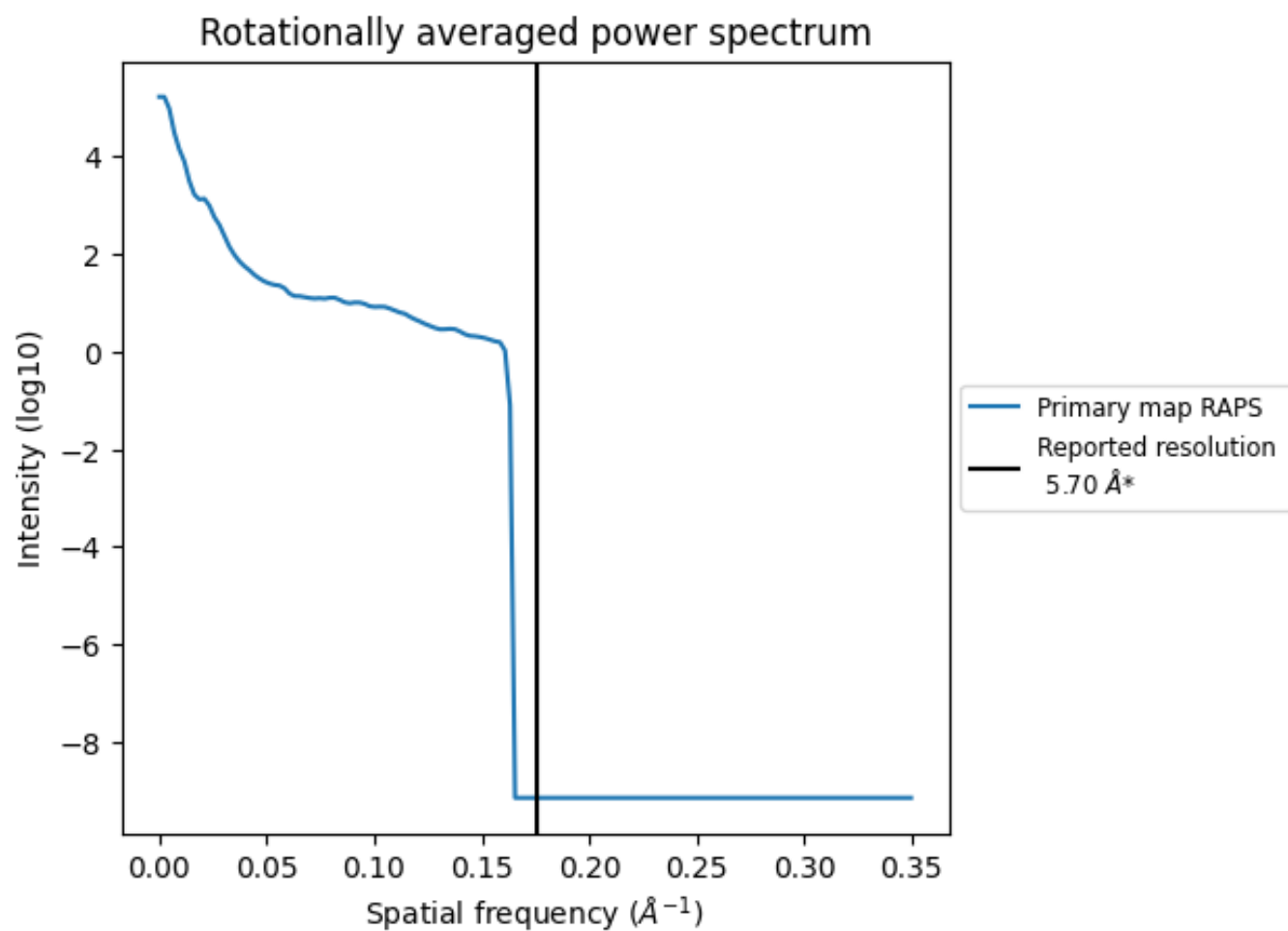
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 502 nm³; this corresponds to an approximate mass of 454 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ

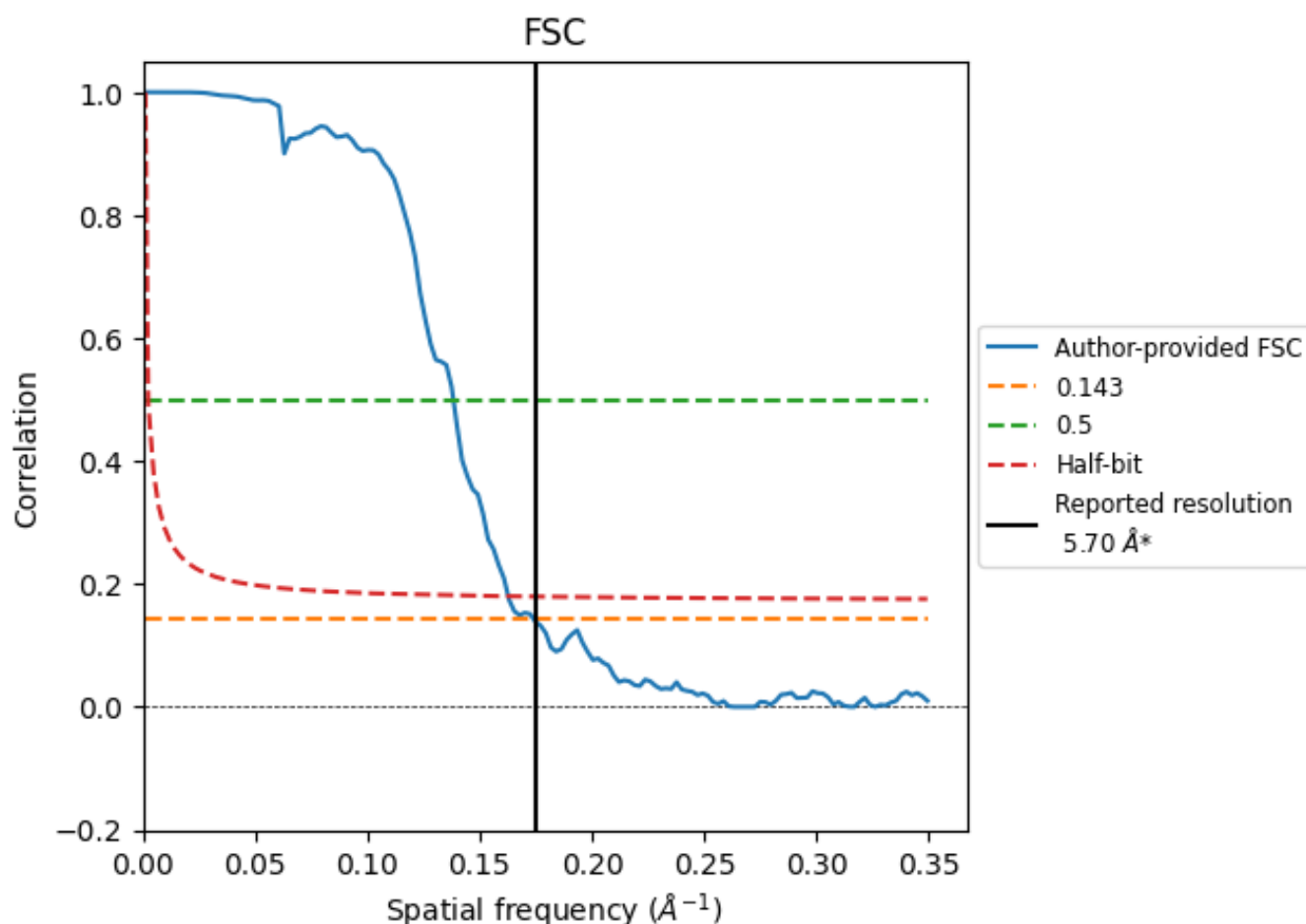


*Reported resolution corresponds to spatial frequency of 0.175 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.175 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	5.70	-	-
Author-provided FSC curve	5.75	7.23	6.14
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

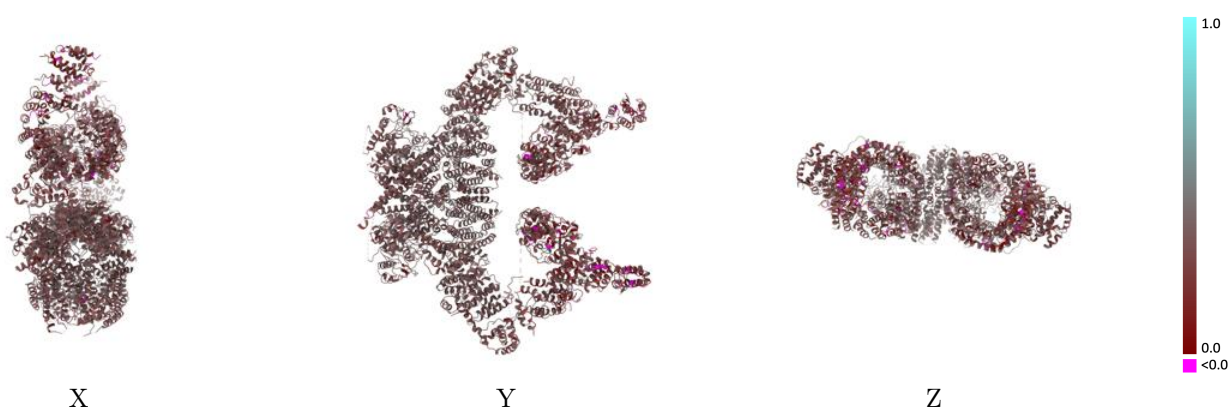
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-3669 and PDB model 5NP0. Per-residue inclusion information can be found in section 3 on page 4.

9.1 Map-model overlay [i](#)

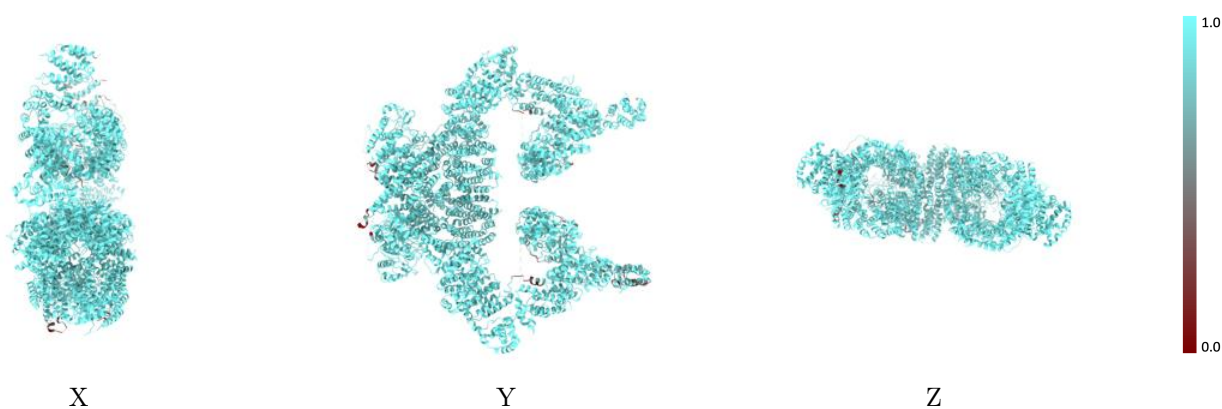
This section was not generated.

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



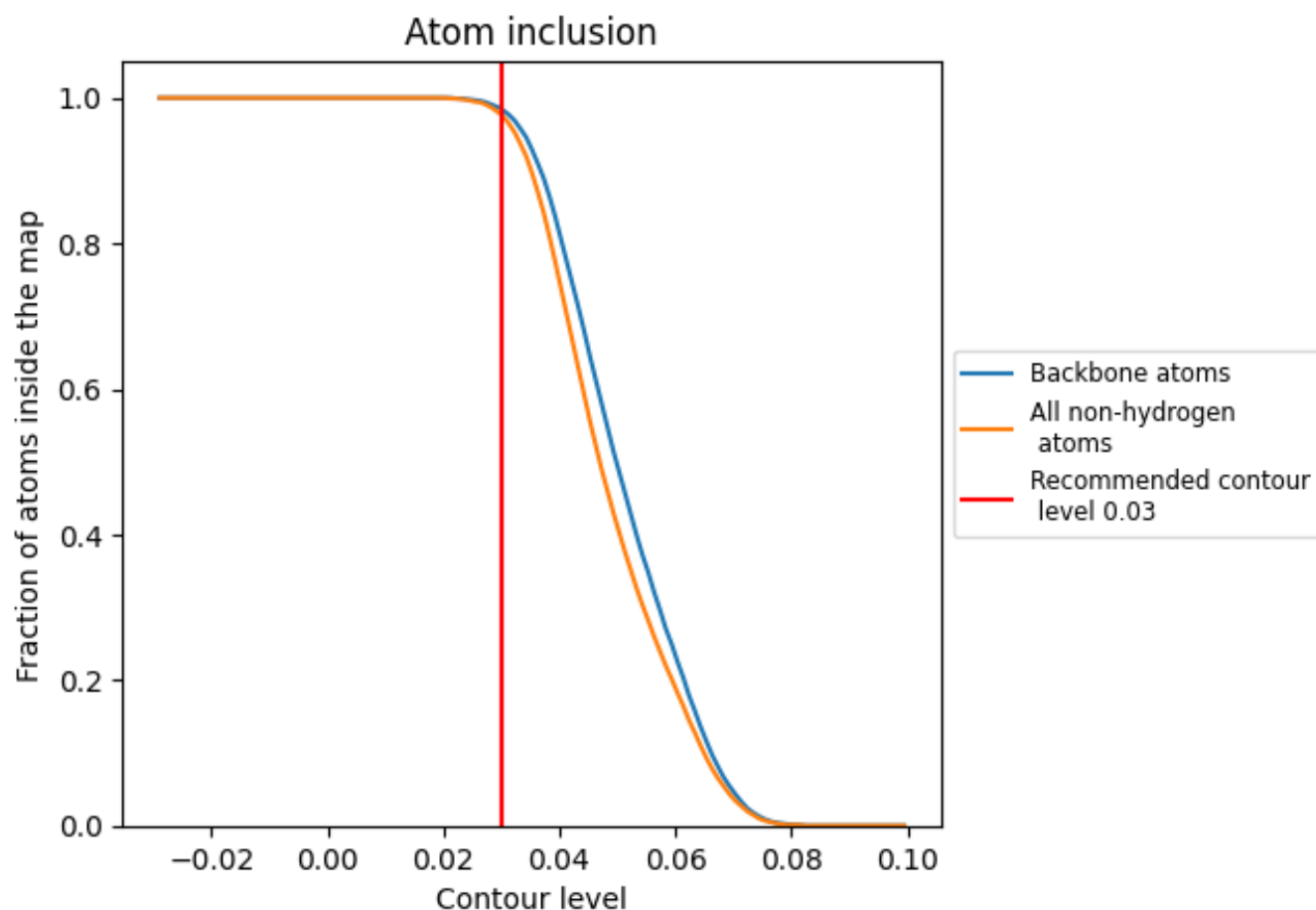
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.03).

9.4 Atom inclusion [i](#)



At the recommended contour level, 98% of all backbone atoms, 98% 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 (0.03) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9770	0.3140
A	0.9690	0.3110
B	0.9850	0.3160

