



Full wwPDB EM Validation Report ⓘ

Dec 10, 2025 – 03:45 pm GMT

PDB ID : 5N60 / pdb_00005n60
EMDB ID : EMD-3592
Title : Cryo-EM structure of RNA polymerase I in complex with Rrn3 and Core Factor (Orientation I)
Authors : Engel, C.; Gubbey, T.; Neyer, S.; Sainsbury, S.; Oberthuer, C.; Baejen, C.; Bernecky, C.; Cramer, P.
Deposited on : 2017-02-14
Resolution : 7.70 Å(reported)

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

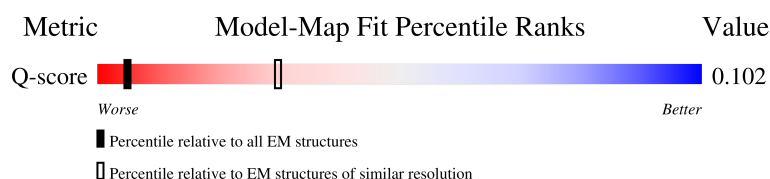
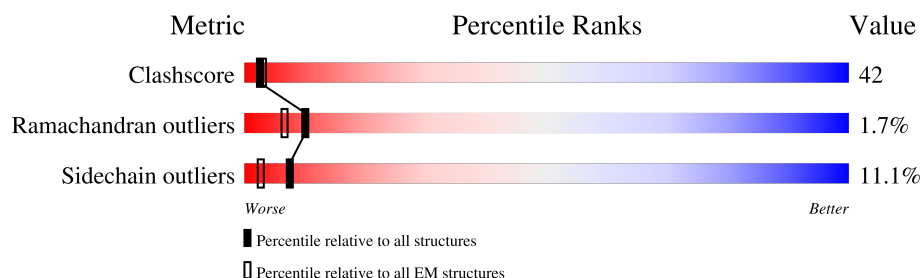
EMDB validation analysis : 0.0.1.dev129
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.47

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 7.70 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	210492	15764	-
Ramachandran outliers	207382	16835	-
Sidechain outliers	206894	16415	-
Q-score	-	25397	384 (7.20 - 8.20)

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	1664	
2	B	1203	
3	C	335	
4	D	137	

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Mol	Chain	Length	Quality of chain
5	E	215	
6	F	155	
7	G	326	
8	H	146	
9	I	125	
10	J	70	
11	K	142	
12	L	70	
13	M	415	
14	N	233	
15	O	627	
16	P	894	
17	Q	514	
18	R	507	

2 Entry composition

There are 19 unique types of molecules in this entry. The entry contains 48004 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called DNA-directed RNA polymerase I subunit RPA190.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	1467	Total	C	N	O	S	0	0
			11598	7327	2017	2193	61		

- Molecule 2 is a protein called DNA-directed RNA polymerase I subunit RPA135.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	1172	Total	C	N	O	S	0	0
			9312	5891	1633	1738	50		

- Molecule 3 is a protein called DNA-directed RNA polymerases I and III subunit RPAC1.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	305	Total	C	N	O	S	0	0
			2423	1539	416	460	8		

- Molecule 4 is a protein called DNA-directed RNA polymerase I subunit RPA14.

Mol	Chain	Residues	Atoms				AltConf	Trace
4	D	58	Total	C	N	O	0	0
			459	289	78	92		

- Molecule 5 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC1.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	E	212	Total	C	N	O	S	0	0
			1735	1102	306	316	11		

- Molecule 6 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC2.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	F	100	Total	C	N	O	S	0	0
			823	522	144	154	3		

- Molecule 7 is a protein called DNA-directed RNA polymerase I subunit RPA43.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	G	193	Total	C	N	O	S	0	0
			1526	985	262	274	5		

- Molecule 8 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC3.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	H	131	Total	C	N	O	S	0	0
			1052	664	176	208	4		

- Molecule 9 is a protein called DNA-directed RNA polymerase I subunit RPA12.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	I	99	Total	C	N	O	S	0	0
			755	472	125	149	9		

- Molecule 10 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC5.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	J	69	Total	C	N	O	S	0	0
			569	362	101	100	6		

- Molecule 11 is a protein called DNA-directed RNA polymerases I and III subunit RPAC2.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	K	101	Total	C	N	O	S	0	0
			793	496	130	162	5		

- Molecule 12 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC4.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	L	44	Total	C	N	O	S	0	0
			352	217	70	61	4		

- Molecule 13 is a protein called DNA-directed RNA polymerase I subunit RPA49.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	M	108	Total	C	N	O		0	0
			856	543	142	171			

- Molecule 14 is a protein called DNA-directed RNA polymerase I subunit RPA34.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	N	145	Total	C	N	O	S	0	0
			1151	735	188	224	4		

- Molecule 15 is a protein called RNA polymerase I-specific transcription initiation factor RRN3.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	O	473	Total	C	N	O	S	0	0
			3907	2533	642	711	21		

- Molecule 16 is a protein called RNA polymerase I-specific transcription initiation factor RRN6.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	P	583	Total	C	N	O	S	0	0
			4729	3010	803	905	11		

- Molecule 17 is a protein called RNA polymerase I-specific transcription initiation factor RRN7.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Q	410	Total	C	N	O	S	0	0
			3421	2219	579	603	20		

- Molecule 18 is a protein called RNA polymerase I-specific transcription initiation factor RRN11.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	R	303	Total	C	N	O	S	0	0
			2535	1634	456	434	11		

- Molecule 19 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
19	A	2	Total	Zn	0
			2	2	
19	B	1	Total	Zn	0
			1	1	
19	I	2	Total	Zn	0
			2	2	
19	J	1	Total	Zn	0
			1	1	

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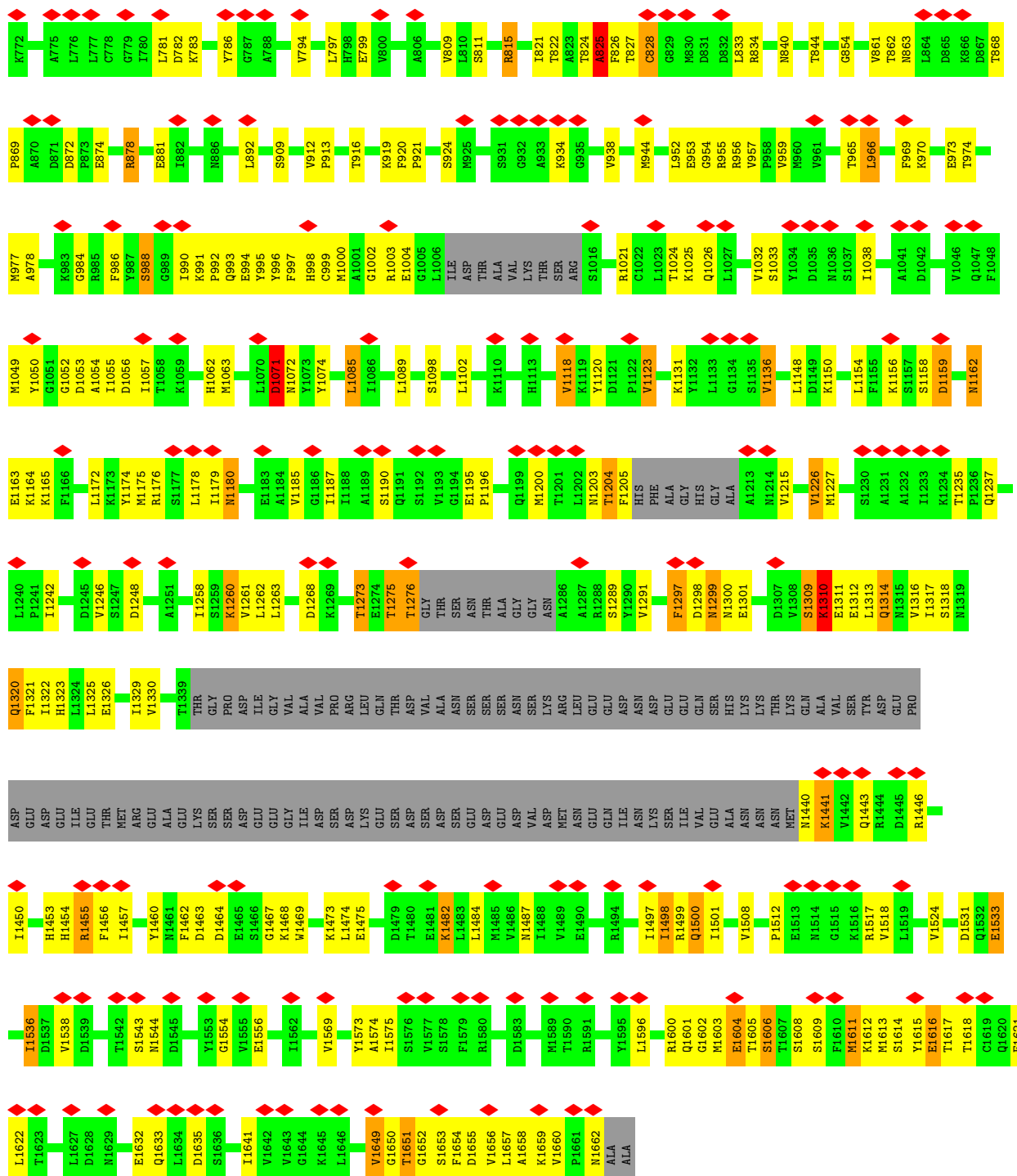
Mol	Chain	Residues	Atoms		AltConf
19	L	1	Total 1	Zn 1	0
19	Q	1	Total 1	Zn 1	0

3 Residue-property plots

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

• Molecule 1: DNA-directed RNA polymerase I subunit RPA190

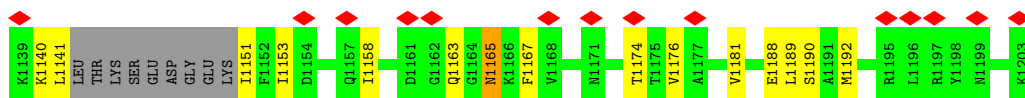




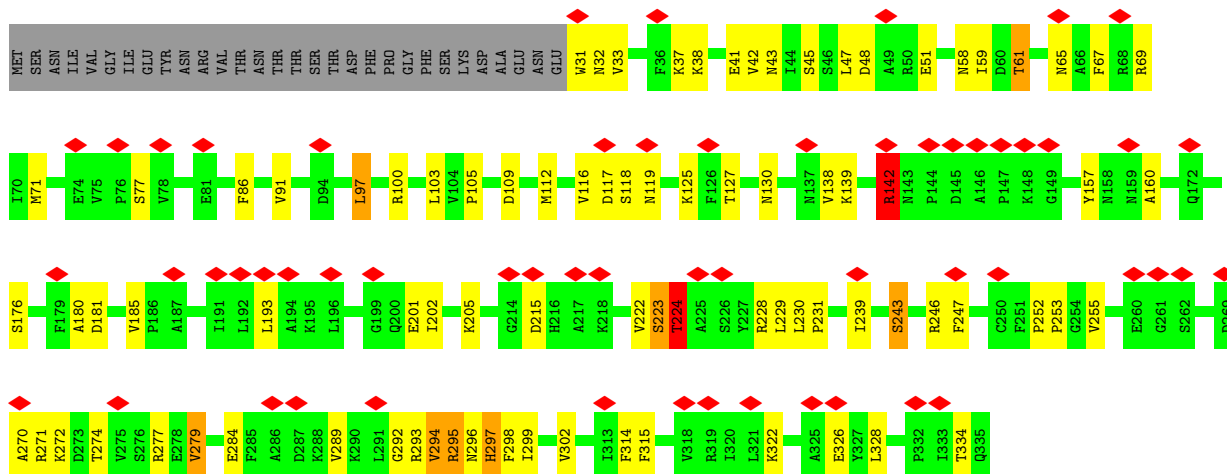
• Molecule 2: DNA-directed RNA polymerase I subunit RPA135



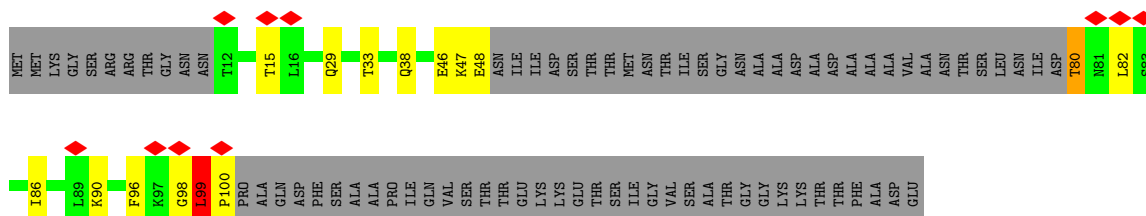
K1061	G1062	K1063	K1064	R1065	H1066	G1067	G1068	I1069	R1070	V1071	G1072	E1073	E1074	E1075	R1076	D1077	A1078	L1079	I1080	G1081	H1082	T1083	G1084	S1085	F1086	L1087	L1088	L1089	D1090	R1091	L1092	L1093	M1094	S1095	S1096	D1097	Y1098	S1102	V1103	E1106	I1110	L1111	I1120	G1121	S1122	I1123	S1124	T1125	V1126	G1127	R1134	F1135	E1136																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
R815	R816	R817	G818	D819	P820	I821	T822	Q823	H824	F827	G828	N829	W832	P833	K834	E835	W836	L837	E838	K839	L840	D841	E842	D843	P846	Y847	T848	T850	Y851	T852	T853	T854	T855	T856	T857	T858	T859	T860	T861	T862	T863	T864	T865	T866	T867	T868	T869	T870	T871	T872	T873	T874	T875	T876	T877	T878	T879	T880	T881	T882	T883	T884	T885	T886	T887	T888	T889	T890	T891	T892	T893	T894	T895	T896	T897	T898	T899	T900	T901	T902	T903	T904	T905	T906	T907	T908	T909	T910	T911	T912	T913	T914	T915	T916	T917	T918	T919	T920	T921	T922	T923	T924	T925	T926	T927	T928	T929	T930	T931	T932	T933	T934	T935	T936	T937	T938	T939	T940	T941	T942	T943	T944	T945	T946	T947	T948	T949	T950	T951	T952	T953	T954	T955	T956	T957	T958	T959	T960	T961	T962	T963	T964	T965	T966	T967	T968	T969	T970	T971	T972	T973	T974	T975	T976	T977	T978	T979	T980	T981	T982	T983	T984	T985	T986	T987	T988	T989	T990	T991	T992	T993	T994	T995	T996	T997	T998	T999	T1000	T1001	T1002	T1003	T1004	T1005	T1006	T1007	T1008	T1009	T1010	T1011	T1012	T1013	T1014	T1015	T1016	T1017	T1018	T1019	T1020	T1021	T1022	T1023	T1024	T1025	T1026	T1027	T1028	T1029	T1030	T1031	T1032	T1033	T1034	T1035	T1036	T1037	T1038	T1039	T1040	T1041	T1042	T1043	T1044	T1045	T1046	T1047	T1048	T1049	T1050	T1051	T1052	T1053	T1054	T1055	T1056	T1057	T1058	T1059	T1060	T1061	T1062	T1063	T1064	T1065	T1066	T1067	T1068	T1069	T1070	T1071	T1072	T1073	T1074	T1075	T1076	T1077	T1078	T1079	T1080	T1081	T1082	T1083	T1084	T1085	T1086	T1087	T1088	T1089	T1090	T1091	T1092	T1093	T1094	T1095	T1096	T1097	T1098	T1099	T1100	T1101	T1102	T1103	T1104	T1105	T1106	T1107	T1108	T1109	T1110	T1111	T1112	T1113	T1114	T1115	T1116	T1117	T1118	T1119	T1120	T1121	T1122	T1123	T1124	T1125	T1126	T1127	T1128	T1129	T1130	T1131	T1132	T1133	T1134	T1135	T1136	T1137	T1138	T1139	T1140	T1141	T1142	T1143	T1144	T1145	T1146	T1147	T1148	T1149	T1150	T1151	T1152	T1153	T1154	T1155	T1156	T1157	T1158	T1159	T1160	T1161	T1162	T1163	T1164	T1165	T1166	T1167	T1168	T1169	T1170	T1171	T1172	T1173	T1174	T1175	T1176	T1177	T1178	T1179	T1180	T1181	T1182	T1183	T1184	T1185	T1186	T1187	T1188	T1189	T1190	T1191	T1192	T1193	T1194	T1195	T1196	T1197	T1198	T1199	T1200	T1201	T1202	T1203	T1204	T1205	T1206	T1207	T1208	T1209	T1210	T1211	T1212	T1213	T1214	T1215	T1216	T1217	T1218	T1219	T1220	T1221	T1222	T1223	T1224	T1225	T1226	T1227	T1228	T1229	T1230	T1231	T1232	T1233	T1234	T1235	T1236	T1237	T1238	T1239	T1240	T1241	T1242	T1243	T1244	T1245	T1246	T1247	T1248	T1249	T1250	T1251	T1252	T1253	T1254	T1255	T1256	T1257	T1258	T1259	T1260	T1261	T1262	T1263	T1264	T1265	T1266	T1267	T1268	T1269	T1270	T1271	T1272	T1273	T1274	T1275	T1276	T1277	T1278	T1279	T1280	T1281	T1282	T1283	T1284	T1285	T1286	T1287	T1288	T1289	T1290	T1291	T1292	T1293	T1294	T1295	T1296	T1297	T1298	T1299	T1300	T1301	T1302	T1303	T1304	T1305	T1306	T1307	T1308	T1309	T1310	T1311	T1312	T1313	T1314	T1315	T1316	T1317	T1318	T1319	T1320	T1321	T1322	T1323	T1324	T1325	T1326	T1327	T1328	T1329	T1330	T1331	T1332	T1333	T1334	T1335	T1336	T1337	T1338	T1339	T1340	T1341	T1342	T1343	T1344	T1345	T1346	T1347	T1348	T1349	T1350	T1351	T1352	T1353	T1354	T1355	T1356	T1357	T1358	T1359	T1360	T1361	T1362	T1363	T1364	T1365	T1366	T1367	T1368	T1369	T1370	T1371	T1372	T1373	T1374	T1375	T1376	T1377	T1378	T1379	T1380	T1381	T1382	T1383	T1384	T1385	T1386	T1387	T1388	T1389	T1390	T1391	T1392	T1393	T1394	T1395	T1396	T1397	T1398	T1399	T1400	T1401	T1402	T1403	T1404	T1405	T1406	T1407	T1408	T1409	T1410	T1411	T1412	T1413	T1414	T1415	T1416	T1417	T1418	T1419	T1420	T1421	T1422	T1423	T1424	T1425	T1426	T1427	T1428	T1429	T1430	T1431	T1432	T1433	T1434	T1435	T1436	T1437	T1438	T1439	T1440	T1441	T1442	T1443	T1444	T1445	T1446	T1447	T1448	T1449	T1450	T1451	T1452	T1453	T1454	T1455	T1456	T1457	T1458	T1459	T1460	T1461	T1462	T1463	T1464	T1465	T1466	T1467	T1468	T1469	T1470	T1471	T1472	T1473	T1474	T1475	T1476	T1477	T1478	T1479	T1480	T1481	T1482	T1483	T1484	T1485	T1486	T1487	T1488	T1489	T1490	T1491	T1492	T1493	T1494	T1495	T1496	T1497	T1498	T1499	T1500	T1501	T1502	T1503	T1504	T1505	T1506	T1507	T1508	T1509	T1510	T1511	T1512	T1513	T1514	T1515	T1516	T1517	T1518	T1519	T1520	T1521	T1522	T1523	T1524	T1525	T1526	T1527	T1528	T1529	T1530	T1531	T1532	T1533	T1534	T1535	T1536	T1537	T1538	T1539	T1540	T1541	T1542	T1543	T1544	T1545	T1546	T1547	T1548	T1549	T1550	T1551	T1552	T1553	T1554	T1555	T1556	T1557	T1558	T1559	T1560	T1561	T1562	T1563	T1564	T1565	T1566	T1567	T1568	T1569	T1570	T1571	T1572	T1573	T1574	T1575	T1576	T1577	T1578	T1579	T1580	T1581	T1582	T1583	T1584	T1585	T1586	T1587	T1588	T1589	T1590	T1591	T1592	T1593	T1594	T1595	T1596	T1597	T1598	T1599	T1600	T1601	T1602	T1603	T1604	T1605	T1606	T1607	T1608	T1609	T1610	T1611	T1612	T1613	T1614	T1615	T1616	T1617	T1618	T1619	T1620	T1621	T1622	T1623	T1624	T1625	T1626	T1627	T1628	T1629	T1630	T1631	T1632	T1633	T1634	T1635	T1636	T1637	T1638	T1639	T1640	T1641	T1642	T1643	T1644	T1645	T1646	T1647	T1648	T1649	T1650	T1651	T1652	T1653	T1654	T1655	T1656	T1657	T1658	T1659	T1660	T1661	T1662	T1663	T1664	T1665	T1666	T1667	T1668	T1669	T1670	T1671	T1672	T1673	T1674	T1675	T1676	T1677	T1678	T1679	T1680	T1681	T1682	T1683	T1684	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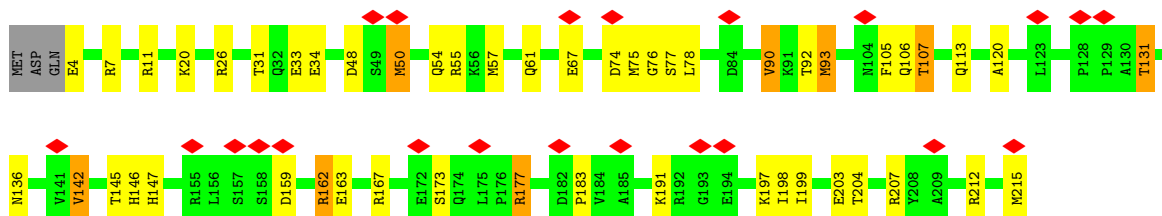
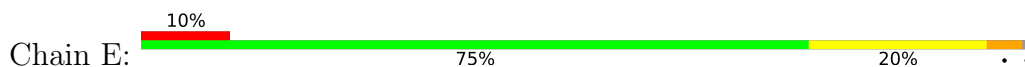
• Molecule 3: DNA-directed RNA polymerases I and III subunit RPAC1



• Molecule 4: DNA-directed RNA polymerase I subunit RPA14



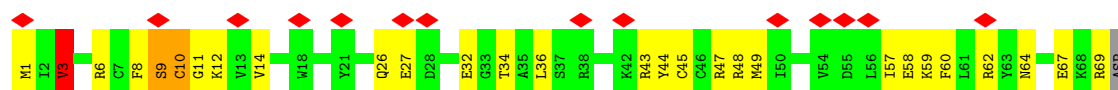
• Molecule 5: DNA-directed RNA polymerases I, II, and III subunit RPABC1



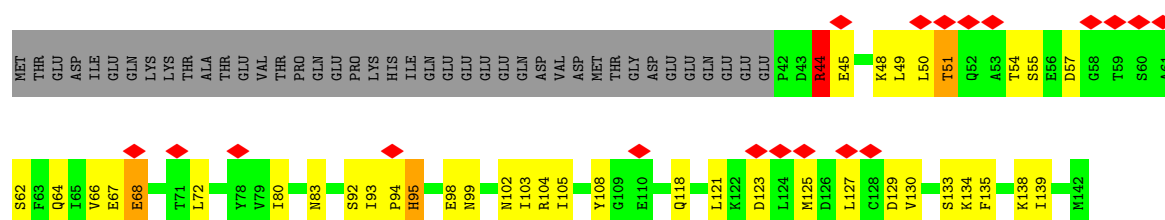
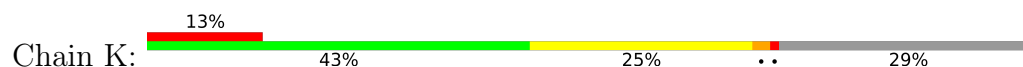
• Molecule 6: DNA-directed RNA polymerases I, II, and III subunit RPABC2



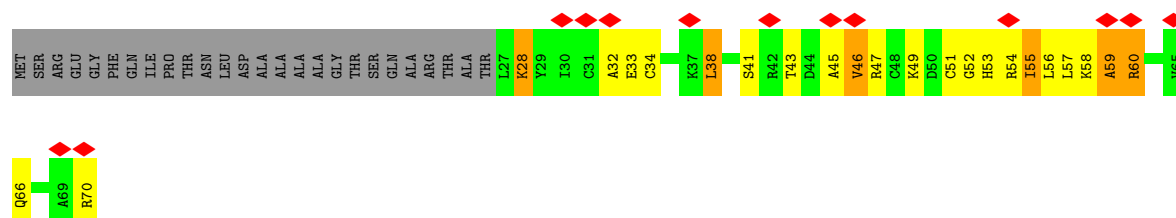
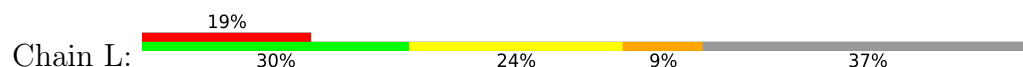
- Molecule 10: DNA-directed RNA polymerases I, II, and III subunit RPABC5



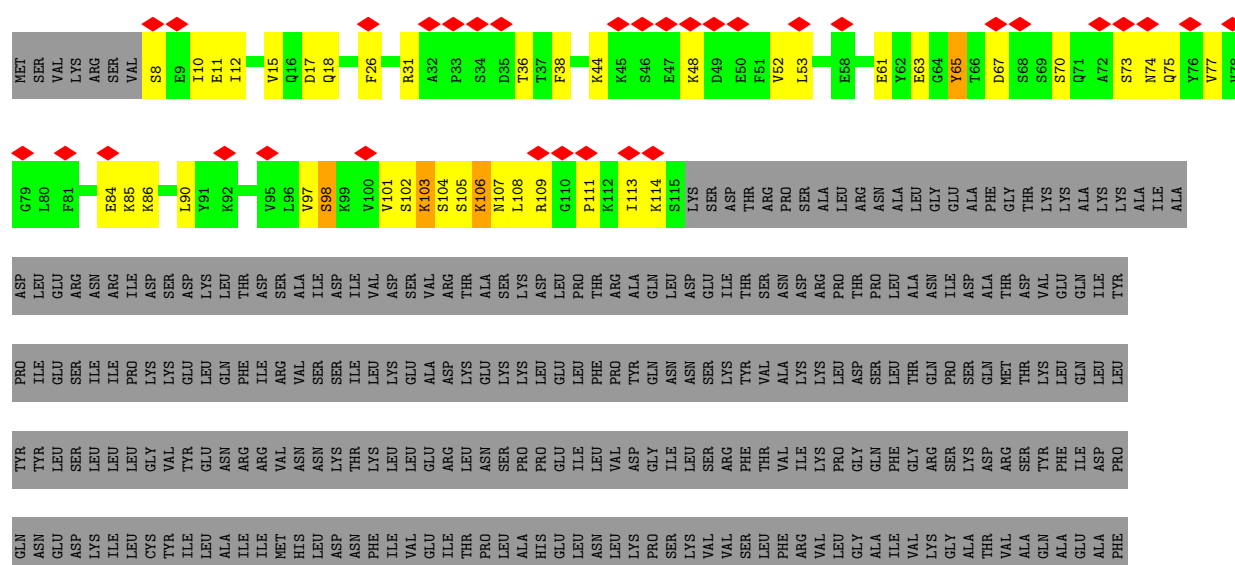
- Molecule 11: DNA-directed RNA polymerases I and III subunit RPAC2

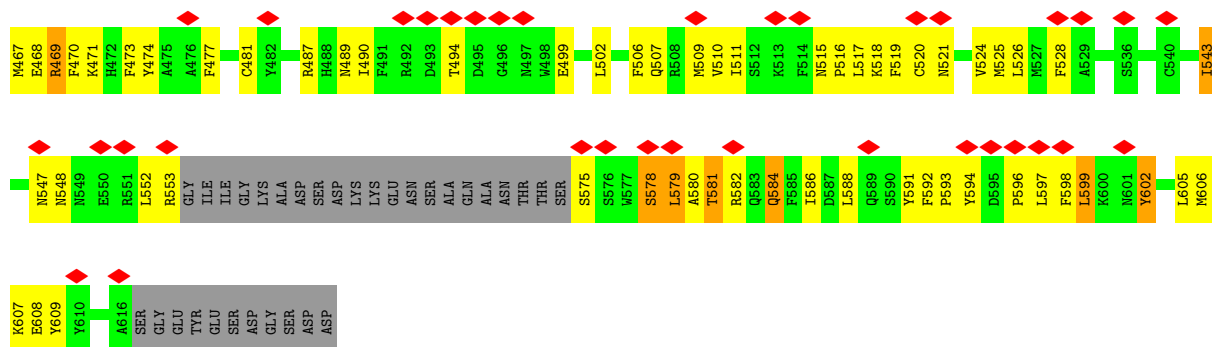


- Molecule 12: DNA-directed RNA polymerases I, II, and III subunit RPABC4

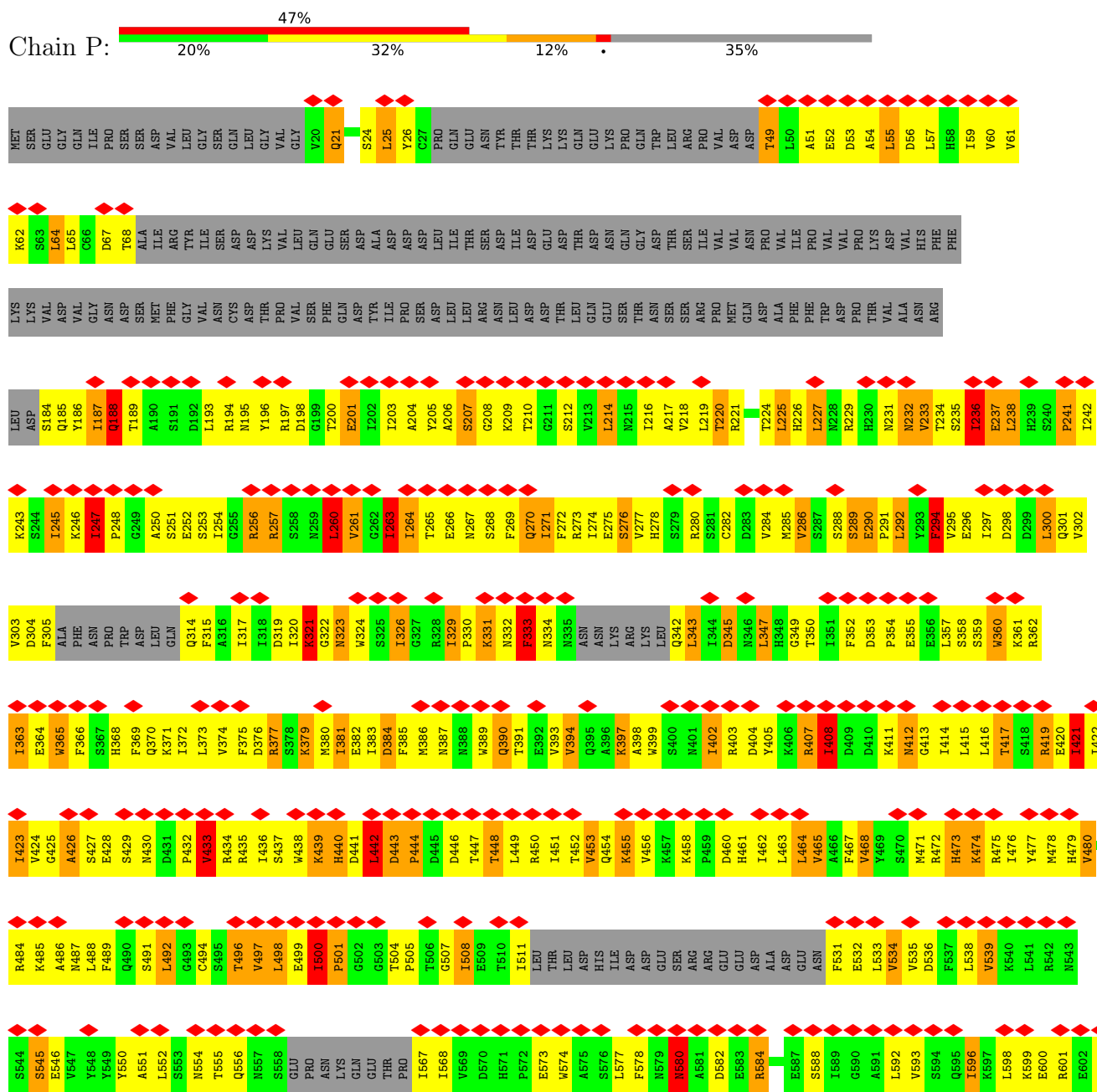


- Molecule 13: DNA-directed RNA polymerase I subunit RPA49

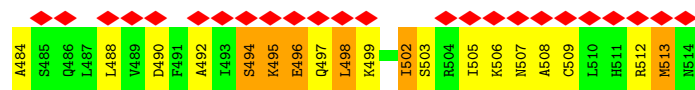




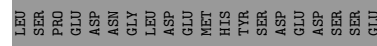
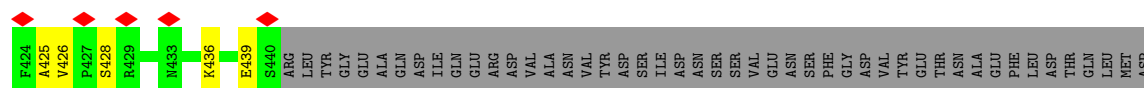
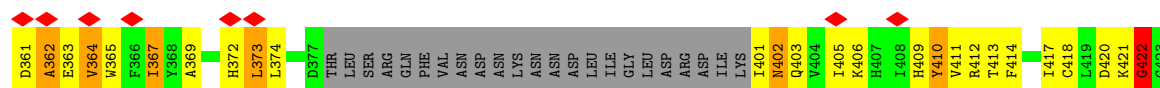
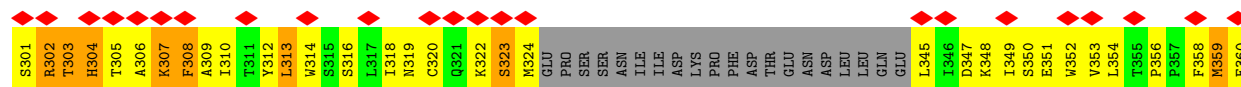
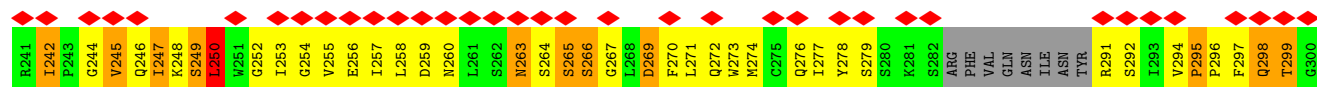
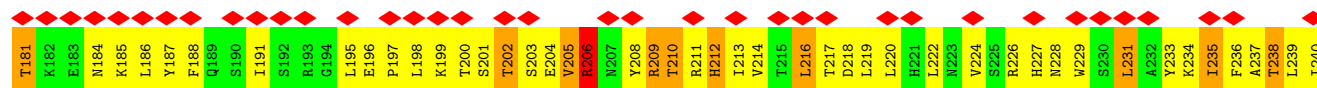
• Molecule 16: RNA polymerase I-specific transcription initiation factor RRN6







• Molecule 18: RNA polymerase I-specific transcription initiation factor RRN11



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	8317	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	40	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.081	Depositor
Minimum map value	-0.047	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.006	Depositor
Recommended contour level	0.023	Depositor
Map size (Å)	324.0, 324.0, 324.0	wwPDB
Map dimensions	240, 240, 240	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.35, 1.35, 1.35	Depositor

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	A	0.64	1/11809 (0.0%)	0.96	37/15943 (0.2%)
2	B	0.62	0/9518	0.98	36/12863 (0.3%)
3	C	0.53	0/2475	0.94	8/3354 (0.2%)
4	D	0.51	0/465	0.81	0/630
5	E	0.49	0/1771	0.88	3/2383 (0.1%)
6	F	0.58	0/838	0.86	0/1129
7	G	0.51	0/1563	0.84	3/2124 (0.1%)
8	H	0.52	0/1070	0.88	0/1449
9	I	0.53	0/765	0.87	0/1030
10	J	0.59	0/578	0.98	6/775 (0.8%)
11	K	0.54	0/804	0.93	6/1083 (0.6%)
12	L	0.50	0/354	0.91	2/468 (0.4%)
13	M	0.49	0/872	0.87	0/1170
14	N	0.48	0/1172	0.88	1/1580 (0.1%)
15	O	0.45	1/3996 (0.0%)	0.82	2/5401 (0.0%)
16	P	0.38	0/4822	0.74	6/6525 (0.1%)
17	Q	0.36	1/3502 (0.0%)	0.67	2/4727 (0.0%)
18	R	0.34	0/2591	0.78	6/3483 (0.2%)
All	All	0.54	3/48965 (0.0%)	0.89	118/66117 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	15
2	B	0	4
3	C	0	1
6	F	0	1
12	L	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
13	M	0	3
14	N	0	1
15	O	0	4
16	P	0	26
17	Q	0	8
18	R	0	8
All	All	0	73

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	356	PHE	C-N	8.46	1.44	1.33
17	Q	15	CYS	CA-C	7.52	1.62	1.52
15	O	212	THR	CA-CB	5.44	1.62	1.53

All (118) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	R	205	VAL	N-CA-C	18.78	128.18	110.53
2	B	405	GLY	N-CA-C	-12.26	97.18	113.24
1	A	1071	ASP	N-CA-C	-9.90	97.47	110.53
3	C	223	SER	N-CA-C	-9.68	101.63	112.57
15	O	376	TYR	N-CA-C	-9.46	100.42	113.56
17	Q	7	GLY	C-N-CD	-9.26	87.03	125.00
1	A	956	ARG	CA-C-O	8.56	122.91	117.94
1	A	666	VAL	CB-CA-C	-8.44	102.38	110.65
18	R	245	VAL	N-CA-C	7.90	125.77	109.34
2	B	537	SER	CA-C-N	-7.84	111.90	121.00
2	B	537	SER	C-N-CA	-7.84	111.90	121.00
16	P	442	LEU	CA-C-N	-7.75	113.35	123.34
16	P	442	LEU	C-N-CA	-7.75	113.35	123.34
2	B	1074	MET	N-CA-C	-7.67	102.89	111.71
3	C	279	VAL	CB-CA-C	-7.41	102.39	111.88
2	B	893	ASN	N-CA-C	7.40	120.27	111.02
1	A	201	ARG	N-CA-C	6.95	120.86	112.38
18	R	150	GLN	C-N-CD	-6.89	96.73	125.00
1	A	356	PHE	O-C-N	-6.78	113.25	122.94
2	B	1103	VAL	CB-CA-C	-6.57	100.70	110.82
2	B	894	LYS	CB-CA-C	-6.57	108.30	117.23
2	B	219	ARG	CA-C-N	6.55	128.03	119.84
2	B	219	ARG	C-N-CA	6.55	128.03	119.84
1	A	1123	VAL	CB-CA-C	-6.53	103.48	112.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	51	GLU	N-CA-C	6.45	119.69	109.50
3	C	295	ARG	N-CA-C	6.41	118.06	111.14
1	A	397	ARG	CD-NE-CZ	6.41	133.37	124.40
2	B	1023	ARG	NE-CZ-NH2	-6.40	113.44	119.20
10	J	64	ASN	CA-C-N	6.34	126.03	119.82
10	J	64	ASN	C-N-CA	6.34	126.03	119.82
2	B	622	ILE	CB-CA-C	-6.32	102.83	112.05
2	B	261	ARG	CD-NE-CZ	6.28	133.20	124.40
5	E	203	GLU	N-CA-C	-6.24	104.58	111.82
2	B	452	ARG	NE-CZ-NH2	-6.12	113.69	119.20
2	B	72	VAL	N-CA-C	6.07	117.22	108.48
2	B	448	ARG	NE-CZ-NH2	-6.04	113.76	119.20
2	B	452	ARG	CD-NE-CZ	6.01	132.82	124.40
2	B	658	LEU	N-CA-C	-5.97	100.83	109.31
16	P	394	VAL	N-CA-C	5.96	119.40	111.17
1	A	329	ARG	NE-CZ-NH2	-5.96	113.84	119.20
1	A	258	GLU	N-CA-C	5.95	118.25	111.11
1	A	329	ARG	CD-NE-CZ	5.86	132.60	124.40
2	B	832	TRP	CA-C-N	5.85	127.16	119.84
2	B	832	TRP	C-N-CA	5.85	127.16	119.84
2	B	429	ARG	NE-CZ-NH2	-5.84	113.94	119.20
1	A	416	ARG	NE-CZ-NH2	-5.83	113.95	119.20
1	A	956	ARG	CB-CA-C	-5.76	108.77	117.07
2	B	448	ARG	CD-NE-CZ	5.74	132.43	124.40
16	P	188	GLN	N-CA-C	5.74	123.02	110.80
16	P	443	ASP	N-CA-C	5.73	119.39	108.97
5	E	167	ARG	NE-CZ-NH2	-5.71	114.06	119.20
11	K	44	ARG	CD-NE-CZ	5.68	132.35	124.40
2	B	634	ARG	CD-NE-CZ	5.67	132.34	124.40
17	Q	15	CYS	CA-C-O	-5.67	112.39	120.16
1	A	1203	ASN	N-CA-C	5.66	117.68	109.07
11	K	95	HIS	CA-C-N	5.66	126.91	119.84
11	K	95	HIS	C-N-CA	5.66	126.91	119.84
1	A	422	ARG	CD-NE-CZ	5.65	132.31	124.40
1	A	1261	VAL	N-CA-C	5.64	116.24	108.12
2	B	429	ARG	CD-NE-CZ	5.59	132.23	124.40
1	A	416	ARG	CD-NE-CZ	5.59	132.23	124.40
1	A	356	PHE	CA-C-N	5.59	130.65	122.77
1	A	356	PHE	C-N-CA	5.59	130.65	122.77
1	A	1498	ILE	N-CA-C	5.59	115.78	110.42
16	P	333	PHE	N-CA-C	5.58	117.49	108.34
1	A	659	THR	CA-C-N	-5.58	114.01	119.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	659	THR	C-N-CA	-5.58	114.01	119.64
18	R	152	ILE	N-CA-C	5.57	120.92	109.34
18	R	250	LEU	CA-CB-CG	5.57	135.78	116.30
12	L	28	LYS	N-CA-C	5.54	118.08	111.71
11	K	44	ARG	NE-CZ-NH2	-5.54	114.22	119.20
18	R	206	ARG	N-CA-C	5.53	126.49	111.00
2	B	261	ARG	NE-CZ-NH2	-5.52	114.23	119.20
1	A	498	PRO	CA-C-N	5.50	125.33	119.28
1	A	498	PRO	C-N-CA	5.50	125.33	119.28
1	A	549	MET	N-CA-C	5.49	119.06	110.32
2	B	634	ARG	NE-CZ-NH2	-5.49	114.26	119.20
2	B	1082	HIS	N-CA-C	5.49	117.34	111.36
1	A	825	ALA	CB-CA-C	-5.46	110.29	116.63
10	J	3	VAL	CA-C-N	-5.46	114.34	119.85
10	J	3	VAL	C-N-CA	-5.46	114.34	119.85
3	C	142	ARG	CD-NE-CZ	5.43	132.00	124.40
7	G	241	ARG	CD-NE-CZ	5.39	131.94	124.40
5	E	167	ARG	CD-NE-CZ	5.38	131.94	124.40
14	N	127	ASP	N-CA-C	-5.37	106.21	114.16
2	B	1072	GLY	CA-C-N	5.36	127.90	120.29
2	B	1072	GLY	C-N-CA	5.36	127.90	120.29
12	L	52	GLY	N-CA-C	-5.35	107.88	115.43
1	A	825	ALA	N-CA-C	5.35	117.12	108.08
1	A	245	LYS	N-CA-C	5.35	117.99	109.65
1	A	397	ARG	NE-CZ-NH1	5.35	126.85	121.50
7	G	241	ARG	NE-CZ-NH2	-5.33	114.40	119.20
15	O	580	ALA	N-CA-C	-5.32	105.38	111.07
1	A	1543	SER	CA-C-N	5.29	127.80	120.29
1	A	1543	SER	C-N-CA	5.29	127.80	120.29
1	A	1482	LYS	N-CA-C	5.29	117.90	110.23
7	G	219	ASP	N-CA-C	5.26	116.78	109.31
1	A	397	ARG	NE-CZ-NH2	-5.25	114.48	119.20
2	B	1048	SER	N-CA-C	5.24	116.80	111.14
3	C	185	VAL	CA-C-N	-5.24	114.52	119.76
3	C	185	VAL	C-N-CA	-5.24	114.52	119.76
1	A	329	ARG	NE-CZ-NH1	5.21	126.71	121.50
1	A	422	ARG	NE-CZ-NH2	-5.17	114.55	119.20
10	J	9	SER	CA-C-N	5.17	127.47	120.44
10	J	9	SER	C-N-CA	5.17	127.47	120.44
3	C	142	ARG	NE-CZ-NH2	-5.15	114.56	119.20
1	A	342	ARG	CD-NE-CZ	5.14	131.59	124.40
2	B	261	ARG	NE-CZ-NH1	5.12	126.62	121.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	1054	SER	N-CA-C	5.11	117.51	111.33
2	B	314	LYS	N-CA-C	-5.10	103.75	110.43
2	B	1110	ILE	CB-CA-C	-5.10	105.43	111.65
11	K	83	ASN	CA-C-N	5.10	124.76	119.56
11	K	83	ASN	C-N-CA	5.10	124.76	119.56
1	A	1524	VAL	N-CA-C	5.08	115.43	108.12
2	B	511	GLN	N-CA-C	-5.08	107.14	113.38
2	B	88	SER	N-CA-C	5.07	118.07	109.76
2	B	448	ARG	NE-CZ-NH1	5.04	126.54	121.50
1	A	342	ARG	NE-CZ-NH2	-5.00	114.69	119.20

There are no chirality outliers.

All (73) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1180	ASN	Peptide
1	A	1260	LYS	Peptide
1	A	1297	PHE	Peptide
1	A	1309	SER	Peptide
1	A	1310	LYS	Peptide
1	A	1649	VAL	Peptide
1	A	405	LYS	Peptide
1	A	406	LEU	Peptide
1	A	407	GLN	Peptide
1	A	410	LYS	Peptide
1	A	411	VAL	Peptide
1	A	506	THR	Peptide
1	A	781	LEU	Peptide
1	A	825	ALA	Peptide
1	A	828	CYS	Peptide
2	B	1049	THR	Peptide
2	B	1068	GLY	Peptide
2	B	404	LEU	Peptide
2	B	550	ARG	Peptide
3	C	294	VAL	Peptide
6	F	73	ALA	Peptide
12	L	59	ALA	Peptide
12	L	60	ARG	Peptide
13	M	103	LYS	Peptide
13	M	106	LYS	Peptide
13	M	107	ASN	Peptide
14	N	141	GLU	Peptide

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Mol	Chain	Res	Type	Group
15	O	236	LYS	Peptide
15	O	243	GLU	Peptide
15	O	375	THR	Peptide
15	O	380	SER	Peptide
16	P	216	ILE	Peptide
16	P	236	ILE	Peptide
16	P	238	LEU	Peptide
16	P	247	ILE	Peptide
16	P	256	ARG	Peptide
16	P	260	LEU	Peptide
16	P	263	ILE	Peptide
16	P	270	GLN	Peptide
16	P	289	SER	Peptide
16	P	294	PHE	Peptide
16	P	295	VAL	Peptide
16	P	333	PHE	Peptide
16	P	365	TRP	Peptide
16	P	393	VAL	Peptide
16	P	408	ILE	Peptide
16	P	433	VAL	Peptide
16	P	442	LEU	Peptide
16	P	485	LYS	Peptide
16	P	500	ILE	Peptide
16	P	51	ALA	Peptide
16	P	52	GLU	Peptide
16	P	580	ASN	Peptide
16	P	661	ASN	Peptide
16	P	667	ASP	Peptide
16	P	767	PRO	Peptide
16	P	769	GLN	Peptide
17	Q	148	PRO	Peptide
17	Q	15	CYS	Peptide
17	Q	17	SER	Peptide
17	Q	221	PRO	Peptide
17	Q	25	GLY	Peptide
17	Q	29	CYS	Peptide
17	Q	290	THR	Peptide
17	Q	4	PHE	Peptide
18	R	154	LYS	Peptide
18	R	263	ASN	Peptide
18	R	265	SER	Peptide
18	R	303	THR	Peptide

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Mol	Chain	Res	Type	Group
18	R	304	HIS	Peptide
18	R	422	GLY	Peptide
18	R	425	ALA	Peptide
18	R	9	THR	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	11598	0	11666	1160	0
2	B	9312	0	9200	1000	0
3	C	2423	0	2412	144	0
4	D	459	0	462	7	0
5	E	1735	0	1764	32	0
6	F	823	0	839	91	0
7	G	1526	0	1534	151	0
8	H	1052	0	1021	56	0
9	I	755	0	728	105	0
10	J	569	0	584	54	0
11	K	793	0	790	57	0
12	L	352	0	371	59	0
13	M	856	0	852	60	0
14	N	1151	0	1168	172	0
15	O	3907	0	3902	418	0
16	P	4729	0	4675	626	0
17	Q	3421	0	3463	533	0
18	R	2535	0	2600	741	0
19	A	2	0	0	1	0
19	B	1	0	0	0	0
19	I	2	0	0	0	0
19	J	1	0	0	0	0
19	L	1	0	0	0	0
19	Q	1	0	0	0	0
All	All	48004	0	48031	3997	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 42.

All (3997) 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)
17:Q:20:TRP:CZ3	17:Q:22:ILE:CG2	1.76	1.69
17:Q:381:MET:SD	18:R:212:HIS:HB3	1.26	1.68
3:C:272:LYS:HA	14:N:175:TYR:CE1	1.16	1.63
1:A:995:TYR:CD2	2:B:708:ASP:HA	1.29	1.62
1:A:545:SER:HB2	17:Q:34:VAL:CG2	1.13	1.61
15:O:248:LEU:HD12	15:O:598:PHE:CD2	1.32	1.61
17:Q:12:THR:CG2	17:Q:33:HIS:HE1	1.10	1.60
1:A:990:ILE:CB	1:A:994:GLU:HB2	1.19	1.59
17:Q:12:THR:HG21	17:Q:33:HIS:CE1	1.12	1.59
16:P:488:LEU:HD23	18:R:138:PHE:CD2	1.27	1.59
17:Q:389:GLN:HB2	18:R:209:ARG:CZ	1.15	1.58
17:Q:416:ILE:CG2	18:R:265:SER:HB2	1.30	1.56
6:F:72:LYS:HB3	6:F:142:SER:CA	1.30	1.56
15:O:200:ASN:CG	17:Q:14:ASN:HB2	1.30	1.55
1:A:547:ILE:CD1	17:Q:26:ARG:NH1	1.68	1.55
1:A:1484:LEU:HD13	2:B:305:ARG:CZ	1.24	1.55
1:A:1322:ILE:HG22	1:A:1454:HIS:CD2	1.38	1.54
7:G:143:SER:CB	15:O:104:ILE:HG22	1.33	1.54
15:O:200:ASN:CB	17:Q:14:ASN:HB2	1.07	1.53
18:R:236:PHE:CZ	18:R:253:ILE:HD11	1.02	1.53
15:O:200:ASN:HB2	17:Q:14:ASN:CB	1.34	1.53
3:C:272:LYS:CA	14:N:175:TYR:CE1	1.92	1.53
16:P:436:ILE:HB	18:R:143:THR:CG2	1.06	1.52
17:Q:20:TRP:HZ3	17:Q:22:ILE:CG2	1.10	1.52
7:G:143:SER:HB2	15:O:104:ILE:CG2	1.36	1.51
15:O:248:LEU:CD1	15:O:598:PHE:CE2	1.93	1.51
2:B:152:LEU:HB3	2:B:443:LYS:CE	1.34	1.51
13:M:102:SER:HB3	13:M:105:SER:CB	1.28	1.51
17:Q:375:LEU:HD21	18:R:231:LEU:CD1	1.40	1.50
1:A:990:ILE:HB	1:A:994:GLU:CB	1.06	1.50
17:Q:381:MET:HE1	18:R:212:HIS:CG	1.41	1.50
2:B:152:LEU:CB	2:B:443:LYS:HE3	1.37	1.50
16:P:436:ILE:CB	18:R:143:THR:HG23	1.04	1.50
1:A:1049:MET:HG2	1:A:1052:GLY:C	1.30	1.50
16:P:187:ILE:HG23	18:R:195:LEU:CD2	1.42	1.50
1:A:1575:ILE:CG1	9:I:122:ARG:NH1	1.68	1.49
2:B:207:ILE:HG13	2:B:503:VAL:CG2	1.41	1.49
15:O:248:LEU:CD1	15:O:598:PHE:CD2	1.92	1.49
15:O:248:LEU:HD12	15:O:598:PHE:CE2	0.97	1.49
16:P:443:ASP:CB	18:R:3:GLU:HB2	1.40	1.48
16:P:443:ASP:HB3	18:R:3:GLU:CB	1.40	1.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:488:LEU:HD23	18:R:138:PHE:CG	1.49	1.48
2:B:143:TRP:HB2	2:B:446:MET:CE	1.43	1.47
16:P:352:PHE:CE1	18:R:157:MET:HG2	1.49	1.47
17:Q:389:GLN:CB	18:R:209:ARG:NH1	1.73	1.47
3:C:253:PRO:HD2	14:N:180:PHE:CB	1.31	1.47
2:B:527:PHE:CZ	2:B:666:PRO:HA	1.49	1.47
1:A:545:SER:CB	17:Q:34:VAL:HG21	1.01	1.46
2:B:679:GLN:CG	14:N:157:ARG:N	1.75	1.46
16:P:496:THR:HG21	18:R:2:PHE:CZ	1.50	1.46
1:A:547:ILE:HD11	17:Q:26:ARG:NH1	1.18	1.46
2:B:527:PHE:CD1	2:B:666:PRO:HG3	1.47	1.46
2:B:1089:GLN:CG	2:B:1093:LEU:HD22	1.46	1.46
16:P:399:TRP:NE1	18:R:87:VAL:C	1.74	1.46
6:F:72:LYS:CD	6:F:142:SER:HB3	1.43	1.45
2:B:68:ILE:HG21	2:B:71:LYS:NZ	1.32	1.45
1:A:756:LYS:CD	9:I:85:LYS:NZ	1.79	1.44
16:P:187:ILE:CG2	18:R:195:LEU:CD2	1.93	1.44
17:Q:374:THR:CG2	18:R:219:LEU:CD2	1.93	1.44
18:R:236:PHE:CZ	18:R:253:ILE:CD1	1.95	1.44
1:A:878:ARG:HB3	9:I:67:VAL:CG1	1.48	1.44
7:G:141:SER:HB3	15:O:142:ILE:CD1	1.46	1.44
1:A:629:ASP:C	2:B:926:VAL:HG21	1.42	1.43
3:C:58:ASN:HA	3:C:296:ASN:ND2	1.18	1.43
1:A:597:LYS:HB2	2:B:1082:HIS:NE2	1.23	1.43
1:A:1326:GLU:CD	1:A:1455:ARG:N	1.76	1.43
2:B:848:ILE:CB	12:L:60:ARG:HD2	1.46	1.43
18:R:236:PHE:CE1	18:R:253:ILE:HD11	1.52	1.43
2:B:679:GLN:CG	14:N:156:PRO:C	1.92	1.43
1:A:1297:PHE:CE2	1:A:1301:GLU:OE1	1.70	1.42
17:Q:194:GLN:HG3	18:R:209:ARG:NH1	1.27	1.42
6:F:72:LYS:CB	6:F:142:SER:HA	1.50	1.41
14:N:87:TYR:CA	14:N:141:GLU:HA	1.48	1.41
3:C:272:LYS:HA	14:N:175:TYR:CZ	1.51	1.40
17:Q:374:THR:CG2	18:R:219:LEU:CD1	1.97	1.40
2:B:207:ILE:CG1	2:B:503:VAL:HG21	1.49	1.40
17:Q:374:THR:HG21	18:R:219:LEU:CD2	1.47	1.39
3:C:253:PRO:CD	14:N:180:PHE:HB3	1.09	1.39
15:O:240:ILE:HG22	15:O:380:SER:CB	1.48	1.39
16:P:187:ILE:CG2	18:R:195:LEU:HD23	1.52	1.39
1:A:597:LYS:HB2	2:B:1082:HIS:CD2	1.58	1.38
17:Q:414:TYR:CE1	18:R:240:ILE:HG23	1.56	1.38

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:74:ILE:O	7:G:95:LEU:CD1	1.69	1.38
17:Q:385:PHE:CD2	18:R:212:HIS:CD2	2.12	1.38
17:Q:381:MET:SD	18:R:212:HIS:CB	2.09	1.38
2:B:143:TRP:CE3	2:B:446:MET:HG3	1.57	1.37
1:A:999:CYS:HA	2:B:712:SER:CB	1.54	1.37
7:G:159:LYS:H	15:O:105:ASN:ND2	0.91	1.37
18:R:236:PHE:CE1	18:R:253:ILE:CD1	2.06	1.36
1:A:547:ILE:HD12	17:Q:26:ARG:CZ	1.53	1.36
2:B:322:ASN:ND2	13:M:108:LEU:O	1.57	1.36
7:G:159:LYS:N	15:O:105:ASN:ND2	1.70	1.36
18:R:229:TRP:CZ2	18:R:259:ASP:HB3	1.61	1.36
1:A:1322:ILE:HD12	1:A:1457:ILE:CD1	1.53	1.35
1:A:1482:LYS:CE	2:B:304:ASP:OD1	1.74	1.35
7:G:141:SER:CB	15:O:142:ILE:HD12	1.54	1.35
17:Q:351:ASN:HB3	17:Q:369:TRP:CH2	1.61	1.35
1:A:545:SER:CB	17:Q:34:VAL:CG2	1.77	1.35
15:O:234:ILE:CG2	15:O:237:ILE:HG12	1.41	1.35
1:A:503:VAL:HA	1:A:580:HIS:CD2	1.61	1.35
1:A:1322:ILE:CG2	1:A:1454:HIS:CG	2.08	1.34
1:A:1322:ILE:HG22	1:A:1454:HIS:CG	1.62	1.34
2:B:848:ILE:HB	12:L:60:ARG:CD	1.56	1.34
1:A:1297:PHE:CD2	1:A:1301:GLU:OE1	1.81	1.34
2:B:68:ILE:CG2	2:B:71:LYS:NZ	1.91	1.34
16:P:488:LEU:CD2	18:R:138:PHE:CD2	2.11	1.34
17:Q:418:PRO:CD	18:R:233:TYR:OH	1.73	1.34
1:A:535:GLN:NE2	17:Q:26:ARG:HD3	1.43	1.34
2:B:143:TRP:CG	2:B:446:MET:SD	2.20	1.33
2:B:743:ARG:NH2	10:J:60:PHE:CZ	1.96	1.33
16:P:198:ASP:HB2	16:P:205:TYR:O	1.27	1.33
3:C:272:LYS:HA	14:N:175:TYR:CD1	1.63	1.33
7:G:24:VAL:O	7:G:128:GLN:HB2	1.17	1.33
2:B:796:ARG:NE	10:J:8:PHE:O	1.58	1.33
16:P:438:TRP:NE1	18:R:297:PHE:HZ	0.85	1.33
16:P:488:LEU:CD2	18:R:138:PHE:CG	2.07	1.33
1:A:1299:ASN:OD1	1:A:1467:GLY:CA	1.71	1.32
16:P:354:PRO:HG3	18:R:31:PHE:CG	1.64	1.32
18:R:229:TRP:CH2	18:R:259:ASP:HB3	1.63	1.32
1:A:547:ILE:CD1	17:Q:26:ARG:CZ	2.08	1.31
1:A:990:ILE:HA	1:A:994:GLU:OE1	1.30	1.31
2:B:19:LEU:CD1	10:J:26:GLN:OE1	1.78	1.31
17:Q:374:THR:HG22	18:R:219:LEU:CD1	1.57	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:375:LEU:CD2	18:R:231:LEU:HD11	1.57	1.31
16:P:399:TRP:HE1	18:R:87:VAL:C	1.35	1.31
13:M:102:SER:CB	13:M:105:SER:HB3	1.13	1.31
17:Q:389:GLN:HB2	18:R:209:ARG:NH1	1.02	1.31
15:O:200:ASN:CB	17:Q:14:ASN:CB	1.94	1.31
7:G:159:LYS:CB	15:O:105:ASN:HD22	1.43	1.31
2:B:1072:GLY:C	2:B:1075:GLU:HG2	1.55	1.30
2:B:143:TRP:CD2	2:B:446:MET:HG3	1.65	1.30
16:P:198:ASP:CB	16:P:205:TYR:O	1.79	1.30
18:R:229:TRP:CH2	18:R:259:ASP:CB	2.13	1.30
17:Q:26:ARG:HB3	17:Q:34:VAL:CG1	1.61	1.30
1:A:1276:THR:OG1	9:I:45:LEU:CD1	1.79	1.30
18:R:301:SER:C	18:R:358:PHE:CE1	2.09	1.30
7:G:141:SER:CB	15:O:142:ILE:CD1	2.06	1.30
18:R:177:LEU:O	18:R:185:LYS:HE2	1.13	1.30
18:R:15:GLN:OE1	18:R:184:ASN:ND2	1.63	1.29
1:A:990:ILE:HG13	1:A:995:TYR:N	1.47	1.29
18:R:199:LYS:HE2	18:R:204:GLU:CA	1.61	1.29
18:R:301:SER:O	18:R:358:PHE:CE1	1.85	1.29
2:B:549:CYS:SG	2:B:649:MET:HG2	1.70	1.29
1:A:995:TYR:OH	2:B:707:SER:CB	1.79	1.29
2:B:679:GLN:HG2	14:N:157:ARG:N	0.96	1.29
2:B:682:GLN:CA	14:N:154:ARG:HH21	1.46	1.29
18:R:236:PHE:HE1	18:R:253:ILE:CG1	1.44	1.29
18:R:279:SER:HA	18:R:301:SER:OG	1.28	1.29
18:R:303:THR:CG2	18:R:360:GLU:OE1	1.81	1.29
2:B:527:PHE:CZ	2:B:666:PRO:CA	2.13	1.29
2:B:682:GLN:C	14:N:154:ARG:HH21	1.37	1.29
14:N:86:ASP:C	14:N:141:GLU:HG3	1.58	1.28
2:B:1002:LYS:HD3	14:N:166:LEU:O	1.17	1.28
17:Q:381:MET:CE	18:R:212:HIS:CG	2.15	1.28
1:A:756:LYS:HD3	9:I:85:LYS:NZ	0.98	1.28
17:Q:375:LEU:CD2	18:R:231:LEU:HD21	1.64	1.28
1:A:1276:THR:OG1	9:I:45:LEU:HD12	1.22	1.28
17:Q:389:GLN:CG	18:R:209:ARG:HH12	1.47	1.28
2:B:682:GLN:C	14:N:154:ARG:NH2	1.91	1.27
2:B:890:ASP:O	12:L:54:ARG:HD3	1.24	1.27
1:A:1180:ASN:OD1	6:F:87:LYS:HD3	1.33	1.27
2:B:1003:ALA:O	14:N:170:HIS:N	1.66	1.27
3:C:253:PRO:HD2	14:N:180:PHE:CG	1.68	1.27
2:B:75:ASP:HB3	2:B:440:PHE:CE2	1.67	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:207:ILE:CG1	2:B:503:VAL:CG2	2.07	1.27
17:Q:416:ILE:CG2	18:R:265:SER:CB	2.10	1.27
17:Q:188:ALA:HB2	18:R:208:TYR:OH	1.18	1.27
16:P:21:GLN:HB2	18:R:139:GLU:CD	1.60	1.26
1:A:435:ASN:HB3	1:A:442:LYS:CB	1.64	1.26
1:A:1326:GLU:CD	1:A:1454:HIS:HB3	1.57	1.26
2:B:143:TRP:CB	2:B:446:MET:CE	2.13	1.26
13:M:102:SER:O	13:M:106:LYS:N	1.66	1.26
1:A:547:ILE:HD12	17:Q:26:ARG:NH2	1.45	1.26
2:B:527:PHE:CE1	2:B:666:PRO:HG3	1.69	1.26
18:R:301:SER:C	18:R:358:PHE:HE1	1.39	1.26
1:A:1322:ILE:CG2	1:A:1454:HIS:CD2	2.19	1.26
2:B:683:ASN:N	14:N:154:ARG:NH2	1.84	1.26
15:O:376:TYR:CE2	15:O:377:TYR:CE2	2.24	1.26
18:R:199:LYS:HE2	18:R:204:GLU:CB	1.64	1.26
17:Q:194:GLN:CG	18:R:209:ARG:HH11	1.48	1.25
14:N:86:ASP:O	14:N:141:GLU:HG3	1.37	1.25
15:O:200:ASN:CG	17:Q:14:ASN:CB	2.05	1.25
1:A:878:ARG:CG	9:I:66:VAL:HG23	1.65	1.25
1:A:1326:GLU:OE2	1:A:1454:HIS:HB3	1.26	1.25
15:O:247:GLU:OE1	15:O:325:ILE:CG1	1.85	1.25
7:G:159:LYS:HD2	15:O:103:ASN:OD1	1.09	1.24
18:R:199:LYS:CE	18:R:204:GLU:HB3	1.65	1.24
2:B:1072:GLY:O	2:B:1075:GLU:HG2	1.26	1.24
1:A:1330:VAL:HG21	1:A:1455:ARG:CZ	1.66	1.24
16:P:21:GLN:HB2	18:R:139:GLU:OE1	1.30	1.24
17:Q:20:TRP:CZ3	17:Q:22:ILE:HG23	1.48	1.24
17:Q:351:ASN:CB	17:Q:369:TRP:CH2	2.20	1.24
2:B:1089:GLN:HG3	2:B:1093:LEU:CG	1.65	1.23
17:Q:12:THR:CG2	17:Q:33:HIS:CE1	1.94	1.23
17:Q:385:PHE:HZ	18:R:208:TYR:C	1.35	1.23
1:A:403:LEU:HD11	1:A:419:ILE:CG2	1.68	1.23
1:A:1326:GLU:OE2	1:A:1455:ARG:N	1.60	1.23
1:A:1603:MET:HE2	1:A:1615:TYR:CD2	1.73	1.23
16:P:357:LEU:CD2	18:R:23:TYR:HE1	1.51	1.23
1:A:1484:LEU:CD1	2:B:305:ARG:CZ	2.17	1.23
17:Q:418:PRO:HD2	18:R:233:TYR:OH	1.07	1.23
2:B:19:LEU:HD13	10:J:26:GLN:OE1	1.30	1.23
17:Q:374:THR:CG2	18:R:219:LEU:HD13	1.65	1.22
7:G:144:HIS:CG	15:O:146:SER:OG	1.92	1.22
18:R:271:LEU:CD2	18:R:308:PHE:HB2	1.67	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:478:TYR:HA	2:B:1048:SER:O	1.38	1.22
17:Q:389:GLN:CB	18:R:209:ARG:CZ	2.05	1.22
14:N:87:TYR:HA	14:N:141:GLU:CA	1.69	1.22
1:A:1329:ILE:HG21	1:A:1456:PHE:CE2	1.76	1.21
16:P:399:TRP:CD1	18:R:87:VAL:C	2.17	1.21
16:P:496:THR:OG1	18:R:1:MET:CE	1.87	1.21
15:O:374:PRO:C	15:O:376:TYR:HB3	1.64	1.21
16:P:496:THR:CG2	18:R:2:PHE:HZ	1.53	1.21
1:A:991:LYS:CB	1:A:993:GLN:HB2	1.71	1.21
1:A:1575:ILE:HG13	9:I:122:ARG:CZ	1.70	1.21
1:A:1650:GLY:O	1:A:1652:GLY:N	1.73	1.21
2:B:1072:GLY:N	2:B:1075:GLU:CG	2.04	1.21
6:F:72:LYS:HD2	6:F:142:SER:CB	1.69	1.21
2:B:182:GLN:NE2	10:J:69:ARG:HB3	1.55	1.21
1:A:1003:ARG:NH2	2:B:530:PRO:O	1.74	1.20
1:A:474:LYS:NZ	2:B:1096:SER:OG	1.74	1.20
1:A:1322:ILE:HG21	1:A:1454:HIS:ND1	1.54	1.20
3:C:274:THR:CA	14:N:172:ALA:HB2	1.72	1.20
16:P:391:THR:CG2	18:R:149:LYS:HG2	1.71	1.20
1:A:474:LYS:NZ	2:B:1092:LEU:HD23	1.55	1.20
3:C:296:ASN:O	3:C:298:PHE:CD1	1.94	1.20
18:R:301:SER:O	18:R:358:PHE:HE1	1.19	1.20
1:A:458:GLN:O	1:A:462:LYS:HB2	1.36	1.20
1:A:995:TYR:CD2	2:B:708:ASP:CA	2.23	1.20
14:N:86:ASP:O	14:N:141:GLU:CG	1.88	1.20
1:A:545:SER:CA	17:Q:34:VAL:HG21	1.70	1.20
3:C:253:PRO:O	14:N:179:ASP:O	1.58	1.20
18:R:199:LYS:HE3	18:R:203:SER:O	1.41	1.20
1:A:566:SER:CB	15:O:235:GLU:CD	2.15	1.19
1:A:1326:GLU:OE2	1:A:1454:HIS:CB	1.90	1.19
2:B:679:GLN:HG3	14:N:156:PRO:C	1.55	1.19
16:P:488:LEU:HD22	18:R:138:PHE:CD1	1.75	1.19
17:Q:416:ILE:HG23	18:R:265:SER:CB	1.71	1.19
2:B:943:ILE:HD12	10:J:44:TYR:CZ	1.78	1.19
13:M:61:GLU:OE2	13:M:106:LYS:CD	1.88	1.19
1:A:991:LYS:N	1:A:994:GLU:HG3	1.54	1.19
2:B:566:TYR:HD2	13:M:73:SER:OG	1.23	1.19
3:C:58:ASN:CA	3:C:296:ASN:ND2	2.06	1.18
7:G:241:ARG:HH11	15:O:189:PHE:CB	1.55	1.18
7:G:24:VAL:O	7:G:128:GLN:CB	1.91	1.18
1:A:438:ILE:O	1:A:457:LYS:HD2	1.42	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:385:PHE:CZ	18:R:208:TYR:C	2.13	1.18
1:A:1322:ILE:HB	1:A:1454:HIS:CE1	1.79	1.18
2:B:894:LYS:HD3	12:L:47:ARG:CZ	1.74	1.18
16:P:443:ASP:OD2	18:R:3:GLU:OE2	1.61	1.18
18:R:82:ARG:HH12	18:R:291:ARG:CA	1.57	1.18
1:A:477:ASN:O	2:B:1047:ARG:HD3	1.43	1.18
1:A:878:ARG:CG	9:I:67:VAL:HG13	1.73	1.18
13:M:61:GLU:OE2	13:M:106:LYS:HD3	1.44	1.18
2:B:207:ILE:CD1	2:B:503:VAL:HG21	1.72	1.17
1:A:1313:LEU:HG	1:A:1462:PHE:CE1	1.79	1.17
1:A:1314:GLN:NE2	1:A:1446:ARG:NH1	1.89	1.17
2:B:152:LEU:HD22	2:B:443:LYS:HD2	1.24	1.17
2:B:683:ASN:N	14:N:154:ARG:HH22	1.37	1.17
2:B:849:GLY:CA	12:L:60:ARG:HH22	1.57	1.17
1:A:878:ARG:CD	9:I:66:VAL:CG2	2.21	1.17
1:A:1050:TYR:CZ	1:A:1179:ILE:HG12	1.79	1.17
6:F:72:LYS:CA	6:F:142:SER:HB2	1.75	1.17
1:A:1657:LEU:HD22	7:G:104:LEU:CD1	1.74	1.16
3:C:274:THR:HA	14:N:172:ALA:CB	1.75	1.16
15:O:200:ASN:HB2	17:Q:14:ASN:CA	1.73	1.16
16:P:324:TRP:CZ2	18:R:152:ILE:HD11	1.78	1.16
1:A:474:LYS:CE	2:B:1092:LEU:HD23	1.73	1.16
2:B:894:LYS:CG	12:L:54:ARG:NH2	1.92	1.16
2:B:1120:ILE:HD12	15:O:117:GLN:NE2	1.58	1.16
16:P:496:THR:OG1	18:R:1:MET:HE1	1.43	1.16
1:A:435:ASN:O	1:A:439:ASP:O	1.61	1.16
2:B:143:TRP:CD2	2:B:446:MET:CG	2.26	1.16
2:B:679:GLN:HG3	14:N:156:PRO:CA	1.75	1.16
2:B:1072:GLY:H	2:B:1075:GLU:CG	1.59	1.16
17:Q:194:GLN:CG	18:R:209:ARG:NH1	2.04	1.16
1:A:474:LYS:HZ2	2:B:1092:LEU:HA	1.10	1.16
17:Q:378:LEU:HD23	18:R:216:LEU:HD23	1.23	1.16
18:R:233:TYR:CE1	18:R:264:SER:OG	1.99	1.16
1:A:952:LEU:HD22	1:A:1004:GLU:HG3	1.15	1.15
1:A:991:LYS:H	1:A:994:GLU:CG	1.60	1.15
1:A:1657:LEU:O	6:F:133:VAL:N	1.76	1.15
7:G:241:ARG:HH11	15:O:189:PHE:HB2	1.10	1.15
1:A:436:ALA:O	1:A:440:SER:N	1.77	1.15
2:B:266:LYS:HE3	2:B:473:GLN:O	1.46	1.15
2:B:1089:GLN:CG	2:B:1093:LEU:CD2	2.24	1.15
16:P:390:GLN:HB2	18:R:152:ILE:H	1.00	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:25:ASN:HB2	18:R:81:GLU:OE2	1.44	1.15
18:R:250:LEU:CD1	18:R:298:GLN:HG2	1.76	1.15
1:A:545:SER:H	17:Q:34:VAL:HG23	1.08	1.15
1:A:1049:MET:CG	1:A:1052:GLY:C	2.18	1.15
2:B:985:ILE:O	14:N:160:VAL:HG23	1.46	1.15
17:Q:374:THR:CG2	18:R:219:LEU:HD22	1.61	1.15
1:A:1326:GLU:OE1	1:A:1454:HIS:HA	1.44	1.15
16:P:185:GLN:HB3	18:R:195:LEU:HB2	1.25	1.15
17:Q:375:LEU:HD22	18:R:231:LEU:HD21	1.29	1.15
1:A:438:ILE:O	1:A:457:LYS:CD	1.94	1.14
1:A:547:ILE:CD1	17:Q:26:ARG:NH2	2.07	1.14
1:A:953:GLU:HA	1:A:1205:PHE:CD2	1.81	1.14
2:B:145:VAL:HG11	2:B:441:LYS:HG2	1.24	1.14
1:A:990:ILE:CA	1:A:994:GLU:HB2	1.78	1.14
1:A:990:ILE:HD11	1:A:995:TYR:HA	1.24	1.14
2:B:149:GLU:OE1	2:B:441:LYS:NZ	1.80	1.14
2:B:266:LYS:HG3	2:B:473:GLN:O	1.45	1.14
15:O:248:LEU:HD11	15:O:598:PHE:HD2	1.05	1.14
1:A:403:LEU:CD1	1:A:419:ILE:HG21	1.78	1.14
1:A:824:THR:HB	2:B:1023:ARG:HB2	1.22	1.14
1:A:1276:THR:N	9:I:45:LEU:O	1.80	1.13
2:B:894:LYS:CG	12:L:54:ARG:HH22	1.52	1.13
2:B:1093:LEU:HG	2:B:1094:ASN:OD1	1.45	1.13
1:A:474:LYS:NZ	2:B:1092:LEU:CD2	2.11	1.13
1:A:506:THR:HG22	1:A:579:ARG:C	1.74	1.13
1:A:1482:LYS:HE2	2:B:304:ASP:OD1	0.96	1.13
1:A:1657:LEU:HD22	7:G:104:LEU:HD13	1.14	1.13
15:O:240:ILE:CG2	15:O:380:SER:HB3	1.77	1.13
1:A:566:SER:CB	15:O:235:GLU:OE2	1.96	1.13
7:G:159:LYS:HD2	15:O:103:ASN:CG	1.72	1.13
17:Q:134:LYS:O	17:Q:138:LEU:HB2	1.47	1.13
1:A:878:ARG:CB	9:I:67:VAL:CG1	2.27	1.13
17:Q:385:PHE:CZ	18:R:208:TYR:O	2.01	1.13
1:A:422:ARG:HH12	18:R:412:ARG:HD3	1.01	1.13
1:A:1329:ILE:CG2	1:A:1456:PHE:CE2	2.31	1.13
18:R:233:TYR:CE1	18:R:263:ASN:HB2	1.84	1.13
1:A:878:ARG:CD	9:I:66:VAL:HG23	1.68	1.12
2:B:894:LYS:HD3	12:L:47:ARG:NE	1.63	1.12
16:P:438:TRP:HB2	18:R:141:TRP:NE1	1.63	1.12
17:Q:22:ILE:CD1	17:Q:24:ASP:OD2	1.96	1.12
18:R:303:THR:HG23	18:R:360:GLU:OE1	1.41	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:376:TYR:CZ	15:O:377:TYR:CE2	2.37	1.12
1:A:503:VAL:HG23	1:A:530:TRP:HB2	1.29	1.12
1:A:435:ASN:O	1:A:439:ASP:HB3	1.49	1.12
14:N:87:TYR:CZ	14:N:141:GLU:OE1	2.01	1.12
16:P:186:TYR:CD1	18:R:196:GLU:O	2.02	1.12
17:Q:194:GLN:HG3	18:R:209:ARG:CZ	1.79	1.12
6:F:72:LYS:CD	6:F:142:SER:CB	2.28	1.12
17:Q:381:MET:CE	18:R:212:HIS:CB	2.27	1.12
17:Q:389:GLN:HG3	18:R:209:ARG:HH12	1.01	1.12
16:P:357:LEU:HD22	18:R:23:TYR:HE1	1.05	1.11
2:B:849:GLY:C	12:L:60:ARG:HH22	1.58	1.11
2:B:1072:GLY:N	2:B:1075:GLU:HG3	1.59	1.11
3:C:230:LEU:HD12	3:C:231:PRO:HD2	1.22	1.11
3:C:334:THR:HG21	11:K:44:ARG:HB3	1.30	1.11
18:R:82:ARG:HH12	18:R:291:ARG:HA	1.04	1.11
7:G:143:SER:O	15:O:105:ASN:ND2	1.82	1.11
16:P:186:TYR:CE1	18:R:196:GLU:HB2	1.86	1.11
15:O:234:ILE:HG22	15:O:237:ILE:HG12	1.25	1.11
1:A:878:ARG:HB3	9:I:67:VAL:HG11	1.16	1.10
1:A:954:GLY:HA3	1:A:1205:PHE:HB3	1.27	1.10
1:A:1326:GLU:OE2	1:A:1454:HIS:C	1.93	1.10
1:A:1556:GLU:OE2	5:E:212:ARG:NH1	1.82	1.10
15:O:373:LEU:O	15:O:376:TYR:HB2	1.51	1.10
15:O:376:TYR:CE2	15:O:377:TYR:HE2	1.66	1.10
1:A:472:MET:HB3	2:B:1073:GLU:CB	1.80	1.10
1:A:995:TYR:HD2	2:B:708:ASP:CA	1.59	1.10
18:R:313:LEU:HD11	18:R:353:VAL:HG22	1.29	1.10
1:A:474:LYS:O	2:B:1070:ARG:CB	2.00	1.10
1:A:1049:MET:HG2	1:A:1053:ASP:N	1.66	1.10
17:Q:385:PHE:CE2	18:R:212:HIS:CD2	2.38	1.10
17:Q:416:ILE:HG21	18:R:265:SER:HB2	1.15	1.10
1:A:436:ALA:HB2	1:A:443:ALA:HB2	1.15	1.10
1:A:1314:GLN:NE2	1:A:1446:ARG:HD2	1.67	1.10
1:A:1600:ARG:NH2	1:A:1617:THR:OG1	1.83	1.10
6:F:75:PRO:HG2	6:F:78:GLN:HB2	1.13	1.10
17:Q:188:ALA:HB3	17:Q:384:GLN:CG	1.82	1.10
1:A:472:MET:HE2	1:A:472:MET:HA	1.31	1.10
1:A:503:VAL:CA	1:A:580:HIS:CD2	2.23	1.10
1:A:1314:GLN:NE2	1:A:1446:ARG:HH11	1.48	1.10
2:B:1002:LYS:CD	14:N:166:LEU:O	1.99	1.10
6:F:74:ILE:O	7:G:95:LEU:HD11	1.43	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:391:THR:HG23	18:R:149:LYS:CG	1.79	1.10
18:R:236:PHE:CE1	18:R:253:ILE:HG13	1.86	1.10
1:A:476:VAL:HG22	2:B:1070:ARG:H	1.15	1.09
2:B:143:TRP:HB2	2:B:446:MET:HE3	1.18	1.09
16:P:472:ARG:HD2	18:R:198:LEU:O	1.51	1.09
1:A:1482:LYS:O	2:B:308:LEU:HD21	1.50	1.09
18:R:313:LEU:HD11	18:R:353:VAL:CG2	1.82	1.09
1:A:474:LYS:HE3	2:B:1092:LEU:CD2	1.81	1.09
1:A:475:ARG:CZ	2:B:1061:LYS:HB2	1.81	1.09
2:B:527:PHE:CE1	2:B:666:PRO:CG	2.35	1.09
16:P:185:GLN:HB3	18:R:195:LEU:CB	1.82	1.09
18:R:224:VAL:HG21	18:R:256:GLU:OE2	1.50	1.09
18:R:236:PHE:HE1	18:R:253:ILE:HG13	0.96	1.09
18:R:250:LEU:HD13	18:R:298:GLN:CG	1.82	1.09
2:B:143:TRP:HB2	2:B:446:MET:HE1	1.31	1.09
3:C:253:PRO:N	14:N:180:PHE:CD1	2.19	1.09
6:F:72:LYS:HA	6:F:142:SER:HB2	1.21	1.09
7:G:141:SER:HB2	15:O:142:ILE:HD12	1.20	1.09
1:A:564:PRO:HG2	15:O:370:THR:O	1.53	1.09
1:A:566:SER:HB2	15:O:235:GLU:CD	1.77	1.09
2:B:68:ILE:CG2	2:B:71:LYS:HZ2	1.59	1.09
17:Q:375:LEU:HD21	18:R:231:LEU:CG	1.80	1.09
18:R:236:PHE:CE1	18:R:253:ILE:CG1	2.27	1.09
2:B:1003:ALA:HA	14:N:169:GLU:H	1.04	1.08
2:B:1089:GLN:HG3	2:B:1093:LEU:CB	1.82	1.08
16:P:324:TRP:HZ2	18:R:152:ILE:HD11	0.95	1.08
17:Q:20:TRP:CZ3	17:Q:22:ILE:HG22	1.58	1.08
17:Q:378:LEU:HD13	18:R:235:ILE:CD1	1.83	1.08
17:Q:416:ILE:HG23	18:R:265:SER:OG	1.53	1.08
1:A:486:PRO:O	2:B:781:TYR:CD2	2.06	1.08
2:B:985:ILE:HB	14:N:160:VAL:CG2	1.82	1.08
7:G:159:LYS:CD	15:O:103:ASN:OD1	2.02	1.08
17:Q:9:ILE:HG13	17:Q:10:CYS:H	1.06	1.08
1:A:1299:ASN:OD1	1:A:1467:GLY:HA3	1.39	1.08
1:A:1326:GLU:CD	1:A:1454:HIS:CB	2.26	1.08
16:P:357:LEU:CD2	18:R:23:TYR:CE1	2.37	1.08
1:A:1322:ILE:CD1	1:A:1457:ILE:HD11	1.83	1.08
2:B:943:ILE:HD12	10:J:44:TYR:CE1	1.87	1.08
15:O:579:LEU:HA	15:O:582:ARG:HB3	1.24	1.08
16:P:55:LEU:HD21	18:R:227:HIS:NE2	1.69	1.08
1:A:88:PRO:CG	1:A:438:ILE:HD12	1.83	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:474:LYS:CE	2:B:1092:LEU:CD2	2.32	1.08
6:F:74:ILE:CG1	6:F:75:PRO:HD2	1.83	1.08
16:P:472:ARG:NH2	18:R:199:LYS:HA	1.67	1.08
1:A:422:ARG:NH1	18:R:412:ARG:HD3	1.69	1.07
1:A:566:SER:HB3	15:O:235:GLU:CD	1.77	1.07
1:A:834:ARG:NH2	2:B:994:ASP:OD1	1.87	1.07
1:A:991:LYS:HB2	1:A:993:GLN:HB2	1.35	1.07
16:P:472:ARG:NH1	18:R:203:SER:HB2	1.66	1.07
17:Q:351:ASN:HB3	17:Q:369:TRP:CZ3	1.89	1.07
1:A:1575:ILE:N	9:I:122:ARG:NH1	2.00	1.07
3:C:58:ASN:CA	3:C:296:ASN:HD21	1.65	1.07
16:P:390:GLN:HG3	18:R:152:ILE:HA	1.32	1.07
16:P:438:TRP:CD1	18:R:141:TRP:CZ2	2.41	1.07
3:C:272:LYS:HG2	14:N:175:TYR:CD1	1.88	1.07
2:B:527:PHE:CE2	2:B:666:PRO:HA	1.89	1.07
1:A:1049:MET:HB3	1:A:1052:GLY:CA	1.84	1.07
1:A:1575:ILE:HG13	9:I:122:ARG:NH1	0.74	1.07
1:A:1660:VAL:O	7:G:102:GLU:HG2	1.54	1.07
2:B:551:ILE:HG21	2:B:647:SER:HA	1.29	1.07
1:A:1003:ARG:HH21	2:B:530:PRO:C	1.62	1.06
1:A:597:LYS:CB	2:B:1082:HIS:NE2	2.17	1.06
16:P:498:LEU:HD11	17:Q:364:SER:OG	1.55	1.06
17:Q:26:ARG:HB3	17:Q:34:VAL:HG13	1.12	1.06
1:A:597:LYS:CB	2:B:1082:HIS:CD2	2.38	1.06
1:A:1313:LEU:HG	1:A:1462:PHE:CZ	1.90	1.06
1:A:1322:ILE:HB	1:A:1454:HIS:NE2	1.68	1.06
7:G:143:SER:HB3	15:O:104:ILE:H	0.90	1.06
16:P:438:TRP:HD1	18:R:141:TRP:CZ2	1.72	1.06
17:Q:17:SER:O	17:Q:29:CYS:HB2	1.55	1.06
1:A:436:ALA:C	1:A:439:ASP:C	2.22	1.06
1:A:1314:GLN:HE21	1:A:1446:ARG:NH1	1.46	1.06
15:O:374:PRO:O	15:O:376:TYR:HB3	1.53	1.06
16:P:438:TRP:CZ2	18:R:297:PHE:CE1	2.44	1.06
1:A:506:THR:HG22	1:A:579:ARG:O	1.53	1.06
1:A:990:ILE:HB	1:A:994:GLU:HB3	1.17	1.06
2:B:1089:GLN:HG2	2:B:1093:LEU:HD22	1.07	1.06
16:P:197:ARG:NE	16:P:261:VAL:H	1.54	1.06
18:R:229:TRP:CH2	18:R:259:ASP:HB2	1.86	1.06
1:A:1297:PHE:CE2	1:A:1301:GLU:CD	2.34	1.05
15:O:200:ASN:ND2	17:Q:14:ASN:O	1.86	1.05
16:P:186:TYR:CZ	18:R:196:GLU:HB2	1.91	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:878:ARG:HG2	9:I:66:VAL:HG23	1.38	1.05
1:A:1317:ILE:CG2	1:A:1460:TYR:HE1	1.69	1.05
2:B:49:PHE:HB2	2:B:164:MET:CE	1.84	1.05
2:B:889:GLY:HA3	12:L:54:ARG:O	1.56	1.05
15:O:234:ILE:HG23	15:O:237:ILE:HG12	1.37	1.05
16:P:187:ILE:HG23	18:R:195:LEU:HD21	1.15	1.05
17:Q:385:PHE:CE2	18:R:212:HIS:CG	2.44	1.05
17:Q:389:GLN:CG	18:R:209:ARG:NH1	2.08	1.05
1:A:545:SER:N	17:Q:34:VAL:CG2	2.18	1.05
1:A:1310:LYS:HG2	1:A:1311:GLU:CD	1.77	1.05
16:P:349:GLY:HA2	18:R:154:LYS:HA	1.32	1.05
16:P:354:PRO:HG3	18:R:31:PHE:CD2	1.91	1.05
16:P:398:ALA:HB1	18:R:87:VAL:HA	1.10	1.05
17:Q:15:CYS:HB3	17:Q:17:SER:N	1.70	1.05
17:Q:374:THR:HG23	18:R:219:LEU:HD11	1.32	1.05
18:R:271:LEU:HD21	18:R:308:PHE:HB2	1.36	1.05
1:A:999:CYS:HA	2:B:712:SER:HB2	1.32	1.05
1:A:1326:GLU:OE1	1:A:1454:HIS:CA	2.03	1.05
7:G:141:SER:HB3	15:O:142:ILE:HD13	1.35	1.05
16:P:350:THR:HB	18:R:155:GLN:HA	1.08	1.05
16:P:622:TYR:O	16:P:626:LEU:HB2	1.53	1.05
1:A:1050:TYR:CE1	1:A:1179:ILE:HG12	1.90	1.05
3:C:296:ASN:O	3:C:298:PHE:CE1	2.10	1.05
16:P:350:THR:CB	18:R:155:GLN:HA	1.86	1.05
17:Q:374:THR:HG23	18:R:219:LEU:HD21	1.37	1.05
1:A:566:SER:HB3	15:O:235:GLU:OE2	1.56	1.04
1:A:1298:ASP:OD1	1:A:1468:LYS:NZ	1.90	1.04
15:O:240:ILE:HG22	15:O:380:SER:HB3	1.06	1.04
16:P:274:ILE:O	16:P:289:SER:HB2	1.57	1.04
16:P:436:ILE:HG22	18:R:143:THR:N	1.72	1.04
16:P:488:LEU:HD22	18:R:138:PHE:CE1	1.91	1.04
1:A:1600:ARG:CD	1:A:1616:GLU:OE1	2.05	1.04
2:B:143:TRP:CD2	2:B:446:MET:SD	2.49	1.04
6:F:72:LYS:HB3	6:F:142:SER:CB	1.87	1.04
15:O:379:ARG:HA	15:O:379:ARG:HH11	1.22	1.04
16:P:55:LEU:HD21	18:R:227:HIS:CD2	1.93	1.04
16:P:436:ILE:CG2	18:R:143:THR:HG23	1.86	1.04
17:Q:188:ALA:CB	17:Q:384:GLN:CG	2.36	1.04
1:A:721:LYS:O	8:H:96:VAL:N	1.91	1.04
1:A:878:ARG:HG2	9:I:67:VAL:HG13	1.09	1.04
1:A:1049:MET:CB	1:A:1052:GLY:HA2	1.88	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:679:GLN:HG2	14:N:156:PRO:C	1.67	1.04
2:B:1072:GLY:H	2:B:1075:GLU:HG3	1.08	1.04
1:A:878:ARG:CG	9:I:66:VAL:CG2	2.36	1.03
1:A:1049:MET:CG	1:A:1053:ASP:N	2.21	1.03
2:B:68:ILE:CG2	2:B:71:LYS:HZ3	1.57	1.03
2:B:566:TYR:CD2	13:M:73:SER:OG	2.11	1.03
16:P:438:TRP:CZ2	18:R:297:PHE:HE1	1.73	1.03
17:Q:5:ILE:O	17:Q:19:LEU:O	1.74	1.03
17:Q:374:THR:CG2	18:R:219:LEU:CG	2.35	1.03
1:A:503:VAL:CG2	1:A:530:TRP:HB2	1.88	1.03
1:A:1317:ILE:HG21	1:A:1460:TYR:HE1	1.22	1.03
1:A:1657:LEU:CD2	7:G:104:LEU:HD13	1.88	1.03
2:B:68:ILE:HG23	2:B:71:LYS:HZ2	1.21	1.03
2:B:527:PHE:CD1	2:B:666:PRO:CG	2.40	1.03
1:A:477:ASN:O	2:B:1047:ARG:CD	2.06	1.03
1:A:615:ARG:NH1	2:B:929:ARG:HE	1.54	1.03
1:A:629:ASP:C	2:B:926:VAL:CG2	2.31	1.03
1:A:1003:ARG:NH2	2:B:530:PRO:C	2.14	1.03
1:A:1322:ILE:CB	1:A:1454:HIS:CE1	2.40	1.03
17:Q:414:TYR:CD1	18:R:240:ILE:HG23	1.93	1.03
1:A:684:ASP:CG	8:H:20:TYR:HB3	1.83	1.03
1:A:938:VAL:HG22	9:I:82:ILE:CD1	1.88	1.03
1:A:1322:ILE:CG2	1:A:1454:HIS:CE1	2.41	1.03
2:B:1089:GLN:HG3	2:B:1093:LEU:CD1	1.88	1.03
7:G:144:HIS:CD2	15:O:146:SER:CA	2.42	1.03
16:P:472:ARG:HH12	18:R:203:SER:CB	1.69	1.03
18:R:199:LYS:HE2	18:R:204:GLU:HB3	1.22	1.03
1:A:1322:ILE:HG21	1:A:1454:HIS:CG	1.82	1.03
3:C:228:ARG:NH1	14:N:173:THR:O	1.90	1.03
7:G:144:HIS:CD2	15:O:146:SER:HA	1.93	1.03
16:P:352:PHE:CD1	18:R:157:MET:HG2	1.93	1.03
16:P:357:LEU:HD22	18:R:23:TYR:CE1	1.94	1.03
16:P:436:ILE:N	18:R:143:THR:OG1	1.90	1.03
17:Q:374:THR:HG23	18:R:219:LEU:CD1	1.69	1.03
6:F:72:LYS:CB	6:F:142:SER:CB	2.37	1.02
17:Q:374:THR:HG23	18:R:219:LEU:CD2	1.74	1.02
2:B:207:ILE:CD1	2:B:503:VAL:CG2	2.34	1.02
2:B:1092:LEU:HA	2:B:1096:SER:HB2	1.35	1.02
1:A:476:VAL:O	2:B:1068:GLY:HA3	1.57	1.02
3:C:253:PRO:CD	14:N:180:PHE:CD1	2.43	1.02
15:O:243:GLU:OE1	15:O:328:LEU:HD23	1.58	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:472:MET:CB	2:B:1073:GLU:HB2	1.89	1.02
17:Q:375:LEU:CD2	18:R:231:LEU:CD2	2.38	1.02
17:Q:381:MET:HE1	18:R:212:HIS:ND1	1.73	1.02
18:R:199:LYS:CE	18:R:204:GLU:CA	2.37	1.02
2:B:143:TRP:CB	2:B:446:MET:SD	2.48	1.01
2:B:1089:GLN:HG3	2:B:1093:LEU:HB2	1.41	1.01
3:C:229:LEU:HD22	3:C:295:ARG:O	1.61	1.01
16:P:438:TRP:HB2	18:R:141:TRP:CE2	1.95	1.01
2:B:1071:VAL:HG21	2:B:1091:ARG:HG3	1.41	1.01
18:R:316:SER:HB3	18:R:349:ILE:CD1	1.90	1.01
7:G:159:LYS:HB2	15:O:105:ASN:HD22	1.24	1.01
16:P:399:TRP:CH2	18:R:291:ARG:N	2.27	1.01
18:R:301:SER:CA	18:R:358:PHE:CE1	2.43	1.01
1:A:88:PRO:HG2	1:A:438:ILE:CD1	1.91	1.01
1:A:990:ILE:CG1	1:A:995:TYR:N	2.24	1.01
2:B:551:ILE:HG23	2:B:648:ARG:N	1.73	1.01
18:R:246:GLN:NE2	18:R:278:TYR:OH	1.93	1.01
1:A:486:PRO:HD2	2:B:928:SER:OG	1.60	1.01
1:A:954:GLY:CA	1:A:1205:PHE:HB3	1.89	1.01
1:A:991:LYS:HB3	1:A:993:GLN:CD	1.84	1.01
15:O:348:THR:HG22	15:O:351:SER:HB3	1.42	1.01
17:Q:378:LEU:HD21	18:R:219:LEU:HB2	1.42	1.01
1:A:995:TYR:OH	2:B:707:SER:HB2	0.83	1.00
1:A:1314:GLN:CD	1:A:1446:ARG:HD2	1.84	1.00
2:B:19:LEU:HD11	10:J:26:GLN:OE1	1.61	1.00
2:B:75:ASP:HB3	2:B:440:PHE:CZ	1.96	1.00
2:B:894:LYS:HG3	12:L:54:ARG:NH2	1.41	1.00
3:C:272:LYS:CA	14:N:175:TYR:CZ	2.16	1.00
7:G:143:SER:CB	15:O:104:ILE:H	1.74	1.00
16:P:472:ARG:NH1	18:R:203:SER:CB	2.21	1.00
1:A:995:TYR:CZ	2:B:715:ASN:ND2	2.29	1.00
2:B:143:TRP:CE2	2:B:446:MET:HB2	1.96	1.00
2:B:1092:LEU:O	2:B:1096:SER:HB3	1.59	1.00
1:A:1050:TYR:CG	1:A:1179:ILE:HG21	1.96	1.00
1:A:1322:ILE:HD12	1:A:1457:ILE:HD11	1.04	1.00
2:B:681:ILE:HB	14:N:154:ARG:HG3	1.40	1.00
16:P:399:TRP:HH2	18:R:291:ARG:N	1.50	1.00
17:Q:418:PRO:CG	18:R:233:TYR:OH	2.09	1.00
18:R:177:LEU:O	18:R:185:LYS:CE	2.08	1.00
7:G:143:SER:HB3	15:O:104:ILE:N	1.75	1.00
1:A:545:SER:HB2	17:Q:34:VAL:HG22	1.41	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:909:SER:HA	9:I:83:LYS:NZ	1.75	1.00
17:Q:351:ASN:CA	17:Q:369:TRP:CH2	2.45	1.00
2:B:1072:GLY:O	2:B:1075:GLU:CG	2.09	1.00
3:C:253:PRO:HD2	14:N:180:PHE:CD1	1.95	1.00
17:Q:9:ILE:HB	17:Q:16:PRO:HB2	1.44	1.00
17:Q:374:THR:CG2	18:R:219:LEU:HD21	1.86	1.00
17:Q:385:PHE:CD2	18:R:212:HIS:HD2	1.76	1.00
1:A:408:LYS:CB	1:A:411:VAL:HB	1.92	0.99
1:A:615:ARG:HH22	2:B:929:ARG:HG2	1.26	0.99
2:B:697:LEU:HB2	2:B:702:ASN:ND2	1.77	0.99
15:O:332:LEU:HD11	15:O:380:SER:OG	1.61	0.99
17:Q:378:LEU:HD13	18:R:235:ILE:HD13	1.44	0.99
1:A:547:ILE:CD1	17:Q:26:ARG:HH22	1.71	0.99
7:G:159:LYS:CB	15:O:105:ASN:ND2	2.23	0.99
17:Q:381:MET:SD	18:R:212:HIS:CG	2.52	0.99
1:A:756:LYS:HD3	9:I:85:LYS:HZ3	1.18	0.99
1:A:990:ILE:CB	1:A:994:GLU:CB	1.98	0.99
15:O:376:TYR:CE1	15:O:588:LEU:CD2	2.45	0.99
16:P:352:PHE:CE1	18:R:157:MET:CG	2.46	0.99
1:A:480:ALA:CB	2:B:1046:VAL:HG23	1.93	0.99
17:Q:12:THR:CB	17:Q:33:HIS:CE1	2.44	0.99
1:A:995:TYR:CZ	2:B:707:SER:HB2	1.98	0.99
1:A:1317:ILE:CG2	1:A:1460:TYR:CE1	2.45	0.99
2:B:143:TRP:CZ3	2:B:446:MET:HG3	1.96	0.99
6:F:74:ILE:HG12	6:F:75:PRO:CD	1.91	0.99
17:Q:22:ILE:CD1	17:Q:26:ARG:NE	2.25	0.99
1:A:953:GLU:C	1:A:1205:PHE:CG	2.40	0.99
13:M:102:SER:O	13:M:105:SER:CA	2.11	0.99
13:M:102:SER:O	13:M:105:SER:N	1.95	0.99
16:P:354:PRO:HG3	18:R:31:PHE:CB	1.91	0.99
16:P:391:THR:HG23	18:R:149:LYS:HG2	1.01	0.99
16:P:398:ALA:HB1	18:R:87:VAL:CA	1.93	0.99
1:A:953:GLU:CA	1:A:1205:PHE:CD2	2.46	0.98
1:A:995:TYR:CE2	2:B:708:ASP:HA	1.97	0.98
7:G:144:HIS:NE2	15:O:145:SER:HB3	1.78	0.98
14:N:86:ASP:O	14:N:142:THR:N	1.94	0.98
17:Q:188:ALA:CB	18:R:208:TYR:OH	2.09	0.98
1:A:435:ASN:HB3	1:A:442:LYS:HB3	1.43	0.98
1:A:991:LYS:H	1:A:994:GLU:HG3	0.82	0.98
18:R:15:GLN:CD	18:R:184:ASN:HD22	1.69	0.98
2:B:682:GLN:CA	14:N:154:ARG:NH2	2.22	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:293:ARG:H	3:C:295:ARG:CZ	1.74	0.98
1:A:566:SER:HB2	15:O:235:GLU:OE1	1.61	0.98
1:A:998:HIS:NE2	2:B:711:GLN:HG3	1.75	0.98
1:A:1314:GLN:NE2	1:A:1446:ARG:CD	2.25	0.98
2:B:1003:ALA:HA	14:N:169:GLU:N	1.78	0.98
2:B:1151:ILE:HG12	7:G:21:LYS:HZ2	1.29	0.98
1:A:435:ASN:HB3	1:A:442:LYS:HB2	1.40	0.98
2:B:1072:GLY:CA	2:B:1075:GLU:HG2	1.94	0.98
7:G:24:VAL:HA	7:G:25:THR:HA	1.44	0.98
1:A:995:TYR:HH	2:B:707:SER:HB2	1.26	0.98
1:A:1276:THR:CB	9:I:45:LEU:HD12	1.93	0.98
1:A:1330:VAL:CG2	1:A:1455:ARG:CZ	2.41	0.98
2:B:207:ILE:HD11	2:B:503:VAL:HG21	1.42	0.98
2:B:1089:GLN:HG2	2:B:1093:LEU:CD2	1.90	0.98
1:A:535:GLN:HE22	17:Q:26:ARG:CD	1.77	0.98
15:O:240:ILE:O	15:O:380:SER:OG	1.80	0.98
16:P:186:TYR:OH	18:R:196:GLU:OE1	1.82	0.98
1:A:478:TYR:CA	2:B:1048:SER:O	2.10	0.97
1:A:953:GLU:HG2	1:A:1205:PHE:CE2	1.99	0.97
1:A:1049:MET:HB3	1:A:1052:GLY:N	1.79	0.97
2:B:943:ILE:CD1	10:J:44:TYR:CE1	2.46	0.97
15:O:247:GLU:OE1	15:O:325:ILE:HG12	1.10	0.97
2:B:75:ASP:CB	2:B:440:PHE:CE2	2.47	0.97
2:B:143:TRP:CE3	2:B:446:MET:CG	2.46	0.97
1:A:474:LYS:O	2:B:1070:ARG:HA	1.65	0.97
1:A:545:SER:H	17:Q:34:VAL:CG2	1.74	0.97
1:A:909:SER:HA	9:I:83:LYS:CE	1.93	0.97
1:A:1482:LYS:HE2	2:B:304:ASP:CG	1.86	0.97
16:P:390:GLN:HB2	18:R:152:ILE:N	1.79	0.97
16:P:398:ALA:CB	18:R:87:VAL:HA	1.94	0.97
16:P:438:TRP:CD1	18:R:141:TRP:HZ2	1.80	0.97
18:R:316:SER:CB	18:R:349:ILE:HD13	1.94	0.97
1:A:1484:LEU:HD13	2:B:305:ARG:NH1	1.80	0.97
1:A:474:LYS:HZ1	2:B:1092:LEU:CD2	1.75	0.97
3:C:41:GLU:OE2	11:K:138:LYS:HE3	1.64	0.97
15:O:376:TYR:HE1	15:O:588:LEU:CD2	1.77	0.97
2:B:550:ARG:HB2	2:B:650:LEU:HB2	1.47	0.97
2:B:1089:GLN:HG3	2:B:1093:LEU:CD2	1.90	0.97
17:Q:188:ALA:HB3	17:Q:384:GLN:HG2	1.43	0.97
1:A:991:LYS:HB3	1:A:993:GLN:OE1	1.64	0.97
16:P:187:ILE:HG22	18:R:195:LEU:HD23	0.98	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:15:CYS:SG	17:Q:17:SER:HB2	2.05	0.97
1:A:999:CYS:CA	2:B:712:SER:CB	2.43	0.97
17:Q:375:LEU:HD21	18:R:231:LEU:CD2	1.93	0.97
17:Q:385:PHE:HZ	18:R:208:TYR:O	1.36	0.97
1:A:438:ILE:O	1:A:457:LYS:CB	2.12	0.97
1:A:721:LYS:NZ	8:H:90:ALA:O	1.97	0.97
2:B:679:GLN:HG3	14:N:155:VAL:O	1.64	0.97
15:O:202:ASN:HB3	17:Q:31:TYR:OH	1.62	0.97
2:B:824:HIS:ND1	2:B:897:GLU:OE1	1.90	0.96
1:A:1326:GLU:CD	1:A:1454:HIS:CA	2.38	0.96
17:Q:378:LEU:HG	18:R:219:LEU:HD12	1.47	0.96
2:B:145:VAL:HG21	2:B:441:LYS:HA	1.47	0.96
18:R:199:LYS:CE	18:R:203:SER:O	2.13	0.96
1:A:88:PRO:HG2	1:A:438:ILE:HD12	0.97	0.96
6:F:66:ARG:NH2	7:G:90:LEU:CD1	2.29	0.96
13:M:102:SER:OG	13:M:105:SER:N	1.96	0.96
1:A:472:MET:HB3	2:B:1073:GLU:HB2	0.99	0.96
16:P:187:ILE:CG2	18:R:195:LEU:HD21	1.73	0.96
1:A:862:THR:CB	9:I:67:VAL:HG12	1.95	0.96
1:A:1050:TYR:CD1	1:A:1179:ILE:HG21	1.99	0.96
2:B:152:LEU:HD22	2:B:443:LYS:CD	1.94	0.96
15:O:376:TYR:OH	15:O:588:LEU:HD21	1.65	0.96
1:A:588:LEU:HD21	2:B:1087:LEU:HD13	1.48	0.95
2:B:1089:GLN:CG	2:B:1093:LEU:HD13	1.96	0.95
6:F:75:PRO:CG	6:F:78:GLN:HB2	1.96	0.95
16:P:438:TRP:HZ2	18:R:297:PHE:CE1	1.80	0.95
1:A:1322:ILE:CG2	1:A:1454:HIS:ND1	2.24	0.95
17:Q:381:MET:HE1	18:R:212:HIS:CB	1.93	0.95
2:B:202:LEU:HD22	2:B:488:ALA:HB2	1.46	0.95
2:B:207:ILE:HG13	2:B:503:VAL:HG23	1.48	0.95
16:P:488:LEU:CD2	18:R:138:PHE:CD1	2.40	0.95
18:R:303:THR:HG21	18:R:360:GLU:OE1	1.64	0.95
1:A:474:LYS:NZ	2:B:1092:LEU:HA	1.80	0.95
1:A:1049:MET:CB	1:A:1052:GLY:CA	2.44	0.95
16:P:405:TYR:HE1	16:P:414:ILE:HG23	1.31	0.95
1:A:1049:MET:HB3	1:A:1052:GLY:HA2	1.42	0.95
1:A:1484:LEU:HD13	2:B:305:ARG:NE	1.81	0.95
2:B:796:ARG:CZ	10:J:8:PHE:O	2.14	0.95
15:O:243:GLU:HB3	15:O:332:LEU:HD13	1.48	0.95
1:A:1322:ILE:CD1	1:A:1457:ILE:CD1	2.43	0.95
17:Q:414:TYR:HD1	18:R:240:ILE:HG13	1.29	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:990:ILE:HD12	1:A:994:GLU:C	1.92	0.95
2:B:182:GLN:HE22	10:J:69:ARG:HB3	1.23	0.95
18:R:199:LYS:HE2	18:R:204:GLU:N	1.82	0.95
1:A:474:LYS:O	2:B:1070:ARG:CA	2.14	0.95
17:Q:9:ILE:HG13	17:Q:10:CYS:N	1.77	0.95
17:Q:378:LEU:CD2	18:R:216:LEU:HD23	1.96	0.95
18:R:199:LYS:CE	18:R:204:GLU:CB	2.32	0.95
1:A:1310:LYS:CG	1:A:1311:GLU:CD	2.26	0.94
1:A:1317:ILE:HG21	1:A:1460:TYR:CE1	2.01	0.94
2:B:207:ILE:HG13	2:B:503:VAL:HG22	1.47	0.94
15:O:63:LEU:HD12	15:O:71:ILE:HG13	1.47	0.94
18:R:250:LEU:HD13	18:R:298:GLN:HG2	0.97	0.94
2:B:152:LEU:CA	2:B:443:LYS:HE3	1.96	0.94
2:B:1003:ALA:CA	14:N:169:GLU:H	1.80	0.94
16:P:436:ILE:HB	18:R:143:THR:HG21	1.48	0.94
15:O:200:ASN:CG	17:Q:14:ASN:CG	2.34	0.94
1:A:545:SER:N	17:Q:34:VAL:HG23	1.77	0.94
1:A:1322:ILE:CB	1:A:1454:HIS:NE2	2.30	0.94
2:B:49:PHE:HB2	2:B:164:MET:HE3	1.47	0.94
2:B:548:LYS:HE3	2:B:695:ASN:CG	1.92	0.94
1:A:1484:LEU:HD13	2:B:305:ARG:NH2	1.82	0.94
16:P:390:GLN:CG	18:R:152:ILE:HA	1.97	0.94
1:A:474:LYS:HZ1	2:B:1092:LEU:HD22	1.30	0.94
1:A:543:LEU:HB2	17:Q:34:VAL:O	1.67	0.94
1:A:545:SER:HB3	17:Q:34:VAL:CG2	1.96	0.94
1:A:990:ILE:CD1	1:A:995:TYR:HA	1.96	0.94
16:P:197:ARG:HE	16:P:261:VAL:H	1.16	0.94
17:Q:22:ILE:HD11	17:Q:26:ARG:NE	1.81	0.94
17:Q:193:PHE:HD2	18:R:208:TYR:CG	1.84	0.94
17:Q:341:ARG:NH1	17:Q:369:TRP:HE1	1.65	0.94
17:Q:351:ASN:CG	17:Q:369:TRP:CZ2	2.45	0.94
17:Q:388:THR:HA	18:R:209:ARG:CG	1.98	0.94
1:A:991:LYS:HB3	1:A:993:GLN:HB2	1.49	0.94
2:B:71:LYS:HD3	2:B:421:LEU:HD13	1.46	0.94
1:A:506:THR:CG2	1:A:579:ARG:O	2.15	0.94
2:B:152:LEU:HB3	2:B:443:LYS:HE2	1.50	0.94
15:O:234:ILE:CG2	15:O:237:ILE:CG1	2.31	0.94
17:Q:341:ARG:NH1	17:Q:369:TRP:NE1	2.16	0.94
18:R:271:LEU:HD13	18:R:312:TYR:HB3	1.49	0.94
2:B:182:GLN:NE2	10:J:69:ARG:CB	2.32	0.93
15:O:233:LEU:O	15:O:237:ILE:HD12	1.65	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:376:TYR:CD1	15:O:419:LYS:HE2	2.02	0.93
16:P:187:ILE:HG22	18:R:195:LEU:CD2	1.77	0.93
17:Q:188:ALA:HB3	17:Q:384:GLN:CB	1.98	0.93
17:Q:193:PHE:CD2	18:R:208:TYR:HB2	2.03	0.93
18:R:250:LEU:HD21	18:R:308:PHE:CD2	2.02	0.93
1:A:613:THR:HG21	2:B:913:ILE:CG2	1.98	0.93
1:A:720:PHE:CE2	8:H:141:TYR:HE2	1.85	0.93
16:P:438:TRP:HB2	18:R:141:TRP:HE1	1.20	0.93
1:A:756:LYS:CD	9:I:85:LYS:HZ1	1.53	0.93
16:P:488:LEU:CD2	18:R:138:PHE:CE2	2.51	0.93
17:Q:416:ILE:HG22	18:R:265:SER:HB2	1.50	0.93
2:B:890:ASP:O	12:L:54:ARG:CD	2.15	0.93
1:A:1600:ARG:HD2	1:A:1616:GLU:OE1	1.67	0.93
2:B:1093:LEU:O	2:B:1098:TYR:HB2	1.67	0.93
16:P:486:ALA:CB	18:R:137:SER:OG	2.16	0.93
1:A:672:ASP:OD2	2:B:777:SER:HB3	1.67	0.93
1:A:474:LYS:O	2:B:1070:ARG:HB2	1.66	0.93
1:A:938:VAL:HG22	9:I:82:ILE:HD13	1.49	0.93
1:A:1314:GLN:HE22	1:A:1446:ARG:HD2	1.28	0.93
1:A:436:ALA:HA	1:A:439:ASP:O	1.68	0.93
1:A:506:THR:CB	1:A:579:ARG:O	2.16	0.93
17:Q:15:CYS:CB	17:Q:16:PRO:HA	1.98	0.93
17:Q:385:PHE:HD2	18:R:212:HIS:CD2	1.82	0.93
15:O:376:TYR:CZ	15:O:588:LEU:HD21	2.03	0.93
18:R:236:PHE:HZ	18:R:253:ILE:CD1	1.47	0.93
1:A:684:ASP:OD2	8:H:20:TYR:HB3	1.69	0.92
18:R:301:SER:CA	18:R:358:PHE:HE1	1.79	0.92
17:Q:26:ARG:CB	17:Q:34:VAL:HG13	1.99	0.92
1:A:506:THR:HA	1:A:579:ARG:O	1.67	0.92
1:A:630:GLY:N	2:B:926:VAL:HG21	1.85	0.92
2:B:202:LEU:HD23	2:B:202:LEU:H	1.34	0.92
2:B:266:LYS:CG	2:B:473:GLN:O	2.18	0.92
14:N:87:TYR:CB	14:N:141:GLU:HA	1.93	0.92
18:R:82:ARG:NH1	18:R:291:ARG:HA	1.83	0.92
1:A:953:GLU:C	1:A:1205:PHE:CB	2.43	0.92
1:A:436:ALA:O	1:A:439:ASP:C	2.11	0.92
16:P:21:GLN:CB	18:R:139:GLU:CD	2.42	0.92
1:A:545:SER:CA	17:Q:34:VAL:CG2	2.36	0.92
2:B:209:GLN:HG2	2:B:210:ARG:H	1.31	0.92
16:P:354:PRO:CG	18:R:31:PHE:CG	2.52	0.92
1:A:403:LEU:O	1:A:406:LEU:HG	1.70	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:75:ASP:N	2:B:440:PHE:HE2	1.65	0.92
2:B:1002:LYS:HD3	14:N:166:LEU:C	1.93	0.92
17:Q:22:ILE:HD12	17:Q:24:ASP:OD2	1.68	0.92
1:A:407:GLN:HE21	1:A:407:GLN:H	0.94	0.91
2:B:1002:LYS:HD2	14:N:166:LEU:HB2	1.51	0.91
3:C:294:VAL:O	3:C:297:HIS:HB3	1.70	0.91
16:P:24:SER:HB2	18:R:318:ILE:HD11	1.50	0.91
17:Q:414:TYR:CE1	18:R:240:ILE:CG2	2.51	0.91
2:B:64:GLY:HA2	2:B:242:ASP:CB	2.00	0.91
1:A:1049:MET:HB3	1:A:1052:GLY:H	1.35	0.91
1:A:1314:GLN:HE22	1:A:1446:ARG:CD	1.83	0.91
15:O:247:GLU:OE1	15:O:325:ILE:HA	1.70	0.91
17:Q:15:CYS:HB3	17:Q:16:PRO:CA	2.00	0.91
18:R:199:LYS:CD	18:R:204:GLU:HB3	2.00	0.91
1:A:507:TYR:CE1	1:A:508:PRO:O	2.24	0.91
16:P:357:LEU:HD21	18:R:23:TYR:CE1	2.05	0.91
1:A:634:ASN:ND2	2:B:1069:ILE:HG21	1.85	0.91
2:B:849:GLY:CA	12:L:60:ARG:NH2	2.17	0.91
16:P:436:ILE:HG22	18:R:143:THR:CA	1.99	0.91
18:R:224:VAL:CG2	18:R:256:GLU:OE2	2.18	0.91
1:A:436:ALA:CB	1:A:443:ALA:HB2	2.00	0.91
1:A:878:ARG:CD	9:I:66:VAL:HG21	2.00	0.91
2:B:548:LYS:HE3	2:B:695:ASN:OD1	1.70	0.91
16:P:438:TRP:CE2	18:R:297:PHE:CZ	2.57	0.91
1:A:670:ILE:HG12	2:B:783:MET:CE	2.01	0.91
1:A:995:TYR:OH	2:B:715:ASN:ND2	2.04	0.91
17:Q:3:THR:HG22	17:Q:20:TRP:HB2	1.53	0.91
18:R:247:ILE:H	18:R:247:ILE:HD13	1.35	0.91
1:A:470:HIS:HD2	2:B:1058:GLN:OE1	1.54	0.91
1:A:862:THR:HB	9:I:67:VAL:HG12	1.50	0.91
1:A:1604:GLU:O	1:A:1612:LYS:HE2	1.70	0.91
17:Q:9:ILE:CG1	17:Q:10:CYS:H	1.79	0.91
2:B:266:LYS:CE	2:B:473:GLN:O	2.19	0.91
17:Q:381:MET:CE	18:R:212:HIS:CA	2.49	0.91
18:R:301:SER:C	18:R:358:PHE:CZ	2.48	0.91
1:A:1326:GLU:OE1	1:A:1455:ARG:N	2.03	0.90
2:B:549:CYS:SG	2:B:649:MET:CG	2.57	0.90
3:C:272:LYS:CG	14:N:175:TYR:CE1	2.54	0.90
6:F:70:LYS:CD	7:G:95:LEU:HD23	2.01	0.90
7:G:159:LYS:HB3	15:O:105:ASN:HD22	1.34	0.90
16:P:472:ARG:NE	18:R:200:THR:HG23	1.87	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:272:LYS:HG2	14:N:175:TYR:HD1	1.28	0.90
16:P:443:ASP:CB	18:R:3:GLU:CB	2.19	0.90
17:Q:385:PHE:CD2	18:R:212:HIS:CG	2.60	0.90
6:F:66:ARG:NH2	7:G:90:LEU:HD12	1.85	0.90
7:G:241:ARG:NH1	15:O:189:PHE:CB	2.35	0.90
17:Q:19:LEU:HD11	17:Q:27:ARG:HB3	1.54	0.90
1:A:403:LEU:CD1	1:A:419:ILE:CG2	2.45	0.90
1:A:1484:LEU:CD1	2:B:305:ARG:NE	2.34	0.90
18:R:202:THR:HA	18:R:205:VAL:CG2	2.02	0.90
1:A:435:ASN:CB	1:A:442:LYS:CB	2.49	0.90
1:A:1650:GLY:C	1:A:1652:GLY:H	1.79	0.90
7:G:144:HIS:NE2	15:O:145:SER:CB	2.34	0.90
1:A:486:PRO:O	2:B:781:TYR:CE2	2.25	0.90
1:A:826:PHE:CD1	2:B:777:SER:HB2	2.07	0.90
2:B:1092:LEU:CA	2:B:1096:SER:HB2	2.02	0.90
18:R:229:TRP:HH2	18:R:259:ASP:CB	1.81	0.90
1:A:436:ALA:HB2	1:A:443:ALA:CB	2.01	0.89
1:A:1313:LEU:CG	1:A:1462:PHE:CZ	2.54	0.89
1:A:1326:GLU:CD	1:A:1454:HIS:C	2.39	0.89
1:A:408:LYS:CA	1:A:411:VAL:HB	2.02	0.89
15:O:376:TYR:CE1	15:O:588:LEU:HD21	2.07	0.89
18:R:229:TRP:CE3	18:R:260:ASN:HA	2.08	0.89
1:A:1314:GLN:OE1	1:A:1446:ARG:HD2	1.73	0.89
1:A:878:ARG:HD2	9:I:66:VAL:HG21	1.54	0.89
2:B:64:GLY:HA2	2:B:242:ASP:HB3	1.54	0.89
17:Q:375:LEU:CG	18:R:231:LEU:HD11	2.01	0.89
1:A:581:ILE:HG13	1:A:585:ASP:OD2	1.71	0.89
1:A:634:ASN:HD21	2:B:1069:ILE:HG21	1.37	0.89
1:A:1053:ASP:O	1:A:1055:ILE:HG12	1.73	0.89
1:A:1276:THR:HG1	9:I:45:LEU:HD12	1.10	0.89
2:B:894:LYS:HG3	12:L:54:ARG:HH22	0.74	0.89
15:O:373:LEU:O	15:O:376:TYR:CB	2.21	0.89
6:F:74:ILE:HG12	6:F:75:PRO:HD2	0.95	0.89
17:Q:20:TRP:CZ3	17:Q:22:ILE:HG21	2.08	0.89
18:R:201:SER:O	18:R:205:VAL:CG2	2.20	0.89
1:A:990:ILE:HG13	1:A:995:TYR:H	1.35	0.89
1:A:579:ARG:HH12	1:A:581:ILE:HA	1.34	0.88
3:C:272:LYS:CG	14:N:175:TYR:CD1	2.56	0.88
16:P:399:TRP:CZ2	18:R:87:VAL:HG23	2.08	0.88
1:A:579:ARG:NH1	1:A:581:ILE:HA	1.88	0.88
1:A:1276:THR:C	9:I:44:ASN:HA	1.99	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:551:ILE:CG2	2:B:647:SER:HA	2.02	0.88
18:R:202:THR:HA	18:R:205:VAL:HG21	1.52	0.88
1:A:535:GLN:HE22	17:Q:26:ARG:HD3	1.06	0.88
6:F:70:LYS:HD3	7:G:95:LEU:HD23	1.53	0.88
17:Q:341:ARG:CZ	17:Q:369:TRP:HE1	1.85	0.88
3:C:274:THR:HA	14:N:172:ALA:HB2	0.90	0.88
2:B:534:PRO:HA	2:B:720:GLN:OE1	1.73	0.88
2:B:743:ARG:NH2	10:J:60:PHE:HZ	1.71	0.88
15:O:240:ILE:CG2	15:O:380:SER:CB	2.42	0.88
17:Q:20:TRP:CH2	17:Q:22:ILE:CG2	2.56	0.88
1:A:878:ARG:CB	9:I:67:VAL:HG13	1.97	0.88
2:B:26:ILE:O	10:J:62:ARG:NH1	2.05	0.88
3:C:230:LEU:HD12	3:C:231:PRO:CD	2.04	0.88
1:A:435:ASN:O	1:A:439:ASP:CB	2.20	0.88
2:B:75:ASP:N	2:B:440:PHE:CE2	2.41	0.88
2:B:1089:GLN:HG3	2:B:1093:LEU:HD13	1.50	0.88
7:G:144:HIS:NE2	15:O:145:SER:C	2.31	0.88
1:A:438:ILE:O	1:A:457:LYS:HB2	1.72	0.88
1:A:966:LEU:HD21	1:A:997:PHE:CE1	2.09	0.88
1:A:1263:LEU:HA	1:A:1498:ILE:HD11	1.54	0.88
1:A:1313:LEU:HD23	1:A:1462:PHE:HZ	1.38	0.88
1:A:1603:MET:HE2	1:A:1615:TYR:HD2	1.39	0.88
16:P:248:PRO:HD2	16:P:267:ASN:HB3	1.54	0.88
18:R:233:TYR:HE1	18:R:264:SER:OG	1.49	0.88
1:A:954:GLY:N	1:A:1205:PHE:CB	2.37	0.88
1:A:1322:ILE:CG2	1:A:1454:HIS:NE2	2.37	0.88
1:A:1660:VAL:O	7:G:102:GLU:HA	1.74	0.88
17:Q:388:THR:HA	18:R:209:ARG:HG2	1.55	0.88
18:R:199:LYS:CE	18:R:204:GLU:HA	2.03	0.88
1:A:627:ASP:O	2:B:784:ASP:HB3	1.73	0.87
1:A:756:LYS:CG	9:I:85:LYS:HZ2	1.87	0.87
1:A:954:GLY:N	1:A:1205:PHE:HB2	1.90	0.87
7:G:159:LYS:H	15:O:105:ASN:CG	1.82	0.87
17:Q:12:THR:CB	17:Q:33:HIS:ND1	2.37	0.87
17:Q:188:ALA:HB3	17:Q:384:GLN:HB3	1.55	0.87
1:A:543:LEU:O	17:Q:34:VAL:O	1.92	0.87
15:O:517:LEU:HD23	15:O:525:MET:HE3	1.56	0.87
18:R:250:LEU:CD2	18:R:308:PHE:CD2	2.57	0.87
3:C:229:LEU:O	3:C:293:ARG:NH1	2.07	0.87
2:B:679:GLN:CD	14:N:157:ARG:HA	1.99	0.87
14:N:86:ASP:O	14:N:141:GLU:HG2	1.71	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:250:LEU:CD2	18:R:308:PHE:HD2	1.86	0.87
16:P:186:TYR:C	18:R:195:LEU:HD22	2.00	0.87
16:P:350:THR:HG21	18:R:156:LYS:N	1.88	0.87
1:A:1313:LEU:CD2	1:A:1462:PHE:HZ	1.88	0.87
1:A:1482:LYS:CD	2:B:304:ASP:OD1	2.22	0.87
15:O:376:TYR:CZ	15:O:377:TYR:CZ	2.63	0.87
15:O:376:TYR:HE1	15:O:588:LEU:HD22	1.38	0.87
16:P:185:GLN:O	18:R:195:LEU:HD13	1.75	0.87
16:P:186:TYR:HD1	18:R:196:GLU:O	1.53	0.87
16:P:399:TRP:CZ2	18:R:87:VAL:CG2	2.57	0.87
18:R:173:MET:HG3	18:R:188:PHE:HZ	1.36	0.87
18:R:247:ILE:HB	18:R:249:SER:OG	1.75	0.87
1:A:1484:LEU:HD23	2:B:304:ASP:HB3	1.56	0.87
16:P:694:ILE:HB	16:P:746:ARG:HD3	1.54	0.87
17:Q:375:LEU:HD21	18:R:231:LEU:HD11	0.88	0.87
13:M:102:SER:O	13:M:105:SER:C	2.17	0.87
16:P:197:ARG:HD2	16:P:261:VAL:N	1.89	0.87
16:P:438:TRP:HB2	18:R:141:TRP:CZ2	2.09	0.87
17:Q:29:CYS:SG	17:Q:33:HIS:HB2	2.15	0.87
2:B:143:TRP:CE2	2:B:446:MET:CB	2.58	0.87
2:B:679:GLN:CG	14:N:156:PRO:CA	2.43	0.87
2:B:679:GLN:CD	14:N:157:ARG:CA	2.48	0.87
2:B:800:TYR:OH	2:B:908:ARG:NH2	2.07	0.87
16:P:475:ARG:HH22	17:Q:360:LYS:HD2	1.38	0.87
1:A:413:LEU:O	1:A:416:ARG:HG2	1.73	0.86
1:A:1056:ASP:HA	1:A:1179:ILE:HD13	1.57	0.86
2:B:149:GLU:OE1	2:B:441:LYS:CE	2.23	0.86
2:B:1072:GLY:N	2:B:1075:GLU:HG2	1.80	0.86
2:B:1151:ILE:HG12	7:G:21:LYS:NZ	1.88	0.86
17:Q:15:CYS:HB3	17:Q:16:PRO:C	1.98	0.86
1:A:547:ILE:CG1	17:Q:26:ARG:HH22	1.87	0.86
1:A:1085:LEU:HD22	6:F:84:TYR:OH	1.74	0.86
11:K:66:VAL:HG12	11:K:67:GLU:HG2	1.57	0.86
15:O:243:GLU:OE1	15:O:328:LEU:CD2	2.08	0.86
18:R:15:GLN:CD	18:R:184:ASN:ND2	2.29	0.86
15:O:181:ARG:HB2	15:O:181:ARG:HH11	1.41	0.86
1:A:756:LYS:CG	9:I:85:LYS:NZ	2.38	0.86
1:A:1322:ILE:HD12	1:A:1457:ILE:HD12	1.58	0.86
2:B:145:VAL:CG1	2:B:441:LYS:HG2	2.04	0.86
1:A:1317:ILE:HG22	1:A:1460:TYR:CE1	2.09	0.86
6:F:74:ILE:C	7:G:95:LEU:HD11	2.01	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:238:ILE:O	15:O:242:VAL:HG23	1.75	0.86
1:A:477:ASN:ND2	2:B:1049:THR:OG1	2.09	0.86
17:Q:381:MET:CE	18:R:212:HIS:HA	2.06	0.86
1:A:478:TYR:CD1	2:B:1048:SER:O	2.29	0.86
15:O:248:LEU:HD11	15:O:598:PHE:CD2	1.86	0.86
16:P:186:TYR:O	18:R:195:LEU:HA	1.75	0.86
17:Q:409:ALA:O	17:Q:413:LEU:HB2	1.74	0.86
18:R:310:ILE:HB	18:R:363:GLU:OE2	1.73	0.86
1:A:1314:GLN:NE2	1:A:1446:ARG:CZ	2.38	0.86
2:B:266:LYS:HE3	2:B:473:GLN:C	1.99	0.86
15:O:247:GLU:OE1	15:O:325:ILE:CB	2.20	0.86
1:A:436:ALA:CA	1:A:439:ASP:O	2.24	0.86
16:P:438:TRP:NE1	18:R:297:PHE:CZ	1.75	0.86
17:Q:194:GLN:HG2	18:R:209:ARG:HH11	1.40	0.86
1:A:998:HIS:O	2:B:712:SER:OG	1.92	0.85
1:A:1326:GLU:OE2	1:A:1454:HIS:CA	2.24	0.85
2:B:143:TRP:CE2	2:B:446:MET:CG	2.58	0.85
15:O:200:ASN:HB2	17:Q:14:ASN:HA	1.58	0.85
1:A:613:THR:HG21	2:B:913:ILE:HG21	1.57	0.85
2:B:849:GLY:HA3	12:L:60:ARG:NH2	1.89	0.85
7:G:241:ARG:HH11	15:O:189:PHE:HB3	1.40	0.85
1:A:1262:LEU:CD2	1:A:1497:ILE:HG12	2.06	0.85
2:B:143:TRP:CB	2:B:446:MET:HE1	1.94	0.85
2:B:207:ILE:HD11	2:B:503:VAL:CG2	2.03	0.85
3:C:293:ARG:N	3:C:295:ARG:NH1	2.23	0.85
7:G:159:LYS:CA	15:O:105:ASN:ND2	2.38	0.85
3:C:37:LYS:O	11:K:134:LYS:NZ	2.09	0.85
3:C:293:ARG:H	3:C:295:ARG:NH1	1.72	0.85
1:A:1032:VAL:HG21	1:A:1050:TYR:CD1	2.11	0.85
1:A:1330:VAL:HG21	1:A:1455:ARG:NE	1.91	0.85
15:O:200:ASN:HB2	17:Q:14:ASN:HB2	0.96	0.85
15:O:240:ILE:HG22	15:O:380:SER:HB2	1.58	0.85
2:B:894:LYS:CD	12:L:47:ARG:NE	2.40	0.85
2:B:985:ILE:HB	14:N:160:VAL:HG22	1.59	0.85
3:C:58:ASN:HA	3:C:296:ASN:HD22	1.38	0.85
17:Q:101:LYS:HG2	17:Q:152:LEU:HD11	1.58	0.85
1:A:408:LYS:HA	1:A:411:VAL:HB	1.55	0.85
6:F:74:ILE:O	7:G:95:LEU:HD13	1.72	0.85
13:M:102:SER:CB	13:M:105:SER:CB	2.02	0.85
17:Q:414:TYR:HE1	18:R:240:ILE:CG2	1.89	0.85
18:R:224:VAL:HG21	18:R:256:GLU:HG3	1.57	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:564:PRO:CG	15:O:370:THR:O	2.25	0.85
1:A:1606:SER:CB	1:A:1611:MET:HE3	2.06	0.85
2:B:143:TRP:CE2	2:B:446:MET:HG3	2.11	0.85
7:G:144:HIS:ND1	15:O:146:SER:OG	2.10	0.85
18:R:201:SER:O	18:R:205:VAL:HG23	1.75	0.85
1:A:399:LEU:HD21	1:A:423:LEU:HG	1.59	0.85
1:A:477:ASN:C	2:B:1047:ARG:HD3	2.01	0.85
17:Q:414:TYR:CD1	18:R:240:ILE:HG13	2.11	0.85
1:A:422:ARG:HH12	18:R:412:ARG:CD	1.87	0.84
2:B:1069:ILE:O	2:B:1070:ARG:HB3	1.76	0.84
15:O:181:ARG:HH11	15:O:181:ARG:CB	1.89	0.84
1:A:474:LYS:HZ2	2:B:1092:LEU:HD23	1.40	0.84
1:A:475:ARG:CZ	2:B:1061:LYS:CB	2.56	0.84
2:B:143:TRP:CE3	2:B:446:MET:HE3	2.11	0.84
1:A:990:ILE:HD12	1:A:994:GLU:O	1.77	0.84
15:O:247:GLU:OE1	15:O:325:ILE:CA	2.25	0.84
1:A:938:VAL:CG2	9:I:82:ILE:HD13	2.07	0.84
2:B:623:ASP:O	2:B:648:ARG:NH1	2.10	0.84
16:P:438:TRP:CB	18:R:141:TRP:CZ2	2.60	0.84
7:G:141:SER:HB3	15:O:142:ILE:HD11	1.58	0.84
15:O:248:LEU:CD1	15:O:598:PHE:HE2	1.54	0.84
3:C:322:LYS:HE3	11:K:129:ASP:OD1	1.77	0.84
6:F:72:LYS:CB	6:F:142:SER:HB2	2.05	0.84
18:R:224:VAL:HG21	18:R:256:GLU:CD	2.02	0.84
1:A:878:ARG:CG	9:I:67:VAL:CG1	2.55	0.84
2:B:346:ASP:OD1	13:M:113:ILE:HG23	1.76	0.84
1:A:435:ASN:O	1:A:439:ASP:C	2.21	0.84
1:A:475:ARG:NH2	2:B:1061:LYS:HB2	1.92	0.84
13:M:102:SER:CB	13:M:105:SER:H	1.90	0.84
2:B:346:ASP:H	13:M:113:ILE:HG12	1.40	0.84
2:B:848:ILE:CA	12:L:60:ARG:HD2	2.08	0.84
2:B:1089:GLN:CG	2:B:1093:LEU:HB2	2.06	0.84
1:A:986:PHE:CD2	2:B:958:MET:HE2	2.13	0.84
1:A:1032:VAL:HG21	1:A:1050:TYR:CE1	2.12	0.84
2:B:894:LYS:CG	12:L:54:ARG:CZ	2.56	0.84
7:G:241:ARG:NH1	15:O:189:PHE:HB3	1.92	0.84
16:P:391:THR:CG2	18:R:149:LYS:CG	2.48	0.84
18:R:168:ILE:HG23	18:R:169:PRO:HD3	1.58	0.84
18:R:229:TRP:CE2	18:R:259:ASP:O	2.31	0.84
2:B:399:HIS:O	2:B:400:GLN:HG2	1.77	0.83
17:Q:374:THR:HG23	18:R:219:LEU:CG	2.00	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:475:ARG:HB3	2:B:1059:PRO:HB2	1.57	0.83
2:B:1089:GLN:CB	2:B:1093:LEU:HD22	2.09	0.83
1:A:544:VAL:HG13	17:Q:32:GLY:O	1.79	0.83
16:P:389:TRP:CZ3	18:R:149:LYS:O	2.32	0.83
17:Q:375:LEU:CD2	18:R:231:LEU:CD1	2.33	0.83
1:A:629:ASP:OD1	2:B:926:VAL:HG23	1.79	0.83
2:B:119:ARG:CZ	12:L:53:HIS:CE1	2.61	0.83
3:C:59:ILE:O	3:C:296:ASN:HB2	1.78	0.83
15:O:245:GLN:NE2	15:O:379:ARG:HB2	1.93	0.83
17:Q:194:GLN:HE21	18:R:209:ARG:NE	1.76	0.83
18:R:199:LYS:NZ	18:R:204:GLU:HA	1.93	0.83
1:A:506:THR:CA	1:A:579:ARG:O	2.26	0.83
1:A:672:ASP:OD1	2:B:777:SER:OG	1.96	0.83
2:B:697:LEU:HB2	2:B:702:ASN:CG	2.03	0.83
18:R:199:LYS:HZ1	18:R:204:GLU:HA	1.41	0.83
18:R:362:ALA:HB2	18:R:421:LYS:HB3	1.59	0.83
1:A:532:GLY:C	1:A:580:HIS:HD1	1.86	0.83
1:A:407:GLN:HB3	1:A:409:ASP:H	1.43	0.83
1:A:435:ASN:CB	1:A:442:LYS:HB3	2.08	0.83
16:P:475:ARG:HH22	17:Q:360:LYS:CD	1.91	0.83
18:R:82:ARG:NH1	18:R:291:ARG:CA	2.39	0.83
2:B:1002:LYS:HD2	14:N:166:LEU:CB	2.09	0.83
13:M:102:SER:C	13:M:105:SER:H	1.86	0.83
1:A:422:ARG:NH1	18:R:412:ARG:CD	2.42	0.83
1:A:478:TYR:O	1:A:479:ALA:HB2	1.79	0.83
6:F:74:ILE:O	7:G:95:LEU:HD12	1.79	0.83
1:A:966:LEU:CD2	1:A:997:PHE:CE1	2.61	0.82
1:A:1655:ASP:HB2	6:F:135:ARG:HB3	1.58	0.82
7:G:24:VAL:HG11	7:G:126:GLN:NE2	1.95	0.82
16:P:323:ASN:HA	16:P:350:THR:HA	1.61	0.82
1:A:824:THR:O	2:B:1023:ARG:N	2.12	0.82
2:B:25:PHE:CE1	10:J:59:LYS:HD2	2.13	0.82
2:B:566:TYR:HB3	13:M:74:ASN:OD1	1.79	0.82
1:A:999:CYS:HA	2:B:712:SER:HB3	1.57	0.82
1:A:1297:PHE:CE2	9:I:60:LEU:HD22	2.13	0.82
17:Q:20:TRP:CE3	17:Q:22:ILE:HG23	2.15	0.82
1:A:535:GLN:HE21	17:Q:26:ARG:HD3	1.44	0.82
2:B:550:ARG:O	2:B:649:MET:HA	1.79	0.82
15:O:376:TYR:CE1	15:O:419:LYS:HE2	2.15	0.82
16:P:486:ALA:HB1	18:R:137:SER:OG	1.79	0.82
17:Q:15:CYS:HB3	17:Q:16:PRO:HA	1.60	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:252:GLY:O	18:R:256:GLU:HB2	1.79	0.82
1:A:473:GLY:HA2	2:B:1072:GLY:HA2	1.60	0.82
1:A:719:ILE:HG12	8:H:97:MET:HG2	1.62	0.82
1:A:1276:THR:OG1	9:I:45:LEU:HD13	1.78	0.82
1:A:1322:ILE:HG21	1:A:1454:HIS:CE1	2.08	0.82
3:C:253:PRO:CD	14:N:180:PHE:CB	1.85	0.82
18:R:426:VAL:HG12	18:R:428:SER:H	1.45	0.82
1:A:478:TYR:CG	2:B:1048:SER:O	2.33	0.82
2:B:49:PHE:CE2	2:B:194:PHE:CZ	2.68	0.82
2:B:1049:THR:HG23	2:B:1050:GLY:N	1.92	0.82
1:A:718:THR:O	8:H:98:TYR:N	2.11	0.82
2:B:985:ILE:HB	14:N:160:VAL:HG21	1.59	0.82
2:B:1092:LEU:HA	2:B:1096:SER:CB	2.09	0.82
2:B:566:TYR:HD2	13:M:73:SER:HG	1.20	0.82
16:P:186:TYR:CE1	18:R:196:GLU:O	2.32	0.82
18:R:199:LYS:CE	18:R:203:SER:C	2.52	0.82
1:A:828:CYS:HB3	2:B:1027:TYR:HB2	1.60	0.82
1:A:966:LEU:CD2	1:A:997:PHE:CZ	2.62	0.82
2:B:610:TYR:HE1	2:B:658:LEU:HD11	1.44	0.82
2:B:889:GLY:CA	12:L:54:ARG:O	2.28	0.82
3:C:103:LEU:O	10:J:6:ARG:NE	2.11	0.82
6:F:70:LYS:HG2	7:G:95:LEU:HG	1.62	0.82
7:G:159:LYS:N	15:O:105:ASN:HD21	1.50	0.82
15:O:584:GLN:OE1	15:O:584:GLN:N	2.11	0.82
16:P:438:TRP:CG	18:R:141:TRP:HZ2	1.97	0.82
2:B:145:VAL:HG11	2:B:441:LYS:CG	2.09	0.81
16:P:436:ILE:CG2	18:R:143:THR:CA	2.57	0.81
18:R:229:TRP:HH2	18:R:259:ASP:HB2	1.33	0.81
13:M:61:GLU:OE2	13:M:106:LYS:CE	2.13	0.81
17:Q:188:ALA:HB1	17:Q:384:GLN:HG3	1.61	0.81
18:R:82:ARG:NH1	18:R:291:ARG:N	2.27	0.81
1:A:615:ARG:NH1	2:B:929:ARG:NE	2.28	0.81
1:A:995:TYR:CE2	2:B:708:ASP:CA	2.56	0.81
2:B:207:ILE:HG12	2:B:503:VAL:HG21	1.61	0.81
2:B:682:GLN:HA	14:N:154:ARG:NH2	1.92	0.81
16:P:355:GLU:O	18:R:24:ILE:HD12	1.80	0.81
18:R:25:ASN:CB	18:R:81:GLU:OE2	2.26	0.81
18:R:233:TYR:CZ	18:R:263:ASN:HB2	2.14	0.81
1:A:474:LYS:HZ3	2:B:1096:SER:CB	1.93	0.81
1:A:721:LYS:NZ	8:H:91:ASP:HA	1.96	0.81
2:B:776:ILE:HB	2:B:1026:ILE:HD13	1.60	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1093:LEU:CG	2:B:1094:ASN:OD1	2.29	0.81
3:C:334:THR:CG2	11:K:44:ARG:HB3	2.09	0.81
16:P:198:ASP:HB3	16:P:205:TYR:O	1.79	0.81
17:Q:414:TYR:HD1	18:R:240:ILE:CG1	1.92	0.81
1:A:480:ALA:HB2	2:B:1046:VAL:HG23	1.60	0.81
1:A:615:ARG:NH2	2:B:929:ARG:HG2	1.94	0.81
2:B:894:LYS:O	2:B:896:GLN:N	2.11	0.81
3:C:272:LYS:CB	14:N:175:TYR:CE1	2.64	0.81
7:G:144:HIS:HD2	15:O:146:SER:HA	1.42	0.81
17:Q:351:ASN:CB	17:Q:369:TRP:CZ2	2.62	0.81
1:A:672:ASP:CG	2:B:777:SER:HB3	2.04	0.81
1:A:756:LYS:CD	9:I:85:LYS:HZ3	1.69	0.81
1:A:1180:ASN:OD1	6:F:87:LYS:CD	2.25	0.81
1:A:1575:ILE:CA	9:I:122:ARG:NH1	2.43	0.81
13:M:102:SER:HB3	13:M:105:SER:CA	2.09	0.81
15:O:342:HIS:CE1	15:O:346:GLN:HE21	1.98	0.81
17:Q:20:TRP:HZ3	17:Q:22:ILE:HG22	0.65	0.81
17:Q:198:ILE:HG21	17:Q:388:THR:CG2	2.11	0.81
17:Q:374:THR:HG22	18:R:219:LEU:HD13	0.83	0.81
17:Q:188:ALA:CB	17:Q:384:GLN:HB3	2.10	0.81
17:Q:414:TYR:HE1	18:R:240:ILE:HG23	1.03	0.81
1:A:545:SER:CB	17:Q:34:VAL:HG23	2.08	0.81
2:B:850:THR:N	12:L:60:ARG:HH22	1.78	0.81
2:B:1003:ALA:O	14:N:170:HIS:CA	2.29	0.81
6:F:73:ALA:HA	6:F:143:PHE:O	1.80	0.81
14:N:87:TYR:CE2	14:N:141:GLU:OE1	2.34	0.81
17:Q:389:GLN:HG3	18:R:209:ARG:NH1	1.85	0.81
1:A:862:THR:HG22	9:I:67:VAL:CG1	2.10	0.81
2:B:75:ASP:HB3	2:B:440:PHE:CD2	2.15	0.81
18:R:304:HIS:CD2	18:R:361:ASP:OD1	2.34	0.81
1:A:984:GLY:N	1:A:994:GLU:OE2	2.13	0.80
1:A:1600:ARG:HH21	1:A:1617:THR:HG1	1.27	0.80
18:R:250:LEU:CD1	18:R:298:GLN:CG	2.49	0.80
1:A:477:ASN:HA	2:B:1047:ARG:NH1	1.95	0.80
1:A:1330:VAL:CG2	1:A:1455:ARG:NE	2.44	0.80
2:B:208:VAL:HG23	2:B:401:GLU:HG2	1.64	0.80
2:B:679:GLN:CD	14:N:157:ARG:N	2.39	0.80
16:P:321:LYS:H	16:P:321:LYS:HD3	1.46	0.80
17:Q:378:LEU:CD1	18:R:235:ILE:CD1	2.60	0.80
18:R:224:VAL:HG21	18:R:256:GLU:CG	2.10	0.80
1:A:990:ILE:O	1:A:992:PRO:N	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1329:ILE:CG2	1:A:1456:PHE:CZ	2.64	0.80
1:A:1657:LEU:HB2	6:F:133:VAL:HB	1.62	0.80
2:B:975:HIS:ND1	14:N:169:GLU:HG3	1.96	0.80
18:R:206:ARG:H	18:R:206:ARG:HE	1.26	0.80
1:A:1575:ILE:CB	9:I:122:ARG:NH1	2.44	0.80
2:B:551:ILE:HA	2:B:648:ARG:O	1.82	0.80
2:B:794:ASP:OD1	2:B:911:PRO:HD2	1.81	0.80
1:A:1049:MET:HG3	1:A:1053:ASP:N	1.97	0.80
1:A:1120:TYR:O	5:E:207:ARG:NH2	2.12	0.80
2:B:68:ILE:HG23	2:B:71:LYS:NZ	1.84	0.80
2:B:681:ILE:HB	14:N:154:ARG:CG	2.12	0.80
18:R:347:ASP:O	18:R:351:GLU:HB2	1.81	0.80
1:A:990:ILE:CD1	1:A:995:TYR:CA	2.60	0.80
16:P:352:PHE:CE2	18:R:157:MET:HE3	2.17	0.80
1:A:476:VAL:HG22	2:B:1070:ARG:N	1.97	0.80
1:A:581:ILE:HD12	1:A:637:PHE:CE1	2.17	0.80
2:B:29:PRO:HB2	2:B:177:PRO:HG2	1.62	0.80
2:B:567:SER:O	14:N:140:SER:HB3	1.81	0.80
2:B:1089:GLN:CD	2:B:1093:LEU:HD13	2.07	0.80
17:Q:351:ASN:CA	17:Q:369:TRP:HH2	1.92	0.80
1:A:954:GLY:CA	1:A:1205:PHE:CB	2.59	0.80
12:L:34:CYS:HB3	12:L:51:CYS:SG	2.21	0.80
16:P:357:LEU:HD11	18:R:23:TYR:HD1	1.45	0.80
17:Q:378:LEU:HD23	18:R:216:LEU:CD2	2.08	0.80
1:A:458:GLN:O	1:A:462:LYS:CB	2.26	0.80
1:A:1038:ILE:HD11	1:A:1050:TYR:HA	1.64	0.80
16:P:438:TRP:CB	18:R:141:TRP:HZ2	1.94	0.80
1:A:478:TYR:O	1:A:479:ALA:CB	2.29	0.79
15:O:235:GLU:O	15:O:238:ILE:HD12	1.81	0.79
3:C:272:LYS:HA	14:N:175:TYR:CE2	2.14	0.79
17:Q:418:PRO:HG2	18:R:233:TYR:OH	1.83	0.79
16:P:472:ARG:CD	18:R:198:LEU:O	2.29	0.79
16:P:498:LEU:CD1	17:Q:364:SER:OG	2.28	0.79
16:P:775:TRP:H	17:Q:109:GLN:HE22	1.28	0.79
1:A:535:GLN:NE2	17:Q:26:ARG:CD	2.34	0.79
1:A:721:LYS:HB3	8:H:96:VAL:HB	1.64	0.79
1:A:952:LEU:CD2	1:A:1004:GLU:HG3	2.07	0.79
2:B:796:ARG:HD2	10:J:8:PHE:HA	1.61	0.79
15:O:579:LEU:CA	15:O:582:ARG:HB3	2.11	0.79
15:O:234:ILE:HG23	15:O:237:ILE:CG1	2.06	0.79
1:A:671:GLN:OE1	2:B:952:HIS:HB2	1.83	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1049:MET:HG2	1:A:1052:GLY:CA	2.13	0.79
1:A:1310:LYS:HD3	1:A:1310:LYS:H	1.45	0.79
14:N:87:TYR:HA	14:N:141:GLU:HA	0.81	0.79
1:A:403:LEU:HD11	1:A:419:ILE:HG21	0.85	0.79
1:A:862:THR:HA	9:I:67:VAL:HA	1.65	0.79
6:F:66:ARG:HH22	7:G:90:LEU:CD1	1.94	0.79
16:P:438:TRP:CB	18:R:141:TRP:HE1	1.94	0.79
17:Q:188:ALA:HB2	18:R:208:TYR:CZ	2.17	0.79
1:A:991:LYS:N	1:A:994:GLU:CG	2.30	0.79
15:O:396:MET:HE1	15:O:433:LYS:C	2.08	0.79
1:A:407:GLN:CB	1:A:409:ASP:H	1.94	0.78
2:B:527:PHE:HZ	2:B:666:PRO:HA	1.39	0.78
17:Q:378:LEU:CD2	18:R:216:LEU:CD2	2.60	0.78
1:A:399:LEU:HD23	1:A:423:LEU:HD23	1.63	0.78
1:A:472:MET:HG3	2:B:1073:GLU:OE1	1.82	0.78
1:A:1482:LYS:HD2	2:B:307:GLU:OE1	1.81	0.78
2:B:551:ILE:HG23	2:B:648:ARG:H	1.48	0.78
16:P:368:HIS:HB3	16:P:411:LYS:HZ2	1.47	0.78
18:R:316:SER:HB3	18:R:349:ILE:HD11	1.66	0.78
2:B:346:ASP:CG	13:M:113:ILE:HG23	2.07	0.78
17:Q:389:GLN:CB	18:R:209:ARG:NH2	2.47	0.78
1:A:862:THR:HA	9:I:67:VAL:CA	2.13	0.78
1:A:984:GLY:HA3	1:A:994:GLU:CD	2.09	0.78
2:B:75:ASP:CB	2:B:440:PHE:CZ	2.66	0.78
14:N:88:LYS:N	14:N:140:SER:O	2.15	0.78
1:A:83:VAL:HG11	1:A:427:PHE:CZ	2.19	0.78
1:A:990:ILE:HG13	1:A:995:TYR:CA	2.14	0.78
2:B:49:PHE:CE2	2:B:194:PHE:HZ	2.01	0.78
18:R:313:LEU:CD1	18:R:353:VAL:CG2	2.62	0.78
1:A:878:ARG:CB	9:I:67:VAL:HG11	2.05	0.78
2:B:143:TRP:CZ2	2:B:446:MET:HA	2.18	0.78
6:F:72:LYS:C	6:F:143:PHE:H	1.91	0.78
15:O:201:LYS:HD2	15:O:239:SER:OG	1.82	0.78
1:A:862:THR:HA	9:I:67:VAL:CB	2.12	0.78
1:A:1049:MET:CG	1:A:1052:GLY:CA	2.62	0.78
2:B:532:HIS:NE2	2:B:723:LYS:NZ	2.31	0.78
6:F:66:ARG:NH2	7:G:90:LEU:HD13	1.98	0.78
16:P:187:ILE:HG23	18:R:195:LEU:HD22	1.62	0.78
1:A:996:TYR:CE2	2:B:530:PRO:HG3	2.19	0.78
13:M:102:SER:C	13:M:105:SER:N	2.40	0.78
1:A:1600:ARG:NE	1:A:1616:GLU:OE1	2.16	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:143:TRP:CH2	2:B:446:MET:HA	2.19	0.78
7:G:159:LYS:H	15:O:105:ASN:HD21	0.80	0.78
15:O:186:SER:O	15:O:190:ILE:HG22	1.84	0.78
15:O:435:SER:OG	15:O:438:GLN:HG3	1.84	0.78
17:Q:26:ARG:CB	17:Q:34:VAL:CG1	2.53	0.78
18:R:301:SER:HA	18:R:358:PHE:CE1	2.18	0.78
18:R:414:PHE:HA	18:R:417:ILE:HG22	1.66	0.78
2:B:25:PHE:O	10:J:62:ARG:HD2	1.83	0.77
2:B:49:PHE:HB2	2:B:164:MET:HE1	1.67	0.77
2:B:207:ILE:HD11	2:B:503:VAL:HG11	1.66	0.77
17:Q:351:ASN:HA	17:Q:369:TRP:CH2	2.19	0.77
18:R:199:LYS:HE3	18:R:203:SER:C	2.08	0.77
1:A:88:PRO:HG3	1:A:434:VAL:HG12	1.65	0.77
1:A:1032:VAL:CG2	1:A:1050:TYR:CD1	2.67	0.77
1:A:1314:GLN:CD	1:A:1446:ARG:CD	2.56	0.77
2:B:49:PHE:CB	2:B:164:MET:HE3	2.14	0.77
15:O:155:SER:HA	15:O:158:LEU:HD12	1.67	0.77
16:P:24:SER:CB	18:R:318:ILE:HD11	2.14	0.77
17:Q:12:THR:OG1	17:Q:33:HIS:ND1	2.17	0.77
1:A:435:ASN:CB	1:A:442:LYS:HB2	2.11	0.77
2:B:527:PHE:CD2	2:B:666:PRO:HB3	2.19	0.77
2:B:679:GLN:CG	14:N:155:VAL:O	2.32	0.77
7:G:143:SER:CB	15:O:104:ILE:CG2	2.17	0.77
15:O:461:VAL:HG13	15:O:467:MET:HE1	1.65	0.77
16:P:245:ILE:HG12	16:P:269:PHE:HB2	1.66	0.77
16:P:352:PHE:CD1	18:R:157:MET:CG	2.66	0.77
16:P:475:ARG:HH22	17:Q:360:LYS:CE	1.96	0.77
2:B:878:GLU:OE2	2:B:909:ARG:NH1	2.17	0.77
2:B:46:ILE:HA	2:B:164:MET:SD	2.25	0.77
2:B:184:LYS:HB3	2:B:735:HIS:ND1	1.99	0.77
2:B:202:LEU:HD11	2:B:499:HIS:HB3	1.67	0.77
3:C:315:PHE:CE2	11:K:139:ILE:HD12	2.20	0.77
1:A:478:TYR:HA	2:B:1048:SER:C	2.10	0.77
1:A:1484:LEU:CD2	2:B:304:ASP:HB3	2.14	0.77
2:B:49:PHE:CB	2:B:164:MET:CE	2.62	0.77
16:P:200:THR:HG21	16:P:280:ARG:NH1	1.99	0.77
16:P:438:TRP:CE2	18:R:297:PHE:CE1	2.73	0.77
16:P:698:LYS:HE2	17:Q:124:ARG:HH21	1.50	0.77
17:Q:378:LEU:CG	18:R:219:LEU:HD12	2.13	0.77
1:A:620:ASN:OD1	1:A:667:ARG:NH2	2.17	0.77
1:A:990:ILE:CD1	1:A:994:GLU:C	2.57	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1484:LEU:HD23	2:B:304:ASP:CB	2.15	0.77
1:A:1657:LEU:HD23	7:G:104:LEU:HB3	1.65	0.77
2:B:743:ARG:NH2	10:J:60:PHE:CE2	2.52	0.77
17:Q:17:SER:O	17:Q:29:CYS:CB	2.30	0.77
1:A:953:GLU:O	1:A:1205:PHE:CG	2.38	0.77
1:A:1204:THR:HG21	9:I:97:HIS:HB3	1.66	0.77
2:B:73:ILE:HD12	2:B:425:ILE:HG23	1.67	0.77
2:B:346:ASP:N	13:M:113:ILE:HG12	1.99	0.77
2:B:1096:SER:O	2:B:1097:ASP:HB3	1.84	0.77
7:G:144:HIS:CD2	15:O:146:SER:OG	2.37	0.77
2:B:679:GLN:CG	14:N:156:PRO:HA	2.14	0.77
2:B:894:LYS:HG3	12:L:54:ARG:CZ	2.15	0.77
3:C:142:ARG:CZ	10:J:67:GLU:OE2	2.33	0.77
15:O:376:TYR:CG	15:O:419:LYS:HE2	2.19	0.77
18:R:250:LEU:HD23	18:R:308:PHE:HD2	1.49	0.77
16:P:475:ARG:HH11	18:R:1:MET:HB3	1.50	0.76
17:Q:381:MET:SD	18:R:212:HIS:CD2	2.78	0.76
1:A:1299:ASN:OD1	1:A:1467:GLY:C	2.28	0.76
16:P:447:THR:HG21	18:R:197:PRO:HD2	1.64	0.76
17:Q:418:PRO:HD2	18:R:233:TYR:HH	0.94	0.76
18:R:316:SER:HB2	18:R:349:ILE:HD13	1.67	0.76
2:B:119:ARG:NH2	12:L:53:HIS:CE1	2.52	0.76
2:B:1089:GLN:CG	2:B:1093:LEU:CD1	2.59	0.76
3:C:253:PRO:CD	14:N:180:PHE:HD1	1.90	0.76
1:A:409:ASP:OD1	1:A:410:LYS:N	2.19	0.76
1:A:547:ILE:HG13	17:Q:26:ARG:HH22	1.48	0.76
16:P:475:ARG:NH2	17:Q:360:LYS:HD2	1.99	0.76
1:A:999:CYS:HA	2:B:712:SER:OG	1.86	0.76
2:B:563:SER:CB	13:M:73:SER:HB3	2.16	0.76
16:P:405:TYR:CE1	16:P:414:ILE:HG23	2.19	0.76
1:A:422:ARG:HE	18:R:409:HIS:CE1	2.02	0.76
2:B:415:GLU:OE2	2:B:474:SER:OG	2.02	0.76
6:F:72:LYS:HD3	6:F:142:SER:HB3	1.61	0.76
16:P:186:TYR:CE1	18:R:196:GLU:CB	2.66	0.76
17:Q:371:GLU:OE2	18:R:228:ASN:ND2	2.18	0.76
15:O:248:LEU:CD1	15:O:598:PHE:HD2	1.52	0.76
17:Q:15:CYS:CB	17:Q:16:PRO:CA	2.62	0.76
17:Q:389:GLN:HB2	18:R:209:ARG:NH2	1.95	0.76
1:A:435:ASN:C	1:A:439:ASP:O	2.27	0.76
17:Q:188:ALA:CB	17:Q:384:GLN:HG3	2.12	0.76
18:R:177:LEU:HD22	18:R:185:LYS:HG2	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:474:LYS:NZ	2:B:1096:SER:CB	2.49	0.76
1:A:1657:LEU:N	6:F:133:VAL:O	2.17	0.76
1:A:493:ASN:HB3	1:A:654:ASP:OD1	1.85	0.76
1:A:953:GLU:CG	1:A:1205:PHE:CE2	2.69	0.76
15:O:379:ARG:HA	15:O:379:ARG:NH1	1.99	0.76
1:A:1298:ASP:HA	1:A:1468:LYS:HZ3	1.50	0.75
2:B:1003:ALA:O	14:N:170:HIS:HB3	1.85	0.75
6:F:75:PRO:HG3	6:F:78:GLN:CD	2.11	0.75
15:O:235:GLU:O	15:O:238:ILE:CD1	2.33	0.75
15:O:477:PHE:HE2	15:O:525:MET:HE1	1.50	0.75
1:A:1313:LEU:CG	1:A:1462:PHE:HZ	1.99	0.75
7:G:144:HIS:CG	15:O:146:SER:CB	2.69	0.75
8:H:80:ARG:HG3	11:K:108:TYR:CZ	2.21	0.75
15:O:376:TYR:OH	15:O:588:LEU:CD2	2.35	0.75
18:R:180:CYS:O	18:R:185:LYS:HE3	1.86	0.75
15:O:245:GLN:HA	15:O:245:GLN:HE21	1.51	0.75
17:Q:414:TYR:CD1	18:R:240:ILE:CG2	2.70	0.75
1:A:408:LYS:HB2	1:A:411:VAL:HB	1.68	0.75
7:G:143:SER:HB2	15:O:104:ILE:CB	2.15	0.75
16:P:197:ARG:CD	16:P:261:VAL:N	2.49	0.75
1:A:1050:TYR:HB3	1:A:1054:ALA:HA	1.69	0.75
1:A:382:GLN:HE21	1:A:456:VAL:HG22	1.50	0.75
1:A:475:ARG:NH2	2:B:1061:LYS:CG	2.49	0.75
16:P:324:TRP:HZ2	18:R:152:ILE:CD1	1.90	0.75
17:Q:22:ILE:CG1	17:Q:24:ASP:OD2	2.34	0.75
17:Q:188:ALA:CB	17:Q:384:GLN:HG2	2.09	0.75
17:Q:351:ASN:C	17:Q:369:TRP:HH2	1.95	0.75
1:A:921:PRO:HD3	8:H:19:ARG:HG2	1.68	0.75
16:P:480:VAL:HB	16:P:492:LEU:HD21	1.68	0.75
17:Q:22:ILE:HD11	17:Q:24:ASP:OD2	1.86	0.75
17:Q:410:ARG:HA	17:Q:413:LEU:HB3	1.69	0.75
1:A:670:ILE:CG1	2:B:783:MET:CE	2.65	0.75
2:B:205:MET:HE1	2:B:500:PHE:O	1.85	0.75
6:F:72:LYS:O	6:F:143:PHE:N	2.20	0.75
16:P:598:LEU:HD23	16:P:601:ARG:HD2	1.68	0.75
17:Q:374:THR:CG2	18:R:219:LEU:HD11	1.93	0.75
17:Q:381:MET:HE3	18:R:212:HIS:HA	1.69	0.75
3:C:100:ARG:NH2	10:J:3:VAL:O	2.20	0.74
17:Q:22:ILE:CD1	17:Q:26:ARG:CZ	2.65	0.74
18:R:82:ARG:HH12	18:R:291:ARG:N	1.83	0.74
6:F:72:LYS:HD2	6:F:142:SER:HB3	0.77	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:144:HIS:CD2	15:O:146:SER:N	2.55	0.74
15:O:200:ASN:HD22	17:Q:14:ASN:C	1.92	0.74
1:A:403:LEU:CD1	1:A:419:ILE:HD13	2.17	0.74
1:A:581:ILE:HD12	1:A:637:PHE:CZ	2.21	0.74
1:A:990:ILE:CG1	1:A:994:GLU:HB2	2.16	0.74
15:O:243:GLU:CB	15:O:332:LEU:HD13	2.17	0.74
17:Q:3:THR:O	17:Q:20:TRP:HB3	1.87	0.74
1:A:406:LEU:HB3	1:A:408:LYS:H	1.53	0.74
2:B:30:LYS:C	2:B:176:SER:HB2	2.11	0.74
3:C:322:LYS:CE	11:K:129:ASP:OD1	2.35	0.74
7:G:142:ALA:CB	15:O:102:SER:O	2.35	0.74
16:P:436:ILE:CG2	18:R:143:THR:HA	2.15	0.74
17:Q:22:ILE:HD12	17:Q:24:ASP:CG	2.11	0.74
17:Q:374:THR:HG21	18:R:219:LEU:HD22	0.78	0.74
2:B:345:SER:HA	13:M:113:ILE:CG1	2.17	0.74
17:Q:188:ALA:CB	17:Q:384:GLN:CB	2.64	0.74
2:B:497:ILE:HG12	2:B:699:ILE:HD13	1.68	0.74
2:B:1092:LEU:O	2:B:1096:SER:CB	2.36	0.74
15:O:62:ASP:HB3	15:O:67:ASP:OD2	1.86	0.74
1:A:474:LYS:H	2:B:1070:ARG:HG3	1.51	0.74
1:A:615:ARG:HH21	2:B:781:TYR:HD2	1.36	0.74
1:A:1049:MET:HG2	1:A:1052:GLY:O	1.84	0.74
1:A:1204:THR:CG2	9:I:97:HIS:HB3	2.17	0.74
1:A:1298:ASP:O	1:A:1301:GLU:N	2.20	0.74
2:B:25:PHE:O	10:J:62:ARG:CD	2.35	0.74
2:B:143:TRP:CB	2:B:446:MET:HE3	2.00	0.74
2:B:527:PHE:CZ	2:B:666:PRO:CB	2.70	0.74
2:B:527:PHE:CZ	2:B:666:PRO:N	2.54	0.74
18:R:373:LEU:HD12	18:R:411:VAL:HG21	1.70	0.74
1:A:547:ILE:HD11	17:Q:26:ARG:CZ	1.90	0.74
1:A:1262:LEU:HD21	1:A:1497:ILE:HG12	1.69	0.74
1:A:1329:ILE:HG22	1:A:1456:PHE:CZ	2.22	0.74
2:B:401:GLU:HG3	2:B:402:VAL:N	2.03	0.74
6:F:70:LYS:O	6:F:74:ILE:N	2.19	0.74
15:O:200:ASN:CB	17:Q:14:ASN:CA	2.53	0.74
1:A:1487:ASN:OD1	2:B:305:ARG:NH2	2.21	0.74
16:P:384:ASP:HB3	16:P:389:TRP:HB3	1.69	0.74
17:Q:113:LYS:HG3	17:Q:134:LYS:HZ1	1.53	0.74
1:A:481:ARG:O	2:B:1045:GLN:O	2.06	0.73
1:A:670:ILE:HG12	2:B:783:MET:HE3	1.70	0.73
1:A:862:THR:C	9:I:67:VAL:HA	2.13	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:73:ILE:HB	2:B:425:ILE:HD12	1.70	0.73
7:G:159:LYS:HB2	15:O:105:ASN:ND2	1.95	0.73
16:P:472:ARG:HH21	18:R:199:LYS:HA	1.51	0.73
1:A:670:ILE:CG1	2:B:783:MET:HE3	2.18	0.73
2:B:26:ILE:O	10:J:62:ARG:CZ	2.36	0.73
2:B:1005:TYR:CE2	14:N:170:HIS:CG	2.75	0.73
1:A:436:ALA:C	1:A:439:ASP:N	2.32	0.73
2:B:1003:ALA:O	14:N:170:HIS:CB	2.36	0.73
1:A:474:LYS:HZ2	2:B:1092:LEU:CA	1.98	0.73
1:A:984:GLY:CA	1:A:994:GLU:OE2	2.36	0.73
2:B:146:ASN:HD22	2:B:441:LYS:HE3	1.53	0.73
2:B:399:HIS:O	2:B:400:GLN:CG	2.35	0.73
2:B:518:ARG:NH2	2:B:537:SER:O	2.21	0.73
1:A:407:GLN:H	1:A:407:GLN:NE2	1.79	0.73
1:A:629:ASP:O	2:B:926:VAL:HG21	1.87	0.73
2:B:566:TYR:CE2	13:M:70:SER:HA	2.23	0.73
2:B:1151:ILE:HG23	7:G:21:LYS:HG3	1.70	0.73
1:A:1329:ILE:HG21	1:A:1456:PHE:CZ	2.24	0.73
1:A:1658:ALA:HA	6:F:131:PRO:O	1.88	0.73
7:G:241:ARG:NH1	15:O:189:PHE:HB2	1.95	0.73
1:A:543:LEU:C	17:Q:34:VAL:O	2.30	0.73
1:A:984:GLY:HA3	1:A:994:GLU:OE2	1.89	0.73
16:P:436:ILE:HG21	18:R:143:THR:HA	1.69	0.73
17:Q:288:GLU:O	17:Q:290:THR:OG1	2.06	0.73
1:A:990:ILE:C	1:A:994:GLU:HB2	2.12	0.73
1:A:1298:ASP:CG	1:A:1468:LYS:NZ	2.46	0.73
16:P:398:ALA:CB	18:R:87:VAL:CA	2.60	0.73
16:P:446:ASP:OD2	16:P:448:THR:HG22	1.89	0.73
18:R:271:LEU:HD21	18:R:308:PHE:CB	2.18	0.73
1:A:824:THR:CB	2:B:1023:ARG:HB2	2.11	0.73
1:A:953:GLU:HG2	1:A:1205:PHE:HE2	1.54	0.73
3:C:272:LYS:N	14:N:175:TYR:CE1	2.35	0.73
16:P:436:ILE:CG1	18:R:143:THR:HG23	2.14	0.73
18:R:199:LYS:HE2	18:R:203:SER:C	2.11	0.73
18:R:303:THR:HG23	18:R:360:GLU:CD	2.12	0.73
1:A:399:LEU:CD2	1:A:423:LEU:HD23	2.19	0.73
1:A:998:HIS:NE2	2:B:711:GLN:CG	2.50	0.73
3:C:253:PRO:HD2	14:N:180:PHE:HB3	0.78	0.73
17:Q:198:ILE:HG21	17:Q:388:THR:HG23	1.69	0.73
17:Q:417:PHE:HB3	18:R:264:SER:OG	1.86	0.73
1:A:399:LEU:CD2	1:A:423:LEU:CD2	2.67	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:588:LEU:CD2	2:B:1087:LEU:HD13	2.18	0.72
1:A:618:TYR:CE1	2:B:783:MET:HB2	2.24	0.72
1:A:986:PHE:CE2	2:B:958:MET:HE2	2.23	0.72
2:B:985:ILE:C	14:N:160:VAL:HG23	2.14	0.72
1:A:629:ASP:CA	2:B:926:VAL:HG21	2.19	0.72
7:G:143:SER:CB	15:O:104:ILE:CB	2.66	0.72
17:Q:12:THR:OG1	17:Q:33:HIS:CE1	2.42	0.72
1:A:436:ALA:O	1:A:440:SER:CA	2.37	0.72
1:A:999:CYS:CA	2:B:712:SER:HB3	2.15	0.72
2:B:25:PHE:CD2	10:J:59:LYS:HG3	2.24	0.72
2:B:143:TRP:CG	2:B:446:MET:CE	2.65	0.72
17:Q:351:ASN:HA	17:Q:369:TRP:CZ2	2.25	0.72
1:A:1313:LEU:HG	1:A:1462:PHE:HE1	1.49	0.72
13:M:102:SER:O	13:M:105:SER:OG	2.08	0.72
16:P:662:LEU:HB3	16:P:665:ASN:ND2	2.05	0.72
17:Q:381:MET:CE	18:R:212:HIS:CD2	2.71	0.72
1:A:878:ARG:HB3	9:I:67:VAL:HG12	1.68	0.72
15:O:373:LEU:HB3	15:O:374:PRO:HD3	1.69	0.72
17:Q:416:ILE:HG21	18:R:265:SER:CB	1.96	0.72
2:B:152:LEU:HB3	2:B:443:LYS:HE3	0.73	0.72
2:B:182:GLN:O	10:J:69:ARG:NE	2.23	0.72
3:C:231:PRO:HB2	3:C:270:ALA:HB1	1.72	0.72
16:P:197:ARG:NE	16:P:261:VAL:N	2.34	0.72
1:A:1310:LYS:HB3	1:A:1464:ASP:O	1.88	0.72
13:M:102:SER:CB	13:M:105:SER:N	2.49	0.72
16:P:399:TRP:HZ2	18:R:87:VAL:CG2	2.03	0.72
2:B:143:TRP:HB3	2:B:446:MET:SD	2.29	0.72
2:B:527:PHE:CE1	2:B:666:PRO:CD	2.73	0.72
16:P:292:LEU:HD11	16:P:343:LEU:HG	1.72	0.72
1:A:497:VAL:HG22	1:A:635:MET:HE1	1.69	0.72
1:A:990:ILE:HA	1:A:994:GLU:CD	2.15	0.72
2:B:679:GLN:HG2	14:N:157:ARG:CA	2.14	0.72
15:O:383:TYR:HD1	15:O:606:MET:HE3	1.54	0.72
1:A:1554:GLY:HA2	5:E:183:PRO:HD2	1.72	0.72
9:I:2:SER:HB2	9:I:11:LEU:HD21	1.72	0.72
16:P:658:LYS:HB3	16:P:660:LYS:H	1.55	0.72
17:Q:194:GLN:HE21	18:R:209:ARG:HE	1.35	0.72
18:R:201:SER:O	18:R:205:VAL:HG22	1.90	0.72
1:A:1309:SER:HB2	1:A:1310:LYS:HD3	1.71	0.71
16:P:200:THR:HG21	16:P:280:ARG:HH11	1.54	0.71
16:P:214:LEU:HB3	16:P:220:THR:HB	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:183:LYS:O	17:Q:187:THR:OG1	2.08	0.71
1:A:953:GLU:O	1:A:1205:PHE:CD1	2.43	0.71
2:B:527:PHE:CE1	2:B:666:PRO:N	2.58	0.71
3:C:296:ASN:OD1	3:C:297:HIS:N	2.24	0.71
8:H:40:LEU:HD13	8:H:123:MET:HE3	1.72	0.71
16:P:656:HIS:H	16:P:656:HIS:CD2	2.06	0.71
1:A:435:ASN:O	1:A:439:ASP:CA	2.37	0.71
2:B:68:ILE:HG21	2:B:71:LYS:HZ3	0.66	0.71
2:B:404:LEU:O	2:B:407:PHE:N	2.23	0.71
15:O:517:LEU:HA	15:O:525:MET:HE3	1.72	0.71
16:P:186:TYR:O	18:R:195:LEU:CA	2.38	0.71
16:P:322:GLY:O	16:P:350:THR:OG1	2.07	0.71
17:Q:375:LEU:CD2	18:R:231:LEU:CG	2.65	0.71
2:B:346:ASP:OD2	13:M:114:LYS:N	2.22	0.71
2:B:1072:GLY:C	2:B:1075:GLU:CG	2.51	0.71
14:N:87:TYR:CB	14:N:141:GLU:CA	2.65	0.71
16:P:375:PHE:CE1	16:P:380:MET:HG3	2.26	0.71
1:A:990:ILE:CD1	1:A:995:TYR:N	2.52	0.71
15:O:216:LEU:HD13	15:O:342:HIS:CG	2.25	0.71
1:A:547:ILE:HD13	17:Q:26:ARG:NH1	1.98	0.71
1:A:953:GLU:HA	1:A:1205:PHE:HD2	1.52	0.71
1:A:991:LYS:CB	1:A:993:GLN:CB	2.61	0.71
2:B:207:ILE:CD1	2:B:503:VAL:HG22	2.21	0.71
2:B:1089:GLN:NE2	2:B:1093:LEU:HD13	2.05	0.71
6:F:72:LYS:CB	6:F:142:SER:CA	2.24	0.71
1:A:83:VAL:CG1	1:A:427:PHE:CZ	2.73	0.71
1:A:581:ILE:HG13	1:A:585:ASP:CG	2.15	0.71
2:B:898:LEU:N	12:L:46:VAL:HG21	2.06	0.71
2:B:1121:GLY:O	15:O:152:GLN:NE2	2.23	0.71
16:P:659:LEU:H	16:P:659:LEU:HD13	1.55	0.71
1:A:407:GLN:HE21	1:A:407:GLN:N	1.78	0.71
1:A:524:ILE:O	1:A:554:ARG:NH1	2.24	0.71
1:A:862:THR:CA	9:I:67:VAL:HA	2.21	0.71
1:A:1310:LYS:HD3	1:A:1310:LYS:N	2.05	0.71
2:B:184:LYS:HD3	2:B:735:HIS:NE2	2.04	0.71
2:B:207:ILE:HD11	2:B:503:VAL:CG1	2.20	0.71
18:R:248:LYS:O	18:R:248:LYS:HD3	1.90	0.71
1:A:399:LEU:HD23	1:A:423:LEU:CD2	2.21	0.71
1:A:503:VAL:CA	1:A:580:HIS:HD2	1.69	0.71
2:B:1069:ILE:HD12	2:B:1069:ILE:N	2.06	0.71
2:B:1165:ASN:OD1	2:B:1165:ASN:N	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:341:ARG:CZ	17:Q:369:TRP:NE1	2.54	0.71
1:A:472:MET:HE2	1:A:472:MET:CA	2.15	0.70
1:A:952:LEU:HD22	1:A:1004:GLU:CG	2.09	0.70
15:O:248:LEU:CG	15:O:598:PHE:CE2	2.74	0.70
1:A:629:ASP:HA	2:B:926:VAL:CG2	2.21	0.70
1:A:921:PRO:HD2	8:H:19:ARG:HG3	1.73	0.70
7:G:144:HIS:CD2	15:O:145:SER:C	2.69	0.70
15:O:245:GLN:CD	15:O:379:ARG:HB2	2.16	0.70
16:P:391:THR:OG1	18:R:149:LYS:CB	2.39	0.70
18:R:250:LEU:HD21	18:R:308:PHE:CE2	2.25	0.70
1:A:613:THR:CG2	2:B:913:ILE:HG21	2.21	0.70
2:B:527:PHE:CE1	2:B:666:PRO:CA	2.72	0.70
16:P:324:TRP:CZ2	18:R:152:ILE:CD1	2.69	0.70
16:P:364:GLU:O	16:P:373:LEU:HB2	1.91	0.70
1:A:507:TYR:HE1	1:A:509:GLU:HA	1.56	0.70
1:A:921:PRO:CD	8:H:19:ARG:HG2	2.22	0.70
2:B:184:LYS:HD3	2:B:735:HIS:CD2	2.25	0.70
2:B:843:ASP:OD2	12:L:58:LYS:NZ	2.23	0.70
17:Q:193:PHE:CD2	18:R:208:TYR:CB	2.74	0.70
1:A:686:PHE:HZ	8:H:121:LEU:HD11	1.56	0.70
1:A:862:THR:CG2	9:I:67:VAL:HG12	2.21	0.70
15:O:66:ASN:HD22	15:O:66:ASN:N	1.89	0.70
16:P:345:ASP:OD1	16:P:345:ASP:N	2.23	0.70
17:Q:288:GLU:HG3	17:Q:297:ARG:HH12	1.55	0.70
1:A:543:LEU:CB	17:Q:34:VAL:O	2.38	0.70
1:A:1329:ILE:HB	1:A:1456:PHE:HE2	1.54	0.70
2:B:143:TRP:HE3	2:B:446:MET:HE3	1.56	0.70
2:B:143:TRP:CD1	2:B:446:MET:SD	2.83	0.70
3:C:272:LYS:CA	14:N:175:TYR:CD1	2.44	0.70
7:G:141:SER:HB2	15:O:142:ILE:CD1	1.95	0.70
16:P:391:THR:HG23	18:R:149:LYS:CB	2.21	0.70
18:R:224:VAL:CG2	18:R:256:GLU:HG3	2.22	0.70
18:R:278:TYR:O	18:R:301:SER:OG	2.09	0.70
1:A:475:ARG:NE	2:B:1061:LYS:HB2	2.06	0.70
1:A:1246:VAL:O	1:A:1517:ARG:NH2	2.24	0.70
2:B:291:GLY:HA3	2:B:375:LEU:HD13	1.74	0.70
3:C:31:TRP:CH2	11:K:127:LEU:HD12	2.26	0.70
16:P:197:ARG:CD	16:P:261:VAL:H	2.04	0.70
16:P:573:GLU:HB2	17:Q:499:LYS:HZ3	1.56	0.70
18:R:229:TRP:CZ2	18:R:259:ASP:CB	2.52	0.70
18:R:248:LYS:HD3	18:R:248:LYS:C	2.17	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:435:ASN:CG	1:A:442:LYS:HB3	2.16	0.70
1:A:828:CYS:CB	2:B:1027:TYR:HB2	2.21	0.70
2:B:475:GLY:O	2:B:476:LEU:HB2	1.92	0.70
2:B:1069:ILE:HD12	2:B:1069:ILE:H	1.57	0.70
3:C:230:LEU:CD1	3:C:231:PRO:HD2	2.13	0.70
3:C:230:LEU:HD13	3:C:299:ILE:HD11	1.72	0.70
7:G:142:ALA:HB3	15:O:102:SER:O	1.92	0.70
16:P:350:THR:HG22	18:R:154:LYS:C	2.15	0.70
16:P:584:ARG:O	16:P:588:SER:HB2	1.91	0.70
2:B:683:ASN:H	14:N:154:ARG:NH2	1.86	0.70
16:P:185:GLN:HB3	18:R:195:LEU:HB3	1.72	0.70
17:Q:22:ILE:HG13	17:Q:24:ASP:OD2	1.92	0.70
17:Q:193:PHE:CD2	18:R:208:TYR:CG	2.74	0.70
1:A:862:THR:O	9:I:66:VAL:O	2.10	0.70
1:A:1326:GLU:OE1	1:A:1454:HIS:C	2.34	0.70
2:B:152:LEU:CD2	2:B:443:LYS:HD2	2.15	0.70
2:B:345:SER:HA	13:M:113:ILE:HD11	1.72	0.70
2:B:894:LYS:HG2	12:L:47:ARG:NE	2.07	0.70
15:O:233:LEU:O	15:O:237:ILE:CD1	2.36	0.70
16:P:184:SER:CB	18:R:198:LEU:HD23	2.21	0.70
16:P:352:PHE:CD1	18:R:157:MET:CB	2.75	0.70
16:P:438:TRP:HD1	18:R:141:TRP:CH2	2.10	0.70
16:P:532:GLU:HA	16:P:554:ASN:HD22	1.55	0.70
1:A:1482:LYS:HD3	2:B:304:ASP:OD1	1.90	0.69
1:A:1657:LEU:HD22	7:G:104:LEU:HD12	1.70	0.69
2:B:679:GLN:HG3	14:N:155:VAL:C	2.16	0.69
2:B:1002:LYS:CD	14:N:166:LEU:C	2.60	0.69
13:M:38:PHE:HB3	13:M:53:LEU:HD11	1.73	0.69
15:O:376:TYR:CD1	15:O:419:LYS:CE	2.74	0.69
1:A:474:LYS:O	2:B:1070:ARG:CG	2.39	0.69
1:A:507:TYR:CE1	1:A:509:GLU:HA	2.26	0.69
18:R:186:LEU:C	18:R:186:LEU:HD13	2.17	0.69
1:A:99:ARG:O	1:A:109:ARG:NH2	2.24	0.69
1:A:1032:VAL:CG2	1:A:1050:TYR:HD1	2.05	0.69
2:B:203:ILE:CG2	2:B:405:GLY:CA	2.71	0.69
2:B:848:ILE:HG22	12:L:60:ARG:NH1	2.07	0.69
15:O:376:TYR:CD1	15:O:419:LYS:CD	2.76	0.69
1:A:466:LEU:HD11	2:B:1181:VAL:HG21	1.73	0.69
2:B:65:VAL:HG23	2:B:417:ILE:HD12	1.74	0.69
2:B:894:LYS:HA	12:L:54:ARG:NE	2.06	0.69
1:A:65:CYS:SG	19:A:2001:ZN:ZN	1.81	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:991:LYS:HB3	1:A:993:GLN:CB	2.23	0.69
1:A:1655:ASP:OD2	6:F:137:TYR:OH	2.10	0.69
6:F:70:LYS:CG	7:G:95:LEU:HG	2.22	0.69
18:R:233:TYR:CZ	18:R:264:SER:OG	2.43	0.69
16:P:301:GLN:HG3	16:P:361:LYS:H	1.57	0.69
16:P:488:LEU:HD22	18:R:138:PHE:CZ	2.28	0.69
1:A:475:ARG:NH2	2:B:1061:LYS:HG3	2.06	0.69
1:A:489:ASN:HB2	11:K:95:HIS:CD2	2.27	0.69
1:A:566:SER:CB	15:O:235:GLU:OE1	2.28	0.69
1:A:646:GLU:OE2	2:B:1086:PHE:HD2	1.75	0.69
2:B:75:ASP:CA	2:B:440:PHE:CE2	2.74	0.69
2:B:399:HIS:C	2:B:400:GLN:CG	2.65	0.69
3:C:31:TRP:HH2	11:K:127:LEU:HD12	1.58	0.69
16:P:405:TYR:HB2	16:P:416:LEU:HD12	1.73	0.69
18:R:271:LEU:HD23	18:R:308:PHE:HB2	1.70	0.69
1:A:502:ALA:O	1:A:580:HIS:HB3	1.93	0.69
1:A:507:TYR:CD1	1:A:508:PRO:C	2.70	0.69
1:A:953:GLU:CB	1:A:1205:PHE:CE2	2.75	0.69
1:A:1330:VAL:CG2	1:A:1455:ARG:NH1	2.56	0.69
2:B:143:TRP:CZ2	2:B:446:MET:CB	2.75	0.69
2:B:548:LYS:CE	2:B:695:ASN:OD1	2.40	0.69
2:B:850:THR:N	12:L:60:ARG:NH2	2.40	0.69
2:B:887:LEU:HB2	12:L:56:LEU:O	1.93	0.69
2:B:999:GLN:HG2	14:N:166:LEU:HD13	1.73	0.69
2:B:1049:THR:HG23	2:B:1050:GLY:H	1.56	0.69
15:O:237:ILE:HD12	15:O:237:ILE:N	2.08	0.69
17:Q:8:PRO:HG2	17:Q:19:LEU:HD23	1.75	0.69
2:B:266:LYS:CD	2:B:473:GLN:O	2.40	0.69
2:B:985:ILE:CB	14:N:160:VAL:CG2	2.67	0.69
1:A:1314:GLN:HE22	1:A:1446:ARG:NE	1.91	0.68
1:A:1660:VAL:O	7:G:102:GLU:CG	2.38	0.68
2:B:679:GLN:HG2	14:N:157:ARG:H	0.87	0.68
6:F:66:ARG:HH21	7:G:90:LEU:CD1	2.06	0.68
16:P:352:PHE:CD1	18:R:157:MET:HB2	2.28	0.68
16:P:357:LEU:HD11	18:R:23:TYR:CD1	2.26	0.68
2:B:551:ILE:CG2	2:B:647:SER:CA	2.72	0.68
17:Q:385:PHE:HD2	18:R:212:HIS:HD2	1.23	0.68
17:Q:388:THR:HA	18:R:209:ARG:HG3	1.73	0.68
1:A:1313:LEU:CD2	1:A:1462:PHE:CZ	2.73	0.68
1:A:1660:VAL:HG22	7:G:103:LYS:O	1.93	0.68
4:D:99:LEU:HB3	4:D:100:PRO:CD	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:378:LEU:HD22	18:R:235:ILE:HG23	1.74	0.68
2:B:62:ASN:OD1	2:B:102:VAL:HG23	1.93	0.68
2:B:212:ASN:ND2	2:B:361:HIS:HB2	2.08	0.68
17:Q:22:ILE:CD1	17:Q:26:ARG:HE	2.04	0.68
1:A:407:GLN:C	1:A:408:LYS:HZ3	2.00	0.68
2:B:212:ASN:HD21	2:B:361:HIS:HB2	1.56	0.68
15:O:248:LEU:HD12	15:O:598:PHE:HE2	0.87	0.68
16:P:354:PRO:CG	18:R:31:PHE:CB	2.71	0.68
16:P:428:GLU:HB2	16:P:435:ARG:HH12	1.58	0.68
17:Q:196:SER:HB3	17:Q:204:ARG:HG2	1.76	0.68
1:A:472:MET:CE	2:B:1076:ARG:HD3	2.24	0.68
1:A:480:ALA:HB1	2:B:1046:VAL:HG23	1.74	0.68
1:A:671:GLN:OE1	2:B:952:HIS:CB	2.42	0.68
2:B:143:TRP:CZ2	2:B:446:MET:HB2	2.28	0.68
1:A:506:THR:CG2	1:A:579:ARG:C	2.59	0.68
1:A:824:THR:HB	2:B:1023:ARG:CB	2.13	0.68
16:P:353:ASP:OD1	16:P:379:LYS:NZ	2.27	0.68
16:P:354:PRO:CG	18:R:31:PHE:CD2	2.72	0.68
3:C:127:THR:H	3:C:130:ASN:HB2	1.59	0.68
16:P:232:ASN:N	16:P:232:ASN:OD1	2.26	0.68
16:P:354:PRO:O	18:R:27:ILE:HG21	1.93	0.68
1:A:472:MET:HA	1:A:472:MET:CE	2.16	0.68
1:A:475:ARG:CB	2:B:1059:PRO:HB2	2.24	0.68
2:B:990:ASP:OD1	14:N:162:LYS:NZ	2.23	0.68
3:C:272:LYS:HA	14:N:175:TYR:CG	2.24	0.68
15:O:468:GLU:O	15:O:471:LYS:HG3	1.94	0.68
16:P:436:ILE:HG22	18:R:142:ARG:C	2.18	0.68
5:E:76:GLY:HA3	5:E:106:GLN:HB2	1.76	0.67
15:O:348:THR:CG2	15:O:351:SER:HB3	2.19	0.67
16:P:218:VAL:HG13	16:P:246:LYS:H	1.58	0.67
16:P:302:VAL:HG11	16:P:362:ARG:HH11	1.57	0.67
16:P:355:GLU:HG2	18:R:28:SER:HB3	1.75	0.67
18:R:18:LYS:HG2	18:R:78:ARG:HD3	1.73	0.67
18:R:202:THR:C	18:R:205:VAL:HG23	2.19	0.67
1:A:403:LEU:HD12	1:A:419:ILE:HD13	1.76	0.67
1:A:436:ALA:CA	1:A:439:ASP:C	2.66	0.67
1:A:988:SER:HB2	2:B:988:GLU:HG2	1.76	0.67
15:O:202:ASN:CB	17:Q:31:TYR:OH	2.34	0.67
16:P:355:GLU:HB3	18:R:28:SER:HB3	1.76	0.67
18:R:359:MET:N	18:R:359:MET:SD	2.67	0.67
2:B:527:PHE:CE2	2:B:666:PRO:HB3	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1072:GLY:C	2:B:1075:GLU:H	2.02	0.67
16:P:24:SER:OG	18:R:318:ILE:HG13	1.94	0.67
1:A:1482:LYS:O	2:B:308:LEU:CD2	2.38	0.67
2:B:527:PHE:CE2	2:B:666:PRO:CA	2.62	0.67
2:B:849:GLY:C	12:L:60:ARG:NH2	2.44	0.67
7:G:242:VAL:HG21	15:O:183:ILE:HG23	1.74	0.67
16:P:193:LEU:HD12	16:P:251:SER:H	1.59	0.67
16:P:197:ARG:CG	16:P:261:VAL:O	2.42	0.67
16:P:302:VAL:HG21	16:P:362:ARG:HD2	1.75	0.67
17:Q:218:SER:O	17:Q:218:SER:OG	2.11	0.67
17:Q:380:TRP:CZ2	18:R:208:TYR:OH	2.44	0.67
1:A:629:ASP:CA	2:B:926:VAL:CG2	2.72	0.67
1:A:1330:VAL:CG2	1:A:1455:ARG:CD	2.73	0.67
1:A:1656:VAL:HA	6:F:133:VAL:O	1.95	0.67
16:P:458:LYS:HD3	16:P:461:HIS:HE1	1.60	0.67
17:Q:388:THR:CA	18:R:209:ARG:HG2	2.25	0.67
18:R:253:ILE:HA	18:R:256:GLU:HB3	1.76	0.67
18:R:301:SER:HA	18:R:358:PHE:CZ	2.29	0.67
1:A:909:SER:HA	9:I:83:LYS:HZ3	1.57	0.67
2:B:209:GLN:HG2	2:B:210:ARG:N	2.07	0.67
2:B:531:VAL:O	2:B:716:MET:HG3	1.95	0.67
16:P:53:ASP:OD2	16:P:54:ALA:N	2.27	0.67
16:P:487:ASN:O	18:R:138:PHE:CZ	2.46	0.67
18:R:199:LYS:HD3	18:R:204:GLU:HB3	1.76	0.67
1:A:1276:THR:CB	9:I:45:LEU:CD1	2.63	0.67
2:B:399:HIS:C	2:B:400:GLN:HG3	2.20	0.67
16:P:412:ASN:OD1	16:P:412:ASN:N	2.24	0.67
16:P:622:TYR:CZ	16:P:668:SER:HB3	2.30	0.67
18:R:248:LYS:HD3	18:R:250:LEU:HD13	1.76	0.67
3:C:253:PRO:CD	14:N:180:PHE:CG	2.46	0.67
15:O:237:ILE:HD12	15:O:237:ILE:H	1.59	0.67
1:A:671:GLN:HB3	2:B:952:HIS:CD2	2.30	0.67
6:F:70:LYS:HG2	7:G:95:LEU:CD2	2.23	0.67
1:A:799:GLU:HG3	1:A:1062:HIS:CE1	2.29	0.67
1:A:1608:SER:OG	1:A:1632:GLU:OE2	2.12	0.67
2:B:796:ARG:O	10:J:8:PHE:CE1	2.49	0.67
3:C:125:LYS:O	3:C:130:ASN:ND2	2.27	0.67
17:Q:139:LYS:HG2	17:Q:237:ILE:HG12	1.76	0.67
17:Q:208:PRO:HG2	17:Q:211:TYR:HD2	1.59	0.67
1:A:399:LEU:HD21	1:A:423:LEU:CG	2.25	0.66
1:A:406:LEU:N	1:A:406:LEU:HD23	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:408:LYS:HA	1:A:411:VAL:CB	2.25	0.66
13:M:102:SER:O	13:M:105:SER:CB	2.42	0.66
15:O:233:LEU:O	15:O:236:LYS:HB2	1.94	0.66
1:A:1330:VAL:HG23	1:A:1455:ARG:NH1	2.10	0.66
16:P:775:TRP:HE1	16:P:778:ASP:HA	1.60	0.66
17:Q:418:PRO:CD	18:R:233:TYR:HH	1.82	0.66
1:A:477:ASN:HA	2:B:1047:ARG:HD3	1.77	0.66
7:G:144:HIS:CD2	15:O:146:SER:CB	2.77	0.66
16:P:448:THR:CG2	16:P:471:MET:H	2.08	0.66
2:B:679:GLN:CG	14:N:157:ARG:CA	2.70	0.66
16:P:472:ARG:HE	18:R:200:THR:HG23	1.61	0.66
18:R:173:MET:HG3	18:R:188:PHE:CZ	2.25	0.66
1:A:83:VAL:CG1	1:A:427:PHE:CE2	2.77	0.66
15:O:200:ASN:CA	17:Q:14:ASN:HB2	2.15	0.66
15:O:373:LEU:HD12	15:O:423:TYR:CE2	2.30	0.66
15:O:383:TYR:CD1	15:O:606:MET:HE3	2.31	0.66
16:P:185:GLN:C	18:R:195:LEU:HB3	2.21	0.66
18:R:266:SER:O	18:R:269:ASP:N	2.28	0.66
1:A:467:PHE:CE2	1:A:1614:SER:HB3	2.31	0.66
1:A:1310:LYS:H	1:A:1310:LYS:CD	2.08	0.66
1:A:1484:LEU:CD2	2:B:304:ASP:CB	2.73	0.66
2:B:848:ILE:HB	12:L:60:ARG:HD2	0.71	0.66
2:B:469:ASN:OD1	2:B:482:SER:HB3	1.95	0.66
16:P:352:PHE:CZ	18:R:157:MET:HE3	2.31	0.66
17:Q:15:CYS:SG	17:Q:17:SER:CB	2.83	0.66
1:A:113:VAL:HG21	1:A:178:LEU:HD13	1.77	0.66
1:A:470:HIS:CD2	2:B:1058:GLN:OE1	2.43	0.66
1:A:475:ARG:NH2	2:B:1061:LYS:CB	2.57	0.66
1:A:722:PRO:HD3	8:H:95:TYR:HA	1.76	0.66
2:B:209:GLN:O	2:B:401:GLU:N	2.27	0.66
2:B:985:ILE:CB	14:N:160:VAL:HG21	2.24	0.66
3:C:272:LYS:CB	14:N:175:TYR:CD1	2.78	0.66
6:F:70:LYS:HG2	7:G:95:LEU:CG	2.26	0.66
18:R:161:ASN:HA	18:R:164:LYS:HD2	1.76	0.66
1:A:990:ILE:CG1	1:A:994:GLU:C	2.69	0.66
15:O:240:ILE:HG23	15:O:332:LEU:HG	1.78	0.66
16:P:350:THR:CG2	18:R:155:GLN:HA	2.25	0.66
1:A:1032:VAL:CG2	1:A:1050:TYR:CE1	2.79	0.66
15:O:390:GLN:HG2	15:O:396:MET:HE3	1.77	0.66
16:P:321:LYS:HA	16:P:361:LYS:HD3	1.78	0.66
17:Q:198:ILE:HD13	17:Q:390:THR:O	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:202:THR:CA	18:R:205:VAL:HG23	2.26	0.66
18:R:313:LEU:HD11	18:R:353:VAL:HG21	1.73	0.66
1:A:109:ARG:NH1	1:A:230:ARG:O	2.29	0.65
1:A:475:ARG:C	2:B:1059:PRO:HG2	2.21	0.65
1:A:611:GLU:OE2	2:B:929:ARG:NH2	2.29	0.65
1:A:615:ARG:NH2	2:B:781:TYR:CD2	2.64	0.65
15:O:375:THR:C	15:O:377:TYR:H	2.03	0.65
16:P:486:ALA:HB3	18:R:137:SER:OG	1.96	0.65
17:Q:378:LEU:HD21	18:R:219:LEU:CB	2.21	0.65
1:A:684:ASP:OD2	8:H:20:TYR:CB	2.45	0.65
1:A:921:PRO:CD	8:H:19:ARG:CG	2.74	0.65
1:A:998:HIS:CE1	2:B:711:GLN:HG3	2.31	0.65
2:B:212:ASN:ND2	2:B:361:HIS:CB	2.59	0.65
2:B:328:GLN:NE2	13:M:111:PRO:O	2.29	0.65
2:B:894:LYS:HG2	12:L:47:ARG:HE	1.61	0.65
2:B:1072:GLY:CA	2:B:1075:GLU:CG	2.63	0.65
2:B:64:GLY:CA	2:B:242:ASP:CB	2.74	0.65
2:B:345:SER:HA	13:M:113:ILE:CD1	2.27	0.65
15:O:238:ILE:HD12	15:O:238:ILE:H	1.61	0.65
16:P:479:HIS:NE2	16:P:491:SER:OG	2.24	0.65
17:Q:283:ASN:OD1	17:Q:284:LEU:N	2.27	0.65
1:A:990:ILE:CG1	1:A:995:TYR:CA	2.72	0.65
2:B:711:GLN:HG2	2:B:713:PRO:HD2	1.78	0.65
3:C:41:GLU:OE2	11:K:138:LYS:CE	2.41	0.65
3:C:328:LEU:HD23	11:K:121:LEU:HD21	1.79	0.65
15:O:439:ILE:HD13	15:O:487:ARG:HD3	1.76	0.65
17:Q:290:THR:HB	17:Q:292:GLU:H	1.61	0.65
2:B:527:PHE:CE1	2:B:666:PRO:CB	2.79	0.65
2:B:1090:ASP:O	2:B:1094:ASN:HB2	1.96	0.65
7:G:144:HIS:CE1	15:O:145:SER:CB	2.79	0.65
18:R:186:LEU:HD13	18:R:186:LEU:O	1.95	0.65
1:A:472:MET:SD	2:B:1073:GLU:CD	2.79	0.65
6:F:72:LYS:HA	6:F:142:SER:CB	2.13	0.65
6:F:75:PRO:HG2	6:F:78:GLN:CB	2.08	0.65
13:M:102:SER:CB	13:M:105:SER:CA	2.70	0.65
18:R:199:LYS:HZ1	18:R:204:GLU:CA	2.10	0.65
1:A:627:ASP:O	2:B:784:ASP:O	2.15	0.65
1:A:1273:THR:HG23	9:I:48:VAL:HG22	1.79	0.65
15:O:108:GLU:HG3	15:O:108:GLU:O	1.96	0.65
16:P:405:TYR:OH	16:P:414:ILE:HG12	1.97	0.65
16:P:625:ASP:O	16:P:629:ARG:CB	2.45	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:824:THR:O	2:B:1023:ARG:CB	2.44	0.65
2:B:49:PHE:CD2	2:B:194:PHE:HZ	2.14	0.65
2:B:341:SER:OG	2:B:343:ASP:OD1	2.13	0.65
15:O:428:ILE:HD11	15:O:442:VAL:HG21	1.79	0.65
18:R:247:ILE:HD13	18:R:247:ILE:N	2.08	0.65
1:A:566:SER:HB2	15:O:235:GLU:OE2	1.74	0.65
1:A:670:ILE:HD11	2:B:783:MET:HE2	1.79	0.65
1:A:862:THR:HA	9:I:67:VAL:HB	1.77	0.65
15:O:240:ILE:HA	15:O:332:LEU:HD12	1.79	0.65
15:O:510:VAL:HG13	15:O:517:LEU:HD11	1.79	0.65
16:P:263:ILE:HG22	16:P:264:ILE:HG22	1.79	0.65
16:P:391:THR:OG1	18:R:149:LYS:HB3	1.97	0.65
16:P:443:ASP:CB	18:R:3:GLU:HB3	2.25	0.65
17:Q:189:LYS:HA	17:Q:384:GLN:HE21	1.62	0.65
18:R:199:LYS:NZ	18:R:204:GLU:CB	2.60	0.65
1:A:1054:ALA:O	1:A:1179:ILE:HG22	1.97	0.65
2:B:1072:GLY:O	2:B:1075:GLU:N	2.29	0.65
16:P:447:THR:OG1	18:R:196:GLU:HB3	1.97	0.65
17:Q:15:CYS:HB2	17:Q:16:PRO:HA	1.77	0.65
1:A:718:THR:HG23	8:H:118:PHE:HB3	1.78	0.64
2:B:923:GLN:NE2	2:B:953:ALA:O	2.30	0.64
2:B:1072:GLY:O	2:B:1075:GLU:CA	2.45	0.64
4:D:99:LEU:HB3	4:D:100:PRO:HD3	1.78	0.64
16:P:355:GLU:CD	18:R:85:ARG:HH21	2.06	0.64
16:P:769:GLN:HA	16:P:772:ILE:HB	1.79	0.64
17:Q:15:CYS:HB3	17:Q:17:SER:H	1.62	0.64
18:R:202:THR:O	18:R:205:VAL:HG23	1.97	0.64
18:R:229:TRP:CD2	18:R:260:ASN:HA	2.32	0.64
1:A:671:GLN:HB3	2:B:952:HIS:CG	2.32	0.64
16:P:21:GLN:CB	18:R:139:GLU:OE1	2.25	0.64
16:P:454:GLN:HA	16:P:455:LYS:HE2	1.79	0.64
16:P:656:HIS:HB2	16:P:747:LEU:O	1.97	0.64
16:P:697:GLU:OE1	16:P:697:GLU:N	2.30	0.64
1:A:995:TYR:OH	2:B:715:ASN:CG	2.39	0.64
3:C:293:ARG:HB2	3:C:295:ARG:HD3	1.80	0.64
16:P:197:ARG:HE	16:P:261:VAL:HG22	1.62	0.64
1:A:825:ALA:O	2:B:1023:ARG:NH1	2.30	0.64
1:A:1329:ILE:CG2	1:A:1456:PHE:HE2	2.05	0.64
15:O:392:GLN:HB2	15:O:395:LEU:HD22	1.79	0.64
16:P:498:LEU:HD11	17:Q:364:SER:HG	1.62	0.64
16:P:662:LEU:O	16:P:665:ASN:ND2	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:208:PRO:HG2	17:Q:211:TYR:CD2	2.32	0.64
1:A:641:GLU:HB2	6:F:99:LEU:HD13	1.78	0.64
5:E:20:LYS:HE2	5:E:34:GLU:HG2	1.80	0.64
7:G:144:HIS:NE2	15:O:146:SER:N	2.46	0.64
15:O:376:TYR:CG	15:O:419:LYS:CE	2.80	0.64
16:P:775:TRP:H	17:Q:109:GLN:NE2	1.95	0.64
18:R:202:THR:CA	18:R:205:VAL:CG2	2.76	0.64
1:A:721:LYS:HZ3	8:H:90:ALA:C	2.00	0.64
2:B:373:MET:HG3	2:B:377:MET:HE3	1.79	0.64
3:C:292:GLY:HA3	3:C:295:ARG:NH2	2.12	0.64
16:P:390:GLN:HG3	18:R:152:ILE:CA	2.18	0.64
3:C:229:LEU:CD2	3:C:295:ARG:O	2.42	0.64
15:O:219:ARG:NH2	15:O:360:VAL:HG22	2.12	0.64
15:O:374:PRO:O	15:O:376:TYR:CB	2.39	0.64
15:O:387:HIS:HB2	15:O:606:MET:HE1	1.79	0.64
1:A:438:ILE:O	1:A:457:LYS:HD3	1.96	0.64
1:A:486:PRO:HG2	2:B:781:TYR:HA	1.78	0.64
1:A:1606:SER:HB3	1:A:1611:MET:HE3	1.79	0.64
2:B:202:LEU:HD23	2:B:202:LEU:N	2.11	0.64
16:P:675:PHE:HE2	16:P:741:ILE:HG21	1.63	0.64
1:A:1263:LEU:HA	1:A:1498:ILE:CD1	2.25	0.64
2:B:1079:LEU:O	2:B:1083:GLY:N	2.31	0.64
6:F:74:ILE:C	7:G:95:LEU:CD1	2.62	0.64
15:O:224:GLU:OE1	15:O:224:GLU:N	2.23	0.64
16:P:186:TYR:O	18:R:195:LEU:CD2	2.46	0.64
17:Q:19:LEU:HD11	17:Q:27:ARG:CB	2.27	0.64
17:Q:104:PHE:CZ	17:Q:156:LEU:HB2	2.33	0.64
18:R:308:PHE:HD1	18:R:309:ALA:H	1.46	0.64
18:R:316:SER:CB	18:R:349:ILE:CD1	2.59	0.64
2:B:45:HIS:NE2	2:B:500:PHE:HB3	2.13	0.64
1:A:406:LEU:HB3	1:A:408:LYS:HD3	1.80	0.63
1:A:460:LEU:HD21	2:B:1188:GLU:HG3	1.80	0.63
1:A:475:ARG:O	2:B:1059:PRO:HG2	1.99	0.63
1:A:878:ARG:HG3	9:I:66:VAL:CG2	2.27	0.63
1:A:991:LYS:CB	1:A:993:GLN:OE1	2.44	0.63
14:N:87:TYR:OH	14:N:141:GLU:OE1	2.16	0.63
2:B:531:VAL:HG13	2:B:716:MET:HA	1.77	0.63
2:B:679:GLN:CD	14:N:156:PRO:C	2.65	0.63
15:O:517:LEU:HA	15:O:525:MET:CE	2.27	0.63
17:Q:245:SER:HB3	17:Q:284:LEU:HB2	1.80	0.63
18:R:305:THR:HB	18:R:308:PHE:HE1	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:432:ASN:OD1	1:A:443:ALA:HA	1.99	0.63
1:A:966:LEU:HD21	1:A:997:PHE:HE1	1.62	0.63
1:A:1659:LYS:HG2	7:G:102:GLU:OE1	1.98	0.63
8:H:44:VAL:HG22	8:H:48:PRO:HA	1.80	0.63
16:P:488:LEU:CD2	18:R:138:PHE:CZ	2.80	0.63
18:R:180:CYS:SG	18:R:185:LYS:HG2	2.38	0.63
1:A:472:MET:CG	2:B:1073:GLU:OE1	2.46	0.63
1:A:1329:ILE:CB	1:A:1456:PHE:HE2	2.12	0.63
2:B:897:GLU:HA	12:L:46:VAL:HG23	1.80	0.63
2:B:1005:TYR:CD2	14:N:170:HIS:ND1	2.66	0.63
6:F:72:LYS:CG	6:F:142:SER:CB	2.77	0.63
6:F:73:ALA:HA	6:F:143:PHE:CG	2.32	0.63
7:G:241:ARG:CZ	15:O:189:PHE:HB3	2.29	0.63
17:Q:8:PRO:HB2	17:Q:19:LEU:HD23	1.80	0.63
1:A:436:ALA:HA	1:A:440:SER:HA	1.80	0.63
1:A:476:VAL:CA	2:B:1059:PRO:HG2	2.28	0.63
2:B:294:GLY:HA3	2:B:579:ALA:HB3	1.80	0.63
2:B:547:HIS:HB2	2:B:698:SER:HA	1.81	0.63
5:E:197:LYS:HD3	5:E:199:ILE:HD11	1.79	0.63
15:O:181:ARG:HB2	15:O:181:ARG:NH1	2.12	0.63
17:Q:385:PHE:CE2	18:R:208:TYR:CE2	2.86	0.63
2:B:64:GLY:CA	2:B:242:ASP:HB3	2.28	0.63
2:B:527:PHE:CE2	2:B:666:PRO:CB	2.82	0.63
1:A:581:ILE:HD11	1:A:585:ASP:HB3	1.81	0.63
1:A:998:HIS:CD2	2:B:711:GLN:HA	2.33	0.63
3:C:294:VAL:O	3:C:297:HIS:CB	2.44	0.63
1:A:476:VAL:HG13	2:B:1070:ARG:HA	1.81	0.63
1:A:878:ARG:HG2	9:I:67:VAL:CG1	2.05	0.63
1:A:1657:LEU:HB3	7:G:104:LEU:HD22	1.81	0.63
2:B:697:LEU:CB	2:B:702:ASN:ND2	2.59	0.63
18:R:303:THR:HG22	18:R:304:HIS:H	1.62	0.63
1:A:477:ASN:CA	2:B:1047:ARG:HD3	2.29	0.63
1:A:938:VAL:CG2	9:I:82:ILE:CD1	2.68	0.63
6:F:74:ILE:HG21	6:F:144:GLU:HG2	1.81	0.63
16:P:475:ARG:NH1	18:R:1:MET:HB3	2.12	0.63
1:A:799:GLU:HG3	1:A:1062:HIS:ND1	2.14	0.62
1:A:1276:THR:HG1	9:I:45:LEU:CD1	1.86	0.62
2:B:30:LYS:C	2:B:176:SER:CB	2.72	0.62
2:B:50:ASN:OD1	2:B:167:SER:HB2	1.99	0.62
2:B:1072:GLY:O	2:B:1075:GLU:CB	2.47	0.62
6:F:69:LEU:O	6:F:143:PHE:CE2	2.52	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:227:PHE:HD1	15:O:363:THR:HB	1.62	0.62
16:P:197:ARG:NE	16:P:261:VAL:HG22	2.14	0.62
16:P:352:PHE:HE1	18:R:157:MET:HG2	1.48	0.62
16:P:357:LEU:CD1	18:R:23:TYR:CD1	2.81	0.62
16:P:700:LEU:HD12	16:P:703:PHE:HD2	1.62	0.62
18:R:75:GLN:HA	18:R:78:ARG:HE	1.64	0.62
1:A:995:TYR:CZ	2:B:707:SER:CB	2.72	0.62
1:A:1329:ILE:CB	1:A:1456:PHE:CE2	2.82	0.62
2:B:681:ILE:CB	14:N:154:ARG:HG3	2.23	0.62
3:C:326:GLU:CB	11:K:125:MET:HE3	2.29	0.62
6:F:70:LYS:CE	7:G:95:LEU:HD23	2.26	0.62
18:R:247:ILE:CG1	18:R:249:SER:HB2	2.29	0.62
1:A:472:MET:HB3	2:B:1073:GLU:CG	2.29	0.62
15:O:376:TYR:HB2	15:O:419:LYS:HD3	1.79	0.62
16:P:438:TRP:CG	18:R:141:TRP:CZ2	2.79	0.62
17:Q:212:VAL:O	17:Q:216:GLU:HG2	1.98	0.62
18:R:152:ILE:HG23	18:R:153:ASN:N	2.13	0.62
1:A:83:VAL:HG13	1:A:427:PHE:CE2	2.34	0.62
1:A:506:THR:HG21	1:A:578:TYR:O	1.98	0.62
1:A:921:PRO:HD2	8:H:19:ARG:CG	2.28	0.62
2:B:1096:SER:O	2:B:1097:ASP:CB	2.47	0.62
7:G:144:HIS:CE1	15:O:145:SER:HB2	2.34	0.62
15:O:100:LEU:HD22	15:O:107:ILE:HD11	1.81	0.62
16:P:67:ASP:OD1	16:P:545:SER:OG	2.15	0.62
16:P:383:ILE:HG12	16:P:390:GLN:HG2	1.82	0.62
16:P:775:TRP:O	17:Q:113:LYS:NZ	2.33	0.62
18:R:157:MET:HG3	18:R:162:PHE:HB2	1.81	0.62
2:B:143:TRP:CD2	2:B:446:MET:HE3	2.35	0.62
2:B:205:MET:CE	2:B:500:PHE:O	2.47	0.62
15:O:67:ASP:OD1	15:O:69:THR:HB	2.00	0.62
15:O:450:LEU:O	15:O:454:VAL:HG12	1.99	0.62
16:P:473:HIS:C	16:P:504:THR:HG23	2.24	0.62
16:P:625:ASP:O	16:P:629:ARG:HB3	2.00	0.62
17:Q:381:MET:HE3	18:R:212:HIS:CA	2.24	0.62
1:A:720:PHE:CE2	8:H:141:TYR:CE2	2.78	0.62
1:A:825:ALA:HB3	2:B:1022:LEU:HB3	1.82	0.62
1:A:966:LEU:CD2	1:A:997:PHE:HZ	2.11	0.62
1:A:1314:GLN:HE22	1:A:1446:ARG:CZ	2.11	0.62
7:G:158:LYS:HB3	15:O:105:ASN:OD1	1.99	0.62
15:O:376:TYR:CD1	15:O:419:LYS:HD3	2.34	0.62
16:P:391:THR:OG1	18:R:149:LYS:HB2	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:22:ILE:HD11	17:Q:26:ARG:HE	1.62	0.62
17:Q:198:ILE:HG21	17:Q:388:THR:HG22	1.82	0.62
2:B:1072:GLY:O	2:B:1076:ARG:N	2.31	0.62
15:O:181:ARG:HH11	15:O:181:ARG:CG	2.12	0.62
15:O:332:LEU:HD11	15:O:380:SER:CB	2.29	0.62
16:P:184:SER:HA	18:R:198:LEU:HD23	1.82	0.62
1:A:966:LEU:CD2	1:A:997:PHE:HE1	2.09	0.62
15:O:56:VAL:HG21	15:O:99:ILE:HD12	1.82	0.62
17:Q:8:PRO:O	17:Q:9:ILE:C	2.42	0.62
17:Q:10:CYS:CB	17:Q:17:SER:H	2.13	0.62
17:Q:378:LEU:HD22	18:R:216:LEU:CD2	2.30	0.62
18:R:173:MET:CG	18:R:188:PHE:HZ	2.11	0.62
18:R:304:HIS:NE2	18:R:361:ASP:OD1	2.33	0.62
1:A:684:ASP:OD1	8:H:20:TYR:HB3	1.97	0.62
2:B:897:GLU:HA	12:L:46:VAL:CG2	2.29	0.62
15:O:245:GLN:NE2	15:O:245:GLN:HA	2.14	0.62
15:O:581:THR:HA	15:O:584:GLN:NE2	2.15	0.62
16:P:189:THR:O	16:P:450:ARG:NH2	2.33	0.62
16:P:484:ARG:O	16:P:486:ALA:N	2.32	0.62
17:Q:6:ARG:O	17:Q:7:GLY:O	2.17	0.62
17:Q:291:ASP:OD2	17:Q:291:ASP:N	2.32	0.62
17:Q:385:PHE:CZ	18:R:212:HIS:HB2	2.35	0.62
18:R:412:ARG:NH2	18:R:439:GLU:OE2	2.31	0.62
1:A:545:SER:N	17:Q:34:VAL:CB	2.63	0.62
1:A:1055:ILE:HD13	1:A:1178:LEU:HD23	1.80	0.62
17:Q:351:ASN:O	17:Q:369:TRP:HH2	1.82	0.62
18:R:1:MET:HE3	18:R:2:PHE:CE1	2.35	0.62
18:R:171:ARG:O	18:R:174:GLU:N	2.33	0.62
1:A:467:PHE:CD2	1:A:1614:SER:HB2	2.34	0.61
3:C:272:LYS:HG3	14:N:175:TYR:HE1	1.65	0.61
6:F:70:LYS:HA	6:F:73:ALA:HB3	1.82	0.61
7:G:24:VAL:HA	7:G:25:THR:CA	2.25	0.61
16:P:278:HIS:HB2	16:P:285:MET:HE3	1.82	0.61
16:P:268:SER:HG	16:P:271:ILE:H	1.48	0.61
16:P:724:LEU:HD13	17:Q:447:ALA:HB2	1.81	0.61
17:Q:9:ILE:HB	17:Q:16:PRO:CB	2.26	0.61
1:A:438:ILE:O	1:A:457:LYS:CG	2.48	0.61
1:A:493:ASN:CB	1:A:654:ASP:OD1	2.47	0.61
1:A:1318:SER:OG	1:A:1450:ILE:HD11	2.00	0.61
1:A:1650:GLY:O	1:A:1651:THR:C	2.41	0.61
1:A:1660:VAL:C	7:G:102:GLU:HG2	2.22	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:894:LYS:CG	12:L:47:ARG:NE	2.62	0.61
15:O:467:MET:CG	15:O:575:SER:HA	2.30	0.61
16:P:736:ILE:HD11	17:Q:254:LEU:HD13	1.80	0.61
17:Q:193:PHE:HD2	18:R:208:TYR:CB	2.12	0.61
17:Q:503:SER:O	17:Q:507:ASN:ND2	2.33	0.61
18:R:206:ARG:HE	18:R:206:ARG:N	1.97	0.61
1:A:729:LYS:HD2	8:H:120:GLY:HA3	1.82	0.61
1:A:826:PHE:CD1	2:B:777:SER:CB	2.83	0.61
1:A:827:THR:CG2	1:A:924:SER:HB3	2.30	0.61
16:P:389:TRP:HH2	18:R:149:LYS:H	1.45	0.61
16:P:473:HIS:CD2	16:P:475:ARG:HD2	2.35	0.61
18:R:301:SER:HB2	18:R:358:PHE:CE1	2.35	0.61
2:B:152:LEU:CB	2:B:443:LYS:CE	2.23	0.61
2:B:200:GLU:OE2	2:B:736:ARG:NH2	2.34	0.61
16:P:355:GLU:CG	18:R:28:SER:HB3	2.29	0.61
16:P:532:GLU:HB2	16:P:554:ASN:HB3	1.81	0.61
17:Q:385:PHE:CE1	18:R:212:HIS:HB2	2.34	0.61
1:A:414:GLU:O	1:A:417:ARG:N	2.33	0.61
1:A:1050:TYR:CE1	1:A:1185:VAL:HG11	2.35	0.61
2:B:143:TRP:CE3	2:B:446:MET:CE	2.82	0.61
18:R:141:TRP:H	18:R:141:TRP:CD1	2.16	0.61
1:A:472:MET:CG	2:B:1073:GLU:CD	2.73	0.61
2:B:1079:LEU:HD22	2:B:1084:THR:OG1	2.00	0.61
15:O:373:LEU:CD1	15:O:423:TYR:CD2	2.84	0.61
16:P:365:TRP:HB2	16:P:371:LYS:O	2.00	0.61
17:Q:381:MET:HE1	18:R:212:HIS:CA	2.22	0.61
2:B:184:LYS:HB3	2:B:735:HIS:CG	2.35	0.61
6:F:66:ARG:HH21	7:G:90:LEU:HD13	1.64	0.61
15:O:361:PHE:O	15:O:365:THR:HG23	1.99	0.61
15:O:510:VAL:CG1	15:O:543:ILE:HD12	2.30	0.61
1:A:1050:TYR:CE1	1:A:1179:ILE:CG1	2.76	0.61
2:B:152:LEU:CG	2:B:443:LYS:HE3	2.27	0.61
2:B:202:LEU:HD22	2:B:488:ALA:CB	2.25	0.61
2:B:923:GLN:NE2	2:B:957:ARG:HD2	2.16	0.61
2:B:1069:ILE:O	2:B:1070:ARG:CB	2.45	0.61
18:R:26:TYR:HB3	18:R:169:PRO:HB3	1.81	0.61
1:A:862:THR:HG22	9:I:67:VAL:HG11	1.83	0.61
1:A:966:LEU:HD22	1:A:997:PHE:CE1	2.36	0.61
1:A:1330:VAL:CG2	1:A:1455:ARG:HD2	2.31	0.61
2:B:203:ILE:HB	2:B:405:GLY:HA3	1.82	0.61
2:B:1091:ARG:O	2:B:1096:SER:HB2	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:25:ARG:NH1	8:H:27:GLU:OE2	2.34	0.61
15:O:515:ASN:HD21	15:O:547:ASN:HD21	1.47	0.61
1:A:399:LEU:HD21	1:A:423:LEU:CD2	2.30	0.60
1:A:545:SER:CB	17:Q:34:VAL:HG22	2.10	0.60
1:A:1226:VAL:HG12	1:A:1227:MET:HG2	1.83	0.60
1:A:1329:ILE:HG22	1:A:1456:PHE:CE2	2.30	0.60
1:A:1606:SER:HB2	1:A:1611:MET:HE3	1.80	0.60
2:B:796:ARG:O	10:J:8:PHE:HE1	1.83	0.60
15:O:200:ASN:ND2	17:Q:14:ASN:C	2.53	0.60
16:P:187:ILE:HB	16:P:188:GLN:CD	2.25	0.60
16:P:362:ARG:HB3	16:P:375:PHE:HB2	1.82	0.60
16:P:422:ILE:O	16:P:439:LYS:HB2	2.01	0.60
16:P:641:TRP:HZ2	16:P:656:HIS:HB3	1.67	0.60
1:A:422:ARG:NE	18:R:409:HIS:CE1	2.69	0.60
1:A:1314:GLN:NE2	1:A:1446:ARG:NE	2.49	0.60
1:A:1600:ARG:CG	1:A:1616:GLU:OE1	2.49	0.60
2:B:146:ASN:ND2	2:B:441:LYS:HE3	2.15	0.60
1:A:467:PHE:CD2	1:A:1614:SER:CB	2.84	0.60
1:A:474:LYS:O	2:B:1070:ARG:HG3	2.01	0.60
13:M:101:VAL:HG12	13:M:105:SER:OG	2.01	0.60
16:P:55:LEU:HD11	18:R:227:HIS:NE2	2.16	0.60
1:A:1049:MET:HB2	1:A:1052:GLY:HA2	1.80	0.60
2:B:143:TRP:CZ2	2:B:446:MET:CA	2.84	0.60
2:B:1005:TYR:CZ	14:N:170:HIS:CE1	2.89	0.60
5:E:93:MET:HG3	5:E:120:ALA:HB1	1.82	0.60
15:O:602:TYR:HD2	15:O:605:LEU:HD23	1.66	0.60
16:P:198:ASP:CG	16:P:205:TYR:O	2.44	0.60
17:Q:3:THR:HG22	17:Q:20:TRP:CB	2.29	0.60
17:Q:9:ILE:CG1	17:Q:10:CYS:N	2.50	0.60
17:Q:193:PHE:HD2	18:R:208:TYR:CD1	2.20	0.60
1:A:486:PRO:HG2	2:B:781:TYR:CA	2.29	0.60
1:A:1298:ASP:CG	1:A:1468:LYS:HZ1	2.06	0.60
2:B:497:ILE:CG1	2:B:699:ILE:CD1	2.79	0.60
15:O:375:THR:O	15:O:377:TYR:N	2.35	0.60
17:Q:441:ASP:O	17:Q:445:ARG:HG2	2.02	0.60
18:R:149:LYS:O	18:R:150:GLN:O	2.18	0.60
18:R:220:LEU:CD1	18:R:256:GLU:OE2	2.49	0.60
18:R:301:SER:CB	18:R:358:PHE:HE1	2.14	0.60
1:A:1003:ARG:NH2	2:B:530:PRO:CA	2.65	0.60
2:B:1090:ASP:HA	2:B:1094:ASN:CG	2.27	0.60
16:P:667:ASP:OD1	16:P:667:ASP:N	2.33	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:271:LEU:HD13	18:R:312:TYR:CB	2.28	0.60
1:A:489:ASN:CB	11:K:95:HIS:CD2	2.85	0.60
1:A:824:THR:C	2:B:1023:ARG:H	2.08	0.60
2:B:29:PRO:O	2:B:178:TYR:N	2.29	0.60
2:B:563:SER:HA	13:M:73:SER:CB	2.31	0.60
2:B:995:TYR:OH	14:N:163:VAL:HG23	2.01	0.60
1:A:629:ASP:HA	2:B:926:VAL:HG23	1.84	0.60
2:B:143:TRP:CH2	2:B:446:MET:HG3	2.37	0.60
2:B:207:ILE:O	2:B:207:ILE:HG22	2.02	0.60
3:C:326:GLU:HB2	11:K:125:MET:HE3	1.84	0.60
5:E:145:THR:C	5:E:147:HIS:H	2.10	0.60
15:O:438:GLN:O	15:O:441:PHE:HB3	2.02	0.60
15:O:582:ARG:O	15:O:586:ILE:HG13	2.02	0.60
16:P:426:ALA:C	16:P:433:VAL:HG11	2.27	0.60
1:A:472:MET:HE1	2:B:1076:ARG:HD2	1.84	0.60
2:B:65:VAL:CG2	2:B:417:ILE:HD12	2.32	0.60
2:B:228:SER:HB2	2:B:253:LEU:HD23	1.84	0.60
2:B:563:SER:HB3	13:M:73:SER:HB3	1.82	0.60
2:B:679:GLN:CA	14:N:155:VAL:O	2.50	0.60
17:Q:26:ARG:HB3	17:Q:34:VAL:HG11	1.75	0.60
1:A:1314:GLN:OE1	1:A:1446:ARG:CD	2.48	0.60
3:C:272:LYS:CG	14:N:175:TYR:HE1	2.14	0.60
16:P:197:ARG:HG3	16:P:261:VAL:O	2.01	0.60
16:P:437:SER:HA	18:R:140:ILE:HG23	1.84	0.60
18:R:250:LEU:HB2	18:R:270:PHE:HE2	1.67	0.60
18:R:301:SER:CB	18:R:358:PHE:CE1	2.84	0.60
2:B:345:SER:HA	13:M:113:ILE:HG12	1.83	0.59
6:F:70:LYS:CD	7:G:95:LEU:CD2	2.79	0.59
15:O:200:ASN:ND2	17:Q:14:ASN:CG	2.60	0.59
17:Q:10:CYS:HB2	17:Q:17:SER:H	1.67	0.59
17:Q:436:LEU:HD12	17:Q:436:LEU:H	1.67	0.59
18:R:229:TRP:CZ2	18:R:259:ASP:O	2.55	0.59
18:R:279:SER:CA	18:R:301:SER:OG	2.24	0.59
1:A:246:ASP:HB3	1:A:248:PHE:H	1.66	0.59
1:A:613:THR:HG21	2:B:913:ILE:HG22	1.81	0.59
2:B:1090:ASP:O	2:B:1094:ASN:N	2.33	0.59
3:C:272:LYS:HG3	14:N:175:TYR:CE1	2.36	0.59
15:O:370:THR:OG1	15:O:371:HIS:HD2	1.84	0.59
16:P:319:ASP:HB2	16:P:363:ILE:HG12	1.83	0.59
16:P:496:THR:HG21	18:R:2:PHE:HZ	0.60	0.59
18:R:250:LEU:HB2	18:R:270:PHE:CE2	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1003:ARG:NH2	2:B:530:PRO:HA	2.17	0.59
2:B:497:ILE:HG12	2:B:699:ILE:CD1	2.33	0.59
2:B:551:ILE:CG2	2:B:648:ARG:N	2.58	0.59
2:B:848:ILE:CA	12:L:60:ARG:CD	2.72	0.59
17:Q:193:PHE:CD2	18:R:208:TYR:CD1	2.90	0.59
1:A:618:TYR:HE1	2:B:783:MET:HB2	1.67	0.59
1:A:1298:ASP:CG	1:A:1468:LYS:HZ3	2.10	0.59
1:A:1650:GLY:O	1:A:1653:SER:N	2.36	0.59
2:B:531:VAL:CG1	2:B:716:MET:HA	2.33	0.59
3:C:293:ARG:N	3:C:295:ARG:CZ	2.55	0.59
3:C:314:PHE:CD2	11:K:135:PHE:CZ	2.89	0.59
15:O:240:ILE:HG23	15:O:332:LEU:CD1	2.33	0.59
16:P:496:THR:OG1	18:R:1:MET:HE3	1.91	0.59
1:A:954:GLY:N	1:A:1205:PHE:HB3	2.10	0.59
8:H:80:ARG:HG3	11:K:108:TYR:OH	2.02	0.59
16:P:317:ILE:HG22	16:P:363:ILE:HD13	1.84	0.59
2:B:143:TRP:HB3	2:B:446:MET:HE1	1.84	0.59
2:B:143:TRP:NE1	2:B:446:MET:HB2	2.18	0.59
2:B:1069:ILE:H	2:B:1069:ILE:CD1	2.16	0.59
5:E:55:ARG:NH2	5:E:113:GLN:OE1	2.36	0.59
16:P:354:PRO:HG3	18:R:31:PHE:HB3	1.79	0.59
16:P:384:ASP:OD2	16:P:387:ASN:HB2	2.03	0.59
16:P:436:ILE:HG22	18:R:143:THR:CB	2.33	0.59
17:Q:378:LEU:HD23	18:R:216:LEU:HA	1.84	0.59
1:A:435:ASN:HB3	1:A:442:LYS:CA	2.32	0.59
1:A:477:ASN:O	2:B:1047:ARG:CG	2.51	0.59
1:A:699:CYS:O	1:A:815:ARG:NH1	2.35	0.59
1:A:721:LYS:NZ	8:H:90:ALA:C	2.60	0.59
1:A:1187:ILE:HG13	2:B:1080:ILE:HG22	1.85	0.59
1:A:1484:LEU:HD11	2:B:305:ARG:NE	2.14	0.59
2:B:1120:ILE:HD12	15:O:117:GLN:HE21	1.61	0.59
3:C:45:SER:HB2	3:C:271:ARG:NH2	2.18	0.59
3:C:58:ASN:HA	3:C:296:ASN:HD21	0.78	0.59
6:F:72:LYS:CA	6:F:142:SER:CB	2.59	0.59
7:G:242:VAL:HG21	15:O:183:ILE:CG2	2.32	0.59
14:N:87:TYR:HA	14:N:141:GLU:C	2.27	0.59
15:O:376:TYR:CZ	15:O:419:LYS:HE2	2.38	0.59
15:O:376:TYR:HE2	15:O:377:TYR:HE2	1.44	0.59
1:A:406:LEU:HB2	1:A:408:LYS:HZ2	1.67	0.59
1:A:415:ASP:HA	1:A:418:VAL:HG12	1.84	0.59
1:A:998:HIS:CD2	2:B:712:SER:H	2.20	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1487:ASN:CG	2:B:305:ARG:HH22	2.11	0.59
3:C:228:ARG:HD3	14:N:173:THR:OG1	2.02	0.59
15:O:227:PHE:CD1	15:O:363:THR:HB	2.38	0.59
16:P:197:ARG:HE	16:P:261:VAL:N	1.93	0.59
16:P:391:THR:CG2	18:R:149:LYS:CB	2.80	0.59
16:P:399:TRP:CE2	18:R:87:VAL:HG23	2.37	0.59
16:P:472:ARG:CZ	18:R:200:THR:HG23	2.32	0.59
17:Q:24:ASP:OD1	17:Q:26:ARG:NH1	2.31	0.59
17:Q:369:TRP:HB3	17:Q:373:GLU:OE2	2.02	0.59
1:A:474:LYS:HE3	2:B:1092:LEU:HD21	1.77	0.59
1:A:478:TYR:CB	2:B:1048:SER:O	2.50	0.59
1:A:953:GLU:CA	1:A:1205:PHE:CG	2.85	0.59
2:B:75:ASP:CA	2:B:440:PHE:CZ	2.86	0.59
2:B:143:TRP:CD2	2:B:446:MET:CE	2.85	0.59
2:B:143:TRP:HB3	2:B:446:MET:CE	2.25	0.59
7:G:241:ARG:HG2	15:O:152:GLN:OE1	2.02	0.59
15:O:200:ASN:ND2	17:Q:14:ASN:OD1	2.36	0.59
16:P:626:LEU:HD11	16:P:665:ASN:HB2	1.84	0.59
17:Q:22:ILE:HD11	17:Q:26:ARG:CD	2.33	0.59
17:Q:369:TRP:CB	17:Q:373:GLU:OE2	2.51	0.59
1:A:4:SER:HB2	1:A:573:LEU:HD22	1.85	0.59
1:A:909:SER:HA	9:I:83:LYS:HE3	1.84	0.59
1:A:990:ILE:CA	1:A:994:GLU:CB	2.64	0.59
1:A:1298:ASP:CA	1:A:1468:LYS:HZ3	2.14	0.59
1:A:1313:LEU:HD23	1:A:1462:PHE:CZ	2.29	0.59
3:C:322:LYS:NZ	11:K:129:ASP:OD1	2.35	0.59
16:P:484:ARG:HD2	16:P:488:LEU:HD12	1.85	0.59
17:Q:385:PHE:CE2	18:R:208:TYR:CD2	2.91	0.59
1:A:449:GLY:O	1:A:451:VAL:N	2.34	0.58
1:A:953:GLU:HB3	1:A:1205:PHE:CE2	2.37	0.58
12:L:38:LEU:HD12	12:L:49:LYS:HG3	1.85	0.58
16:P:436:ILE:CG2	18:R:143:THR:CG2	2.64	0.58
16:P:443:ASP:HB2	18:R:3:GLU:H	1.66	0.58
16:P:496:THR:CG2	18:R:2:PHE:CZ	2.45	0.58
18:R:220:LEU:HD21	18:R:256:GLU:OE1	2.02	0.58
18:R:301:SER:CA	18:R:358:PHE:CZ	2.85	0.58
1:A:83:VAL:HG11	1:A:427:PHE:CE2	2.37	0.58
1:A:436:ALA:C	1:A:439:ASP:CA	2.76	0.58
1:A:1074:TYR:HE2	1:A:1159:ASP:HB3	1.69	0.58
2:B:28:PRO:HD3	10:J:62:ARG:NE	2.17	0.58
2:B:110:ASN:O	2:B:112:GLY:N	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:156:ARG:NH2	2:B:455:GLU:OE1	2.24	0.58
2:B:1005:TYR:HH	10:J:44:TYR:HD2	1.44	0.58
15:O:607:LYS:HG3	15:O:608:GLU:N	2.17	0.58
16:P:659:LEU:HD12	16:P:742:TRP:CD1	2.39	0.58
16:P:675:PHE:CZ	16:P:742:TRP:HZ3	2.21	0.58
18:R:242:ILE:HG23	18:R:244:GLY:N	2.18	0.58
18:R:350:SER:O	18:R:354:LEU:HB2	2.03	0.58
1:A:408:LYS:HE3	1:A:416:ARG:NH1	2.19	0.58
1:A:475:ARG:HH22	2:B:1061:LYS:HG3	1.67	0.58
1:A:598:ALA:HB1	1:A:601:MET:HE3	1.86	0.58
2:B:202:LEU:H	2:B:202:LEU:CD2	2.13	0.58
2:B:209:GLN:O	2:B:401:GLU:HG2	2.03	0.58
2:B:829:ASN:OD1	2:B:829:ASN:N	2.36	0.58
7:G:30:GLU:HA	7:G:32:ASN:N	2.18	0.58
15:O:473:PHE:HZ	15:O:509:MET:HE3	1.68	0.58
18:R:229:TRP:HB3	18:R:260:ASN:OD1	2.02	0.58
2:B:538:PRO:HB2	2:B:542:LEU:HG	1.84	0.58
2:B:923:GLN:HG2	2:B:949:ILE:HD11	1.85	0.58
15:O:201:LYS:CD	15:O:239:SER:OG	2.49	0.58
16:P:725:VAL:HG21	17:Q:446:TYR:CD1	2.38	0.58
17:Q:152:LEU:HB3	17:Q:154:LEU:HD22	1.85	0.58
1:A:408:LYS:HE3	1:A:416:ARG:HH12	1.67	0.58
1:A:476:VAL:HG22	2:B:1069:ILE:N	2.18	0.58
1:A:615:ARG:HH12	2:B:929:ARG:CD	2.17	0.58
1:A:1260:LYS:HE2	1:A:1262:LEU:CD2	2.33	0.58
1:A:1603:MET:HG2	1:A:1611:MET:HE1	1.85	0.58
1:A:1606:SER:HB2	1:A:1611:MET:CE	2.33	0.58
15:O:219:ARG:CZ	15:O:360:VAL:HG22	2.34	0.58
16:P:715:TYR:CE1	16:P:733:THR:HG23	2.38	0.58
1:A:408:LYS:HA	1:A:411:VAL:CG2	2.34	0.58
1:A:953:GLU:CB	1:A:1205:PHE:CD2	2.86	0.58
1:A:1050:TYR:CB	1:A:1054:ALA:HA	2.33	0.58
1:A:1298:ASP:O	1:A:1299:ASN:C	2.46	0.58
1:A:1330:VAL:HG22	1:A:1455:ARG:CD	2.34	0.58
7:G:142:ALA:HB1	15:O:102:SER:O	2.03	0.58
7:G:143:SER:OG	15:O:104:ILE:CG2	2.51	0.58
7:G:143:SER:OG	15:O:104:ILE:HG22	2.01	0.58
17:Q:354:LYS:HD2	17:Q:369:TRP:HZ2	1.69	0.58
18:R:313:LEU:CD1	18:R:353:VAL:HG21	2.33	0.58
3:C:272:LYS:HG2	14:N:175:TYR:CE1	2.30	0.58
7:G:143:SER:CB	15:O:104:ILE:N	2.49	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:68:GLU:HG2	11:K:72:LEU:HD23	1.86	0.58
15:O:219:ARG:NH2	15:O:360:VAL:CG2	2.67	0.58
1:A:718:THR:CG2	8:H:118:PHE:HB3	2.34	0.58
1:A:828:CYS:SG	2:B:1027:TYR:CB	2.92	0.58
14:N:69:SER:OG	14:N:70:LEU:N	2.37	0.58
15:O:477:PHE:CE2	15:O:525:MET:HE1	2.35	0.58
15:O:510:VAL:HG12	15:O:543:ILE:HD12	1.86	0.58
16:P:186:TYR:O	18:R:195:LEU:CB	2.52	0.58
16:P:389:TRP:HA	18:R:151:PRO:HA	1.84	0.58
16:P:399:TRP:CE2	18:R:87:VAL:CG2	2.87	0.58
16:P:420:GLU:HA	16:P:442:LEU:O	2.03	0.58
16:P:422:ILE:HG12	16:P:442:LEU:CD1	2.34	0.58
16:P:599:LYS:HE3	17:Q:272:GLN:HE22	1.69	0.58
16:P:631:SER:O	16:P:686:TYR:OH	2.20	0.58
17:Q:20:TRP:CE2	17:Q:28:THR:HB	2.39	0.58
1:A:472:MET:HE1	2:B:1076:ARG:CD	2.34	0.58
1:A:1574:ALA:C	9:I:122:ARG:NH1	2.62	0.58
2:B:203:ILE:HG21	2:B:405:GLY:CA	2.33	0.58
3:C:42:VAL:HB	11:K:138:LYS:HG3	1.86	0.58
16:P:719:LEU:HD13	16:P:733:THR:HG21	1.85	0.58
1:A:991:LYS:N	1:A:994:GLU:CB	2.67	0.57
2:B:146:ASN:HD22	2:B:441:LYS:CE	2.15	0.57
12:L:33:GLU:HG3	12:L:53:HIS:CE1	2.39	0.57
16:P:55:LEU:CD2	18:R:227:HIS:CD2	2.81	0.57
16:P:473:HIS:ND1	16:P:473:HIS:O	2.37	0.57
1:A:470:HIS:HB3	2:B:1058:GLN:HE22	1.68	0.57
1:A:921:PRO:HD3	8:H:19:ARG:CG	2.33	0.57
15:O:348:THR:HG23	15:O:351:SER:H	1.68	0.57
17:Q:20:TRP:CH2	17:Q:22:ILE:HG21	2.30	0.57
18:R:248:LYS:O	18:R:250:LEU:HD13	2.04	0.57
1:A:545:SER:N	17:Q:34:VAL:HB	2.19	0.57
2:B:404:LEU:O	2:B:405:GLY:C	2.47	0.57
2:B:683:ASN:HA	14:N:150:TYR:CE2	2.39	0.57
2:B:683:ASN:CA	14:N:154:ARG:HH22	2.14	0.57
14:N:89:ILE:HG12	14:N:139:VAL:HG22	1.85	0.57
15:O:240:ILE:HG22	15:O:380:SER:OG	2.04	0.57
18:R:9:THR:HB	18:R:205:VAL:HG13	1.86	0.57
1:A:581:ILE:HB	1:A:637:PHE:CE2	2.38	0.57
1:A:1322:ILE:C	1:A:1454:HIS:CD2	2.82	0.57
13:M:10:ILE:HB	14:N:70:LEU:HB3	1.86	0.57
15:O:552:LEU:O	15:O:553:ARG:C	2.46	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:162:ILE:HG21	17:Q:226:LEU:HD11	1.85	0.57
18:R:233:TYR:CZ	18:R:263:ASN:CB	2.87	0.57
1:A:535:GLN:HE22	17:Q:26:ARG:CG	2.17	0.57
1:A:1204:THR:HG21	9:I:97:HIS:CB	2.33	0.57
2:B:567:SER:O	14:N:140:SER:CB	2.52	0.57
2:B:743:ARG:CZ	10:J:60:PHE:CZ	2.84	0.57
18:R:220:LEU:HD11	18:R:256:GLU:CD	2.30	0.57
1:A:1032:VAL:HG21	1:A:1050:TYR:HE1	1.68	0.57
1:A:1655:ASP:O	6:F:135:ARG:N	2.23	0.57
15:O:190:ILE:HA	15:O:193:TYR:CD2	2.39	0.57
16:P:354:PRO:CB	18:R:31:PHE:HB2	2.34	0.57
17:Q:362:THR:O	17:Q:365:ASP:HB2	2.04	0.57
17:Q:418:PRO:HG2	18:R:233:TYR:CZ	2.38	0.57
1:A:396:ILE:HD11	1:A:426:ALA:HB1	1.85	0.57
1:A:588:LEU:HD21	2:B:1087:LEU:CD1	2.31	0.57
1:A:672:ASP:CG	2:B:777:SER:CB	2.77	0.57
2:B:49:PHE:CG	2:B:164:MET:HE3	2.40	0.57
15:O:205:ARG:O	15:O:209:VAL:HG12	2.05	0.57
16:P:257:ARG:HG3	16:P:411:LYS:HZ1	1.70	0.57
16:P:268:SER:OG	16:P:269:PHE:N	2.36	0.57
16:P:357:LEU:CD1	18:R:23:TYR:HD1	2.17	0.57
16:P:462:ILE:HB	16:P:483:HIS:HB3	1.87	0.57
17:Q:222:PHE:HA	17:Q:492:ALA:HB1	1.85	0.57
18:R:181:THR:O	18:R:185:LYS:HG3	2.04	0.57
2:B:338:PHE:HZ	2:B:357:ILE:HD12	1.70	0.57
16:P:389:TRP:CH2	18:R:149:LYS:O	2.57	0.57
1:A:1606:SER:CB	1:A:1611:MET:CE	2.79	0.57
2:B:1013:MET:SD	2:B:1026:ILE:HG12	2.45	0.57
16:P:365:TRP:HB3	16:P:372:ILE:HG22	1.86	0.57
16:P:407:ARG:HH22	16:P:411:LYS:HA	1.70	0.57
16:P:496:THR:CB	18:R:1:MET:HE1	2.33	0.57
17:Q:410:ARG:HE	17:Q:413:LEU:HD13	1.69	0.57
18:R:314:TRP:NE1	18:R:363:GLU:OE2	2.38	0.57
1:A:1118:VAL:HG11	5:E:199:ILE:HG13	1.87	0.57
2:B:49:PHE:CE2	2:B:194:PHE:CE2	2.93	0.57
2:B:833:PRO:HG2	2:B:836:TRP:CE2	2.40	0.57
2:B:943:ILE:CD1	10:J:44:TYR:CZ	2.68	0.57
7:G:144:HIS:CE1	15:O:145:SER:HB3	2.38	0.57
16:P:301:GLN:N	16:P:319:ASP:O	2.37	0.57
16:P:355:GLU:HB3	18:R:28:SER:CB	2.34	0.57
17:Q:337:SER:HB2	17:Q:448:LYS:HD3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:413:LEU:O	1:A:416:ARG:CG	2.49	0.56
1:A:435:ASN:HB3	1:A:442:LYS:C	2.30	0.56
1:A:615:ARG:CZ	2:B:929:ARG:HE	2.16	0.56
1:A:984:GLY:HA3	1:A:994:GLU:OE1	2.02	0.56
1:A:1235:THR:O	1:A:1544:ASN:ND2	2.38	0.56
2:B:681:ILE:HB	14:N:154:ARG:CB	2.34	0.56
3:C:315:PHE:HE2	11:K:139:ILE:HD12	1.70	0.56
15:O:109:SER:OG	15:O:111:ARG:HG3	2.05	0.56
1:A:1482:LYS:CE	2:B:304:ASP:CG	2.63	0.56
1:A:1484:LEU:HD11	2:B:305:ARG:CD	2.35	0.56
2:B:45:HIS:O	2:B:164:MET:HE1	2.06	0.56
15:O:376:TYR:CE1	15:O:588:LEU:HD22	2.25	0.56
16:P:349:GLY:CA	18:R:154:LYS:HA	2.21	0.56
16:P:662:LEU:HB3	16:P:665:ASN:HD21	1.67	0.56
17:Q:211:TYR:O	17:Q:214:ILE:HG22	2.05	0.56
17:Q:411:ARG:O	17:Q:415:LYS:HB2	2.05	0.56
1:A:1032:VAL:HG22	1:A:1050:TYR:CD1	2.39	0.56
2:B:679:GLN:HG3	14:N:156:PRO:N	2.18	0.56
2:B:1072:GLY:H	2:B:1075:GLU:CD	2.13	0.56
5:E:90:VAL:HG13	5:E:120:ALA:HA	1.88	0.56
6:F:72:LYS:HD3	6:F:142:SER:CB	2.28	0.56
7:G:56:ASN:HB3	7:G:59:GLN:HB3	1.87	0.56
16:P:390:GLN:O	18:R:150:GLN:HB2	2.04	0.56
16:P:436:ILE:CB	18:R:143:THR:CG2	1.99	0.56
16:P:608:GLN:HA	16:P:611:ILE:HD12	1.87	0.56
17:Q:12:THR:HB	17:Q:33:HIS:ND1	2.18	0.56
17:Q:22:ILE:HD12	17:Q:26:ARG:NE	2.18	0.56
17:Q:418:PRO:HG2	18:R:233:TYR:CE2	2.39	0.56
18:R:173:MET:CG	18:R:188:PHE:CZ	2.87	0.56
18:R:180:CYS:SG	18:R:185:LYS:CG	2.94	0.56
18:R:236:PHE:O	18:R:240:ILE:HG22	2.05	0.56
1:A:615:ARG:HH12	2:B:929:ARG:HD3	1.71	0.56
1:A:953:GLU:C	1:A:1205:PHE:HB3	2.27	0.56
2:B:796:ARG:NH2	10:J:8:PHE:O	2.37	0.56
15:O:234:ILE:CG1	15:O:367:LEU:HD13	2.36	0.56
16:P:186:TYR:C	18:R:195:LEU:CD2	2.75	0.56
17:Q:22:ILE:HD12	17:Q:24:ASP:OD1	2.04	0.56
18:R:6:ILE:HD11	18:R:214:VAL:HG23	1.87	0.56
1:A:672:ASP:OD1	2:B:777:SER:CB	2.53	0.56
1:A:1482:LYS:HD3	2:B:304:ASP:CG	2.29	0.56
1:A:1657:LEU:CB	7:G:104:LEU:HD13	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:37:LYS:HG3	11:K:134:LYS:HZ2	1.71	0.56
13:M:15:VAL:HG22	13:M:90:LEU:HB2	1.88	0.56
15:O:63:LEU:HD23	15:O:111:ARG:HD2	1.87	0.56
15:O:376:TYR:CD2	15:O:419:LYS:HE2	2.40	0.56
17:Q:351:ASN:CG	17:Q:369:TRP:CE2	2.83	0.56
18:R:310:ILE:HG21	18:R:363:GLU:OE1	2.05	0.56
3:C:86:PHE:HE2	3:C:205:LYS:HG3	1.69	0.56
6:F:66:ARG:HH22	7:G:90:LEU:CB	2.19	0.56
16:P:233:VAL:HG12	16:P:234:THR:H	1.71	0.56
16:P:350:THR:HG21	18:R:155:GLN:C	2.30	0.56
18:R:83:HIS:O	18:R:85:ARG:N	2.39	0.56
1:A:476:VAL:HA	2:B:1059:PRO:HG2	1.88	0.56
1:A:1499:ARG:O	1:A:1500:GLN:HB2	2.05	0.56
2:B:30:LYS:O	2:B:176:SER:CB	2.54	0.56
2:B:54:GLU:HG3	2:B:168:ASN:HD21	1.71	0.56
2:B:184:LYS:CD	2:B:735:HIS:CD2	2.89	0.56
2:B:208:VAL:HG23	2:B:401:GLU:CG	2.35	0.56
2:B:819:ASP:CG	2:B:820:PRO:HD2	2.31	0.56
1:A:503:VAL:HG23	1:A:530:TRP:CB	2.19	0.56
2:B:548:LYS:O	2:B:549:CYS:C	2.47	0.56
11:K:49:LEU:HD23	11:K:51:THR:HG23	1.86	0.56
15:O:359:GLY:O	15:O:363:THR:CG2	2.53	0.56
16:P:317:ILE:HG13	16:P:326:ILE:HD13	1.86	0.56
16:P:436:ILE:CG2	18:R:142:ARG:C	2.78	0.56
16:P:712:ASP:OD1	16:P:712:ASP:N	2.38	0.56
17:Q:194:GLN:HG3	18:R:209:ARG:NE	2.18	0.56
17:Q:287:TRP:NE1	17:Q:289:ARG:HB3	2.21	0.56
1:A:797:LEU:HD13	1:A:809:VAL:HG21	1.87	0.56
1:A:986:PHE:CE2	2:B:958:MET:CE	2.88	0.56
15:O:200:ASN:OD1	17:Q:14:ASN:CG	2.47	0.56
15:O:332:LEU:CD2	15:O:599:LEU:HD21	2.36	0.56
15:O:376:TYR:CZ	15:O:588:LEU:CD2	2.76	0.56
1:A:1187:ILE:HG13	2:B:1080:ILE:CG2	2.36	0.56
3:C:314:PHE:CE2	11:K:135:PHE:CE1	2.94	0.56
15:O:578:SER:O	15:O:579:LEU:HB2	2.06	0.56
16:P:399:TRP:CZ2	18:R:87:VAL:HG22	2.40	0.56
17:Q:274:ILE:HG23	17:Q:282:ARG:HH22	1.71	0.56
17:Q:318:LEU:HB3	17:Q:476:ILE:HD12	1.87	0.56
18:R:308:PHE:HD1	18:R:309:ALA:N	2.04	0.56
1:A:966:LEU:HD22	1:A:997:PHE:CZ	2.40	0.55
2:B:401:GLU:HG3	2:B:402:VAL:H	1.69	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:563:SER:HA	13:M:73:SER:OG	2.06	0.55
2:B:1005:TYR:CE1	14:N:170:HIS:CE1	2.93	0.55
2:B:1047:ARG:HG2	2:B:1049:THR:N	2.21	0.55
3:C:292:GLY:HA3	3:C:295:ARG:HH22	1.71	0.55
15:O:66:ASN:N	15:O:66:ASN:ND2	2.53	0.55
15:O:376:TYR:CE2	15:O:377:TYR:CD2	2.93	0.55
16:P:184:SER:CA	18:R:198:LEU:HD23	2.36	0.55
1:A:403:LEU:HD11	1:A:419:ILE:HD13	1.88	0.55
1:A:436:ALA:CA	1:A:440:SER:HA	2.37	0.55
1:A:999:CYS:CA	2:B:712:SER:HB2	2.21	0.55
6:F:66:ARG:HH22	7:G:90:LEU:HD12	1.57	0.55
15:O:243:GLU:CB	15:O:332:LEU:CD1	2.84	0.55
15:O:602:TYR:CD2	15:O:605:LEU:HD23	2.40	0.55
16:P:665:ASN:OD1	16:P:665:ASN:N	2.31	0.55
17:Q:103:LEU:HD21	17:Q:205:ILE:HG21	1.88	0.55
17:Q:341:ARG:NH2	17:Q:369:TRP:HE1	2.05	0.55
2:B:30:LYS:HG2	2:B:178:TYR:CB	2.35	0.55
2:B:985:ILE:CG1	14:N:160:VAL:HG21	2.37	0.55
3:C:223:SER:HB3	10:J:12:LYS:HB2	1.87	0.55
15:O:200:ASN:ND2	17:Q:14:ASN:CB	2.65	0.55
15:O:219:ARG:NE	15:O:230:TRP:HE1	2.05	0.55
15:O:223:SER:O	15:O:226:GLY:N	2.35	0.55
16:P:194:ARG:HA	16:P:209:LYS:O	2.07	0.55
16:P:358:SER:HB3	16:P:377:ARG:HD3	1.87	0.55
16:P:362:ARG:HH22	16:P:364:GLU:HG3	1.71	0.55
18:R:320:CYS:O	18:R:323:SER:N	2.40	0.55
2:B:203:ILE:CG2	2:B:405:GLY:HA3	2.35	0.55
2:B:985:ILE:C	14:N:160:VAL:CG2	2.80	0.55
5:E:159:ASP:OD1	5:E:162:ARG:NH1	2.38	0.55
7:G:144:HIS:CE1	15:O:146:SER:OG	2.60	0.55
8:H:80:ARG:NH1	11:K:108:TYR:CD1	2.74	0.55
15:O:412:GLU:OE1	15:O:416:LYS:HD3	2.06	0.55
16:P:186:TYR:O	18:R:195:LEU:HD22	2.05	0.55
16:P:350:THR:CG2	18:R:155:GLN:CA	2.84	0.55
16:P:592:LEU:O	16:P:596:ILE:HG22	2.06	0.55
17:Q:163:SER:HA	17:Q:230:ILE:HG22	1.88	0.55
18:R:229:TRP:CE3	18:R:260:ASN:CA	2.86	0.55
18:R:353:VAL:CG1	18:R:364:VAL:HB	2.36	0.55
18:R:369:ALA:HB1	18:R:411:VAL:HG23	1.86	0.55
1:A:916:THR:O	1:A:919:LYS:NZ	2.40	0.55
2:B:322:ASN:HB3	2:B:325:GLN:H	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:65:ASN:O	3:C:69:ARG:HG3	2.07	0.55
16:P:475:ARG:HH22	17:Q:360:LYS:HE3	1.70	0.55
16:P:623:LEU:HG	16:P:678:LEU:HD12	1.88	0.55
17:Q:290:THR:HB	17:Q:292:GLU:N	2.22	0.55
17:Q:389:GLN:HB3	18:R:209:ARG:NH2	2.19	0.55
18:R:361:ASP:C	18:R:363:GLU:H	2.14	0.55
1:A:821:ILE:O	1:A:825:ALA:N	2.40	0.55
1:A:1260:LYS:HE2	1:A:1262:LEU:HG	1.89	0.55
2:B:119:ARG:CZ	12:L:53:HIS:HE1	2.17	0.55
2:B:859:CYS:HB3	2:B:872:LYS:HB2	1.88	0.55
16:P:399:TRP:HE1	18:R:87:VAL:HG22	1.70	0.55
16:P:534:VAL:HA	16:P:552:LEU:O	2.06	0.55
1:A:477:ASN:CG	2:B:1047:ARG:NH1	2.56	0.55
1:A:953:GLU:HB3	1:A:1205:PHE:CZ	2.41	0.55
1:A:1314:GLN:CD	1:A:1446:ARG:HH11	2.13	0.55
2:B:679:GLN:OE1	14:N:157:ARG:HB2	2.06	0.55
5:E:145:THR:O	5:E:147:HIS:N	2.38	0.55
15:O:169:THR:HA	15:O:172:HIS:ND1	2.22	0.55
18:R:236:PHE:HZ	18:R:253:ILE:HD11	0.74	0.55
1:A:502:ALA:HB1	1:A:530:TRP:NE1	2.21	0.55
1:A:508:PRO:CD	1:A:639:GLN:HG3	2.37	0.55
1:A:721:LYS:HE2	8:H:93:TYR:O	2.07	0.55
2:B:143:TRP:CG	2:B:446:MET:HE3	2.37	0.55
2:B:373:MET:O	2:B:377:MET:HG3	2.07	0.55
2:B:625:GLU:OE1	2:B:667:PHE:HB3	2.07	0.55
15:O:191:ASP:O	15:O:194:LEU:HB2	2.06	0.55
15:O:468:GLU:C	15:O:470:PHE:H	2.15	0.55
16:P:472:ARG:CG	18:R:198:LEU:O	2.55	0.55
1:A:408:LYS:H	1:A:408:LYS:HD3	1.70	0.55
1:A:909:SER:CA	9:I:83:LYS:NZ	2.61	0.55
1:A:998:HIS:NE2	2:B:711:GLN:HA	2.22	0.55
1:A:1049:MET:CB	1:A:1052:GLY:N	2.64	0.55
2:B:203:ILE:CG2	2:B:405:GLY:HA2	2.37	0.55
15:O:69:THR:O	15:O:73:ILE:HG13	2.07	0.55
17:Q:24:ASP:CG	17:Q:26:ARG:HE	2.14	0.55
17:Q:335:THR:HG21	17:Q:478:ARG:HG3	1.88	0.55
1:A:506:THR:HB	1:A:579:ARG:O	2.03	0.55
1:A:827:THR:HG21	1:A:924:SER:HB3	1.89	0.55
1:A:1162:ASN:HD21	1:A:1164:LYS:HB2	1.71	0.55
1:A:1641:ILE:HG23	2:B:1092:LEU:HD13	1.88	0.55
3:C:139:LYS:HG2	3:C:201:GLU:HB3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:141:SER:CB	15:O:142:ILE:HD11	2.20	0.55
7:G:159:LYS:CD	15:O:103:ASN:CG	2.63	0.55
16:P:355:GLU:CB	18:R:28:SER:HB3	2.37	0.55
16:P:375:PHE:HD1	16:P:402:ILE:HD13	1.69	0.55
16:P:472:ARG:HG2	18:R:198:LEU:O	2.07	0.55
16:P:662:LEU:HB3	16:P:665:ASN:CG	2.33	0.55
18:R:187:TYR:O	18:R:191:ILE:HG23	2.06	0.55
1:A:476:VAL:CG2	2:B:1070:ARG:H	2.05	0.54
1:A:1446:ARG:O	1:A:1450:ILE:HG13	2.08	0.54
15:O:348:THR:HG22	15:O:351:SER:CB	2.26	0.54
16:P:468:VAL:HG22	16:P:477:TYR:HB3	1.89	0.54
16:P:474:LYS:O	16:P:499:GLU:HB2	2.07	0.54
16:P:475:ARG:HD3	18:R:1:MET:CG	2.37	0.54
16:P:488:LEU:CG	18:R:138:PHE:CD2	2.90	0.54
18:R:6:ILE:CD1	18:R:214:VAL:HG23	2.37	0.54
18:R:161:ASN:O	18:R:164:LYS:HB2	2.07	0.54
18:R:229:TRP:CD2	18:R:259:ASP:O	2.60	0.54
1:A:408:LYS:HB2	1:A:411:VAL:O	2.08	0.54
1:A:1658:ALA:HA	6:F:132:LEU:HA	1.87	0.54
2:B:48:SER:HB3	2:B:404:LEU:HD13	1.88	0.54
2:B:212:ASN:OD1	2:B:238:SER:HA	2.08	0.54
2:B:284:SER:OG	2:B:287:GLU:HG3	2.07	0.54
2:B:548:LYS:O	2:B:550:ARG:CZ	2.56	0.54
15:O:163:ILE:HD12	15:O:207:LYS:HE3	1.89	0.54
16:P:472:ARG:HH11	18:R:203:SER:HB2	1.64	0.54
17:Q:381:MET:HE1	18:R:212:HIS:CD2	2.23	0.54
1:A:1310:LYS:HG2	1:A:1311:GLU:CG	2.38	0.54
2:B:64:GLY:CA	2:B:242:ASP:HB2	2.38	0.54
3:C:315:PHE:CE2	11:K:139:ILE:CD1	2.88	0.54
7:G:20:HIS:ND1	7:G:20:HIS:O	2.38	0.54
10:J:10:CYS:HB3	10:J:43:ARG:NH1	2.21	0.54
15:O:359:GLY:O	15:O:363:THR:HG22	2.08	0.54
16:P:436:ILE:CG2	18:R:143:THR:CB	2.85	0.54
16:P:448:THR:HG23	16:P:471:MET:H	1.71	0.54
16:P:504:THR:HG22	16:P:505:PRO:HD2	1.88	0.54
17:Q:227:TYR:O	17:Q:230:ILE:HG13	2.06	0.54
1:A:436:ALA:HA	1:A:439:ASP:C	2.28	0.54
2:B:551:ILE:HG23	2:B:647:SER:C	2.29	0.54
6:F:72:LYS:NZ	6:F:140:ASP:OD2	2.21	0.54
16:P:218:VAL:HG22	16:P:246:LYS:HB3	1.89	0.54
16:P:414:ILE:HB	16:P:425:GLY:C	2.32	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:496:THR:HG1	18:R:1:MET:CE	2.13	0.54
16:P:722:TRP:CD1	17:Q:264:PRO:HD3	2.42	0.54
17:Q:8:PRO:HB2	17:Q:19:LEU:CD2	2.36	0.54
1:A:721:LYS:NZ	8:H:91:ASP:CA	2.68	0.54
16:P:320:ILE:HG13	16:P:323:ASN:OD1	2.07	0.54
1:A:67:LEU:HD13	1:A:71:PHE:O	2.08	0.54
15:O:468:GLU:C	15:O:470:PHE:N	2.65	0.54
16:P:21:GLN:HB3	18:R:139:GLU:HB2	1.88	0.54
16:P:221:ARG:HH12	16:P:266:GLU:HB3	1.73	0.54
16:P:315:PHE:HB3	16:P:317:ILE:CD1	2.37	0.54
17:Q:101:LYS:O	17:Q:105:LEU:HG	2.07	0.54
1:A:671:GLN:CB	2:B:952:HIS:CD2	2.90	0.54
1:A:1025:LYS:NZ	2:B:1076:ARG:NH1	2.56	0.54
2:B:203:ILE:HG22	2:B:405:GLY:HA2	1.90	0.54
2:B:550:ARG:O	2:B:648:ARG:O	2.26	0.54
15:O:235:GLU:O	15:O:238:ILE:HD13	2.08	0.54
15:O:243:GLU:HB3	15:O:332:LEU:CD1	2.30	0.54
16:P:350:THR:HG21	18:R:156:LYS:H	1.71	0.54
16:P:492:LEU:HD22	16:P:492:LEU:H	1.73	0.54
17:Q:378:LEU:HG	18:R:219:LEU:CD1	2.30	0.54
1:A:581:ILE:HG12	1:A:582:LYS:N	2.21	0.54
1:A:719:ILE:HA	8:H:97:MET:HA	1.89	0.54
1:A:1657:LEU:CD2	7:G:104:LEU:CD1	2.61	0.54
3:C:230:LEU:HD22	3:C:297:HIS:CE1	2.43	0.54
6:F:72:LYS:HB3	6:F:142:SER:HA	0.59	0.54
7:G:229:LEU:HD12	7:G:230:ARG:H	1.72	0.54
16:P:659:LEU:HD12	16:P:742:TRP:NE1	2.23	0.54
17:Q:6:ARG:HA	17:Q:18:ARG:HD2	1.88	0.54
17:Q:196:SER:CB	17:Q:204:ARG:HG2	2.37	0.54
17:Q:333:SER:HA	17:Q:336:GLU:HG2	1.89	0.54
1:A:492:THR:HG23	1:A:811:SER:OG	2.08	0.54
2:B:21:ARG:NH1	2:B:22:GLU:OE1	2.40	0.54
2:B:42:VAL:HG21	2:B:190:ILE:HD12	1.89	0.54
2:B:550:ARG:N	2:B:650:LEU:O	2.40	0.54
2:B:574:SER:O	13:M:97:VAL:HG22	2.07	0.54
2:B:1071:VAL:C	2:B:1075:GLU:HG3	2.27	0.54
3:C:97:LEU:HD11	3:C:202:ILE:HD13	1.90	0.54
16:P:711:LEU:HD21	16:P:741:ILE:HD13	1.90	0.54
1:A:1275:THR:C	9:I:45:LEU:O	2.48	0.54
3:C:45:SER:CB	3:C:271:ARG:NH2	2.71	0.54
16:P:273:ARG:HG2	16:P:291:PRO:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:444:PRO:HG2	16:P:449:LEU:HD11	1.89	0.54
18:R:26:TYR:CB	18:R:169:PRO:HB3	2.37	0.54
18:R:158:THR:HG23	18:R:161:ASN:H	1.72	0.54
1:A:1162:ASN:HD22	1:A:1165:LYS:HG3	1.71	0.53
2:B:894:LYS:HG2	12:L:47:ARG:CD	2.38	0.53
2:B:1073:GLU:HA	2:B:1076:ARG:CB	2.38	0.53
7:G:35:SER:HG	7:G:132:VAL:H	1.56	0.53
13:M:12:ILE:HD12	14:N:67:LEU:HB2	1.90	0.53
15:O:467:MET:HG2	15:O:575:SER:HA	1.89	0.53
16:P:399:TRP:NE1	18:R:87:VAL:O	2.16	0.53
16:P:443:ASP:HB2	18:R:3:GLU:CB	2.31	0.53
1:A:475:ARG:HD2	2:B:1059:PRO:O	2.07	0.53
1:A:1657:LEU:O	6:F:132:LEU:C	2.49	0.53
2:B:25:PHE:O	10:J:62:ARG:HD3	2.08	0.53
2:B:317:TYR:HB3	2:B:320:LEU:HD12	1.89	0.53
3:C:315:PHE:CZ	11:K:139:ILE:HD12	2.42	0.53
7:G:132:VAL:HG22	7:G:232:THR:HG22	1.90	0.53
11:K:48:LYS:HE2	11:K:64:GLN:NE2	2.23	0.53
16:P:394:VAL:HG22	16:P:434:ARG:HH11	1.73	0.53
17:Q:162:ILE:HG22	17:Q:226:LEU:HD21	1.90	0.53
18:R:273:TRP:O	18:R:277:ILE:HG22	2.08	0.53
1:A:615:ARG:HH12	2:B:929:ARG:NE	2.02	0.53
1:A:1297:PHE:CD2	9:I:60:LEU:HD13	2.43	0.53
1:A:1657:LEU:CD2	7:G:104:LEU:HB3	2.38	0.53
2:B:788:ILE:HB	2:B:948:ILE:HB	1.89	0.53
2:B:1092:LEU:C	2:B:1096:SER:CB	2.82	0.53
3:C:33:VAL:CG1	11:K:130:VAL:HG21	2.38	0.53
5:E:145:THR:C	5:E:147:HIS:N	2.65	0.53
1:A:407:GLN:O	1:A:408:LYS:NZ	2.38	0.53
1:A:544:VAL:HA	17:Q:34:VAL:H	1.74	0.53
1:A:1136:VAL:HG22	1:A:1174:TYR:CG	2.44	0.53
2:B:25:PHE:CZ	10:J:59:LYS:HD2	2.44	0.53
13:M:11:GLU:N	13:M:86:LYS:O	2.36	0.53
15:O:189:PHE:CD1	15:O:190:ILE:N	2.76	0.53
1:A:824:THR:O	2:B:1023:ARG:HB2	2.08	0.53
1:A:1262:LEU:HD23	1:A:1497:ILE:HA	1.90	0.53
1:A:1482:LYS:CD	2:B:304:ASP:CG	2.81	0.53
2:B:16:PHE:HD2	10:J:32:GLU:OE2	1.90	0.53
2:B:38:LEU:HD11	2:B:493:PHE:CZ	2.43	0.53
2:B:1065:ARG:O	2:B:1065:ARG:HG3	2.08	0.53
3:C:142:ARG:NH2	10:J:67:GLU:OE2	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:245:GLN:HG3	15:O:377:TYR:O	2.09	0.53
2:B:38:LEU:HD11	2:B:493:PHE:HZ	1.74	0.53
7:G:154:ASN:HD21	15:O:182:MET:HE3	1.73	0.53
13:M:75:GLN:HB2	14:N:60:SER:HA	1.91	0.53
15:O:373:LEU:HD12	15:O:423:TYR:CD2	2.43	0.53
16:P:197:ARG:HB3	16:P:261:VAL:O	2.08	0.53
1:A:209:THR:HG21	5:E:173:SER:OG	2.09	0.53
1:A:474:LYS:CE	2:B:1092:LEU:HD22	2.33	0.53
1:A:966:LEU:HD21	1:A:997:PHE:CZ	2.36	0.53
1:A:1002:GLY:HA3	2:B:713:PRO:HD3	1.91	0.53
1:A:1025:LYS:HZ2	2:B:1076:ARG:NH1	2.07	0.53
1:A:1654:PHE:CD2	6:F:134:ILE:HG23	2.44	0.53
2:B:894:LYS:HG2	12:L:47:ARG:HD2	1.90	0.53
2:B:1003:ALA:C	14:N:169:GLU:H	2.15	0.53
3:C:67:PHE:O	3:C:71:MET:HG3	2.08	0.53
3:C:272:LYS:HA	14:N:175:TYR:CD2	2.43	0.53
16:P:650:LEU:HD13	16:P:652:GLY:H	1.74	0.53
18:R:152:ILE:HD13	18:R:153:ASN:O	2.08	0.53
1:A:1317:ILE:HA	1:A:1321:PHE:HB3	1.90	0.53
2:B:134:ARG:HD2	2:B:160:GLY:HA3	1.91	0.53
2:B:664:VAL:HG22	2:B:672:MET:HE1	1.91	0.53
3:C:33:VAL:HG12	11:K:130:VAL:HG21	1.90	0.53
15:O:243:GLU:HA	15:O:328:LEU:HD23	1.90	0.53
16:P:365:TRP:HE3	16:P:372:ILE:HG22	1.73	0.53
16:P:408:ILE:HB	16:P:453:VAL:HG21	1.91	0.53
18:R:213:ILE:HG12	18:R:242:ILE:HD13	1.90	0.53
1:A:878:ARG:NH2	9:I:66:VAL:O	2.37	0.53
1:A:953:GLU:C	1:A:1205:PHE:HB2	2.24	0.53
2:B:679:GLN:N	14:N:155:VAL:O	2.41	0.53
2:B:699:ILE:O	2:B:703:LEU:HG	2.08	0.53
2:B:762:MET:HE2	2:B:762:MET:HA	1.91	0.53
15:O:473:PHE:HE2	15:O:516:PRO:HG3	1.73	0.53
17:Q:361:PRO:O	17:Q:364:SER:N	2.42	0.53
17:Q:381:MET:HE1	18:R:212:HIS:HA	1.76	0.53
18:R:168:ILE:HD11	18:R:172:LYS:HE2	1.90	0.53
18:R:247:ILE:HB	18:R:249:SER:CB	2.38	0.53
18:R:352:TRP:O	18:R:356:PRO:HD3	2.08	0.53
1:A:862:THR:CA	9:I:67:VAL:HG12	2.39	0.53
2:B:527:PHE:CG	2:B:666:PRO:HB3	2.44	0.53
7:G:30:GLU:HA	7:G:32:ASN:H	1.74	0.53
9:I:96:TYR:HA	9:I:111:PHE:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:63:LEU:CD2	15:O:111:ARG:HD2	2.38	0.53
16:P:292:LEU:CD1	16:P:343:LEU:HG	2.39	0.53
16:P:391:THR:HG21	18:R:149:LYS:CG	2.39	0.53
17:Q:370:SER:O	17:Q:373:GLU:N	2.42	0.53
1:A:481:ARG:HB3	2:B:1045:GLN:O	2.09	0.52
1:A:969:PHE:CE2	1:A:978:ALA:HA	2.44	0.52
1:A:1484:LEU:CD1	2:B:305:ARG:NH1	2.56	0.52
2:B:1092:LEU:CA	2:B:1096:SER:CB	2.79	0.52
15:O:337:THR:O	15:O:341:THR:OG1	2.27	0.52
16:P:399:TRP:NE1	18:R:87:VAL:HG22	2.24	0.52
16:P:436:ILE:CB	18:R:143:THR:CB	2.84	0.52
17:Q:15:CYS:CB	17:Q:17:SER:N	2.59	0.52
18:R:202:THR:HA	18:R:205:VAL:HG23	1.82	0.52
18:R:252:GLY:O	18:R:256:GLU:CB	2.56	0.52
1:A:477:ASN:CA	2:B:1047:ARG:NH1	2.69	0.52
1:A:1289:SER:HB3	1:A:1475:GLU:HG2	1.91	0.52
2:B:1091:ARG:CZ	2:B:1095:SER:OG	2.56	0.52
17:Q:115:GLN:HB3	17:Q:190:MET:HE2	1.91	0.52
18:R:305:THR:HB	18:R:308:PHE:CE1	2.43	0.52
1:A:686:PHE:CZ	8:H:121:LEU:HD11	2.40	0.52
2:B:679:GLN:HA	14:N:155:VAL:O	2.09	0.52
15:O:100:LEU:HD22	15:O:107:ILE:CD1	2.37	0.52
16:P:265:THR:HG23	16:P:274:ILE:HG12	1.90	0.52
17:Q:321:ASP:O	17:Q:324:ARG:N	2.27	0.52
18:R:171:ARG:O	18:R:174:GLU:HB3	2.09	0.52
18:R:199:LYS:NZ	18:R:204:GLU:HB3	2.23	0.52
15:O:206:ARG:HA	15:O:209:VAL:HG12	1.91	0.52
15:O:240:ILE:HD13	15:O:240:ILE:N	2.23	0.52
15:O:499:GLU:O	15:O:502:LEU:HG	2.09	0.52
16:P:448:THR:HG21	16:P:471:MET:H	1.74	0.52
17:Q:22:ILE:HD12	17:Q:26:ARG:NH1	2.24	0.52
1:A:1650:GLY:C	1:A:1652:GLY:N	2.38	0.52
15:O:467:MET:HG3	15:O:519:PHE:CZ	2.45	0.52
16:P:426:ALA:O	16:P:433:VAL:HG11	2.10	0.52
17:Q:8:PRO:CB	17:Q:19:LEU:HD23	2.39	0.52
17:Q:447:ALA:HA	17:Q:450:THR:HB	1.92	0.52
17:Q:505:ILE:HA	17:Q:508:ALA:HB3	1.90	0.52
1:A:1276:THR:H	9:I:45:LEU:C	2.11	0.52
1:A:1298:ASP:HA	1:A:1468:LYS:NZ	2.20	0.52
2:B:796:ARG:HB3	10:J:8:PHE:HD1	1.75	0.52
2:B:833:PRO:O	2:B:834:LYS:HB3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:215:ASP:CG	12:L:70:ARG:HH22	2.17	0.52
4:D:80:THR:OG1	15:O:228:GLN:HG2	2.10	0.52
7:G:24:VAL:N	7:G:128:GLN:CD	2.28	0.52
16:P:302:VAL:O	16:P:363:ILE:HD11	2.09	0.52
16:P:354:PRO:HB3	18:R:31:PHE:HB2	1.92	0.52
16:P:473:HIS:CD2	18:R:1:MET:HB2	2.44	0.52
1:A:1050:TYR:CD1	1:A:1179:ILE:CG2	2.85	0.52
1:A:1662:ASN:C	7:G:101:SER:HB2	2.35	0.52
16:P:384:ASP:HB3	16:P:389:TRP:CD1	2.45	0.52
16:P:473:HIS:HD2	16:P:475:ARG:HH11	1.58	0.52
16:P:498:LEU:CD1	17:Q:364:SER:HG	2.18	0.52
18:R:361:ASP:O	18:R:363:GLU:N	2.40	0.52
1:A:507:TYR:CE1	1:A:508:PRO:C	2.87	0.52
2:B:112:GLY:HA3	2:B:893:ASN:HB3	1.91	0.52
2:B:497:ILE:HG13	2:B:699:ILE:CD1	2.40	0.52
2:B:1090:ASP:OD1	2:B:1094:ASN:ND2	2.43	0.52
16:P:354:PRO:O	18:R:27:ILE:CG2	2.58	0.52
18:R:206:ARG:H	18:R:206:ARG:NE	2.03	0.52
1:A:408:LYS:CD	1:A:408:LYS:N	2.73	0.52
2:B:16:PHE:CD2	10:J:32:GLU:OE2	2.63	0.52
3:C:326:GLU:HG3	11:K:125:MET:CE	2.40	0.52
15:O:248:LEU:HD23	15:O:248:LEU:O	2.10	0.52
15:O:402:THR:O	15:O:406:ILE:HG13	2.09	0.52
17:Q:188:ALA:C	17:Q:384:GLN:HG2	2.35	0.52
18:R:247:ILE:N	18:R:247:ILE:CD1	2.73	0.52
1:A:991:LYS:N	1:A:994:GLU:N	2.58	0.52
1:A:1032:VAL:HG22	1:A:1050:TYR:HD1	1.75	0.52
1:A:1318:SER:HA	1:A:1450:ILE:CD1	2.39	0.52
1:A:1657:LEU:CG	7:G:104:LEU:HD13	2.39	0.52
16:P:438:TRP:CA	18:R:141:TRP:CZ2	2.93	0.52
16:P:452:THR:HG21	16:P:508:ILE:HG22	1.92	0.52
17:Q:116:ILE:O	17:Q:120:ILE:HG12	2.09	0.52
18:R:350:SER:HA	18:R:353:VAL:HB	1.90	0.52
1:A:475:ARG:O	2:B:1059:PRO:HD2	2.10	0.51
1:A:613:THR:CG2	2:B:913:ILE:CG2	2.79	0.51
1:A:1654:PHE:CZ	6:F:89:GLU:HA	2.45	0.51
2:B:307:GLU:OE2	2:B:311:ARG:NH1	2.43	0.51
3:C:47:LEU:HD23	3:C:48:ASP:N	2.25	0.51
14:N:87:TYR:CE2	14:N:141:GLU:CD	2.88	0.51
16:P:414:ILE:HB	16:P:425:GLY:O	2.11	0.51
1:A:670:ILE:HG13	2:B:783:MET:HE3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:697:TYR:CE2	11:K:92:SER:OG	2.58	0.51
2:B:497:ILE:CG1	2:B:699:ILE:HD13	2.38	0.51
3:C:272:LYS:HD3	14:N:179:ASP:HB3	1.91	0.51
2:B:22:GLU:O	2:B:26:ILE:HG13	2.10	0.51
2:B:535:ASP:CG	2:B:720:GLN:HE22	2.17	0.51
2:B:1005:TYR:CD2	14:N:170:HIS:CG	2.98	0.51
2:B:1069:ILE:N	2:B:1069:ILE:CD1	2.73	0.51
4:D:48:GLU:OE2	4:D:90:LYS:NZ	2.43	0.51
12:L:28:LYS:O	12:L:59:ALA:N	2.40	0.51
16:P:391:THR:HG23	18:R:149:LYS:HB3	1.92	0.51
16:P:420:GLU:HA	16:P:442:LEU:HD22	1.93	0.51
18:R:269:ASP:N	18:R:269:ASP:OD2	2.43	0.51
1:A:1298:ASP:CB	1:A:1468:LYS:HZ3	2.23	0.51
1:A:1573:TYR:HA	9:I:111:PHE:HE2	1.76	0.51
3:C:58:ASN:N	3:C:296:ASN:ND2	2.58	0.51
15:O:224:GLU:H	15:O:224:GLU:CD	2.17	0.51
15:O:240:ILE:HG23	15:O:332:LEU:CG	2.41	0.51
15:O:376:TYR:CG	15:O:419:LYS:HD3	2.44	0.51
1:A:1657:LEU:O	6:F:132:LEU:HA	2.09	0.51
2:B:1010:ASN:HB3	2:B:1025:ASP:HB3	1.93	0.51
15:O:518:LYS:HD3	15:O:519:PHE:CZ	2.45	0.51
17:Q:12:THR:HG1	17:Q:33:HIS:CE1	2.21	0.51
17:Q:22:ILE:HD12	17:Q:26:ARG:CZ	2.40	0.51
1:A:1089:LEU:HD11	1:A:1175:MET:HE1	1.92	0.51
2:B:551:ILE:CG2	2:B:648:ARG:H	2.22	0.51
2:B:943:ILE:CD1	10:J:44:TYR:CD1	2.93	0.51
5:E:131:THR:HG21	5:E:191:LYS:HE2	1.91	0.51
8:H:38:LEU:HD11	8:H:123:MET:HE2	1.93	0.51
16:P:274:ILE:O	16:P:289:SER:CB	2.43	0.51
16:P:422:ILE:HG12	16:P:442:LEU:HD12	1.93	0.51
1:A:476:VAL:CG2	2:B:1069:ILE:N	2.73	0.51
1:A:822:THR:O	2:B:1015:SER:HB2	2.09	0.51
1:A:1050:TYR:CE1	1:A:1185:VAL:CG1	2.93	0.51
2:B:532:HIS:NE2	2:B:723:LYS:CE	2.73	0.51
2:B:682:GLN:N	14:N:154:ARG:HH21	2.03	0.51
15:O:378:THR:O	15:O:379:ARG:NH1	2.44	0.51
16:P:382:GLU:OE2	16:P:432:PRO:HG2	2.10	0.51
16:P:770:ASP:HB2	17:Q:145:ASN:CG	2.36	0.51
17:Q:10:CYS:HB2	17:Q:17:SER:N	2.25	0.51
17:Q:258:MET:HE2	17:Q:438:PHE:HE2	1.76	0.51
18:R:177:LEU:HD22	18:R:185:LYS:CG	2.37	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:472:MET:HG3	2:B:1073:GLU:CD	2.34	0.51
1:A:497:VAL:HG21	1:A:605:VAL:HG13	1.92	0.51
2:B:894:LYS:HG2	12:L:54:ARG:CZ	2.38	0.51
15:O:235:GLU:CA	15:O:237:ILE:HB	2.40	0.51
17:Q:188:ALA:HB1	17:Q:384:GLN:CG	2.20	0.51
17:Q:303:GLU:O	17:Q:306:VAL:N	2.44	0.51
18:R:220:LEU:HG	18:R:256:GLU:OE2	2.11	0.51
1:A:403:LEU:CD1	1:A:419:ILE:HG23	2.35	0.51
1:A:840:ASN:O	1:A:844:THR:HG23	2.11	0.51
2:B:678:PRO:O	14:N:154:ARG:HA	2.10	0.51
15:O:144:CYS:HB2	15:O:179:PHE:CZ	2.46	0.51
15:O:374:PRO:O	15:O:376:TYR:CD2	2.64	0.51
15:O:467:MET:HA	15:O:467:MET:HE2	1.91	0.51
16:P:217:ALA:O	16:P:219:LEU:N	2.43	0.51
16:P:390:GLN:CB	18:R:152:ILE:HA	2.40	0.51
17:Q:313:THR:O	17:Q:317:MET:HB2	2.11	0.51
16:P:274:ILE:HD13	16:P:305:PHE:HZ	1.76	0.51
16:P:573:GLU:HB3	17:Q:499:LYS:HD3	1.93	0.51
17:Q:414:TYR:CE2	17:Q:419:LEU:HB3	2.46	0.51
18:R:410:TYR:O	18:R:413:THR:OG1	2.20	0.51
1:A:507:TYR:HD1	1:A:509:GLU:HG2	1.76	0.50
1:A:597:LYS:HD2	2:B:1082:HIS:CE1	2.47	0.50
2:B:475:GLY:O	2:B:476:LEU:CB	2.59	0.50
2:B:535:ASP:N	2:B:720:GLN:OE1	2.43	0.50
2:B:554:GLN:O	2:B:555:GLN:C	2.54	0.50
16:P:225:LEU:HD11	16:P:235:SER:HB3	1.93	0.50
1:A:970:LYS:HG2	1:A:973:GLU:HG2	1.92	0.50
1:A:990:ILE:C	1:A:994:GLU:CB	2.82	0.50
1:A:1053:ASP:C	1:A:1055:ILE:HG12	2.36	0.50
2:B:1005:TYR:CE2	14:N:170:HIS:CD2	2.99	0.50
15:O:379:ARG:HH11	15:O:379:ARG:CA	2.09	0.50
16:P:184:SER:HB3	18:R:198:LEU:HD23	1.93	0.50
16:P:317:ILE:HD11	16:P:326:ILE:HG23	1.92	0.50
17:Q:8:PRO:CG	17:Q:19:LEU:HD23	2.40	0.50
1:A:827:THR:CG2	1:A:924:SER:CB	2.90	0.50
2:B:209:GLN:CG	2:B:210:ARG:H	2.08	0.50
15:O:190:ILE:HD13	15:O:190:ILE:C	2.37	0.50
15:O:324:GLY:O	15:O:326:LYS:N	2.44	0.50
16:P:272:PHE:HE1	16:P:303:VAL:HB	1.75	0.50
17:Q:118:TRP:CZ2	17:Q:189:LYS:HB3	2.47	0.50
1:A:507:TYR:CD1	1:A:508:PRO:O	2.65	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:670:ILE:CD1	2:B:783:MET:HE2	2.42	0.50
2:B:293:ILE:HG12	2:B:306:LEU:HD13	1.94	0.50
2:B:550:ARG:HG2	2:B:650:LEU:O	2.12	0.50
15:O:169:THR:O	15:O:170:VAL:C	2.54	0.50
16:P:442:LEU:HD13	16:P:442:LEU:N	2.26	0.50
16:P:681:GLN:HA	16:P:684:GLN:HB2	1.93	0.50
17:Q:194:GLN:NE2	18:R:209:ARG:NE	2.54	0.50
1:A:597:LYS:HD3	2:B:1081:GLY:C	2.36	0.50
1:A:689:ARG:HD2	8:H:79:TRP:HZ3	1.76	0.50
1:A:1323:HIS:N	1:A:1454:HIS:NE2	2.60	0.50
2:B:68:ILE:HD13	2:B:418:ASP:OD1	2.12	0.50
2:B:212:ASN:ND2	2:B:361:HIS:CG	2.79	0.50
2:B:858:ILE:HD13	2:B:872:LYS:O	2.11	0.50
16:P:194:ARG:NH2	16:P:208:GLY:HA3	2.27	0.50
17:Q:137:TRP:O	17:Q:141:LEU:HB2	2.12	0.50
17:Q:351:ASN:ND2	17:Q:373:GLU:OE1	2.41	0.50
1:A:438:ILE:O	1:A:457:LYS:HB3	2.04	0.50
2:B:743:ARG:CZ	10:J:60:PHE:HZ	2.23	0.50
3:C:47:LEU:HD23	3:C:48:ASP:H	1.77	0.50
15:O:216:LEU:HD13	15:O:342:HIS:CB	2.41	0.50
16:P:186:TYR:CE1	18:R:196:GLU:C	2.89	0.50
16:P:778:ASP:CG	16:P:779:ASP:H	2.19	0.50
1:A:437:PHE:HA	1:A:455:GLY:HA3	1.94	0.50
1:A:507:TYR:HE1	1:A:510:PRO:HD3	1.77	0.50
1:A:563:THR:HG22	15:O:375:THR:CG2	2.42	0.50
1:A:1484:LEU:HD22	2:B:305:ARG:HH21	1.76	0.50
2:B:721:MET:HE2	2:B:721:MET:HA	1.92	0.50
3:C:222:VAL:C	3:C:224:THR:H	2.20	0.50
15:O:240:ILE:CG2	15:O:332:LEU:HD11	2.41	0.50
15:O:591:TYR:CE2	15:O:593:PRO:HG3	2.46	0.50
16:P:441:ASP:HA	16:P:442:LEU:HD13	1.94	0.50
16:P:603:ARG:O	16:P:607:VAL:HG23	2.12	0.50
1:A:597:LYS:HD2	2:B:1082:HIS:CG	2.46	0.50
1:A:1450:ILE:HD12	1:A:1460:TYR:CD2	2.46	0.50
1:A:1658:ALA:CA	6:F:131:PRO:O	2.58	0.50
2:B:29:PRO:O	2:B:177:PRO:HB2	2.11	0.50
9:I:91:ASN:OD1	9:I:92:GLU:N	2.45	0.50
15:O:236:LYS:N	15:O:237:ILE:CD1	2.75	0.50
15:O:248:LEU:HB2	15:O:598:PHE:CE2	2.47	0.50
16:P:24:SER:CB	18:R:318:ILE:CD1	2.89	0.50
16:P:365:TRP:CB	16:P:372:ILE:HA	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:656:HIS:CE1	16:P:748:GLU:HG3	2.47	0.50
18:R:231:LEU:O	18:R:235:ILE:HG12	2.12	0.50
18:R:364:VAL:HA	18:R:367:ILE:HB	1.93	0.50
1:A:1148:LEU:HD22	1:A:1163:GLU:HG3	1.93	0.50
2:B:545:PHE:CE1	2:B:649:MET:SD	3.04	0.50
10:J:1:MET:HG2	10:J:57:ILE:HB	1.93	0.50
13:M:103:LYS:HA	13:M:106:LYS:HB2	1.93	0.50
16:P:383:ILE:HG23	18:R:152:ILE:HG13	1.92	0.50
17:Q:188:ALA:O	17:Q:384:GLN:HG3	2.11	0.50
1:A:477:ASN:HA	2:B:1047:ARG:CD	2.42	0.49
1:A:721:LYS:HB3	8:H:96:VAL:CB	2.40	0.49
2:B:1090:ASP:CA	2:B:1093:LEU:HB3	2.36	0.49
15:O:515:ASN:HD21	15:O:547:ASN:ND2	2.10	0.49
16:P:354:PRO:HB2	18:R:27:ILE:HG22	1.93	0.49
16:P:391:THR:HG21	18:R:149:LYS:HG2	1.81	0.49
16:P:625:ASP:O	16:P:629:ARG:HB2	2.11	0.49
16:P:768:TYR:O	16:P:771:ILE:HB	2.12	0.49
1:A:408:LYS:N	1:A:408:LYS:CE	2.75	0.49
1:A:671:GLN:HB3	2:B:952:HIS:CE1	2.48	0.49
2:B:1073:GLU:HA	2:B:1076:ARG:HB2	1.95	0.49
2:B:1092:LEU:C	2:B:1096:SER:HB2	2.37	0.49
7:G:47:VAL:HB	7:G:65:HIS:CD2	2.47	0.49
8:H:26:ILE:HD12	8:H:42:ILE:HD12	1.93	0.49
15:O:428:ILE:CD1	15:O:442:VAL:HG21	2.42	0.49
15:O:507:GLN:O	15:O:511:ILE:HG23	2.12	0.49
15:O:591:TYR:HE2	15:O:593:PRO:HG3	1.77	0.49
16:P:658:LYS:CB	16:P:660:LYS:H	2.24	0.49
16:P:767:PRO:O	16:P:771:ILE:HG12	2.11	0.49
17:Q:152:LEU:HD12	17:Q:154:LEU:HD11	1.95	0.49
18:R:361:ASP:HB3	18:R:364:VAL:HG13	1.94	0.49
1:A:597:LYS:HD3	2:B:1082:HIS:N	2.27	0.49
2:B:203:ILE:HG22	2:B:405:GLY:CA	2.42	0.49
2:B:338:PHE:CE1	2:B:353:VAL:HG22	2.47	0.49
2:B:679:GLN:NE2	14:N:155:VAL:O	2.45	0.49
3:C:37:LYS:HG3	11:K:134:LYS:NZ	2.27	0.49
15:O:208:LEU:O	15:O:212:THR:HG23	2.12	0.49
16:P:475:ARG:HD3	18:R:1:MET:CB	2.42	0.49
17:Q:367:PHE:HZ	18:R:2:PHE:HE1	1.60	0.49
17:Q:385:PHE:CZ	18:R:208:TYR:CG	3.00	0.49
1:A:435:ASN:CA	1:A:442:LYS:HB2	2.42	0.49
1:A:720:PHE:CE1	8:H:98:TYR:HB2	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1025:LYS:NZ	2:B:1076:ARG:HH12	2.09	0.49
1:A:1575:ILE:CD1	9:I:122:ARG:NH1	2.64	0.49
2:B:434:ARG:HG3	18:R:324:MET:O	2.12	0.49
2:B:1089:GLN:HB3	2:B:1093:LEU:HD22	1.91	0.49
17:Q:108:PHE:CZ	17:Q:156:LEU:HD22	2.47	0.49
18:R:372:HIS:CD2	18:R:410:TYR:HB3	2.47	0.49
2:B:225:ARG:NH2	2:B:261:ARG:HD3	2.27	0.49
2:B:531:VAL:HG13	2:B:716:MET:CA	2.41	0.49
15:O:436:ARG:HG3	15:O:490:ILE:HG23	1.95	0.49
16:P:264:ILE:HG12	16:P:265:THR:N	2.27	0.49
16:P:498:LEU:HD23	16:P:499:GLU:H	1.75	0.49
16:P:599:LYS:HG2	17:Q:272:GLN:OE1	2.13	0.49
17:Q:10:CYS:HB3	17:Q:16:PRO:HA	1.93	0.49
18:R:177:LEU:CD2	18:R:185:LYS:HA	2.43	0.49
1:A:545:SER:HB2	17:Q:34:VAL:HG21	0.50	0.49
2:B:25:PHE:CG	10:J:59:LYS:CG	2.96	0.49
2:B:143:TRP:CZ2	2:B:446:MET:HG3	2.47	0.49
2:B:202:LEU:CD1	2:B:499:HIS:HB3	2.40	0.49
2:B:243:GLN:CD	2:B:646:HIS:HE2	2.20	0.49
12:L:45:ALA:O	12:L:47:ARG:N	2.46	0.49
15:O:376:TYR:CB	15:O:419:LYS:HD3	2.43	0.49
16:P:197:ARG:HD2	16:P:261:VAL:O	2.12	0.49
16:P:390:GLN:HG3	18:R:152:ILE:HG12	1.94	0.49
16:P:420:GLU:HG2	16:P:441:ASP:HB2	1.95	0.49
1:A:472:MET:CE	2:B:1076:ARG:CD	2.88	0.49
1:A:477:ASN:C	2:B:1049:THR:HA	2.38	0.49
1:A:861:VAL:HG21	1:A:892:LEU:HA	1.93	0.49
2:B:30:LYS:O	2:B:176:SER:HB3	2.13	0.49
2:B:49:PHE:CD2	2:B:194:PHE:CZ	2.95	0.49
2:B:152:LEU:HD22	2:B:443:LYS:CE	2.43	0.49
3:C:230:LEU:HD22	3:C:297:HIS:NE2	2.28	0.49
15:O:336:LEU:HD13	15:O:602:TYR:CE1	2.48	0.49
16:P:253:SER:HA	16:P:261:VAL:HG11	1.94	0.49
16:P:294:PHE:HB2	16:P:296:GLU:H	1.75	0.49
17:Q:161:THR:OG1	17:Q:162:ILE:N	2.46	0.49
18:R:162:PHE:HA	18:R:165:ILE:HD12	1.95	0.49
1:A:414:GLU:C	1:A:416:ARG:N	2.67	0.49
1:A:474:LYS:HZ2	2:B:1096:SER:HB2	1.77	0.49
1:A:1312:GLU:O	1:A:1316:VAL:HG23	2.13	0.49
2:B:262:PHE:CD1	2:B:357:ILE:HD13	2.47	0.49
15:O:474:TYR:HB3	15:O:520:CYS:SG	2.53	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:85:ARG:HG2	18:R:85:ARG:HH11	1.77	0.49
1:A:514:TYR:O	6:F:115:THR:HG22	2.12	0.49
1:A:747:ILE:HD13	1:A:748:ASN:H	1.77	0.49
1:A:1200:MET:HE1	1:A:1569:VAL:HG12	1.95	0.49
2:B:656:LEU:HD22	14:N:153:VAL:CG2	2.42	0.49
15:O:518:LYS:NZ	15:O:575:SER:HB2	2.27	0.49
16:P:363:ILE:HG22	16:P:374:VAL:HG22	1.93	0.49
17:Q:385:PHE:CE2	18:R:208:TYR:CZ	3.00	0.49
18:R:186:LEU:C	18:R:186:LEU:CD1	2.86	0.49
18:R:198:LEU:HD12	18:R:199:LYS:HB2	1.95	0.49
18:R:220:LEU:HD11	18:R:256:GLU:OE2	2.12	0.49
1:A:410:LYS:CB	1:A:411:VAL:CG2	2.91	0.49
1:A:826:PHE:CE1	2:B:777:SER:OG	2.66	0.49
15:O:198:PHE:CZ	15:O:236:LYS:HG3	2.48	0.49
15:O:361:PHE:CE2	15:O:365:THR:HG21	2.48	0.49
16:P:762:ARG:HG3	17:Q:139:LYS:HE3	1.95	0.49
17:Q:375:LEU:CD1	18:R:231:LEU:HD11	2.43	0.49
1:A:40:ASN:N	1:A:40:ASN:OD1	2.44	0.48
1:A:1329:ILE:HG21	1:A:1456:PHE:CD2	2.40	0.48
1:A:1604:GLU:CD	1:A:1621:PHE:HE1	2.21	0.48
1:A:1655:ASP:CB	6:F:135:ARG:HB3	2.38	0.48
2:B:68:ILE:HD13	2:B:71:LYS:NZ	2.28	0.48
2:B:679:GLN:OE1	14:N:157:ARG:CB	2.61	0.48
2:B:1047:ARG:CD	2:B:1049:THR:O	2.60	0.48
2:B:1066:HIS:NE2	17:Q:23:ILE:HD13	2.27	0.48
16:P:315:PHE:HB2	16:P:365:TRP:HH2	1.78	0.48
16:P:350:THR:CG2	18:R:156:LYS:N	2.70	0.48
16:P:438:TRP:HA	18:R:141:TRP:CZ2	2.48	0.48
17:Q:309:TYR:O	17:Q:313:THR:OG1	2.20	0.48
18:R:248:LYS:C	18:R:248:LYS:CD	2.86	0.48
1:A:509:GLU:CG	1:A:579:ARG:HE	2.26	0.48
2:B:28:PRO:CD	10:J:62:ARG:NE	2.76	0.48
3:C:157:TYR:HB2	3:C:160:ALA:HB2	1.94	0.48
3:C:326:GLU:CG	11:K:125:MET:HE3	2.43	0.48
15:O:581:THR:HA	15:O:584:GLN:CD	2.38	0.48
16:P:59:ILE:HG22	16:P:60:VAL:H	1.78	0.48
17:Q:22:ILE:HD11	17:Q:26:ARG:CG	2.44	0.48
17:Q:413:LEU:HA	17:Q:416:ILE:HD12	1.94	0.48
18:R:6:ILE:HD13	18:R:210:THR:HG22	1.95	0.48
1:A:68:ASP:O	1:A:70:LYS:N	2.46	0.48
1:A:990:ILE:CB	1:A:994:GLU:HB3	2.06	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:999:CYS:N	2:B:712:SER:HB3	2.28	0.48
1:A:1055:ILE:HD11	1:A:1174:TYR:CE1	2.48	0.48
2:B:62:ASN:OD1	2:B:102:VAL:CG2	2.60	0.48
2:B:415:GLU:OE2	2:B:472:SER:HB2	2.13	0.48
10:J:6:ARG:HD2	10:J:11:GLY:O	2.13	0.48
15:O:199:PRO:HB2	15:O:208:LEU:HD23	1.95	0.48
16:P:193:LEU:CD1	16:P:251:SER:H	2.23	0.48
16:P:489:PHE:N	18:R:138:PHE:CE1	2.81	0.48
16:P:770:ASP:HB2	17:Q:145:ASN:OD1	2.14	0.48
1:A:719:ILE:HG12	8:H:97:MET:CG	2.40	0.48
1:A:1317:ILE:HB	1:A:1460:TYR:OH	2.13	0.48
2:B:584:CYS:HB3	2:B:596:VAL:HG23	1.95	0.48
8:H:112:ILE:HD12	8:H:129:TYR:HB2	1.93	0.48
15:O:124:LYS:HD3	15:O:127:GLU:OE2	2.14	0.48
15:O:521:ASN:O	15:O:525:MET:HG2	2.12	0.48
16:P:226:HIS:CE1	16:P:234:THR:HG22	2.48	0.48
17:Q:104:PHE:HZ	17:Q:156:LEU:HB2	1.78	0.48
18:R:247:ILE:HG12	18:R:249:SER:HB2	1.96	0.48
18:R:248:LYS:HG2	18:R:298:GLN:HB3	1.37	0.48
18:R:273:TRP:CZ3	18:R:274:MET:HE2	2.48	0.48
18:R:347:ASP:O	18:R:351:GLU:CB	2.56	0.48
1:A:959:VAL:HG22	1:A:965:THR:HG22	1.95	0.48
5:E:61:GLN:HE21	5:E:105:PHE:HE1	1.62	0.48
16:P:757:GLN:HE21	16:P:758:ASN:N	2.10	0.48
18:R:250:LEU:HD11	18:R:298:GLN:CG	2.38	0.48
1:A:467:PHE:CD2	1:A:1614:SER:HB3	2.46	0.48
1:A:1297:PHE:HD2	9:I:60:LEU:HD13	1.75	0.48
1:A:1655:ASP:N	6:F:135:ARG:O	2.36	0.48
15:O:386:PHE:HB2	15:O:594:TYR:CE2	2.48	0.48
16:P:277:VAL:HG23	16:P:286:VAL:HG12	1.95	0.48
16:P:733:THR:HA	16:P:736:ILE:HG22	1.95	0.48
17:Q:10:CYS:SG	17:Q:29:CYS:SG	3.07	0.48
17:Q:165:LEU:HD13	17:Q:190:MET:HE1	1.95	0.48
18:R:273:TRP:HZ3	18:R:274:MET:HE2	1.78	0.48
1:A:436:ALA:HA	1:A:440:SER:CA	2.44	0.48
1:A:718:THR:HG21	8:H:118:PHE:O	2.14	0.48
1:A:828:CYS:SG	2:B:1027:TYR:HB2	2.53	0.48
1:A:1055:ILE:CD1	1:A:1178:LEU:HD23	2.44	0.48
1:A:1603:MET:SD	1:A:1612:LYS:HA	2.54	0.48
2:B:64:GLY:HA2	2:B:242:ASP:HB2	1.90	0.48
6:F:70:LYS:CG	7:G:95:LEU:CD2	2.90	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:342:HIS:HE1	15:O:346:GLN:HE21	1.58	0.48
16:P:480:VAL:HB	16:P:492:LEU:CD2	2.40	0.48
1:A:410:LYS:CB	1:A:411:VAL:HG23	2.43	0.48
1:A:456:VAL:HG13	2:B:1188:GLU:OE1	2.14	0.48
1:A:474:LYS:HE3	2:B:1092:LEU:HD23	1.50	0.48
1:A:826:PHE:CD2	1:A:827:THR:N	2.82	0.48
2:B:162:PRO:HG2	2:B:465:LEU:HD12	1.95	0.48
2:B:623:ASP:OD2	2:B:648:ARG:NH2	2.40	0.48
6:F:66:ARG:HH22	7:G:90:LEU:HB3	1.77	0.48
13:M:65:TYR:CE1	13:M:97:VAL:HB	2.48	0.48
16:P:49:THR:O	16:P:49:THR:OG1	2.27	0.48
16:P:227:LEU:HD13	16:P:227:LEU:H	1.78	0.48
18:R:15:GLN:OE1	18:R:181:THR:HG23	2.14	0.48
18:R:229:TRP:CH2	18:R:259:ASP:C	2.92	0.48
18:R:236:PHE:CZ	18:R:253:ILE:HD12	2.29	0.48
1:A:544:VAL:CG1	17:Q:32:GLY:O	2.57	0.48
1:A:741:PRO:HA	1:A:742:PRO:HD3	1.68	0.48
1:A:990:ILE:CA	1:A:994:GLU:OE1	2.26	0.48
1:A:1538:VAL:HG21	5:E:142:VAL:CG2	2.43	0.48
2:B:74:PHE:C	2:B:440:PHE:HE2	2.20	0.48
2:B:413:LEU:O	2:B:417:ILE:HG13	2.14	0.48
5:E:54:GLN:HB2	5:E:57:MET:HE2	1.95	0.48
7:G:23:GLN:O	7:G:25:THR:N	2.46	0.48
15:O:91:LYS:HG3	15:O:92:ASN:N	2.28	0.48
16:P:675:PHE:HZ	16:P:742:TRP:HZ3	1.61	0.48
17:Q:351:ASN:C	17:Q:369:TRP:CH2	2.80	0.48
18:R:206:ARG:N	18:R:206:ARG:NE	2.60	0.48
1:A:505:LEU:O	1:A:580:HIS:HA	2.14	0.48
1:A:869:PRO:HG2	1:A:872:ASP:HB2	1.96	0.48
1:A:1260:LYS:CE	1:A:1262:LEU:HD21	2.44	0.48
3:C:272:LYS:CA	14:N:175:TYR:CE2	2.83	0.48
7:G:156:SER:OG	15:O:146:SER:HA	2.13	0.48
14:N:111:VAL:HG13	14:N:122:ALA:HB2	1.95	0.48
15:O:66:ASN:CG	15:O:111:ARG:NH1	2.72	0.48
16:P:381:ILE:HA	16:P:391:THR:O	2.14	0.48
16:P:499:GLU:OE1	16:P:499:GLU:HA	2.13	0.48
17:Q:341:ARG:HH12	17:Q:369:TRP:NE1	2.05	0.48
1:A:410:LYS:HB3	1:A:411:VAL:HG22	1.95	0.47
1:A:466:LEU:HD11	2:B:1181:VAL:CG2	2.40	0.47
1:A:747:ILE:HD13	1:A:748:ASN:N	2.29	0.47
2:B:397:THR:HA	2:B:400:GLN:OE1	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:551:ILE:CG2	2:B:647:SER:C	2.87	0.47
7:G:137:ILE:HG13	7:G:227:GLY:O	2.13	0.47
7:G:158:LYS:CB	15:O:105:ASN:OD1	2.61	0.47
15:O:234:ILE:HD13	15:O:234:ILE:HA	1.74	0.47
17:Q:194:GLN:CB	18:R:209:ARG:NH1	2.73	0.47
17:Q:274:ILE:HG23	17:Q:282:ARG:NH2	2.29	0.47
1:A:19:LEU:HD11	2:B:1190:SER:HB2	1.96	0.47
1:A:478:TYR:CE1	2:B:1049:THR:HB	2.49	0.47
1:A:508:PRO:HD2	1:A:639:GLN:HG3	1.95	0.47
1:A:563:THR:HG22	15:O:375:THR:HG22	1.95	0.47
1:A:1310:LYS:N	1:A:1310:LYS:CD	2.73	0.47
2:B:25:PHE:CE2	10:J:59:LYS:HG3	2.48	0.47
2:B:54:GLU:HG3	2:B:168:ASN:ND2	2.29	0.47
2:B:812:ALA:HA	2:B:815:ARG:HD3	1.95	0.47
15:O:48:SER:O	15:O:49:ALA:C	2.57	0.47
15:O:234:ILE:HG21	15:O:367:LEU:HB3	1.96	0.47
16:P:68:THR:HG23	16:P:214:LEU:HA	1.95	0.47
16:P:323:ASN:CB	18:R:155:GLN:HB2	2.44	0.47
17:Q:197:GLU:HG3	17:Q:388:THR:O	2.14	0.47
17:Q:385:PHE:CZ	18:R:208:TYR:CD2	3.03	0.47
1:A:999:CYS:SG	2:B:712:SER:HB3	2.54	0.47
7:G:139:ILE:HD13	15:O:145:SER:OG	2.14	0.47
15:O:206:ARG:HA	15:O:209:VAL:CG1	2.45	0.47
15:O:409:ALA:HB3	15:O:412:GLU:HG3	1.96	0.47
16:P:56:ASP:OD1	16:P:554:ASN:ND2	2.48	0.47
16:P:421:ILE:CG2	16:P:423:ILE:HG13	2.44	0.47
16:P:704:LEU:HD23	17:Q:258:MET:HE1	1.96	0.47
17:Q:250:GLN:OE1	17:Q:271:LYS:HD2	2.15	0.47
17:Q:414:TYR:HE2	17:Q:419:LEU:HB3	1.78	0.47
1:A:1298:ASP:O	1:A:1300:ASN:N	2.47	0.47
1:A:1603:MET:HE2	1:A:1615:TYR:CG	2.39	0.47
13:M:102:SER:CA	13:M:105:SER:H	2.28	0.47
15:O:477:PHE:CE2	15:O:481:CYS:SG	3.07	0.47
16:P:197:ARG:HD2	16:P:260:LEU:C	2.38	0.47
18:R:82:ARG:HD2	18:R:82:ARG:O	2.14	0.47
1:A:474:LYS:NZ	2:B:1092:LEU:HD22	1.97	0.47
1:A:720:PHE:N	8:H:96:VAL:O	2.46	0.47
2:B:207:ILE:CG1	2:B:503:VAL:HG22	2.13	0.47
2:B:212:ASN:CG	2:B:361:HIS:CG	2.92	0.47
2:B:1005:TYR:CE2	14:N:170:HIS:ND1	2.82	0.47
5:E:48:ASP:OD1	5:E:50:MET:HB3	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:383:TYR:HB3	15:O:606:MET:HE3	1.96	0.47
16:P:476:ILE:HD12	16:P:508:ILE:HD11	1.96	0.47
17:Q:250:GLN:HB3	17:Q:267:TYR:OH	2.15	0.47
1:A:1317:ILE:CG2	1:A:1460:TYR:CZ	2.96	0.47
3:C:292:GLY:CA	3:C:295:ARG:HH22	2.27	0.47
6:F:72:LYS:CG	6:F:142:SER:CA	2.91	0.47
15:O:379:ARG:NH1	15:O:379:ARG:CA	2.73	0.47
16:P:390:GLN:HB2	18:R:152:ILE:CA	2.44	0.47
1:A:641:GLU:HB2	6:F:99:LEU:CD1	2.44	0.47
1:A:1118:VAL:CG1	5:E:199:ILE:HG13	2.44	0.47
1:A:1440:ASN:HA	1:A:1443:GLN:HB2	1.96	0.47
1:A:1574:ALA:HB1	9:I:121:PHE:HA	1.95	0.47
2:B:53:THR:HG21	2:B:104:ILE:HD12	1.95	0.47
2:B:549:CYS:SG	2:B:649:MET:CB	3.03	0.47
2:B:841:ASP:OD1	2:B:842:GLU:N	2.40	0.47
2:B:894:LYS:HD3	12:L:47:ARG:NH2	2.26	0.47
2:B:1047:ARG:HD3	2:B:1049:THR:O	2.14	0.47
3:C:228:ARG:HH22	14:N:175:TYR:HE2	1.62	0.47
3:C:239:ILE:HG23	3:C:243:SER:HB3	1.96	0.47
5:E:131:THR:HG21	5:E:191:LYS:CE	2.44	0.47
15:O:236:LYS:HA	15:O:236:LYS:HD3	1.73	0.47
16:P:333:PHE:CD2	16:P:334:ASN:HB2	2.49	0.47
16:P:427:SER:HA	16:P:433:VAL:HB	1.95	0.47
17:Q:351:ASN:ND2	17:Q:369:TRP:CE2	2.83	0.47
18:R:9:THR:O	18:R:13:PHE:HD2	1.97	0.47
18:R:30:ARG:NE	18:R:168:ILE:HD12	2.30	0.47
18:R:199:LYS:HZ1	18:R:204:GLU:CB	2.26	0.47
1:A:474:LYS:NZ	2:B:1096:SER:HB2	2.30	0.47
1:A:934:LYS:HG2	2:B:955:PRO:HG2	1.96	0.47
2:B:208:VAL:CG2	2:B:401:GLU:CG	2.92	0.47
2:B:407:PHE:HE2	2:B:647:SER:OG	1.98	0.47
2:B:470:LEU:HD21	2:B:476:LEU:HD12	1.97	0.47
2:B:679:GLN:OE1	14:N:157:ARG:CA	2.63	0.47
2:B:975:HIS:CE1	14:N:169:GLU:HG3	2.49	0.47
2:B:1103:VAL:HG22	2:B:1176:VAL:HG22	1.97	0.47
3:C:230:LEU:CD1	3:C:299:ILE:HD11	2.44	0.47
4:D:46:GLU:OE1	4:D:47:LYS:HE2	2.15	0.47
6:F:73:ALA:CA	6:F:143:PHE:O	2.56	0.47
16:P:290:GLU:OE2	16:P:291:PRO:HD2	2.15	0.47
17:Q:351:ASN:CA	17:Q:369:TRP:CZ2	2.84	0.47
18:R:295:PRO:HB3	18:R:296:PRO:HD2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:258:GLU:HA	1:A:261:ILE:HD12	1.96	0.47
1:A:986:PHE:HD2	2:B:958:MET:HE2	1.75	0.47
1:A:991:LYS:CA	1:A:994:GLU:HG3	2.39	0.47
1:A:1049:MET:HG3	1:A:1053:ASP:H	1.76	0.47
1:A:1162:ASN:ND2	1:A:1165:LYS:HG3	2.29	0.47
1:A:1297:PHE:CZ	1:A:1301:GLU:OE1	2.52	0.47
6:F:74:ILE:N	7:G:95:LEU:HD11	2.30	0.47
15:O:376:TYR:CD1	15:O:419:LYS:HG2	2.49	0.47
17:Q:287:TRP:CE2	17:Q:289:ARG:HB3	2.50	0.47
17:Q:378:LEU:HD13	18:R:235:ILE:HD11	1.86	0.47
1:A:1053:ASP:O	1:A:1055:ILE:CG1	2.55	0.47
1:A:1482:LYS:HD3	2:B:304:ASP:HA	1.97	0.47
2:B:211:ARG:NH2	2:B:646:HIS:O	2.47	0.47
3:C:293:ARG:O	3:C:295:ARG:HD3	2.14	0.47
5:E:67:GLU:CD	5:E:67:GLU:H	2.23	0.47
15:O:407:SER:HB3	15:O:420:SER:HB2	1.96	0.47
16:P:300:LEU:HA	16:P:320:ILE:HG22	1.96	0.47
16:P:357:LEU:CD1	18:R:23:TYR:CE1	2.97	0.47
18:R:402:ASN:O	18:R:406:LYS:HG2	2.15	0.47
1:A:407:GLN:C	1:A:409:ASP:H	2.23	0.46
2:B:212:ASN:HD21	2:B:361:HIS:CB	2.20	0.46
7:G:144:HIS:HB3	15:O:146:SER:HB3	1.97	0.46
9:I:23:VAL:O	9:I:39:LYS:NZ	2.49	0.46
15:O:240:ILE:HG22	15:O:332:LEU:HD11	1.96	0.46
16:P:61:VAL:HB	16:P:551:ALA:HB3	1.97	0.46
17:Q:359:ASP:OD2	17:Q:359:ASP:N	2.47	0.46
1:A:629:ASP:O	2:B:926:VAL:CG2	2.55	0.46
1:A:991:LYS:HA	1:A:992:PRO:N	2.29	0.46
16:P:197:ARG:CB	16:P:261:VAL:O	2.63	0.46
16:P:246:LYS:HB3	16:P:246:LYS:HE3	1.59	0.46
18:R:177:LEU:HD21	18:R:185:LYS:HA	1.98	0.46
18:R:361:ASP:C	18:R:363:GLU:N	2.73	0.46
1:A:476:VAL:HG11	2:B:1071:VAL:HG23	1.96	0.46
1:A:581:ILE:CD1	1:A:637:PHE:CZ	2.97	0.46
1:A:1063:MET:HE2	1:A:1063:MET:HB3	1.66	0.46
2:B:265:ARG:NH2	2:B:339:GLN:OE1	2.48	0.46
6:F:75:PRO:CG	6:F:78:GLN:CB	2.82	0.46
16:P:55:LEU:CD2	18:R:227:HIS:NE2	2.60	0.46
16:P:254:ILE:HG21	16:P:368:HIS:CE1	2.51	0.46
16:P:408:ILE:HD12	16:P:464:LEU:HD13	1.98	0.46
16:P:422:ILE:HG12	16:P:442:LEU:HD11	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:235:GLY:HA3	17:Q:287:TRP:CD1	2.50	0.46
18:R:365:TRP:HB3	18:R:418:CYS:HB2	1.98	0.46
1:A:589:MET:HE1	1:A:614:LEU:HD13	1.98	0.46
2:B:25:PHE:CG	10:J:59:LYS:HG2	2.51	0.46
2:B:49:PHE:CD2	2:B:164:MET:HE3	2.51	0.46
2:B:1045:GLN:HB3	2:B:1063:ARG:HG3	1.97	0.46
15:O:388:VAL:HG13	15:O:389:SER:N	2.30	0.46
16:P:290:GLU:HG3	16:P:291:PRO:O	2.14	0.46
16:P:330:PRO:HG3	16:P:342:GLN:CG	2.45	0.46
18:R:233:TYR:CE1	18:R:263:ASN:CB	2.77	0.46
18:R:257:ILE:HG21	18:R:266:SER:HA	1.96	0.46
1:A:407:GLN:C	1:A:409:ASP:N	2.74	0.46
1:A:472:MET:CB	2:B:1073:GLU:OE1	2.64	0.46
2:B:448:ARG:HA	2:B:451:MET:HE3	1.97	0.46
3:C:222:VAL:HB	3:C:224:THR:H	1.81	0.46
4:D:33:THR:HG23	4:D:96:PHE:HD1	1.80	0.46
9:I:89:CYS:SG	9:I:91:ASN:HB2	2.56	0.46
15:O:243:GLU:HG2	15:O:332:LEU:HB2	1.97	0.46
17:Q:188:ALA:C	17:Q:384:GLN:CG	2.89	0.46
18:R:362:ALA:CB	18:R:421:LYS:HB3	2.39	0.46
1:A:466:LEU:HD21	2:B:1181:VAL:HG22	1.98	0.46
1:A:507:TYR:CD1	1:A:509:GLU:HG2	2.50	0.46
1:A:862:THR:O	9:I:67:VAL:HA	2.14	0.46
3:C:58:ASN:C	3:C:296:ASN:ND2	2.72	0.46
6:F:69:LEU:HG	6:F:143:PHE:HE2	1.80	0.46
16:P:302:VAL:HG11	16:P:362:ARG:NH1	2.30	0.46
16:P:331:LYS:HD3	16:P:331:LYS:HA	1.72	0.46
16:P:596:ILE:HD12	16:P:596:ILE:O	2.16	0.46
1:A:68:ASP:C	1:A:70:LYS:H	2.24	0.46
2:B:401:GLU:C	2:B:402:VAL:HG23	2.41	0.46
3:C:247:PHE:HE1	3:C:289:VAL:HG21	1.80	0.46
10:J:36:LEU:HD13	10:J:47:ARG:HB3	1.98	0.46
15:O:93:LEU:HD23	15:O:132:THR:CG2	2.46	0.46
15:O:240:ILE:CG2	15:O:332:LEU:CD1	2.93	0.46
15:O:468:GLU:O	15:O:470:PHE:N	2.49	0.46
16:P:184:SER:CB	18:R:198:LEU:CD2	2.94	0.46
16:P:185:GLN:CB	18:R:195:LEU:HB3	2.44	0.46
16:P:389:TRP:CE3	18:R:149:LYS:O	2.67	0.46
16:P:641:TRP:CZ2	16:P:656:HIS:HB3	2.50	0.46
1:A:449:GLY:C	1:A:451:VAL:H	2.22	0.46
16:P:186:TYR:O	18:R:195:LEU:HB3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:321:LYS:HB2	16:P:321:LYS:NZ	2.31	0.46
16:P:397:LYS:HZ3	18:R:85:ARG:HG2	1.81	0.46
16:P:574:TRP:CH2	17:Q:495:LYS:HD2	2.51	0.46
18:R:301:SER:HB2	18:R:358:PHE:HE1	1.78	0.46
1:A:756:LYS:HD2	9:I:85:LYS:HZ3	1.69	0.46
2:B:54:GLU:OE2	2:B:168:ASN:ND2	2.46	0.46
2:B:736:ARG:HD3	2:B:738:ASP:OD2	2.15	0.46
2:B:894:LYS:CG	12:L:47:ARG:CD	2.94	0.46
2:B:990:ASP:OD2	14:N:159:ASP:HB3	2.16	0.46
15:O:181:ARG:NH1	15:O:181:ARG:CG	2.77	0.46
15:O:248:LEU:CG	15:O:598:PHE:CD2	2.90	0.46
15:O:374:PRO:C	15:O:376:TYR:CB	2.60	0.46
16:P:366:PHE:HE2	16:P:433:VAL:H	1.64	0.46
16:P:399:TRP:NE1	18:R:87:VAL:CG2	2.79	0.46
16:P:478:MET:HE2	16:P:497:VAL:HG13	1.97	0.46
18:R:323:SER:OG	18:R:324:MET:N	2.46	0.46
1:A:184:LYS:HA	1:A:187:GLU:HG2	1.98	0.46
1:A:454:PRO:HG2	1:A:462:LYS:HZ2	1.81	0.46
1:A:597:LYS:HB3	2:B:1082:HIS:CD2	2.42	0.46
2:B:292:ILE:HB	2:B:306:LEU:HD11	1.98	0.46
3:C:293:ARG:O	3:C:295:ARG:CD	2.64	0.46
11:K:55:SER:OG	11:K:57:ASP:OD1	2.28	0.46
15:O:390:GLN:NE2	15:O:433:LYS:H	2.13	0.46
16:P:272:PHE:HB2	16:P:300:LEU:HD11	1.97	0.46
17:Q:109:GLN:CD	17:Q:137:TRP:HE1	2.24	0.46
18:R:1:MET:HG3	18:R:2:PHE:CD1	2.51	0.46
1:A:498:PRO:HA	1:A:499:PRO:HD3	1.81	0.45
2:B:49:PHE:HE2	2:B:194:PHE:CZ	2.30	0.45
2:B:427:GLN:HA	2:B:430:MET:HE3	1.98	0.45
3:C:176:SER:O	3:C:180:ALA:HB2	2.16	0.45
11:K:80:ILE:HD13	11:K:105:ILE:HD11	1.98	0.45
15:O:74:ILE:O	15:O:78:VAL:HG13	2.16	0.45
15:O:376:TYR:CE2	15:O:419:LYS:HE2	2.50	0.45
16:P:225:LEU:H	16:P:225:LEU:HG	1.60	0.45
16:P:326:ILE:HG21	16:P:385:PHE:CE1	2.51	0.45
16:P:728:GLN:HB3	16:P:731:LEU:HB3	1.97	0.45
17:Q:310:PHE:O	17:Q:314:ILE:HG13	2.16	0.45
17:Q:385:PHE:CD2	18:R:212:HIS:CB	2.99	0.45
18:R:222:LEU:HD23	18:R:226:ARG:NH2	2.31	0.45
1:A:89:LEU:HD11	2:B:1192:MET:HB3	1.97	0.45
1:A:721:LYS:HZ1	8:H:91:ASP:HA	1.74	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1323:HIS:HE1	1:A:1453:HIS:HB3	1.81	0.45
1:A:1600:ARG:HB2	1:A:1616:GLU:OE2	2.17	0.45
2:B:293:ILE:CD1	2:B:302:LEU:HB3	2.46	0.45
5:E:93:MET:CG	5:E:120:ALA:HB1	2.46	0.45
11:K:49:LEU:HG	11:K:54:THR:HG21	1.98	0.45
16:P:56:ASP:O	16:P:57:LEU:HD13	2.16	0.45
16:P:263:ILE:HG21	16:P:276:SER:C	2.42	0.45
16:P:296:GLU:HB3	16:P:298:ASP:OD1	2.16	0.45
16:P:384:ASP:CB	16:P:389:TRP:HB3	2.43	0.45
16:P:408:ILE:HG23	16:P:413:GLY:C	2.41	0.45
17:Q:137:TRP:CH2	17:Q:141:LEU:HD13	2.51	0.45
18:R:242:ILE:HG23	18:R:244:GLY:H	1.81	0.45
18:R:248:LYS:HE2	18:R:297:PHE:O	2.17	0.45
18:R:302:ARG:C	18:R:358:PHE:CZ	2.94	0.45
1:A:514:TYR:CD1	6:F:115:THR:O	2.70	0.45
1:A:582:LYS:O	1:A:585:ASP:HB2	2.16	0.45
2:B:202:LEU:N	2:B:202:LEU:CD2	2.76	0.45
2:B:822:THR:HB	2:B:823:GLN:HG3	1.98	0.45
2:B:1047:ARG:HG2	2:B:1049:THR:H	1.81	0.45
15:O:521:ASN:HD22	15:O:524:VAL:H	1.63	0.45
16:P:196:TYR:HA	16:P:207:SER:O	2.16	0.45
16:P:198:ASP:OD1	16:P:204:ALA:CB	2.64	0.45
16:P:224:THR:HG21	16:P:237:GLU:HA	1.99	0.45
16:P:323:ASN:HB3	16:P:350:THR:HB	1.98	0.45
16:P:399:TRP:CE2	18:R:87:VAL:HG22	2.52	0.45
16:P:446:ASP:OD2	16:P:448:THR:N	2.40	0.45
16:P:475:ARG:HH12	17:Q:360:LYS:HE3	1.81	0.45
16:P:580:ASN:HB2	17:Q:506:LYS:HE2	1.98	0.45
16:P:660:LYS:HD3	16:P:660:LYS:HA	1.69	0.45
17:Q:193:PHE:HA	17:Q:219:ILE:HD11	1.97	0.45
1:A:403:LEU:HD13	1:A:419:ILE:HG23	1.99	0.45
1:A:407:GLN:HB3	1:A:409:ASP:N	2.23	0.45
1:A:826:PHE:CG	2:B:777:SER:HB2	2.51	0.45
1:A:1050:TYR:HB3	1:A:1054:ALA:CA	2.43	0.45
1:A:1237:GLN:H	1:A:1544:ASN:HB2	1.81	0.45
1:A:1258:ILE:HB	1:A:1501:ILE:HD12	1.97	0.45
1:A:1484:LEU:CD2	2:B:304:ASP:HB2	2.46	0.45
1:A:1484:LEU:HD11	2:B:305:ARG:HD3	1.97	0.45
1:A:1574:ALA:HB3	9:I:122:ARG:HG2	1.97	0.45
2:B:203:ILE:CB	2:B:405:GLY:HA3	2.46	0.45
2:B:890:ASP:HB3	2:B:896:GLN:OE1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:26:PHE:CE1	13:M:98:SER:HB2	2.51	0.45
17:Q:22:ILE:HD13	17:Q:26:ARG:CZ	2.45	0.45
17:Q:123:MET:HE2	17:Q:184:TRP:CZ2	2.51	0.45
18:R:23:TYR:HA	18:R:173:MET:HE3	1.99	0.45
18:R:353:VAL:HG13	18:R:364:VAL:HB	1.98	0.45
2:B:1158:ILE:HA	2:B:1167:PHE:O	2.17	0.45
3:C:71:MET:HE1	3:C:302:VAL:HG21	1.97	0.45
3:C:117:ASP:OD1	3:C:119:ASN:ND2	2.44	0.45
14:N:87:TYR:CE2	14:N:141:GLU:HB2	2.17	0.45
16:P:198:ASP:HB2	16:P:206:ALA:HA	1.99	0.45
16:P:198:ASP:OD1	16:P:204:ALA:HB1	2.17	0.45
16:P:355:GLU:HB2	18:R:24:ILE:HG23	1.98	0.45
16:P:362:ARG:NH2	16:P:364:GLU:HG3	2.31	0.45
17:Q:378:LEU:CD2	18:R:219:LEU:HD12	2.46	0.45
1:A:475:ARG:HD3	2:B:1060:VAL:O	2.16	0.45
1:A:1154:LEU:O	1:A:1158:SER:HB2	2.17	0.45
3:C:228:ARG:HG3	3:C:299:ILE:HB	1.98	0.45
7:G:17:ILE:C	7:G:19:LYS:H	2.25	0.45
15:O:129:PRO:O	15:O:130:PRO:C	2.59	0.45
15:O:243:GLU:OE1	15:O:243:GLU:HA	2.17	0.45
15:O:578:SER:O	15:O:579:LEU:CB	2.64	0.45
16:P:352:PHE:CD2	18:R:157:MET:HE3	2.50	0.45
16:P:632:ILE:O	16:P:636:GLU:HG3	2.17	0.45
17:Q:385:PHE:CE2	18:R:212:HIS:CB	2.97	0.45
17:Q:494:SER:HB2	17:Q:497:GLN:H	1.82	0.45
17:Q:502:ILE:HA	17:Q:505:ILE:HG22	1.99	0.45
1:A:382:GLN:NE2	1:A:456:VAL:HG22	2.24	0.45
1:A:413:LEU:HA	1:A:413:LEU:HD22	1.78	0.45
2:B:585:CYS:HB2	2:B:595:TRP:CZ3	2.52	0.45
13:M:65:TYR:HE1	13:M:97:VAL:HB	1.81	0.45
15:O:245:GLN:O	15:O:248:LEU:N	2.40	0.45
15:O:390:GLN:CG	15:O:396:MET:HE3	2.45	0.45
16:P:189:THR:HB	16:P:247:ILE:HG23	1.98	0.45
16:P:444:PRO:CG	16:P:449:LEU:HD11	2.46	0.45
16:P:770:ASP:OD2	17:Q:141:LEU:HG	2.15	0.45
18:R:76:LYS:O	18:R:80:ARG:HG3	2.17	0.45
1:A:535:GLN:HE22	17:Q:26:ARG:HG2	1.81	0.45
1:A:545:SER:CA	17:Q:34:VAL:HG23	2.29	0.45
1:A:991:LYS:HB3	1:A:993:GLN:CG	2.46	0.45
1:A:1297:PHE:CD2	9:I:60:LEU:HD22	2.51	0.45
2:B:338:PHE:CZ	2:B:357:ILE:HD12	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:403:LEU:HD11	2:B:411:MET:HE3	1.99	0.45
2:B:894:LYS:CG	12:L:47:ARG:HD2	2.47	0.45
15:O:200:ASN:HB2	17:Q:14:ASN:HB3	1.70	0.45
16:P:54:ALA:HA	16:P:55:LEU:HD12	1.98	0.45
16:P:193:LEU:HD12	16:P:250:ALA:HA	1.99	0.45
16:P:397:LYS:HG3	18:R:85:ARG:HD3	1.99	0.45
1:A:996:TYR:CE1	2:B:525:TRP:CE3	3.05	0.45
2:B:404:LEU:C	2:B:406:GLY:N	2.66	0.45
2:B:550:ARG:HB2	2:B:650:LEU:CB	2.34	0.45
2:B:774:ALA:HB1	2:B:1026:ILE:HD11	1.97	0.45
3:C:326:GLU:HG3	11:K:125:MET:HE3	1.99	0.45
7:G:158:LYS:HB3	15:O:105:ASN:CG	2.42	0.45
16:P:210:THR:HB	16:P:226:HIS:NE2	2.32	0.45
16:P:290:GLU:HB3	16:P:342:GLN:HG2	1.99	0.45
16:P:425:GLY:O	16:P:426:ALA:HB2	2.17	0.45
17:Q:105:LEU:HD13	17:Q:141:LEU:HD11	1.99	0.45
17:Q:378:LEU:HD11	18:R:219:LEU:HD13	1.98	0.45
17:Q:385:PHE:CE1	18:R:208:TYR:O	2.61	0.45
18:R:271:LEU:CD1	18:R:312:TYR:HB3	2.34	0.45
1:A:486:PRO:CD	2:B:928:SER:OG	2.49	0.45
1:A:720:PHE:HB2	8:H:96:VAL:HG12	1.97	0.45
1:A:863:ASN:HB2	9:I:66:VAL:O	2.17	0.45
1:A:878:ARG:NH2	9:I:66:VAL:C	2.75	0.45
1:A:1575:ILE:CD1	9:I:122:ARG:CZ	2.95	0.45
2:B:252:TYR:OH	2:B:305:ARG:NH1	2.44	0.45
2:B:1003:ALA:C	14:N:170:HIS:HB3	2.41	0.45
15:O:69:THR:HG22	15:O:70:GLN:N	2.31	0.45
16:P:197:ARG:CD	16:P:261:VAL:O	2.64	0.45
16:P:198:ASP:N	16:P:206:ALA:HA	2.32	0.45
16:P:417:THR:OG1	16:P:451:ILE:HB	2.16	0.45
16:P:577:LEU:O	17:Q:506:LYS:NZ	2.47	0.45
1:A:476:VAL:N	2:B:1059:PRO:HG2	2.31	0.44
1:A:653:THR:OG1	1:A:654:ASP:OD1	2.35	0.44
1:A:1063:MET:HE1	1:A:1174:TYR:CD2	2.52	0.44
1:A:1156:LYS:C	1:A:1158:SER:H	2.25	0.44
1:A:1310:LYS:HG2	1:A:1311:GLU:OE1	2.07	0.44
1:A:1574:ALA:HB3	9:I:122:ARG:HB3	1.99	0.44
2:B:943:ILE:HD13	10:J:44:TYR:CE1	2.47	0.44
3:C:228:ARG:CD	14:N:173:THR:OG1	2.64	0.44
16:P:413:GLY:HA2	16:P:426:ALA:HB2	1.99	0.44
16:P:438:TRP:CA	18:R:141:TRP:HZ2	2.29	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:498:LEU:HD23	16:P:499:GLU:O	2.16	0.44
16:P:686:TYR:O	16:P:691:VAL:HG11	2.17	0.44
17:Q:484:ALA:O	17:Q:488:LEU:HG	2.17	0.44
18:R:299:THR:CG2	18:R:305:THR:HA	2.46	0.44
1:A:37:VAL:HG12	1:A:38:LEU:HG	2.00	0.44
1:A:489:ASN:CB	11:K:95:HIS:HD2	2.29	0.44
1:A:615:ARG:HH22	2:B:929:ARG:CG	2.14	0.44
1:A:1660:VAL:HG23	7:G:103:LYS:H	1.82	0.44
17:Q:381:MET:SD	18:R:212:HIS:CA	2.95	0.44
18:R:19:LEU:HB3	18:R:188:PHE:CD1	2.52	0.44
18:R:141:TRP:H	18:R:141:TRP:HD1	1.62	0.44
1:A:407:GLN:C	1:A:408:LYS:NZ	2.73	0.44
1:A:598:ALA:CB	1:A:601:MET:HE3	2.47	0.44
1:A:1463:ASP:HB2	1:A:1469:TRP:CE2	2.52	0.44
1:A:1596:LEU:HD22	1:A:1602:GLY:HA2	2.00	0.44
2:B:77:LYS:NZ	2:B:439:ASN:HA	2.33	0.44
2:B:145:VAL:CG2	2:B:440:PHE:O	2.65	0.44
2:B:699:ILE:HG22	2:B:700:LEU:HD12	1.98	0.44
5:E:78:LEU:HD13	5:E:107:THR:HB	1.98	0.44
15:O:200:ASN:CB	17:Q:14:ASN:O	2.65	0.44
15:O:518:LYS:HZ2	15:O:575:SER:HB2	1.82	0.44
16:P:229:ARG:HG3	16:P:231:ASN:H	1.82	0.44
16:P:363:ILE:O	16:P:363:ILE:HD12	2.18	0.44
16:P:454:GLN:HE22	16:P:536:ASP:H	1.65	0.44
17:Q:128:GLU:O	17:Q:132:VAL:HG23	2.17	0.44
18:R:187:TYR:CE2	18:R:191:ILE:HG21	2.52	0.44
1:A:410:LYS:HB2	1:A:410:LYS:HE3	1.87	0.44
1:A:920:PHE:CD1	1:A:921:PRO:HA	2.52	0.44
2:B:119:ARG:CZ	12:L:53:HIS:NE2	2.79	0.44
2:B:786:ALA:HB1	2:B:928:SER:HB2	1.98	0.44
2:B:833:PRO:HG2	2:B:836:TRP:CZ2	2.52	0.44
2:B:954:PHE:H	2:B:955:PRO:HD2	1.83	0.44
5:E:7:ARG:O	5:E:11:ARG:HG3	2.17	0.44
5:E:177:ARG:HD3	5:E:215:MET:HB2	2.00	0.44
7:G:163:PRO:HG2	7:G:166:TRP:CD1	2.52	0.44
15:O:107:ILE:O	15:O:109:SER:N	2.47	0.44
16:P:496:THR:CB	18:R:1:MET:CE	2.89	0.44
18:R:234:LYS:O	18:R:238:THR:OG1	2.33	0.44
18:R:312:TYR:O	18:R:316:SER:OG	2.22	0.44
1:A:257:ASN:OD1	1:A:258:GLU:N	2.51	0.44
1:A:833:LEU:C	1:A:944:MET:HE3	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1291:VAL:HG22	1:A:1473:LYS:HG3	1.98	0.44
1:A:1313:LEU:O	1:A:1317:ILE:HD12	2.18	0.44
1:A:1655:ASP:O	6:F:134:ILE:HA	2.17	0.44
2:B:46:ILE:HG13	2:B:192:GLY:HA2	1.99	0.44
2:B:190:ILE:HG13	2:B:191:GLY:N	2.32	0.44
2:B:682:GLN:HA	14:N:154:ARG:CZ	2.46	0.44
2:B:1002:LYS:HD2	14:N:166:LEU:C	2.42	0.44
2:B:1090:ASP:O	2:B:1094:ASN:CB	2.64	0.44
6:F:73:ALA:CA	6:F:143:PHE:CG	2.91	0.44
10:J:49:MET:HE3	10:J:49:MET:HB3	1.79	0.44
15:O:376:TYR:CG	15:O:376:TYR:O	2.70	0.44
15:O:515:ASN:N	15:O:516:PRO:HD3	2.33	0.44
16:P:62:LYS:HE2	16:P:550:TYR:OH	2.17	0.44
16:P:274:ILE:HD13	16:P:305:PHE:CZ	2.53	0.44
16:P:366:PHE:HZ	16:P:433:VAL:HG12	1.82	0.44
17:Q:19:LEU:CD1	17:Q:27:ARG:CB	2.94	0.44
17:Q:286:LEU:CD2	17:Q:300:ASN:HB3	2.47	0.44
18:R:313:LEU:CD1	18:R:353:VAL:HG22	2.21	0.44
1:A:697:TYR:OH	11:K:102:ASN:HB3	2.17	0.44
2:B:107:PRO:HG2	2:B:133:TYR:CZ	2.52	0.44
2:B:548:LYS:O	2:B:550:ARG:NH1	2.50	0.44
18:R:313:LEU:HD21	18:R:364:VAL:HG12	1.98	0.44
18:R:426:VAL:C	18:R:428:SER:N	2.76	0.44
1:A:545:SER:OG	17:Q:26:ARG:NH2	2.50	0.44
16:P:350:THR:CB	18:R:156:LYS:H	2.31	0.44
16:P:369:PHE:O	16:P:369:PHE:HD1	2.01	0.44
16:P:627:GLY:C	16:P:628:TYR:HD1	2.26	0.44
17:Q:137:TRP:HE3	17:Q:140:ILE:HD11	1.82	0.44
17:Q:195:ALA:O	17:Q:196:SER:C	2.60	0.44
17:Q:234:CYS:SG	17:Q:284:LEU:HB3	2.58	0.44
18:R:224:VAL:HG23	18:R:256:GLU:OE2	2.14	0.44
18:R:303:THR:C	18:R:358:PHE:HE2	2.26	0.44
1:A:629:ASP:O	2:B:916:LYS:HE2	2.17	0.44
1:A:684:ASP:OD2	8:H:20:TYR:CA	2.66	0.44
1:A:1050:TYR:CE2	1:A:1179:ILE:HG12	2.46	0.44
1:A:1330:VAL:HG23	1:A:1455:ARG:HD2	2.00	0.44
2:B:548:LYS:HG2	2:B:695:ASN:O	2.18	0.44
15:O:376:TYR:CD1	15:O:376:TYR:O	2.70	0.44
15:O:444:SER:O	15:O:448:SER:HB3	2.18	0.44
15:O:506:PHE:CG	15:O:528:PHE:HZ	2.35	0.44
17:Q:137:TRP:CE3	17:Q:140:ILE:HD11	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:255:LYS:O	17:Q:259:GLN:HB2	2.18	0.44
17:Q:351:ASN:OD1	17:Q:369:TRP:CZ2	2.69	0.44
1:A:407:GLN:CB	1:A:409:ASP:N	2.73	0.44
1:A:721:LYS:HD2	8:H:90:ALA:HB1	2.00	0.44
1:A:756:LYS:HD3	9:I:85:LYS:HZ1	0.61	0.44
1:A:909:SER:CA	9:I:83:LYS:HZ3	2.27	0.44
2:B:75:ASP:HA	2:B:440:PHE:CZ	2.53	0.44
2:B:894:LYS:CA	12:L:54:ARG:HE	2.18	0.44
16:P:361:LYS:HA	16:P:375:PHE:O	2.18	0.44
16:P:399:TRP:HZ3	18:R:292:SER:CA	2.29	0.44
16:P:433:VAL:HG22	16:P:434:ARG:O	2.17	0.44
16:P:458:LYS:HD3	16:P:461:HIS:CE1	2.46	0.44
17:Q:374:THR:O	17:Q:377:PHE:HB3	2.17	0.44
18:R:217:THR:HG22	18:R:239:LEU:HD21	2.00	0.44
1:A:530:TRP:CZ2	1:A:607:VAL:HG21	2.53	0.43
1:A:991:LYS:CB	1:A:994:GLU:HG3	2.48	0.43
1:A:1260:LYS:HE2	1:A:1262:LEU:CG	2.47	0.43
2:B:45:HIS:CE1	2:B:205:MET:HE2	2.52	0.43
2:B:78:PRO:O	2:B:79:LEU:HB3	2.17	0.43
2:B:697:LEU:CB	2:B:702:ASN:CG	2.85	0.43
16:P:323:ASN:HB2	18:R:155:GLN:HB2	1.99	0.43
16:P:533:LEU:H	16:P:554:ASN:HB2	1.82	0.43
17:Q:406:GLN:HA	17:Q:409:ALA:HB3	2.00	0.43
18:R:248:LYS:CE	18:R:297:PHE:C	2.89	0.43
1:A:477:ASN:CB	2:B:1047:ARG:NH1	2.82	0.43
1:A:535:GLN:HA	1:A:546:LEU:HG	1.99	0.43
1:A:921:PRO:CD	8:H:19:ARG:HG3	2.42	0.43
2:B:893:ASN:O	2:B:895:PHE:HD1	2.01	0.43
2:B:897:GLU:HA	12:L:46:VAL:HG21	2.01	0.43
3:C:274:THR:HG21	14:N:171:PHE:HA	1.60	0.43
15:O:76:ASN:O	15:O:80:LEU:HD13	2.18	0.43
15:O:189:PHE:HA	15:O:192:THR:HG23	2.00	0.43
15:O:198:PHE:CD2	15:O:199:PRO:HD2	2.53	0.43
16:P:21:GLN:O	16:P:25:LEU:HB2	2.17	0.43
16:P:185:GLN:CB	18:R:195:LEU:CB	2.74	0.43
16:P:751:SER:O	16:P:753:PHE:N	2.51	0.43
17:Q:140:ILE:HG22	17:Q:236:MET:HG2	2.00	0.43
17:Q:194:GLN:CG	18:R:209:ARG:CZ	2.70	0.43
18:R:8:LEU:H	18:R:8:LEU:HD22	1.83	0.43
1:A:487:ASP:CG	2:B:781:TYR:OH	2.60	0.43
1:A:677:GLY:HA3	1:A:786:TYR:OH	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1276:THR:HB	9:I:45:LEU:CD1	2.47	0.43
1:A:1484:LEU:HB3	2:B:305:ARG:NH2	2.34	0.43
2:B:923:GLN:HG2	2:B:949:ILE:CD1	2.47	0.43
3:C:292:GLY:CA	3:C:295:ARG:NH2	2.80	0.43
16:P:363:ILE:HG23	16:P:374:VAL:HG13	2.00	0.43
16:P:399:TRP:O	16:P:419:ARG:NH2	2.51	0.43
16:P:532:GLU:HB2	16:P:554:ASN:CB	2.46	0.43
16:P:675:PHE:HZ	16:P:742:TRP:CZ3	2.36	0.43
18:R:250:LEU:HB3	18:R:274:MET:HE3	2.00	0.43
18:R:348:LYS:HE2	18:R:352:TRP:HE1	1.83	0.43
2:B:42:VAL:HG21	2:B:190:ILE:HB	2.00	0.43
2:B:68:ILE:HD13	2:B:71:LYS:HZ3	1.83	0.43
2:B:679:GLN:OE1	14:N:157:ARG:HA	2.17	0.43
15:O:433:LYS:HZ2	15:O:609:TYR:HE1	1.62	0.43
15:O:453:TYR:CE2	15:O:473:PHE:HB2	2.54	0.43
16:P:194:ARG:HG2	16:P:209:LYS:O	2.18	0.43
16:P:412:ASN:O	16:P:426:ALA:HB1	2.18	0.43
16:P:436:ILE:CA	18:R:143:THR:CG2	2.90	0.43
16:P:472:ARG:N	16:P:504:THR:HG21	2.33	0.43
16:P:607:VAL:HB	16:P:731:LEU:HD13	2.01	0.43
16:P:760:ILE:O	16:P:764:LEU:HG	2.18	0.43
17:Q:204:ARG:HG3	17:Q:205:ILE:HG13	1.99	0.43
17:Q:369:TRP:CA	17:Q:373:GLU:OE2	2.66	0.43
17:Q:375:LEU:HD23	17:Q:375:LEU:HA	1.88	0.43
18:R:299:THR:HG21	18:R:305:THR:HA	2.00	0.43
1:A:403:LEU:HD12	1:A:403:LEU:HA	1.71	0.43
1:A:408:LYS:HD3	1:A:408:LYS:N	2.33	0.43
1:A:414:GLU:O	1:A:416:ARG:N	2.52	0.43
1:A:478:TYR:CZ	2:B:1049:THR:HB	2.54	0.43
1:A:909:SER:HA	9:I:83:LYS:HZ1	1.75	0.43
1:A:912:VAL:HA	1:A:913:PRO:HA	1.84	0.43
1:A:1003:ARG:HH22	2:B:530:PRO:HA	1.84	0.43
3:C:252:PRO:HD2	3:C:255:VAL:HG21	1.99	0.43
16:P:472:ARG:CZ	18:R:200:THR:H	2.30	0.43
17:Q:106:LYS:O	17:Q:110:PHE:HB3	2.18	0.43
17:Q:113:LYS:CG	17:Q:134:LYS:HZ1	2.28	0.43
17:Q:341:ARG:HH12	17:Q:369:TRP:HE1	1.53	0.43
1:A:36:THR:HG22	1:A:45:VAL:HG21	2.00	0.43
1:A:410:LYS:HB2	1:A:411:VAL:HG23	2.01	0.43
1:A:998:HIS:C	2:B:712:SER:OG	2.59	0.43
2:B:57:ASP:OD1	2:B:57:ASP:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:563:SER:CA	13:M:73:SER:HB3	2.48	0.43
2:B:1049:THR:CG2	2:B:1050:GLY:H	2.27	0.43
7:G:106:LYS:HB2	7:G:106:LYS:HE3	1.82	0.43
14:N:40:LEU:HD12	14:N:40:LEU:HA	1.84	0.43
15:O:235:GLU:C	15:O:237:ILE:HB	2.44	0.43
16:P:394:VAL:HG22	16:P:434:ARG:NH1	2.32	0.43
16:P:507:GLY:O	16:P:539:VAL:HA	2.19	0.43
16:P:535:VAL:HG13	16:P:552:LEU:HD12	2.01	0.43
17:Q:153:LYS:HE2	17:Q:153:LYS:HB3	1.57	0.43
17:Q:351:ASN:O	17:Q:355:VAL:HG23	2.19	0.43
17:Q:385:PHE:CD1	18:R:212:HIS:HB2	2.53	0.43
1:A:711:LYS:HA	11:K:104:ARG:HH22	1.84	0.43
1:A:827:THR:HG21	1:A:924:SER:CB	2.49	0.43
13:M:8:SER:O	14:N:71:PRO:HA	2.19	0.43
14:N:63:ASP:OD2	14:N:66:LYS:NZ	2.35	0.43
15:O:235:GLU:HA	15:O:237:ILE:HB	2.01	0.43
16:P:619:GLU:OE2	16:P:670:ALA:N	2.52	0.43
17:Q:221:PRO:HA	17:Q:225:GLN:HB2	1.99	0.43
18:R:25:ASN:O	18:R:29:ARG:HB2	2.19	0.43
18:R:302:ARG:H	18:R:302:ARG:HG2	1.49	0.43
1:A:475:ARG:CD	2:B:1059:PRO:O	2.67	0.43
1:A:697:TYR:CE2	11:K:92:SER:CB	3.01	0.43
2:B:894:LYS:CG	12:L:54:ARG:NH1	2.81	0.43
2:B:1001:ALA:O	14:N:168:LEU:HD23	2.17	0.43
7:G:143:SER:CB	15:O:104:ILE:HB	2.48	0.43
15:O:77:GLN:HG2	15:O:88:ILE:HB	2.01	0.43
16:P:366:PHE:CZ	16:P:433:VAL:HG12	2.54	0.43
16:P:390:GLN:HG3	18:R:152:ILE:CG1	2.49	0.43
16:P:473:HIS:CG	16:P:475:ARG:HD2	2.54	0.43
17:Q:120:ILE:HA	17:Q:125:PHE:HB2	2.01	0.43
17:Q:160:SER:HA	17:Q:163:SER:HB2	2.00	0.43
17:Q:414:TYR:CE1	18:R:237:ALA:O	2.72	0.43
18:R:138:PHE:CE1	18:R:140:ILE:HD11	2.53	0.43
1:A:68:ASP:C	1:A:70:LYS:N	2.77	0.43
1:A:256:LEU:HD23	1:A:256:LEU:HA	1.83	0.43
1:A:475:ARG:NH2	2:B:1061:LYS:CD	2.82	0.43
1:A:543:LEU:CA	17:Q:34:VAL:O	2.66	0.43
1:A:1089:LEU:CD1	1:A:1175:MET:HE1	2.49	0.43
2:B:1005:TYR:CZ	14:N:170:HIS:NE2	2.87	0.43
7:G:29:ASP:OD1	7:G:30:GLU:N	2.52	0.43
9:I:26:SER:O	9:I:39:LYS:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:102:SER:HB3	13:M:105:SER:HB3	0.45	0.43
14:N:78:THR:HB	14:N:79:THR:H	1.56	0.43
16:P:330:PRO:HG3	16:P:342:GLN:HG3	2.00	0.43
16:P:436:ILE:HG23	18:R:141:TRP:O	2.19	0.43
16:P:488:LEU:HB2	18:R:138:PHE:HE2	1.27	0.43
16:P:574:TRP:HB3	16:P:578:PHE:CE2	2.53	0.43
16:P:697:GLU:HG2	16:P:698:LYS:H	1.84	0.43
1:A:477:ASN:CG	2:B:1049:THR:OG1	2.61	0.43
1:A:550:SER:OG	1:A:553:GLN:HG3	2.19	0.43
1:A:1172:LEU:O	1:A:1176:ARG:HG2	2.19	0.43
1:A:1538:VAL:HG21	5:E:142:VAL:HG22	2.01	0.43
1:A:1575:ILE:H	9:I:122:ARG:NH1	2.03	0.43
2:B:345:SER:CA	13:M:113:ILE:HG12	2.48	0.43
2:B:1005:TYR:HH	10:J:44:TYR:HE2	1.55	0.43
14:N:94:ASP:HB3	14:N:99:LEU:HG	2.00	0.43
15:O:169:THR:O	15:O:172:HIS:N	2.52	0.43
15:O:202:ASN:OD1	15:O:202:ASN:N	2.52	0.43
15:O:218:LEU:HD12	15:O:221:TYR:CZ	2.54	0.43
15:O:232:LEU:HD12	15:O:232:LEU:HA	1.74	0.43
15:O:400:LEU:O	15:O:404:ILE:HG13	2.19	0.43
16:P:475:ARG:HH11	18:R:1:MET:CB	2.26	0.43
17:Q:311:MET:HE3	17:Q:311:MET:HB3	1.89	0.43
1:A:1657:LEU:CB	7:G:104:LEU:HD22	2.47	0.42
2:B:146:ASN:HD22	2:B:441:LYS:HZ2	1.65	0.42
3:C:116:VAL:HG11	3:C:125:LYS:HE3	2.01	0.42
16:P:237:GLU:H	16:P:237:GLU:HG2	1.55	0.42
16:P:354:PRO:CB	18:R:31:PHE:CB	2.96	0.42
17:Q:22:ILE:HD12	17:Q:26:ARG:HE	1.78	0.42
17:Q:172:LEU:HD23	17:Q:172:LEU:HA	1.86	0.42
18:R:306:ALA:O	18:R:307:LYS:C	2.62	0.42
1:A:4:SER:HB2	1:A:573:LEU:CD2	2.49	0.42
1:A:977:MET:HE1	1:A:991:LYS:HD2	2.01	0.42
1:A:1297:PHE:HE2	1:A:1301:GLU:CD	2.14	0.42
1:A:1554:GLY:CA	5:E:183:PRO:HD2	2.46	0.42
1:A:1622:LEU:HD21	2:B:1189:LEU:HD22	2.01	0.42
2:B:48:SER:HB3	2:B:404:LEU:CD1	2.49	0.42
2:B:574:SER:HB3	13:M:67:ASP:OD2	2.20	0.42
2:B:697:LEU:HD13	2:B:702:ASN:HA	2.01	0.42
2:B:800:TYR:OH	2:B:908:ARG:CZ	2.65	0.42
3:C:229:LEU:C	3:C:293:ARG:HD2	2.44	0.42
15:O:379:ARG:NH1	15:O:382:GLN:HE22	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:300:LEU:N	16:P:300:LEU:HD23	2.34	0.42
16:P:663:LEU:HD12	16:P:664:GLU:N	2.35	0.42
17:Q:4:PHE:HE1	17:Q:18:ARG:HH11	1.67	0.42
1:A:581:ILE:CG1	1:A:582:LYS:N	2.83	0.42
1:A:1053:ASP:OD2	5:E:204:THR:CG2	2.67	0.42
2:B:799:GLY:O	2:B:911:PRO:HG3	2.20	0.42
2:B:809:VAL:HG13	2:B:901:VAL:HB	2.02	0.42
2:B:883:GLU:HG3	2:B:906:ARG:HB2	2.01	0.42
3:C:315:PHE:HE2	11:K:139:ILE:CD1	2.30	0.42
7:G:35:SER:OG	7:G:132:VAL:N	2.46	0.42
7:G:159:LYS:HB3	15:O:105:ASN:ND2	2.12	0.42
16:P:740:ILE:O	16:P:744:LEU:HG	2.19	0.42
17:Q:15:CYS:CB	17:Q:17:SER:H	2.30	0.42
18:R:171:ARG:C	18:R:174:GLU:H	2.26	0.42
18:R:180:CYS:SG	18:R:185:LYS:HG3	2.59	0.42
1:A:697:TYR:CD2	11:K:92:SER:HB3	2.53	0.42
2:B:145:VAL:HG21	2:B:440:PHE:O	2.20	0.42
3:C:328:LEU:HD23	11:K:121:LEU:CD2	2.49	0.42
14:N:80:MET:HE3	14:N:80:MET:HB2	1.91	0.42
16:P:65:LEU:HD21	16:P:226:HIS:CE1	2.55	0.42
16:P:238:LEU:HD22	16:P:284:VAL:H	1.84	0.42
16:P:241:PRO:C	16:P:242:ILE:HG13	2.45	0.42
16:P:265:THR:HG21	16:P:303:VAL:HG21	2.00	0.42
16:P:301:GLN:CD	16:P:360:TRP:HA	2.45	0.42
16:P:361:LYS:HG3	16:P:376:ASP:HB3	2.01	0.42
16:P:762:ARG:HG3	17:Q:139:LYS:NZ	2.35	0.42
17:Q:26:ARG:HD2	17:Q:34:VAL:HG11	2.02	0.42
17:Q:132:VAL:O	17:Q:136:ILE:HG13	2.19	0.42
17:Q:502:ILE:O	17:Q:506:LYS:HB2	2.20	0.42
18:R:80:ARG:O	18:R:83:HIS:HB3	2.18	0.42
1:A:83:VAL:HG21	1:A:427:PHE:CZ	2.55	0.42
1:A:486:PRO:CG	2:B:781:TYR:O	2.67	0.42
2:B:45:HIS:CD2	2:B:500:PHE:HD1	2.37	0.42
2:B:679:GLN:NE2	14:N:156:PRO:O	2.53	0.42
3:C:61:THR:HA	3:C:298:PHE:CZ	2.55	0.42
3:C:274:THR:CB	14:N:172:ALA:HB2	2.25	0.42
7:G:160:ASN:OD1	7:G:160:ASN:N	2.52	0.42
12:L:32:ALA:HB3	12:L:55:ILE:HG23	2.01	0.42
15:O:332:LEU:CD1	15:O:380:SER:OG	2.50	0.42
16:P:273:ARG:NH1	16:P:288:SER:OG	2.53	0.42
16:P:730:GLU:O	16:P:734:LYS:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:762:ARG:NE	16:P:762:ARG:HA	2.34	0.42
17:Q:239:PHE:CG	17:Q:240:LYS:N	2.87	0.42
18:R:421:LYS:HG3	18:R:422:GLY:N	2.34	0.42
1:A:436:ALA:O	1:A:440:SER:HA	2.15	0.42
1:A:489:ASN:HB3	11:K:95:HIS:CD2	2.54	0.42
2:B:1002:LYS:C	14:N:168:LEU:HD23	2.45	0.42
3:C:296:ASN:O	3:C:298:PHE:CG	2.66	0.42
4:D:82:LEU:O	4:D:86:ILE:HG23	2.20	0.42
15:O:199:PRO:HD3	15:O:211:TYR:CG	2.54	0.42
17:Q:194:GLN:NE2	18:R:209:ARG:HE	2.10	0.42
18:R:11:ARG:H	18:R:11:ARG:HG3	1.53	0.42
18:R:436:LYS:HA	18:R:439:GLU:HB2	2.02	0.42
1:A:475:ARG:NH2	2:B:1061:LYS:HD2	2.34	0.42
1:A:722:PRO:HD2	8:H:95:TYR:HD1	1.83	0.42
1:A:878:ARG:HG2	9:I:66:VAL:CG2	2.23	0.42
1:A:1657:LEU:O	6:F:132:LEU:CA	2.68	0.42
2:B:206:LEU:HD23	2:B:206:LEU:HA	1.81	0.42
2:B:656:LEU:HD21	2:B:689:VAL:HG12	2.01	0.42
2:B:683:ASN:OD1	14:N:154:ARG:NH1	2.51	0.42
2:B:848:ILE:N	12:L:60:ARG:NE	2.67	0.42
2:B:1005:TYR:CE2	14:N:170:HIS:CE1	3.08	0.42
15:O:607:LYS:HE2	15:O:607:LYS:HB2	1.88	0.42
16:P:427:SER:HB2	16:P:429:SER:O	2.19	0.42
16:P:626:LEU:HD22	16:P:626:LEU:HA	1.59	0.42
17:Q:194:GLN:HE21	18:R:209:ARG:CD	2.33	0.42
18:R:253:ILE:HG12	18:R:257:ILE:HG13	2.02	0.42
1:A:703:GLU:HG2	11:K:50:LEU:HD13	2.02	0.42
1:A:1318:SER:HA	1:A:1450:ILE:HD13	2.00	0.42
1:A:1484:LEU:HD22	2:B:305:ARG:NH2	2.34	0.42
2:B:30:LYS:HG2	2:B:178:TYR:HB2	2.00	0.42
3:C:230:LEU:O	3:C:293:ARG:HA	2.20	0.42
7:G:165:ASP:OD1	7:G:165:ASP:N	2.52	0.42
15:O:376:TYR:CG	15:O:419:LYS:CD	3.03	0.42
16:P:489:PHE:H	18:R:138:PHE:HE1	1.66	0.42
17:Q:177:TYR:OH	17:Q:252:LEU:N	2.52	0.42
17:Q:192:TYR:CD1	17:Q:193:PHE:CD1	3.08	0.42
18:R:209:ARG:H	18:R:209:ARG:HD3	1.85	0.42
1:A:407:GLN:O	1:A:408:LYS:HE2	2.19	0.42
1:A:414:GLU:O	1:A:415:ASP:C	2.63	0.42
1:A:826:PHE:CG	1:A:827:THR:N	2.88	0.42
1:A:1055:ILE:HD13	1:A:1178:LEU:CD2	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1263:LEU:HD12	1:A:1498:ILE:HD11	2.02	0.42
5:E:26:ARG:O	5:E:75:MET:HE1	2.20	0.42
13:M:101:VAL:CG1	13:M:105:SER:OG	2.66	0.42
14:N:81:THR:HG22	14:N:86:ASP:HB3	2.01	0.42
15:O:200:ASN:OD1	17:Q:14:ASN:CB	2.61	0.42
16:P:347:LEU:HD12	16:P:347:LEU:N	2.35	0.42
16:P:360:TRP:CE3	18:R:196:GLU:OE2	2.73	0.42
17:Q:329:LYS:O	17:Q:332:LEU:N	2.53	0.42
1:A:385:LEU:HD23	1:A:385:LEU:HA	1.88	0.42
1:A:481:ARG:N	2:B:1045:GLN:O	2.53	0.42
1:A:501:PHE:CD1	2:B:1046:VAL:HG21	2.55	0.42
1:A:581:ILE:HD11	1:A:585:ASP:CB	2.48	0.42
1:A:1325:LEU:HD21	1:A:1474:LEU:HD11	2.00	0.42
2:B:65:VAL:CG2	2:B:417:ILE:CD1	2.98	0.42
11:K:50:LEU:O	11:K:54:THR:HG23	2.20	0.42
15:O:78:VAL:HA	15:O:88:ILE:HG22	2.00	0.42
17:Q:103:LEU:HD21	17:Q:205:ILE:HD13	2.00	0.42
17:Q:187:THR:C	17:Q:380:TRP:HE1	2.27	0.42
17:Q:385:PHE:CE2	18:R:212:HIS:HB2	2.55	0.42
17:Q:435:GLN:H	17:Q:435:GLN:HG3	1.38	0.42
17:Q:509:CYS:O	17:Q:513:MET:HB2	2.20	0.42
18:R:158:THR:OG1	18:R:159:TYR:N	2.53	0.42
1:A:1:MET:HE2	7:G:110:ASP:OD1	2.20	0.41
2:B:26:ILE:HD11	10:J:58:GLU:HG2	2.01	0.41
2:B:196:VAL:HG21	2:B:465:LEU:HB3	2.02	0.41
2:B:219:ARG:HA	2:B:220:PRO:HD2	1.73	0.41
2:B:534:PRO:CA	2:B:720:GLN:OE1	2.57	0.41
2:B:550:ARG:HA	2:B:550:ARG:HD3	1.81	0.41
2:B:681:ILE:HB	14:N:154:ARG:HB2	2.01	0.41
15:O:56:VAL:CG2	15:O:99:ILE:HD12	2.48	0.41
16:P:21:GLN:CB	18:R:139:GLU:HB2	2.49	0.41
16:P:465:VAL:HG13	16:P:480:VAL:HG13	2.01	0.41
16:P:500:ILE:HB	16:P:501:PRO:CD	2.50	0.41
16:P:596:ILE:HD13	17:Q:272:GLN:OE1	2.20	0.41
17:Q:498:LEU:O	17:Q:502:ILE:HG23	2.20	0.41
1:A:82:PRO:HD3	1:A:393:SER:OG	2.20	0.41
1:A:472:MET:CA	1:A:472:MET:CE	2.86	0.41
1:A:1441:LYS:HB3	1:A:1441:LYS:HE2	1.75	0.41
8:H:105:GLU:HG2	8:H:115:TYR:HE1	1.84	0.41
15:O:56:VAL:HG23	15:O:57:LYS:N	2.35	0.41
15:O:468:GLU:HG2	15:O:469:ARG:N	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:64:LEU:CD2	16:P:64:LEU:H	2.33	0.41
16:P:280:ARG:HD3	16:P:280:ARG:HA	1.90	0.41
16:P:304:ASP:HB2	16:P:363:ILE:O	2.20	0.41
16:P:317:ILE:CG1	16:P:326:ILE:HD13	2.49	0.41
18:R:75:GLN:HA	18:R:78:ARG:NE	2.33	0.41
18:R:76:LYS:HA	18:R:79:ARG:HB2	2.01	0.41
1:A:1242:ILE:HG22	1:A:1536:ILE:HG22	2.01	0.41
2:B:149:GLU:OE1	2:B:441:LYS:HE2	2.15	0.41
2:B:436:MET:HE1	2:B:448:ARG:HD3	2.02	0.41
2:B:550:ARG:H	2:B:650:LEU:H	1.67	0.41
2:B:894:LYS:HA	12:L:54:ARG:HE	1.77	0.41
3:C:105:PRO:HG3	10:J:6:ARG:CZ	2.50	0.41
9:I:2:SER:HB3	9:I:3:VAL:H	1.75	0.41
11:K:93:ILE:HA	11:K:94:PRO:HD2	1.75	0.41
15:O:210:ASN:HD22	15:O:210:ASN:HA	1.67	0.41
15:O:248:LEU:HB2	15:O:598:PHE:HE2	1.85	0.41
1:A:711:LYS:HA	11:K:104:ARG:NH2	2.35	0.41
1:A:721:LYS:HZ2	8:H:91:ASP:HA	1.80	0.41
1:A:854:GLY:HA3	1:A:974:THR:O	2.21	0.41
1:A:1024:THR:HG22	1:A:1190:SER:CB	2.50	0.41
2:B:49:PHE:HB3	2:B:164:MET:SD	2.60	0.41
2:B:848:ILE:CG1	12:L:60:ARG:HD2	2.36	0.41
2:B:985:ILE:HG13	14:N:160:VAL:HG21	2.02	0.41
9:I:87:PRO:HG2	9:I:119:TYR:CE2	2.56	0.41
13:M:61:GLU:CD	13:M:106:LYS:CD	2.80	0.41
15:O:364:LEU:HB3	15:O:385:MET:HE3	2.01	0.41
15:O:548:ASN:O	15:O:552:LEU:HG	2.20	0.41
16:P:428:GLU:HB2	16:P:435:ARG:NH1	2.30	0.41
16:P:484:ARG:HB2	16:P:488:LEU:HB3	2.02	0.41
16:P:584:ARG:O	16:P:588:SER:CB	2.62	0.41
16:P:648:SER:HA	16:P:757:GLN:NE2	2.35	0.41
17:Q:194:GLN:CG	18:R:209:ARG:NE	2.83	0.41
17:Q:341:ARG:NH1	17:Q:369:TRP:CD1	2.87	0.41
18:R:220:LEU:CG	18:R:256:GLU:OE2	2.69	0.41
1:A:474:LYS:CE	2:B:1096:SER:OG	2.63	0.41
1:A:1071:ASP:O	1:A:1072:ASN:HB2	2.21	0.41
2:B:427:GLN:OE1	2:B:452:ARG:NH1	2.54	0.41
2:B:940:GLU:OE2	3:C:293:ARG:NH2	2.42	0.41
2:B:1060:VAL:HG22	2:B:1065:ARG:NH2	2.35	0.41
16:P:198:ASP:OD1	16:P:205:TYR:O	2.39	0.41
16:P:360:TRP:CZ3	18:R:196:GLU:OE2	2.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:391:THR:CB	18:R:149:LYS:HB3	2.50	0.41
16:P:421:ILE:HA	16:P:440:HIS:O	2.21	0.41
16:P:438:TRP:HZ2	18:R:297:PHE:HE1	1.18	0.41
16:P:504:THR:CG2	16:P:505:PRO:HD2	2.51	0.41
18:R:220:LEU:N	18:R:235:ILE:HG21	2.36	0.41
1:A:315:ILE:HG13	1:A:319:GLU:HB2	2.03	0.41
1:A:475:ARG:O	2:B:1059:PRO:CG	2.66	0.41
1:A:507:TYR:CD1	1:A:509:GLU:N	2.89	0.41
1:A:581:ILE:CG1	1:A:585:ASP:OD2	2.56	0.41
1:A:634:ASN:CG	2:B:1069:ILE:HG12	2.46	0.41
1:A:680:LEU:O	1:A:728:GLY:HA3	2.20	0.41
1:A:874:GLU:OE2	1:A:878:ARG:HD2	2.20	0.41
1:A:1056:ASP:OD2	1:A:1057:ILE:N	2.54	0.41
1:A:1074:TYR:CE2	1:A:1159:ASP:HB3	2.54	0.41
1:A:1248:ASP:OD1	1:A:1517:ARG:NH1	2.49	0.41
1:A:1322:ILE:C	1:A:1454:HIS:NE2	2.79	0.41
1:A:1499:ARG:O	1:A:1500:GLN:CB	2.68	0.41
2:B:152:LEU:CG	2:B:443:LYS:CE	2.94	0.41
2:B:186:GLU:OE2	2:B:731:VAL:HB	2.20	0.41
2:B:491:ILE:HB	2:B:495:ARG:HD2	2.03	0.41
2:B:995:TYR:HE1	14:N:162:LYS:HA	1.85	0.41
14:N:85:HIS:C	14:N:141:GLU:OE2	2.63	0.41
15:O:66:ASN:ND2	15:O:111:ARG:CZ	2.83	0.41
15:O:244:LEU:HD23	15:O:244:LEU:O	2.20	0.41
16:P:454:GLN:HB3	16:P:465:VAL:HG23	2.02	0.41
16:P:473:HIS:CD2	16:P:475:ARG:HH11	2.38	0.41
16:P:711:LEU:CD2	16:P:741:ILE:HD13	2.51	0.41
17:Q:6:ARG:HA	17:Q:18:ARG:HG3	2.02	0.41
17:Q:140:ILE:O	17:Q:143:THR:HG22	2.21	0.41
17:Q:344:THR:HG22	17:Q:436:LEU:HD13	2.01	0.41
17:Q:408:ILE:HD11	17:Q:412:LYS:HE3	2.02	0.41
18:R:362:ALA:HA	18:R:365:TRP:HD1	1.86	0.41
18:R:402:ASN:O	18:R:405:ILE:HB	2.20	0.41
1:A:475:ARG:NH1	2:B:1061:LYS:HA	2.36	0.41
1:A:828:CYS:HG	2:B:1027:TYR:CB	2.33	0.41
1:A:990:ILE:CG1	1:A:995:TYR:HA	2.44	0.41
1:A:1000:MET:HG2	2:B:520:LEU:HD23	2.02	0.41
1:A:1180:ASN:N	1:A:1180:ASN:HD22	2.18	0.41
1:A:1195:GLU:HB3	1:A:1196:PRO:HD3	2.03	0.41
2:B:31:ASP:N	2:B:176:SER:HB2	2.36	0.41
2:B:152:LEU:HA	2:B:443:LYS:HE3	1.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1002:LYS:O	14:N:168:LEU:HD23	2.21	0.41
15:O:182:MET:HE2	15:O:183:ILE:HG13	2.03	0.41
15:O:372:VAL:HG22	15:O:381:ILE:HD13	2.03	0.41
15:O:430:ARG:NH2	15:O:596:PRO:HD3	2.36	0.41
15:O:592:PHE:HA	15:O:593:PRO:HD3	1.90	0.41
17:Q:375:LEU:HA	17:Q:378:LEU:HD12	2.01	0.41
17:Q:409:ALA:O	17:Q:413:LEU:CB	2.58	0.41
18:R:173:MET:O	18:R:176:PRO:HD2	2.20	0.41
18:R:304:HIS:CE1	18:R:306:ALA:HA	2.56	0.41
1:A:692:TYR:O	1:A:696:ILE:HG12	2.20	0.41
1:A:826:PHE:HE1	2:B:952:HIS:CE1	2.39	0.41
1:A:868:THR:HA	1:A:869:PRO:HD2	1.87	0.41
1:A:1317:ILE:O	1:A:1322:ILE:HG12	2.21	0.41
2:B:262:PHE:CE1	2:B:357:ILE:HD13	2.56	0.41
8:H:95:TYR:HD2	8:H:144:ILE:HD12	1.86	0.41
11:K:54:THR:HG22	11:K:62:SER:H	1.86	0.41
15:O:96:LEU:O	15:O:100:LEU:HG	2.20	0.41
16:P:475:ARG:HD3	18:R:1:MET:HB3	2.01	0.41
16:P:637:LEU:HD22	16:P:637:LEU:HA	1.84	0.41
16:P:712:ASP:O	16:P:715:TYR:N	2.53	0.41
17:Q:315:ASN:HB2	17:Q:480:LEU:HD11	2.03	0.41
17:Q:384:GLN:C	17:Q:387:PRO:HD2	2.46	0.41
18:R:362:ALA:O	18:R:365:TRP:HB2	2.21	0.41
1:A:67:LEU:HB2	1:A:72:CYS:HB2	2.02	0.41
1:A:422:ARG:HE	18:R:409:HIS:HE1	1.60	0.41
1:A:474:LYS:NZ	2:B:1092:LEU:CA	2.67	0.41
1:A:507:TYR:HA	1:A:508:PRO:HD2	1.87	0.41
1:A:1268:ASP:OD1	9:I:61:ARG:NH2	2.52	0.41
1:A:1613:MET:HG2	1:A:1618:THR:HG23	2.03	0.41
2:B:152:LEU:CD2	2:B:443:LYS:HE3	2.51	0.41
2:B:279:ALA:HB2	2:B:326:VAL:HG12	2.03	0.41
2:B:415:GLU:CD	2:B:472:SER:CB	2.94	0.41
2:B:736:ARG:NH1	2:B:738:ASP:OD1	2.54	0.41
2:B:740:LYS:HB2	2:B:740:LYS:HE3	1.95	0.41
2:B:944:GLN:HA	2:B:945:PRO:HD3	1.96	0.41
2:B:1072:GLY:HA3	2:B:1075:GLU:OE2	2.21	0.41
3:C:314:PHE:HD2	11:K:135:PHE:CE2	2.38	0.41
7:G:24:VAL:O	7:G:128:GLN:HB3	2.04	0.41
15:O:150:TRP:O	15:O:154:VAL:HG23	2.21	0.41
15:O:396:MET:HE1	15:O:433:LYS:HB2	2.02	0.41
16:P:319:ASP:HB2	16:P:363:ILE:CG1	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:321:LYS:HD3	16:P:321:LYS:N	2.25	0.41
16:P:329:ILE:HG13	16:P:330:PRO:O	2.21	0.41
16:P:377:ARG:H	16:P:377:ARG:HG3	1.64	0.41
17:Q:118:TRP:O	17:Q:122:GLU:HB2	2.21	0.41
17:Q:129:PHE:HE1	17:Q:169:SER:N	2.19	0.41
17:Q:257:VAL:HG13	17:Q:262:LEU:HB2	2.02	0.41
17:Q:350:ARG:NH1	17:Q:490:ASP:OD2	2.40	0.41
17:Q:351:ASN:CG	17:Q:369:TRP:CH2	2.80	0.41
18:R:15:GLN:O	18:R:18:LYS:HB2	2.21	0.41
1:A:501:PHE:CE1	2:B:1046:VAL:HB	2.56	0.41
2:B:168:ASN:O	2:B:169:ARG:HD3	2.21	0.41
2:B:371:PHE:CE2	2:B:375:LEU:HD11	2.56	0.41
2:B:1004:GLY:HA2	14:N:168:LEU:HD22	2.03	0.41
3:C:314:PHE:HE2	11:K:135:PHE:CD1	2.39	0.41
17:Q:22:ILE:HD12	17:Q:26:ARG:HH11	1.86	0.41
17:Q:152:LEU:HB3	17:Q:154:LEU:CD2	2.51	0.41
18:R:34:ILE:HD12	18:R:34:ILE:HA	1.88	0.41
18:R:236:PHE:CE1	18:R:253:ILE:HD12	2.33	0.41
18:R:248:LYS:CE	18:R:297:PHE:O	2.69	0.41
1:A:227:LEU:HD23	1:A:227:LEU:HA	1.84	0.40
1:A:407:GLN:HB3	1:A:409:ASP:CG	2.46	0.40
1:A:473:GLY:CA	2:B:1072:GLY:HA2	2.43	0.40
1:A:487:ASP:HB2	1:A:615:ARG:HB3	2.02	0.40
1:A:581:ILE:CD1	1:A:637:PHE:CE1	2.98	0.40
2:B:547:HIS:CB	2:B:697:LEU:O	2.69	0.40
15:O:115:LEU:O	15:O:119:ILE:HG13	2.21	0.40
15:O:350:GLU:H	15:O:350:GLU:HG3	1.62	0.40
16:P:218:VAL:HG13	16:P:246:LYS:N	2.32	0.40
16:P:265:THR:HG1	16:P:305:PHE:HE1	1.66	0.40
16:P:390:GLN:HB2	18:R:152:ILE:HA	2.00	0.40
17:Q:3:THR:CG2	17:Q:20:TRP:HB2	2.37	0.40
17:Q:309:TYR:CZ	17:Q:505:ILE:HD11	2.57	0.40
17:Q:378:LEU:CG	18:R:219:LEU:CD1	2.92	0.40
17:Q:496:GLU:H	17:Q:496:GLU:HG2	1.68	0.40
17:Q:499:LYS:HE2	17:Q:499:LYS:HB3	1.91	0.40
1:A:475:ARG:HB2	2:B:1059:PRO:O	2.22	0.40
1:A:597:LYS:HD2	2:B:1082:HIS:CD2	2.56	0.40
2:B:61:LEU:HD23	2:B:61:LEU:HA	1.75	0.40
2:B:937:PRO:HB2	2:B:1013:MET:HE2	2.04	0.40
3:C:246:ARG:HD2	3:C:284:GLU:OE2	2.21	0.40
7:G:144:HIS:NE2	15:O:145:SER:CA	2.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:41:ASP:HB2	8:H:121:LEU:HB3	2.02	0.40
11:K:95:HIS:HB3	11:K:98:GLU:HG2	2.03	0.40
15:O:219:ARG:CZ	15:O:360:VAL:CG2	2.98	0.40
16:P:263:ILE:HB	16:P:275:GLU:O	2.21	0.40
16:P:404:ASP:OD1	16:P:405:TYR:N	2.50	0.40
16:P:448:THR:HG21	16:P:471:MET:HB2	2.03	0.40
16:P:472:ARG:HE	18:R:200:THR:CG2	2.32	0.40
18:R:141:TRP:CD1	18:R:141:TRP:N	2.88	0.40
18:R:254:GLY:O	18:R:258:LEU:HB2	2.22	0.40
1:A:413:LEU:HD13	1:A:416:ARG:HG3	2.03	0.40
1:A:753:ASN:HB2	1:A:782:ASP:OD2	2.21	0.40
1:A:1275:THR:HA	9:I:45:LEU:O	2.21	0.40
1:A:1276:THR:OG1	9:I:45:LEU:O	2.27	0.40
2:B:146:ASN:ND2	2:B:441:LYS:CE	2.81	0.40
2:B:346:ASP:CG	13:M:113:ILE:HA	2.47	0.40
9:I:20:PRO:C	9:I:22:ALA:H	2.29	0.40
14:N:127:ASP:OD2	14:N:129:ALA:HB2	2.21	0.40
15:O:407:SER:CB	15:O:421:LEU:HG	2.51	0.40
16:P:56:ASP:HB2	16:P:554:ASN:OD1	2.21	0.40
17:Q:239:PHE:HB2	17:Q:245:SER:OG	2.21	0.40
17:Q:282:ARG:HG2	17:Q:302:ALA:HB1	2.02	0.40
17:Q:378:LEU:CD1	18:R:235:ILE:HD12	2.47	0.40
1:A:564:PRO:CD	15:O:370:THR:O	2.68	0.40
1:A:878:ARG:HH11	9:I:66:VAL:HG21	1.63	0.40
1:A:986:PHE:HE2	2:B:958:MET:CE	2.30	0.40
1:A:999:CYS:SG	2:B:712:SER:CB	3.10	0.40
7:G:73:TYR:CZ	7:G:238:THR:HG21	2.57	0.40
7:G:159:LYS:HB3	15:O:105:ASN:HB2	2.03	0.40
7:G:166:TRP:HZ3	7:G:225:ILE:HD13	1.87	0.40
8:H:7:ASP:HA	8:H:57:VAL:O	2.22	0.40
11:K:135:PHE:CE2	11:K:139:ILE:HD11	2.56	0.40
15:O:175:MET:HE3	15:O:175:MET:HB2	1.81	0.40
16:P:451:ILE:HA	16:P:467:PHE:O	2.21	0.40
16:P:472:ARG:NE	18:R:200:THR:CG2	2.73	0.40
16:P:607:VAL:O	16:P:611:ILE:HG13	2.21	0.40
17:Q:6:ARG:HA	17:Q:18:ARG:CD	2.49	0.40
17:Q:178:THR:HG21	17:Q:227:TYR:OH	2.22	0.40
17:Q:262:LEU:HD23	17:Q:262:LEU:HA	1.84	0.40
17:Q:512:ARG:HA	17:Q:512:ARG:HD3	1.91	0.40
1:A:382:GLN:HE21	1:A:456:VAL:CG2	2.28	0.40
1:A:477:ASN:O	2:B:1047:ARG:HG2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:514:TYR:CE1	6:F:115:THR:O	2.74	0.40
1:A:634:ASN:OD1	2:B:1069:ILE:HG12	2.21	0.40
1:A:729:LYS:HD2	8:H:120:GLY:CA	2.50	0.40
1:A:881:GLU:OE2	9:I:65:SER:OG	2.38	0.40
1:A:1260:LYS:HE2	1:A:1262:LEU:HD21	2.01	0.40
1:A:1320:GLN:HE21	1:A:1320:GLN:HB2	1.56	0.40
3:C:109:ASP:HB3	3:C:112:MET:HE3	2.04	0.40
5:E:198:ILE:CD1	5:E:212:ARG:HG3	2.51	0.40
6:F:93:ILE:HD13	6:F:93:ILE:HA	1.70	0.40
9:I:34:LYS:HA	9:I:34:LYS:HD3	1.86	0.40
12:L:33:GLU:HG3	12:L:53:HIS:ND1	2.36	0.40
14:N:87:TYR:HA	14:N:142:THR:N	2.37	0.40
14:N:141:GLU:HG2	14:N:142:THR:N	2.37	0.40
15:O:460:GLU:O	15:O:469:ARG:NH1	2.51	0.40
16:P:333:PHE:HD2	16:P:334:ASN:HB2	1.85	0.40
17:Q:7:GLY:HA3	17:Q:8:PRO:HD2	1.44	0.40
17:Q:378:LEU:HD22	18:R:216:LEU:HD22	2.01	0.40
17:Q:414:TYR:HE1	18:R:237:ALA:O	2.04	0.40
17:Q:474:GLU:HB3	17:Q:478:ARG:HH11	1.86	0.40
18:R:173:MET:HB3	18:R:188:PHE:CZ	2.56	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	1449/1664 (87%)	1375 (95%)	60 (4%)	14 (1%)	13 49
2	B	1164/1203 (97%)	1095 (94%)	51 (4%)	18 (2%)	8 40
3	C	303/335 (90%)	287 (95%)	13 (4%)	3 (1%)	13 49
4	D	54/137 (39%)	50 (93%)	2 (4%)	2 (4%)	2 20

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	E	210/215 (98%)	197 (94%)	11 (5%)	2 (1%)	13	49
6	F	98/155 (63%)	95 (97%)	2 (2%)	1 (1%)	13	49
7	G	187/326 (57%)	173 (92%)	12 (6%)	2 (1%)	12	47
8	H	127/146 (87%)	121 (95%)	6 (5%)	0	100	100
9	I	91/125 (73%)	80 (88%)	8 (9%)	3 (3%)	3	21
10	J	67/70 (96%)	63 (94%)	4 (6%)	0	100	100
11	K	99/142 (70%)	92 (93%)	7 (7%)	0	100	100
12	L	42/70 (60%)	36 (86%)	4 (10%)	2 (5%)	2	16
13	M	106/415 (26%)	96 (91%)	8 (8%)	2 (2%)	6	32
14	N	139/233 (60%)	123 (88%)	13 (9%)	3 (2%)	5	29
15	O	467/627 (74%)	426 (91%)	35 (8%)	6 (1%)	10	43
16	P	569/894 (64%)	473 (83%)	76 (13%)	20 (4%)	3	20
17	Q	398/514 (77%)	347 (87%)	41 (10%)	10 (2%)	4	26
18	R	289/507 (57%)	240 (83%)	39 (14%)	10 (4%)	3	20
All	All	5859/7778 (75%)	5369 (92%)	392 (7%)	98 (2%)	10	37

All (98) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	408	LYS
1	A	479	ALA
1	A	1651	THR
2	B	111	ASP
2	B	895	PHE
2	B	1097	ASP
3	C	224	THR
4	D	99	LEU
9	I	41	GLN
15	O	237	ILE
15	O	325	ILE
16	P	188	GLN
16	P	321	LYS
16	P	332	ASN
16	P	444	PRO
16	P	500	ILE
16	P	501	PRO
17	Q	8	PRO

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Mol	Chain	Res	Type
17	Q	9	ILE
17	Q	15	CYS
18	R	150	GLN
18	R	151	PRO
18	R	152	ILE
18	R	245	VAL
18	R	249	SER
1	A	415	ASP
1	A	448	SER
1	A	1500	GLN
1	A	1533	GLU
1	A	1606	SER
2	B	817	ARG
2	B	1049	THR
2	B	1140	LYS
4	D	98	GLY
5	E	50	MET
9	I	5	GLY
16	P	236	ILE
16	P	426	ALA
16	P	657	SER
16	P	745	ALA
16	P	752	LEU
17	Q	7	GLY
17	Q	196	SER
18	R	11	ARG
18	R	267	GLY
18	R	422	GLY
1	A	69	GLU
1	A	450	LYS
2	B	78	PRO
2	B	208	VAL
2	B	209	GLN
2	B	1070	ARG
2	B	1084	THR
7	G	99	ASP
9	I	21	ASN
12	L	46	VAL
13	M	85	LYS
15	O	82	SER
15	O	469	ARG
16	P	201	GLU

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Mol	Chain	Res	Type
16	P	241	PRO
16	P	247	ILE
16	P	666	SER
16	P	777	MET
17	Q	197	GLU
1	A	1299	ASN
2	B	834	LYS
3	C	297	HIS
7	G	100	THR
12	L	43	THR
13	M	36	THR
14	N	115	SER
15	O	130	PRO
15	O	187	MET
16	P	294	PHE
17	Q	13	ASP
1	A	451	VAL
1	A	564	PRO
2	B	80	ASN
2	B	117	VAL
2	B	1062	GLY
3	C	32	ASN
5	E	146	HIS
17	Q	16	PRO
17	Q	193	PHE
1	A	1512	PRO
2	B	1063	ARG
16	P	568	ILE
17	Q	148	PRO
18	R	362	ALA
6	F	74	ILE
14	N	70	LEU
16	P	421	ILE
18	R	295	PRO
14	N	39	PRO
2	B	833	PRO
2	B	954	PHE
16	P	203	ILE

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	1297/1465 (88%)	1205 (93%)	92 (7%)	12	32
2	B	1025/1053 (97%)	962 (94%)	63 (6%)	15	37
3	C	269/296 (91%)	254 (94%)	15 (6%)	17	38
4	D	55/116 (47%)	50 (91%)	5 (9%)	7	24
5	E	194/197 (98%)	179 (92%)	15 (8%)	10	30
6	F	90/137 (66%)	85 (94%)	5 (6%)	17	38
7	G	171/291 (59%)	158 (92%)	13 (8%)	11	30
8	H	115/128 (90%)	107 (93%)	8 (7%)	12	32
9	I	89/110 (81%)	84 (94%)	5 (6%)	17	38
10	J	64/65 (98%)	56 (88%)	8 (12%)	3	15
11	K	91/130 (70%)	82 (90%)	9 (10%)	6	21
12	L	39/57 (68%)	34 (87%)	5 (13%)	3	14
13	M	98/371 (26%)	85 (87%)	13 (13%)	3	13
14	N	135/220 (61%)	128 (95%)	7 (5%)	19	40
15	O	439/576 (76%)	383 (87%)	56 (13%)	3	14
16	P	539/828 (65%)	386 (72%)	153 (28%)	0	2
17	Q	383/476 (80%)	320 (84%)	63 (16%)	2	10
18	R	286/474 (60%)	223 (78%)	63 (22%)	1	5
All	All	5379/6990 (77%)	4781 (89%)	598 (11%)	7	17

All (598) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	10	GLU
1	A	40	ASN
1	A	61	LEU
1	A	83	VAL
1	A	136	LEU
1	A	174	SER

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Mol	Chain	Res	Type
1	A	186	SER
1	A	202	THR
1	A	230	ARG
1	A	257	ASN
1	A	262	THR
1	A	266	VAL
1	A	271	ARG
1	A	272	GLN
1	A	312	SER
1	A	315	ILE
1	A	346	SER
1	A	373	LEU
1	A	379	GLU
1	A	393	SER
1	A	406	LEU
1	A	407	GLN
1	A	408	LYS
1	A	410	LYS
1	A	413	LEU
1	A	414	GLU
1	A	447	THR
1	A	451	VAL
1	A	472	MET
1	A	503	VAL
1	A	518	GLU
1	A	524	ILE
1	A	555	LYS
1	A	611	GLU
1	A	627	ASP
1	A	661	THR
1	A	666	VAL
1	A	670	ILE
1	A	684	ASP
1	A	700	ILE
1	A	708	THR
1	A	709	ARG
1	A	739	VAL
1	A	747	ILE
1	A	758	GLU
1	A	783	LYS
1	A	794	VAL
1	A	815	ARG

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Mol	Chain	Res	Type
1	A	878	ARG
1	A	955	ARG
1	A	957	VAL
1	A	966	LEU
1	A	988	SER
1	A	1021	ARG
1	A	1026	GLN
1	A	1033	SER
1	A	1071	ASP
1	A	1085	LEU
1	A	1098	SER
1	A	1102	LEU
1	A	1118	VAL
1	A	1123	VAL
1	A	1131	LYS
1	A	1136	VAL
1	A	1150	LYS
1	A	1159	ASP
1	A	1162	ASN
1	A	1204	THR
1	A	1215	VAL
1	A	1226	VAL
1	A	1273	THR
1	A	1275	THR
1	A	1276	THR
1	A	1310	LYS
1	A	1314	GLN
1	A	1320	GLN
1	A	1441	LYS
1	A	1455	ARG
1	A	1508	VAL
1	A	1518	VAL
1	A	1531	ASP
1	A	1533	GLU
1	A	1536	ILE
1	A	1601	GLN
1	A	1604	GLU
1	A	1605	THR
1	A	1609	SER
1	A	1611	MET
1	A	1616	GLU
1	A	1633	GLN

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Mol	Chain	Res	Type
1	A	1635	ASP
1	A	1649	VAL
2	B	17	ARG
2	B	22	GLU
2	B	37	LEU
2	B	53	THR
2	B	57	ASP
2	B	65	VAL
2	B	79	LEU
2	B	81	SER
2	B	87	ASN
2	B	97	VAL
2	B	117	VAL
2	B	187	SER
2	B	221	SER
2	B	228	SER
2	B	231	HIS
2	B	236	ILE
2	B	239	VAL
2	B	276	ILE
2	B	305	ARG
2	B	306	LEU
2	B	311	ARG
2	B	315	LYS
2	B	357	ILE
2	B	481	VAL
2	B	486	VAL
2	B	490	LYS
2	B	523	GLU
2	B	537	SER
2	B	583	LEU
2	B	622	ILE
2	B	658	LEU
2	B	720	GLN
2	B	725	THR
2	B	731	VAL
2	B	753	LYS
2	B	782	ASP
2	B	811	LEU
2	B	813	LEU
2	B	822	THR
2	B	829	ASN

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Mol	Chain	Res	Type
2	B	833	PRO
2	B	835	GLU
2	B	858	ILE
2	B	871	ILE
2	B	883	GLU
2	B	897	GLU
2	B	977	ILE
2	B	998	GLU
2	B	1026	ILE
2	B	1038	HIS
2	B	1047	ARG
2	B	1060	VAL
2	B	1064	LYS
2	B	1069	ILE
2	B	1075	GLU
2	B	1103	VAL
2	B	1125	THR
2	B	1136	GLU
2	B	1141	LEU
2	B	1153	ILE
2	B	1163	GLN
2	B	1165	ASN
2	B	1174	THR
3	C	38	LYS
3	C	43	ASN
3	C	61	THR
3	C	77	SER
3	C	91	VAL
3	C	97	LEU
3	C	118	SER
3	C	138	VAL
3	C	142	ARG
3	C	181	ASP
3	C	193	LEU
3	C	224	THR
3	C	243	SER
3	C	277	ARG
3	C	279	VAL
4	D	15	THR
4	D	29	GLN
4	D	38	GLN
4	D	80	THR

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Mol	Chain	Res	Type
4	D	99	LEU
5	E	4	GLU
5	E	31	THR
5	E	33	GLU
5	E	74	ASP
5	E	77	SER
5	E	90	VAL
5	E	92	THR
5	E	93	MET
5	E	107	THR
5	E	131	THR
5	E	136	ASN
5	E	142	VAL
5	E	162	ARG
5	E	163	GLU
5	E	177	ARG
6	F	59	GLN
6	F	74	ILE
6	F	87	LYS
6	F	99	LEU
6	F	109	VAL
7	G	21	LYS
7	G	24	VAL
7	G	35	SER
7	G	39	VAL
7	G	139	ILE
7	G	147	LEU
7	G	167	THR
7	G	169	VAL
7	G	223	GLU
7	G	230	ARG
7	G	239	THR
7	G	241	ARG
7	G	243	VAL
8	H	3	ASN
8	H	9	ILE
8	H	39	THR
8	H	108	SER
8	H	111	LEU
8	H	112	ILE
8	H	114	VAL
8	H	121	LEU

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Mol	Chain	Res	Type
9	I	2	SER
9	I	3	VAL
9	I	15	ASP
9	I	45	LEU
9	I	81	THR
10	J	3	VAL
10	J	9	SER
10	J	10	CYS
10	J	14	VAL
10	J	27	GLU
10	J	34	THR
10	J	45	CYS
10	J	48	ARG
11	K	44	ARG
11	K	45	GLU
11	K	51	THR
11	K	68	GLU
11	K	99	ASN
11	K	103	ILE
11	K	118	GLN
11	K	123	ASP
11	K	133	SER
12	L	38	LEU
12	L	41	SER
12	L	55	ILE
12	L	57	LEU
12	L	66	GLN
13	M	17	ASP
13	M	18	GLN
13	M	31	ARG
13	M	44	LYS
13	M	48	LYS
13	M	52	VAL
13	M	63	GLU
13	M	65	TYR
13	M	77	VAL
13	M	84	GLU
13	M	98	SER
13	M	104	SER
13	M	109	ARG
14	N	51	GLN
14	N	89	ILE

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Mol	Chain	Res	Type
14	N	124	THR
14	N	135	LYS
14	N	153	VAL
14	N	167	LYS
14	N	178	GLU
15	O	66	ASN
15	O	67	ASP
15	O	69	THR
15	O	78	VAL
15	O	80	LEU
15	O	87	ARG
15	O	101	SER
15	O	110	SER
15	O	111	ARG
15	O	117	GLN
15	O	171	CYS
15	O	175	MET
15	O	180	LEU
15	O	181	ARG
15	O	190	ILE
15	O	192	THR
15	O	194	LEU
15	O	202	ASN
15	O	203	ASP
15	O	204	THR
15	O	205	ARG
15	O	212	THR
15	O	213	SER
15	O	215	LEU
15	O	225	LEU
15	O	228	GLN
15	O	232	LEU
15	O	234	ILE
15	O	237	ILE
15	O	239	SER
15	O	240	ILE
15	O	245	GLN
15	O	248	LEU
15	O	341	THR
15	O	350	GLU
15	O	354	SER
15	O	363	THR

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Mol	Chain	Res	Type
15	O	376	TYR
15	O	381	ILE
15	O	395	LEU
15	O	407	SER
15	O	410	VAL
15	O	415	GLU
15	O	437	THR
15	O	454	VAL
15	O	489	ASN
15	O	494	THR
15	O	526	LEU
15	O	543	ILE
15	O	578	SER
15	O	579	LEU
15	O	581	THR
15	O	584	GLN
15	O	597	LEU
15	O	599	LEU
15	O	602	TYR
16	P	21	GLN
16	P	25	LEU
16	P	26	TYR
16	P	49	THR
16	P	55	LEU
16	P	64	LEU
16	P	187	ILE
16	P	195	ASN
16	P	201	GLU
16	P	207	SER
16	P	212	SER
16	P	214	LEU
16	P	220	THR
16	P	225	LEU
16	P	227	LEU
16	P	232	ASN
16	P	233	VAL
16	P	236	ILE
16	P	237	GLU
16	P	243	LYS
16	P	245	ILE
16	P	252	GLU
16	P	256	ARG

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Mol	Chain	Res	Type
16	P	257	ARG
16	P	260	LEU
16	P	261	VAL
16	P	263	ILE
16	P	264	ILE
16	P	270	GLN
16	P	271	ILE
16	P	276	SER
16	P	282	CYS
16	P	286	VAL
16	P	290	GLU
16	P	292	LEU
16	P	297	ILE
16	P	300	LEU
16	P	314	GLN
16	P	321	LYS
16	P	323	ASN
16	P	326	ILE
16	P	329	ILE
16	P	331	LYS
16	P	333	PHE
16	P	343	LEU
16	P	345	ASP
16	P	347	LEU
16	P	359	SER
16	P	360	TRP
16	P	363	ILE
16	P	370	GLN
16	P	377	ARG
16	P	379	LYS
16	P	381	ILE
16	P	384	ASP
16	P	386	MET
16	P	390	GLN
16	P	397	LYS
16	P	402	ILE
16	P	403	ARG
16	P	407	ARG
16	P	408	ILE
16	P	412	ASN
16	P	415	LEU
16	P	417	THR

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Mol	Chain	Res	Type
16	P	419	ARG
16	P	421	ILE
16	P	423	ILE
16	P	424	VAL
16	P	430	ASN
16	P	433	VAL
16	P	439	LYS
16	P	440	HIS
16	P	442	LEU
16	P	448	THR
16	P	453	VAL
16	P	455	LYS
16	P	456	VAL
16	P	460	ASP
16	P	463	LEU
16	P	464	LEU
16	P	465	VAL
16	P	468	VAL
16	P	473	HIS
16	P	474	LYS
16	P	480	VAL
16	P	492	LEU
16	P	494	CYS
16	P	496	THR
16	P	497	VAL
16	P	498	LEU
16	P	500	ILE
16	P	508	ILE
16	P	511	ILE
16	P	531	PHE
16	P	534	VAL
16	P	538	LEU
16	P	539	VAL
16	P	545	SER
16	P	546	GLU
16	P	555	THR
16	P	556	GLN
16	P	567	ILE
16	P	580	ASN
16	P	582	ASP
16	P	584	ARG
16	P	593	VAL

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Mol	Chain	Res	Type
16	P	596	ILE
16	P	600	GLU
16	P	609	ASN
16	P	615	ASN
16	P	617	HIS
16	P	625	ASP
16	P	626	LEU
16	P	630	LEU
16	P	632	ILE
16	P	634	THR
16	P	635	ASN
16	P	637	LEU
16	P	638	LEU
16	P	646	ASP
16	P	647	GLU
16	P	649	ILE
16	P	654	LEU
16	P	656	HIS
16	P	659	LEU
16	P	660	LYS
16	P	662	LEU
16	P	664	GLU
16	P	665	ASN
16	P	667	ASP
16	P	671	SER
16	P	676	SER
16	P	679	LEU
16	P	693	PHE
16	P	694	ILE
16	P	700	LEU
16	P	706	GLU
16	P	711	LEU
16	P	712	ASP
16	P	726	SER
16	P	730	GLU
16	P	731	LEU
16	P	736	ILE
16	P	748	GLU
16	P	749	LYS
16	P	751	SER
16	P	753	PHE
16	P	757	GLN

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Mol	Chain	Res	Type
16	P	762	ARG
16	P	768	TYR
16	P	772	ILE
16	P	777	MET
17	Q	17	SER
17	Q	26	ARG
17	Q	27	ARG
17	Q	94	LYS
17	Q	101	LYS
17	Q	103	LEU
17	Q	111	ILE
17	Q	112	LEU
17	Q	138	LEU
17	Q	139	LYS
17	Q	143	THR
17	Q	144	ILE
17	Q	145	ASN
17	Q	147	GLN
17	Q	149	GLN
17	Q	150	GLU
17	Q	154	LEU
17	Q	159	THR
17	Q	164	ILE
17	Q	167	LEU
17	Q	169	SER
17	Q	173	SER
17	Q	176	VAL
17	Q	187	THR
17	Q	204	ARG
17	Q	207	LEU
17	Q	218	SER
17	Q	226	LEU
17	Q	232	LEU
17	Q	248	SER
17	Q	273	VAL
17	Q	278	GLU
17	Q	286	LEU
17	Q	288	GLU
17	Q	290	THR
17	Q	291	ASP
17	Q	297	ARG
17	Q	301	HIS

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Mol	Chain	Res	Type
17	Q	312	LEU
17	Q	318	LEU
17	Q	328	LEU
17	Q	332	LEU
17	Q	337	SER
17	Q	348	ILE
17	Q	363	SER
17	Q	367	PHE
17	Q	368	GLN
17	Q	378	LEU
17	Q	379	LYS
17	Q	384	GLN
17	Q	419	LEU
17	Q	435	GLN
17	Q	436	LEU
17	Q	439	ILE
17	Q	443	GLN
17	Q	444	GLU
17	Q	453	PHE
17	Q	494	SER
17	Q	495	LYS
17	Q	496	GLU
17	Q	498	LEU
17	Q	502	ILE
17	Q	513	MET
18	R	1	MET
18	R	4	VAL
18	R	8	LEU
18	R	10	ASN
18	R	11	ARG
18	R	28	SER
18	R	34	ILE
18	R	74	GLN
18	R	80	ARG
18	R	84	TRP
18	R	85	ARG
18	R	87	VAL
18	R	143	THR
18	R	150	GLN
18	R	152	ILE
18	R	155	GLN
18	R	156	LYS

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Mol	Chain	Res	Type
18	R	165	ILE
18	R	167	LYS
18	R	168	ILE
18	R	175	ILE
18	R	178	LEU
18	R	181	THR
18	R	202	THR
18	R	206	ARG
18	R	209	ARG
18	R	210	THR
18	R	211	ARG
18	R	212	HIS
18	R	216	LEU
18	R	218	ASP
18	R	231	LEU
18	R	235	ILE
18	R	238	THR
18	R	242	ILE
18	R	247	ILE
18	R	250	LEU
18	R	255	VAL
18	R	266	SER
18	R	269	ASP
18	R	272	GLN
18	R	276	GLN
18	R	294	VAL
18	R	298	GLN
18	R	299	THR
18	R	302	ARG
18	R	307	LYS
18	R	308	PHE
18	R	313	LEU
18	R	319	ASN
18	R	322	LYS
18	R	323	SER
18	R	345	LEU
18	R	359	MET
18	R	364	VAL
18	R	367	ILE
18	R	373	LEU
18	R	374	LEU
18	R	401	ILE

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Mol	Chain	Res	Type
18	R	402	ASN
18	R	403	GLN
18	R	410	TYR
18	R	420	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (71) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	126	GLN
1	A	382	GLN
1	A	407	GLN
1	A	431	GLN
1	A	470	HIS
1	A	535	GLN
1	A	590	ASN
1	A	636	HIS
1	A	693	GLN
1	A	1026	GLN
1	A	1088	HIS
1	A	1162	ASN
1	A	1314	GLN
1	A	1320	GLN
2	B	87	ASN
2	B	182	GLN
2	B	321	GLN
2	B	422	GLN
2	B	462	GLN
2	B	473	GLN
2	B	554	GLN
2	B	702	ASN
2	B	767	ASN
2	B	893	ASN
2	B	1163	GLN
3	C	232	GLN
3	C	323	ASN
3	C	335	GLN
5	E	5	ASN
5	E	32	GLN
6	F	59	GLN
7	G	23	GLN
7	G	56	ASN
7	G	59	GLN

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Mol	Chain	Res	Type
7	G	75	ASN
7	G	126	GLN
9	I	44	ASN
9	I	97	HIS
12	L	53	HIS
13	M	18	GLN
13	M	82	ASN
14	N	61	ASN
14	N	132	GLN
15	O	66	ASN
15	O	105	ASN
15	O	210	ASN
15	O	228	GLN
15	O	245	GLN
15	O	342	HIS
15	O	362	ASN
15	O	371	HIS
15	O	390	GLN
15	O	488	HIS
15	O	497	ASN
15	O	521	ASN
15	O	547	ASN
15	O	549	ASN
16	P	228	ASN
16	P	388	ASN
16	P	461	HIS
16	P	635	ASN
16	P	757	GLN
17	Q	194	GLN
17	Q	259	GLN
17	Q	325	GLN
18	R	150	GLN
18	R	160	HIS
18	R	184	ASN
18	R	246	GLN
18	R	272	GLN
18	R	409	HIS

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 8 ligands modelled in this entry, 8 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	A	2
7	G	1
18	R	1
9	I	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	G	24:VAL	C	25:THR	N	4.53
1	R	206:ARG	C	207:ASN	N	3.86
1	I	45:LEU	C	46:LYS	N	3.17
1	A	438:ILE	C	439:ASP	N	2.97

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A	991:LYS	C	992:PRO	N	2.86

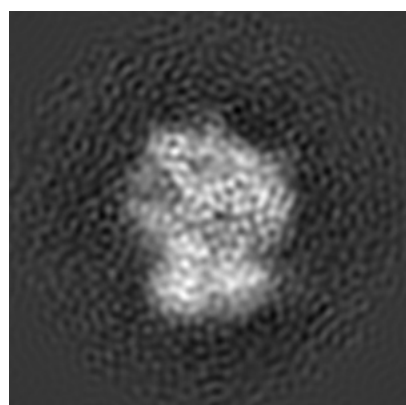
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-3592. These allow visual inspection of the internal detail of the map and identification of artifacts.

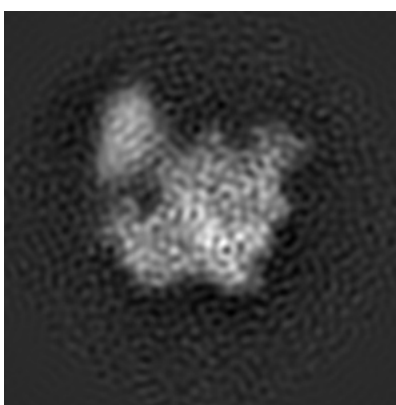
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

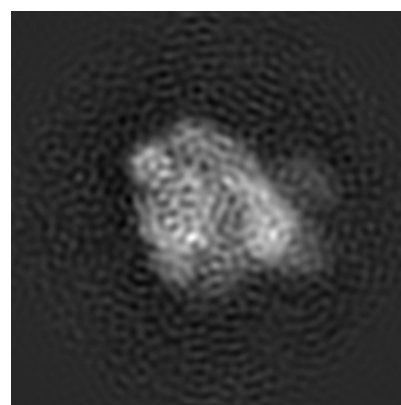
6.1.1 Primary map



X



Y

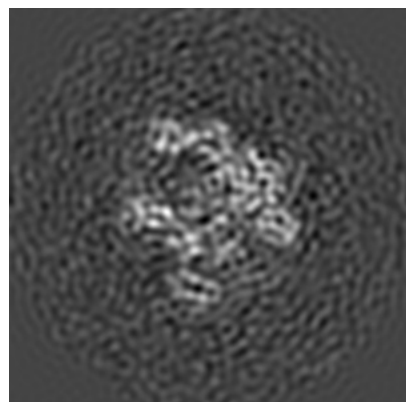


Z

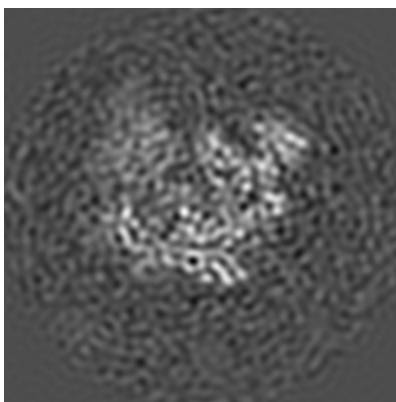
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

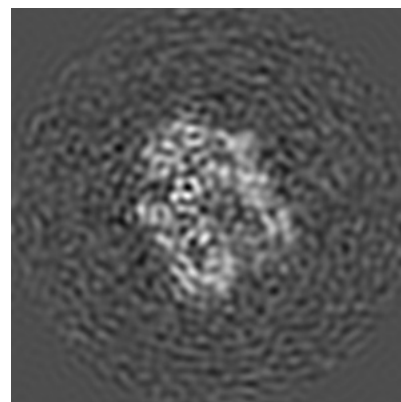
6.2.1 Primary map



X Index: 120



Y Index: 120

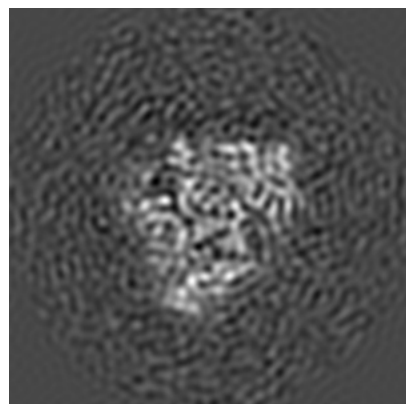


Z Index: 120

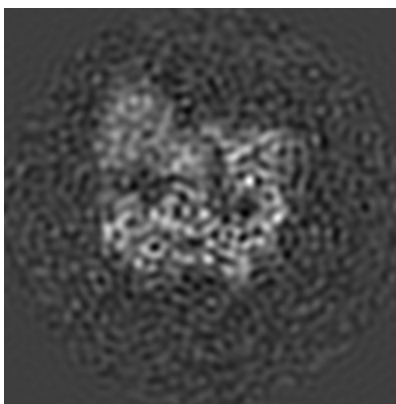
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

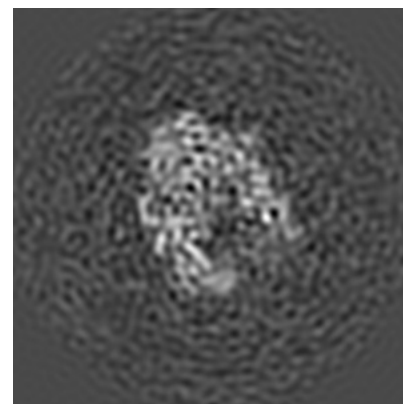
6.3.1 Primary map



X Index: 109



Y Index: 102

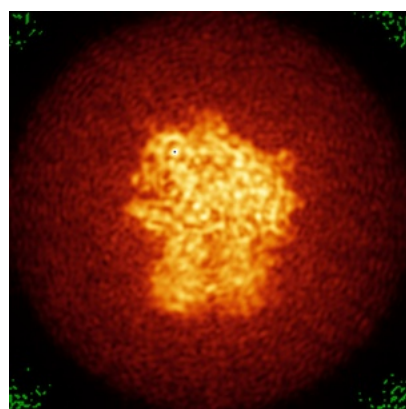


Z Index: 123

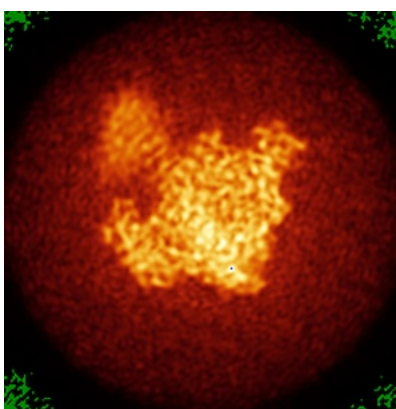
The images above show the largest variance slices of the map in three orthogonal directions.

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

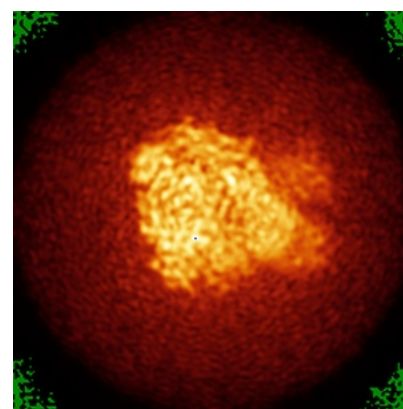
6.4.1 Primary map



X



Y

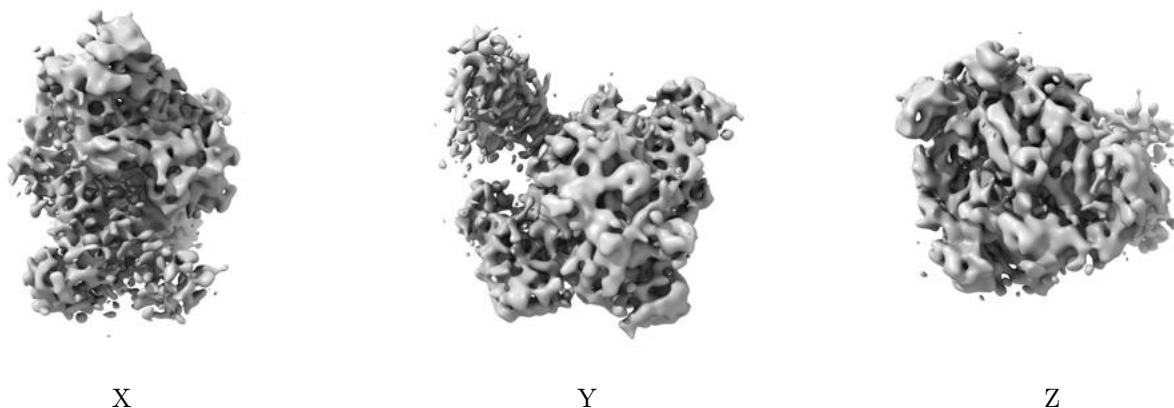


Z

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 0.023. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

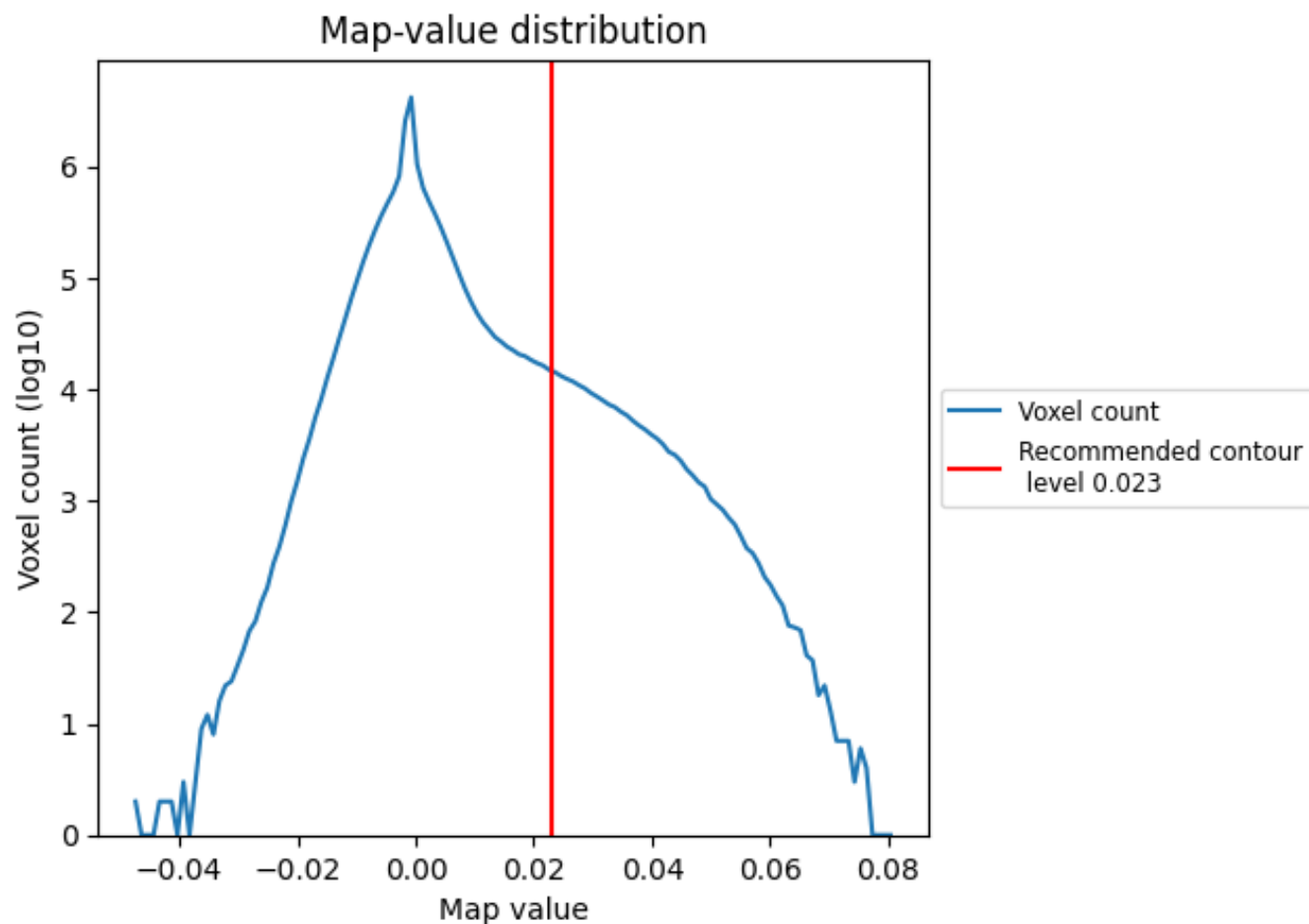
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

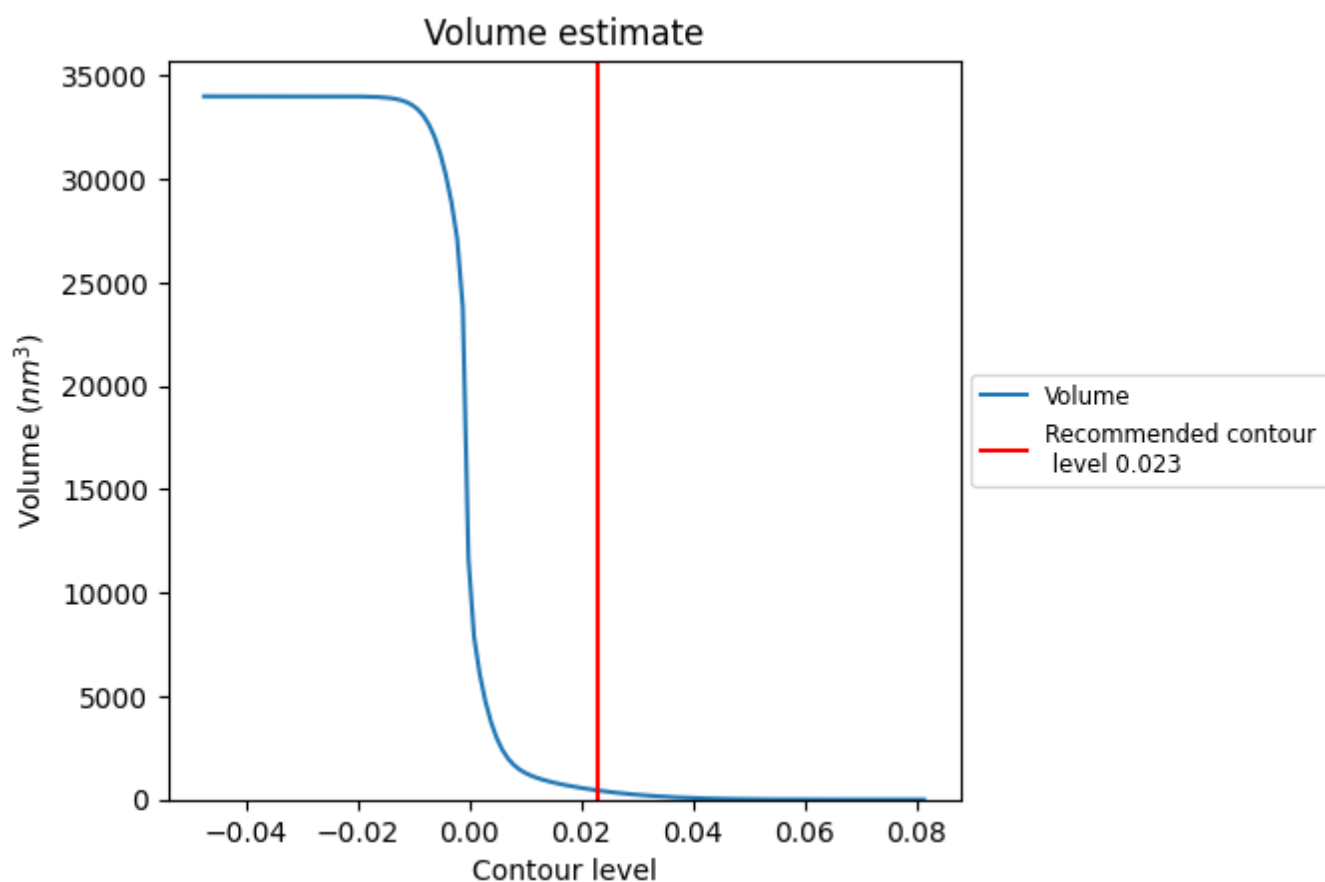
This section contains the results of statistical analysis of the map.

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.

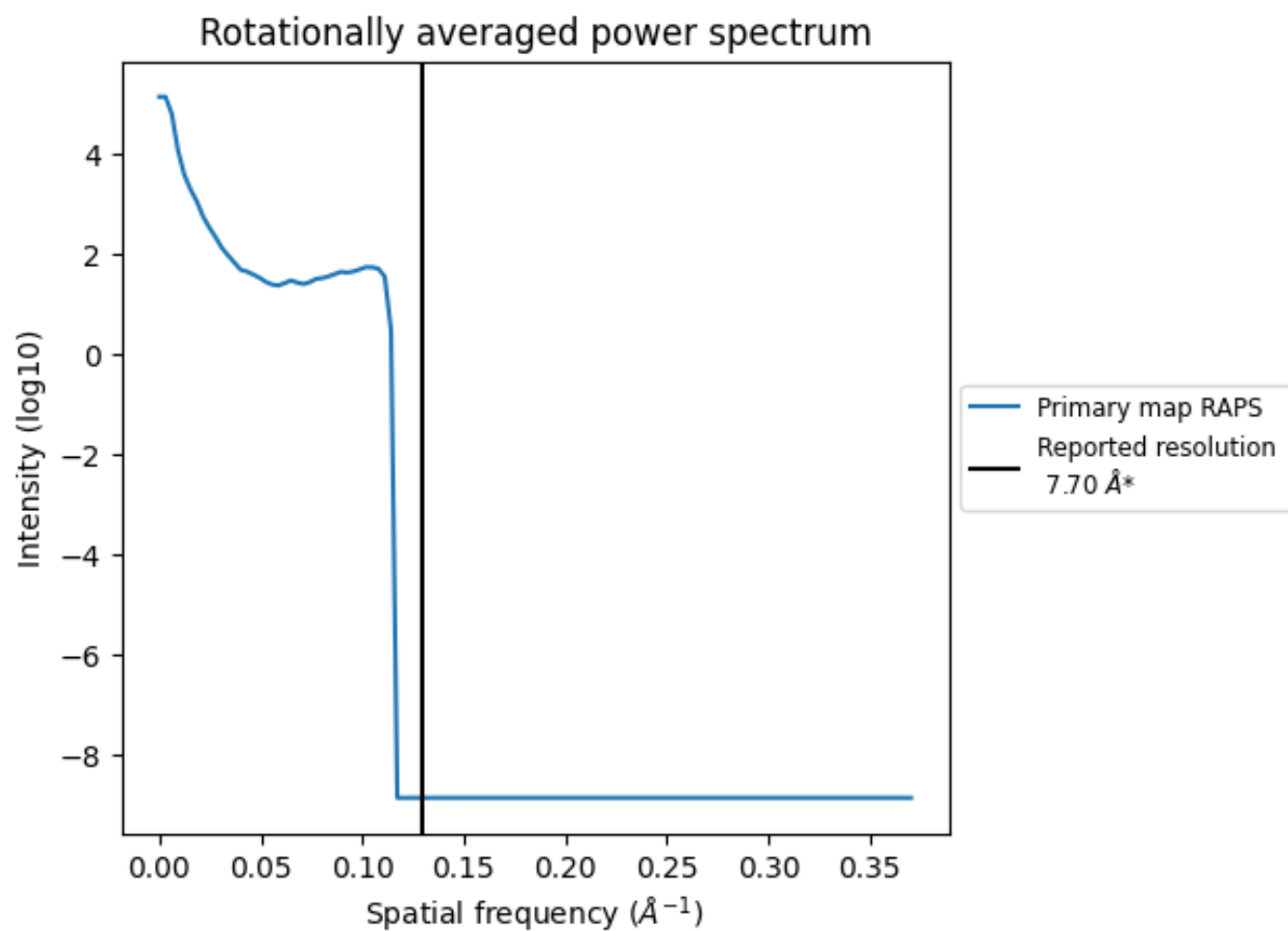
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 442 nm³; this corresponds to an approximate mass of 399 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 0.130 Å⁻¹

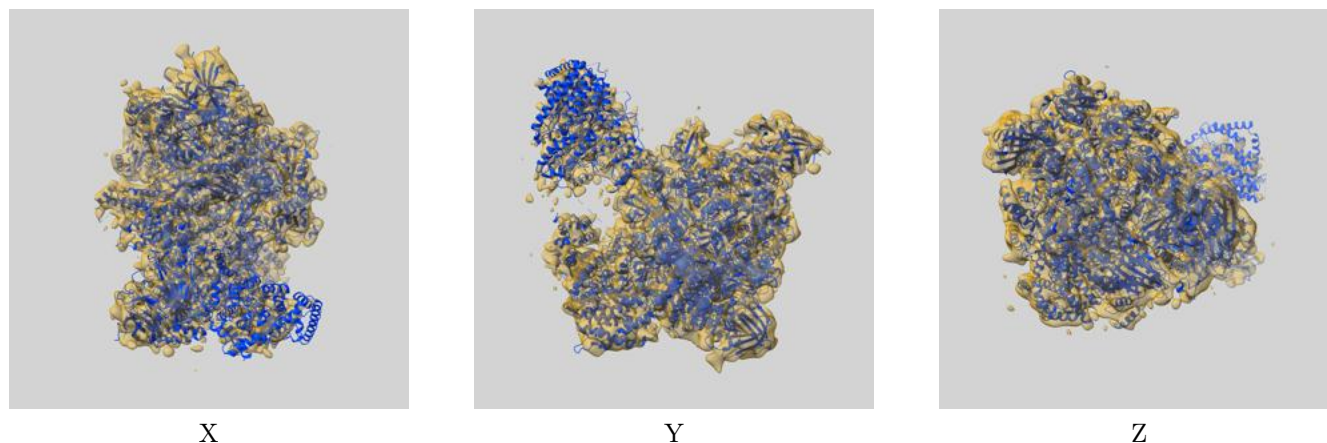
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

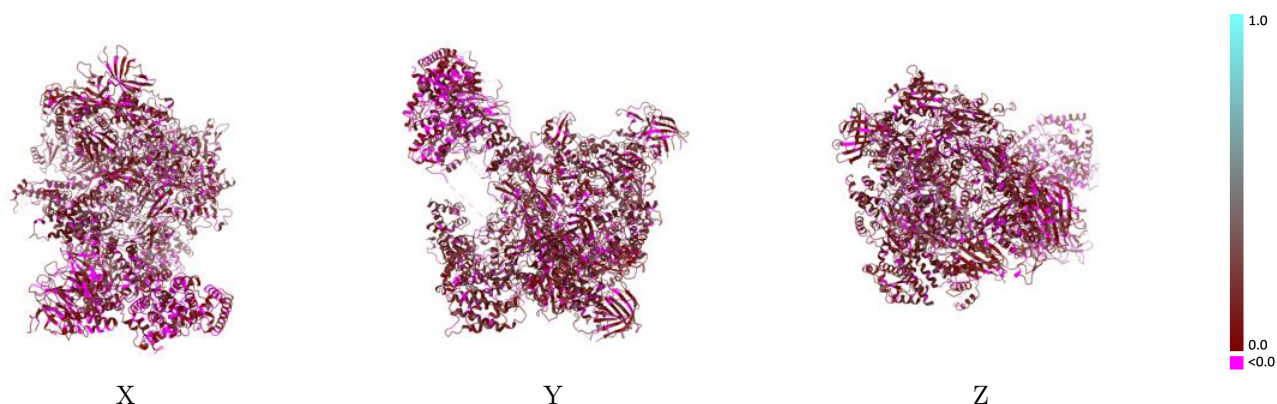
This section contains information regarding the fit between EMDB map EMD-3592 and PDB model 5N60. Per-residue inclusion information can be found in [section 3](#) on [page 8](#).

9.1 Map-model overlay [i](#)



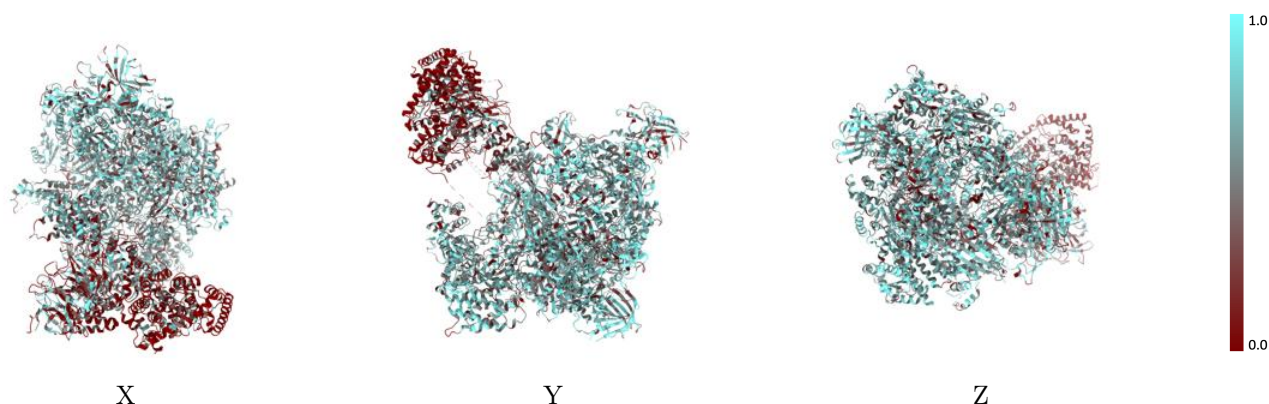
The images above show the 3D surface view of the map at the recommended contour level 0.023 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



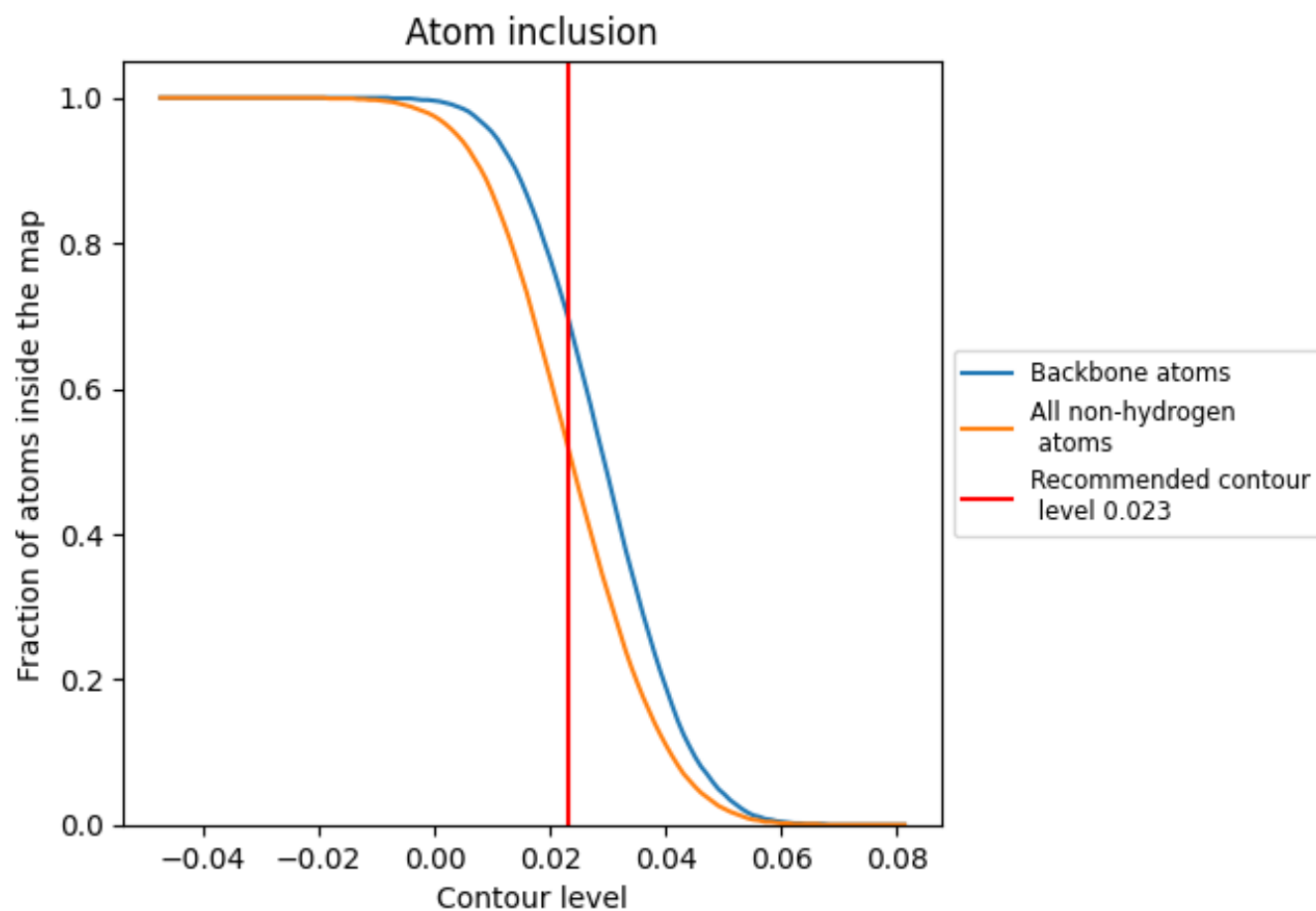
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.023).

9.4 Atom inclusion [i](#)



At the recommended contour level, 70% of all backbone atoms, 52% 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 (0.023) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.5240	 0.1020
A	 0.5990	 0.1190
B	 0.5970	 0.1100
C	 0.6350	 0.1230
D	 0.6460	 0.1470
E	 0.6680	 0.1310
F	 0.6300	 0.1280
G	 0.6200	 0.1060
H	 0.6910	 0.1320
I	 0.4580	 0.0960
J	 0.6230	 0.1170
K	 0.6060	 0.1280
L	 0.5500	 0.0870
M	 0.5550	 0.0870
N	 0.5190	 0.1180
O	 0.5970	 0.1220
P	 0.2460	 0.0390
Q	 0.1910	 0.0430
R	 0.3430	 0.0820

