

Table S4. Differentially regulated genes (up and down regulated) in the control compared with THyPRP silenced plants in FAZ at 8 h along with their expression values, fold changes, annotations, GO ids and terms.

Worksheet 2 & 3

Set3					
Line	Array	Details	Time	Treated vs. Con	Set
Control – New Yorker	254331010026_1_1	8h_5_AZ	8h	Control	Set 3
Control – New Yorker	254331010026_1_2	8h_6_AZ	8h		
TAPG + TPRP	254331010035_1_1	8h_41_AZ	8h	Treated	
TAPG + TPRP	254331010035_1_2	8h_42_AZ	8h		

**Note:**

Fold change expression values are provided as logbase 2

**Flagging Criteria:**

Compromised: If the gProcessedSignal value is less than the background intensity

Detected: If the gProcessedSignal value is above background intensity

Column Header	Description
ProbeName	Unique probe identifier
GeneName	GeneSymbol
Fold	Fold change calculated is log base 2
Flag	Detected or Compromised
GeomeanFold	Average Fold change for the replicates calculated is log base 2
p-Value	t-test p- value
gProcessedSigna	Background subtracted signal intensity

Worksheet 4 & 5

This file contains the fold change for all the spots in the array

**GO ID**

Gene Ontology ID

**GO ACCESSION**

Gene Ontology Function name

**p-value :**

The probability of obtaining the specified GO accession number from a list of random entities. Less the p-value more significant is the GO accession number.

**Significant pvalue<0.05**

**Count in Selection :**

This refers to the number of genes in the selected entity (for example, from T-test) list which have that particular GO term.

**%Count in Selection :**

This refers to the percentage of genes in the input entity list which have that GO term.

**Count in Total :**

This refers to the number of genes in All Entities which have that GO term.

**%Count in Total :**

This refers to the percentage of genes in the All Entities list which have that GO term.

Cut off used to filter up and down regulated genes

**Upregulated**

For filtering upregulation we consider flag should be Detected in the treated sample and can be Compromised or Detected in the control sample and fold>=0.8 in the individual replicates and fold>=1 in the Geomean of treated samples.

**Downregulated**

For filtering downregulation we consider flag can be Detected or Compromised in the treated sample and should be Detected in the control sample and fold<=-0.8 in the individual replicates and fold<=-1 in the Geomean of treated samples.

**Differentially Regulated Probes**

Sample	Up	Down
8h_TPRP_AZ vs. 8h_Control_AZ_Sense	1314	2139
8h_TPRP_AZ vs. 8h_Control_AZ_Antisense	424	1983





GT	Series	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
GT	Series	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
GT	Series	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100















OT	Series	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915	1914	1913	1912	1911	1910	1909	1908	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893	1892	1891	1890	1889	1888	1887	1886	1885	1884	1883	1882	1881	1880	1879	1878	1877	1876	1875	1874	1873	1872	1871	1870	1869	1868	1867	1866	1865	1864	1863	1862	1861	1860	1859	1858	1857	1856	1855	1854	1853	1852	1851	1850	1849	1848	1847	1846	1845	1844	1843	1842	1841	1840	1839	1838	1837	1836	1835	1834	1833	1832	1831	1830	1829	1828	1827	1826	1825	1824	1823	1822	1821	1820	1819	1818	1817	1816	1815	1814	1813	1812	1811	1810	1809	1808	1807	1806	1805	1804	1803	1802	1801	1800	1799	1798	1797	1796	1795	1794	1793	1792	1791	1790	1789	1788	1787	1786	1785	1784	1783	1782	1781	1780	1779	1778	1777	1776	1775	1774	1773	1772	1771	1770	1769	1768	1767	1766	1765	1764	1763	1762	1761	1760	1759	1758	1757	1756	1755	1754	1753	1752	1751	1750	1749	1748	1747	1746	1745	1744	1743	1742	1741	1740	1739	1738	1737	1736	1735	1734	1733	1732	1731	1730	1729	1728	1727	1726	1725	1724	1723	1722	1721	1720	1719	1718	1717	1716	1715	1714	1713	1712	1711	1710	1709	1708	1707	1706	1705	1704	1703	1702	1701	1700	1699	1698	1697	1696	1695	1694	1693	1692	1691	1690	1689	1688	1687	1686	1685	1684	1683	1682	1681	1680	1679	1678	1677	1676	1675	1674	1673	1672	1671	1670	1669	1668	1667	1666	1665	1664	1663	1662	1661	1660	1659	1658	1657	1656	1655	1654	1653	1652	1651	1650	1649	1648	1647	1646	1645	1644	1643	1642	1641	1640	1639	1638	1637	1636	1635	1634	1633	1632	1631	1630	1629	1628	1627	1626	1625	1624	1623	1622	1621	1620	1619	1618	1617	1616	1615	1614	1613	1612	1611	1610	1609	1608	1607	1606	1605	1604	1603	1602	1601	1600	1599	1598	1597	1596	1595	1594	1593	1592	1591	1590	1589	1588	1587	1586	1585	1584	1583	1582	1581	1580	1579	1578	1577	1576	1575	1574	1573	1572	1571	1570	1569	1568	1567	1566	1565	1564	1563	1562	1561	1560	1559	1558	1557	1556	1555	1554	1553	1552	1551	1550	1549	1548	1547	1546	1545	1544	1543	1542	1541	1540	1539	1538	1537	1536	1535	1534	1533	1532	1531	1530	1529	1528	1527	1526	1525	1524	1523	1522	1521	1520	1519	1518	1517	1516	1515	1514	1513	1512	1511	1510	1509	1508	1507	1506	1505	1504	1503	1502	1501	1500	1499	1498	1497	1496	1495	1494	1493	1492	1491	1490	1489	1488	1487	1486	1485	1484	1483	1482	1481	1480	1479	1478	1477	1476	1475	1474	1473	1472	1471	1470	1469	1468	1467	1466	1465	1464	1463	1462	1461	1460	1459	1458	1457	1456	1455	1454	1453	1452	1451	1450	1449	1448	1447	1446	1445	1444	1443	1442	1441	1440	1439	1438	1437	1436	1435	1434	1433	1432	1431	1430	1429	1428	1427	1426	1425	1424	1423	1422	1421	1420	1419	1418	1417	1416	1415	1414	1413	1412	1411	1410	1409	1408	1407	1406	1405	1404	1403	1402	1401	1400	1399	1398	1397	1396	1395	1394	1393	1392	1391	1390	1389	1388	1387	1386	1385	1384	1383	1382	1381	1380	1379	1378	1377	1376	1375	1374	1373	1372	1371	1370	1369	1368	1367	1366	1365	1364	1363	1362	1361	1360	1359	1358	1357	1356	1355	1354	1353	1352	1351	1350	1349	1348	1347	1346	1345	1344	1343	1342	1341	1340	1339	1338	1337	1336	1335	1334	1333	1332	1331	1330	1329	1328	1327	1326	1325	1324	1323	1322	1321	1320	1319	1318	1317	1316	1315	1314	1313	1312	1311	1310	1309	1308	1307	1306	1305	1304	1303	1302	1301	1300	1299	1298	1297	1296	1295	1294	1293	1292	1291	1290	1289	1288	1287	1286	1285	1284	1283	1282	1281	1280	1279	1278	1277	1276	1275	1274	1273	1272	1271	1270	1269	1268	1267	1266	1265	1264	1263	1262	1261	1260	1259	1258	1257	1256	1255	1254	1253	1252	1251	1250	1249	1248	1247	1246	1245	1244	1243	1242	1241	1240	1239	1238	1237	1236	1235	1234	1233	1232	1231	1230	1229	1228	1227	1226	1225	1224	1223	1222	1221	1220	1219	1218	1217	1216	1215	1214	1213	1212	1211	1210	1209	1208	1207	1206	1205	1204	1203	1202	1201	1200	1199	1198	1197	1196	1195	1194	1193	1192	1191	1190	1189	1188	1187	1186	1185	1184	1183	1182	1181	1180	1179	1178	1177	1176	1175	1174	1173	1172	1171	1170	1169	1168	1167	1166	1165	1164	1163	1162	1161	1160	1159	1158	1157	1156	1155	1154	1153	1152	1151	1150	1149	1148	1147	1146	1145	1144	1143	1142	1141	1140	1139	1138	1137	1136	1135	1134	1133	1132	1131	1130	1129	1128	1127	1126	1125	1124	1123	1122	1121	1120	1119	1118	1117	1116	1115	1114	1113	1112	1111	1110	1109	1108	1107	1106	1105	1104	1103	1102	1101	1100	1099	1098	1097	1096	1095	1094	1093	1092	1091	1090	1089	1088	1087	1086	1085	1084	1083	1082	1081	1080	1079	1078	1077	1076	1075	1074	1073	1072	1071	1070	1069	1068	1067	1066	1065	1064	1063	1062	1061	1060	1059	1058	1057	1056	1055	1054	1053	1052	1051	1050	1049	1048	1047	1046	1045	1044	1043	1042	1041	1040	1039	1038	1037	1036	1035	1034	1033	1032	1031	1030	1029	1028	1027	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Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32	Q33	Q34	Q35	Q36	Q37	Q38	Q39	Q40	Q41	Q42	Q43	Q44	Q45	Q46	Q47	Q48	Q49	Q50	Q51	Q52	Q53	Q54	Q55	Q56	Q57	Q58	Q59	Q60	Q61	Q62	Q63	Q64	Q65	Q66	Q67	Q68	Q69	Q70	Q71	Q72	Q73	Q74	Q75	Q76	Q77	Q78	Q79	Q80	Q81	Q82	Q83	Q84	Q85	Q86	Q87	Q88	Q89	Q90	Q91	Q92	Q93	Q94	Q95	Q96	Q97	Q98	Q99	Q100
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32	Q33	Q34	Q35	Q36	Q37	Q38	Q39	Q40	Q41	Q42	Q43	Q44	Q45	Q46	Q47	Q48	Q49	Q50	Q51	Q52	Q53	Q54	Q55	Q56	Q57	Q58	Q59	Q60	Q61	Q62	Q63	Q64	Q65	Q66	Q67	Q68	Q69	Q70	Q71	Q72	Q73	Q74	Q75	Q76	Q77	Q78	Q79	Q80	Q81	Q82	Q83	Q84	Q85	Q86	Q87	Q88	Q89	Q90	Q91	Q92	Q93	Q94	Q95	Q96	Q97	Q98	Q99	Q100







GO ID	GO ACCESSION	GO Term	p-value	Count in Selection	% Count in Selection	Count in Total	% Count in Total
9396	GO:0016168	chlorophyll binding	0.00	12	2.169982	46	0.13284431
22409	GO:0046906	tetrapyrrole binding	0.00	33	5.96745	596	1.7212002
9266	GO:0016020	membrane	0.00	93	16.81736	3741	10.803708
3872	GO:0005506	iron ion binding	0.00	22	3.9783	563	1.6258988
11931	GO:0020037	heme binding	0.00	21	3.7974684	550	1.5883559
3827	GO:0005372	water transmembrane transp	0.00	7	1.2658228	81	0.23392151
8652	GO:0015250	water channel activity	0.00	7	1.2658228	81	0.23392151
4927	GO:0006833	water transport	0.00	7	1.2658228	81	0.23392151
18429	GO:0042044	fluid transport	0.00	7	1.2658228	81	0.23392151
2868	GO:0004062	aryl sulfotransferase activit	0.00	3	0.5424955	15	0.043318797
5702	GO:0008146	sulfotransferase activity	0.00	5	0.9041591	54	0.15594767
2986	GO:0004252	serine-type endopeptidase	0.00	8	1.4466546	144	0.41586044
13082	GO:0030599	peclnesterase activity	0.00	9	1.6274865	178	0.5140497
9832	GO:0016782	transferase activity, transfe	0.01	5	0.9041591	74	0.21370606
6613	GO:0009250	glucan biosynthetic process	0.01	2	0.36166364	8	0.023103358
5766	GO:0008236	serine-type peptidase activi	0.01	9	1.6274865	214	0.6180149
10103	GO:0017171	serine hydrolase activity	0.01	9	1.6274865	220	0.63534236
4215	GO:0005975	carbohydrate metabolic pro	0.01	26	4.7016273	990	2.8590407
11776	GO:0019825	oxygen binding	0.01	13	2.3508136	389	1.1234008
6216	GO:0008810	cellulase activity	0.01	3	0.5424955	30	0.086637594
11827	GO:0018988(GO:0030396)	extrinsic to membrane	0.01	3	0.5424955	30	0.086637594
3156	GO:0004497	monooxygenase activity	0.02	7	1.2658228	172	0.49672222
16081	GO:0003692	cellular polysaccharide bios	0.02	2	0.36166364	15	0.043318797
206	GO:0000271	polysaccharide biosynthetic	0.03	2	0.36166364	16	0.046206716
12533	GO:0022838	substrate-specific channel	0.03	8	1.4466546	221	0.63823026
9771	GO:0016709	oxidoreductase activity, act	0.03	4	0.7233273	71	0.2050423
4909	GO:0006810(GO:0015457)	transport	0.03	49	8.86076	2315	6.6855345
25529	GO:0051234	establishment of localizatio	0.03	49	8.86076	2315	6.6855345
25476	GO:0051179	localization	0.03	49	8.86076	2319	6.697086
31498	GO:0080123	jasmonate-amino synthetas	0.03	2	0.36166364	17	0.049094636
8660	GO:0015267(GO:0015249)	channel activity	0.03	8	1.4466546	226	0.6526699
12515	GO:0022803	passive transmembrane tra	0.03	8	1.4466546	226	0.6526699
3013	GO:0004328(GO:0034566)	formamidase activity	0.03	1	0.18083182	2	0.00577584
4429	GO:0006223	uracil salvage	0.03	1	0.18083182	2	0.00577584
4907	GO:0006808	regulation of nitrogen utiliz	0.03	1	0.18083182	2	0.00577584
6080	GO:0008655	pyrimidine-containing comp	0.03	1	0.18083182	2	0.00577584
6828	GO:0009540	zeaxanthin epoxidase [over	0.03	1	0.18083182	2	0.00577584
7504	GO:0010277(GO:0046407)	chlorophyllide a oxygenase	0.03	1	0.18083182	2	0.00577584
7532	GO:0010307	acetylglutamate kinase reg	0.03	1	0.18083182	2	0.00577584
8612	GO:0015204(GO:0015287)	urea transmembrane transp	0.03	1	0.18083182	2	0.00577584
9106	GO:0015840	urea transport	0.03	1	0.18083182	2	0.00577584
9766	GO:0016703	oxidoreductase activity, act	0.03	1	0.18083182	2	0.00577584
11797	GO:0019860	uracil metabolic process	0.03	1	0.18083182	2	0.00577584
14849	GO:0032441	pheophorbide a oxygenase	0.03	1	0.18083182	2	0.00577584
19204	GO:0042887	amide transmembrane tran	0.03	1	0.18083182	2	0.00577584
19407	GO:0043100	pyrimidine base salvage	0.03	1	0.18083182	2	0.00577584
23921	GO:0048529	magnesium-protoporphyrin	0.03	1	0.18083182	2	0.00577584
30280	GO:0071918	urea transmembrane transp	0.03	1	0.18083182	2	0.00577584
31514	GO:0080139	borate efflux transmembran	0.03	1	0.18083182	2	0.00577584
3723	GO:0005215(GO:0005478)	transporter activity	0.04	40	7.233273	1844	5.325324
12547	GO:0022857(GO:0005386)	transmembrane transporter	0.04	33	5.96745	1483	4.282785
3877	GO:0005516	calmodulin binding	0.04	8	1.4466546	236	0.6815491
26931	GO:0055085	transmembrane transport	0.04	34	6.148282	1548	4.4705
9767	GO:0016705	oxidoreductase activity, act	0.04	10	1.8083183	329	0.95012563
9784	GO:0016723	oxidoreductase activity, oxi	0.04	2	0.36166364	20	0.0577584
225	GO:0000293	ferric-chelate reductase act	0.04	2	0.36166364	20	0.0577584
28930	GO:0070566	adenylyltransferase activity	0.04	3	0.5424955	48	0.13862015
7074	GO:0009815	1-aminocyclopropane-1-ca	0.04	3	0.5424955	49	0.14150807
31421	GO:0080044	quercetin 7-O-glucosyltrans	0.04	3	0.5424955	49	0.14150807
7166	GO:0009914	hormone transport	0.05	3	0.5424955	50	0.14439599
27891	GO:0060918	auxin transport	0.05	3	0.5424955	50	0.14439599
31536	GO:0080161	auxin transmembrane trans	0.05	3	0.5424955	50	0.14439599
12574	GO:0022892	substrate-specific transport	0.05	32	5.786618	1463	4.2250266
3134	GO:0004474	malate synthase activity	0.05	1	0.18083182	3	0.00866376
4319	GO:0006081	cellular aldehyde metabolic	0.05	1	0.18083182	3	0.00866376
4330	GO:0006097	glyoxylate cycle	0.05	1	0.18083182	3	0.00866376
21936	GO:0046409	p-coumarate 3-hydroxylase	0.05	1	0.18083182	3	0.00866376
22011	GO:0046487	glyoxylate metabolic proces	0.05	1	0.18083182	3	0.00866376
24613	GO:0050294	steroid sulfotransferase act	0.05	1	0.18083182	3	0.00866376
4954	GO:0008689	lipid transport	0.05	7	1.2658228	208	0.6006873
8085	GO:0010876	lipid localization	0.05	7	1.2658228	208	0.6006873
26845	GO:0052689	carboxylic ester hydrolase	0.05	14	2.5316455	538	1.5537009
4311	GO:0006073	cellular glucan metabolic p	0.06	2	0.36166364	24	0.06931008
20293	GO:0044042	glucan metabolic process	0.06	2	0.36166364	24	0.06931008
2969	GO:004167(GO:0048059)	dopachrome isomerase act	0.06	1	0.18083182	4	0.011551679
3057	GO:0004373	glycogen (starch) synthase	0.06	1	0.18083182	4	0.011551679
3320	GO:0004697(GO:0004701)	protein kinase C activity	0.06	1	0.18083182	4	0.011551679
3452	GO:0004845	uracil phosphoribosyltransf	0.06	1	0.18083182	4	0.011551679
3834	GO:0005395	eye pigment precursor tran	0.06	1	0.18083182	4	0.011551679
4218	GO:0005978	glycogen biosynthetic proc	0.06	1	0.18083182	4	0.011551679
4413	GO:0006206	pyrimidine base metabolic	0.06	1	0.18083182	4	0.011551679
5942	GO:0008456	alpha-N-acetylglactosamin	0.06	1	0.18083182	4	0.011551679
7538	GO:0010313	phytochrome binding	0.06	1	0.18083182	4	0.011551679
8637	GO:0015231	5-formyltetrahydrofolate tra	0.06	1	0.18083182	4	0.011551679
9147	GO:0015885	5-formyltetrahydrofolate tra	0.06	1	0.18083182	4	0.011551679
9351	GO:0016119	carotene metabolic process	0.06	1	0.18083182	4	0.011551679
9352	GO:0016120	carotene biosynthetic proc	0.06	1	0.18083182	4	0.011551679
9790	GO:0016730	oxidoreductase activity, act	0.06	1	0.18083182	4	0.011551679
9819	GO:0016767	geranylgeranyl-diphosphat	0.06	1	0.18083182	4	0.011551679
11857	GO:0019932	second-messenger-mediati	0.06	1	0.18083182	4	0.011551679
17811	GO:0035445	borate transmembrane tran	0.06	1	0.18083182	4	0.011551679
18575	GO:0042214	terpene metabolic process	0.06	1	0.18083182	4	0.011551679
18729	GO:0042380	hydroxymethylbutenyl pyro	0.06	1	0.18083182	4	0.011551679
21791	GO:0046246	terpene biosynthetic proces	0.06	1	0.18083182	4	0.011551679
22222	GO:0046713	borate transport	0.06	1	0.18083182	4	0.011551679
22224	GO:0046715	borate transmembrane tran	0.06	1	0.18083182	4	0.011551679
22366	GO:0046863(GO:0018236)	ribulose-1,5-bisphosphate	0.06	1	0.18083182	4	0.011551679
22408	GO:0046905	phytoene synthase activity	0.06	1	0.18083182	4	0.011551679
23493	GO:0048015	phosphatidylinositol-medi	0.06	1	0.18083182	4	0.011551679
23495	GO:0048017	inositol lipid-mediated sign	0.06	1	0.18083182	4	0.011551679
25055	GO:0050750	low-density lipoprotein part	0.06	1	0.18083182	4	0.011551679
28689	GO:0070325	lipoprotein particle receptor	0.06	1	0.18083182	4	0.011551679
8673	GO:0015291(GO:0015290)	secondary active transmem	0.06	11	1.98915	407	1.1753833
8028	GO:0010817	regulation of hormone level	0.07	3	0.5424955	58	0.16749835
12573	GO:0022891	substrate-specific transmem	0.07	27	4.882459	1241	3.5839086
9541	GO:0016413	O-acetyltransferase activity	0.07	2	0.36166364	27	0.077938335
25379	GO:0051082	unfolded protein binding	0.07	4	0.7233273	98	0.28301615
29175	GO:0004175(GO:0016809)	endopeptidase activity	0.07	9	1.6274865	329	0.9241344
6840	GO:0008672	auxin/hydrogen symporter	0.07	2	0.36166364	28	0.080861755
8863	GO:0015562	efflux transmembrane trans	0.07	2	0.36166364	28	0.080861755
11210	GO:0019207	kinase regulator activity	0.08	3	0.5424955	62	0.17905103
2962	GO:0004160	dihydroxy-acid dehydratase	0.08	1	0.18083182	5	0.0144396
5893	GO:0008517	folic acid transporter activi	0.08	1	0.18083182	5	0.0144396
9146	GO:0015884	folic acid transport	0.08	1	0.18083182	5	0.0144396
2870	GO:0004064	arylesterase activity	0.08	2	0.36166364	30	0.086637594
20514	GO:0044264	cellular polysaccharide met	0.09	2	0.36166364	31	0.08952551
19253	GO:0042936	dipeptide transporter activi	0.09	4	0.7233273	105	0.3032316
19255	GO:0042938	dipeptide transport	0.09	4	0.7233273	105	0.3032316
3845	GO:0005452	inorganic anion exchanger	0.09	1	0.18083182	6	0.01732752
3940	GO:0005615	extracellular space	0.09	1	0.18083182	6	0.01732752
4118	GO:0005852	eukaryotic translation initia	0.09	1	0.18083182	6	0.01732752
5559	GO:0007602	phototransduction	0.09	1	0.18083182	6	0.01732752
5775	GO:0008251	tRNA-specific adenosine de	0.09	1	0.18083182	6	0.01732752



6868	GO:0009585	red, far-red light phototrans	0.09	1	0.18083182	6	0.01732752
7135	GO:0009883	red or far-red light photore	0.09	1	0.18083182	6	0.01732752
7255	GO:0010017	red or far-red light signaling	0.09	1	0.18083182	6	0.01732752
9248	GO:0015994	chlorophyll metabolic proces	0.09	1	0.18083182	6	0.01732752
9249	GO:0015995	chlorophyll biosynthetic pro	0.09	1	0.18083182	6	0.01732752
10045	GO:0017091	AU-rich element binding	0.09	1	0.18083182	6	0.01732752
19203	GO:0042886	amide transport	0.09	1	0.18083182	6	0.01732752
22188	GO:0046677	response to antibiotic	0.09	1	0.18083182	6	0.01732752
29853	GO:0071489	cellular response to red or f	0.09	1	0.18083182	6	0.01732752
5	GO:0000007	low-affinity zinc ion transp	0.09	1	0.18083182	6	0.01732752
19125	GO:0042802	identical protein binding	0.10	16	2.893309	697	2.01288
2632	GO:0003682	chromatin binding	0.10	2	0.36166364	33	0.09530135
9722	GO:0016641	oxidoreductase activity, act	0.10	2	0.5424955	69	0.19926646
8517	GO:0015103	inorganic anion transmembr	0.10	5	0.9041591	154	0.44473964
6004	GO:0009538	Ran GTPase binding	0.10	2	0.36166364	34	0.09818927
3021	GO:0004337	geranyltransferase act	0.11	1	0.18083182	7	0.020215439
19401	GO:0043094	cellular metabolic compoun	0.11	1	0.18083182	7	0.020215439
21107	GO:0045505	dynein intermediate chain b	0.11	1	0.18083182	7	0.020215439
21146	GO:0045544	gibberellin 20-oxidase activ	0.11	2	0.36166364	35	0.10107719
11202	GO:0019199	transmembrane receptor pr	0.11	12	2.169982	504	1.4555116
8739	GO:0015385	sodium/hydrogen antiporte	0.11	2	0.36166364	36	0.10396511
9185	GO:0015925	galactosidase activity	0.11	2	0.36166364	36	0.10396511
12626	GO:0030029	actin filament-based proces	0.11	2	0.36166364	36	0.10396511
12633	GO:0030036	actin cytoskeleton organiza	0.11	2	0.36166364	36	0.10396511
2816	GO:0004000	adenosine deaminase activ	0.12	1	0.18083182	8	0.023103358
3803	GO:0005344	oxygen transporter activity	0.12	1	0.18083182	8	0.023103358
4961	GO:0006879	cellular iron ion homeostas	0.12	1	0.18083182	8	0.023103358
7843	GO:0010628	positive regulation of gene	0.12	1	0.18083182	8	0.023103358
8940	GO:0015669	gas transport	0.12	1	0.18083182	8	0.023103358
8942	GO:0015671	oxygen transport	0.12	1	0.18083182	8	0.023103358
11196	GO:0019187	beta-1,4-mannosyltransfera	0.12	1	0.18083182	8	0.023103358
13262	GO:0030795	jasmonate O-methyltransfe	0.12	1	0.18083182	8	0.023103358
21461	GO:0045893	positive regulation of trans	0.12	1	0.18083182	8	0.023103358
22702	GO:0047209	coniferyl-alcohol glucosyltr	0.12	1	0.18083182	8	0.023103358
26035	GO:0051753	mannan synthase activity	0.12	1	0.18083182	8	0.023103358
26918	GO:0055072	iron ion homeostasis	0.12	1	0.18083182	8	0.023103358
5066	GO:0007010	cytoskeleton organization	0.12	2	0.36166364	38	0.10974095
9637	GO:0016538	cytoskeleton organization	0.12	2	0.36166364	38	0.10974095
22479	GO:0045983	protein dimerization activit	0.13	12	2.169982	517	1.48305545
3475	GO:0004871	signal transducer activity	0.13	17	3.074141	787	2.2727928
27063	GO:0060089	molecular transducer activi	0.13	17	3.074141	787	2.2727928
19126	GO:0042803	protein homodimerization a	0.13	7	1.2658228	265	0.7652988
2837	GO:0004028	3-chloroalyl aldehyde dehy	0.13	1	0.18083182	9	0.025991278
5735	GO:0008198	ferrous iron binding	0.13	1	0.18083182	9	0.025991278
7225	GO:0009978	allene oxide synthase activ	0.13	1	0.18083182	9	0.025991278
9769	GO:0016707	gibberellin 3-beta-dioxygen	0.13	1	0.18083182	9	0.025991278
19342	GO:0043027	caspase inhibitor activity	0.13	1	0.18083182	9	0.025991278
19343	GO:0043028	caspase regulator activity	0.13	1	0.18083182	9	0.025991278
19458	GO:0043154	negative regulation of casp	0.13	1	0.18083182	9	0.025991278
19579	GO:0043281	regulation of caspase activ	0.13	1	0.18083182	9	0.025991278
21104	GO:0045502	dynein binding	0.13	1	0.18083182	9	0.025991278
28365	GO:0065008	regulation of biological qua	0.14	8	1.4466546	316	0.9125827
17617	GO:0032521	UDP-glucosyltransferase ac	0.14	6	1.084991	218	0.62956655
18674	GO:0042325	regulation of phosphorylati	0.14	3	0.5424955	81	0.23392151
22049	GO:0046527	glucosyltransferase activity	0.14	7	1.2658228	270	0.77973837
5019	GO:0006952	defense response	0.14	6	1.084991	221	0.63823026
8675	GO:0015293	symporter activity	0.14	5	0.9041591	173	0.49961013
3203	GO:0004557	alpha-galactosidase activit	0.15	1	0.18083182	10	0.0288792
6275	GO:0008878	glucose-1-phosphate aden	0.15	1	0.18083182	10	0.0288792
8679	GO:0009112	nucleobase metabolic proc	0.15	1	0.18083182	10	0.0288792
9178	GO:0015248	sterol transporter activity	0.15	1	0.18083182	10	0.0288792
9178	GO:0015918	sterol transport	0.15	1	0.18083182	10	0.0288792
10072	GO:0017127	cholesterol transporter activ	0.15	1	0.18083182	10	0.0288792
12859	GO:0030301	cholesterol transport	0.15	1	0.18083182	10	0.0288792
19443	GO:0043139	5'-3' DNA helicase activit	0.15	1	0.18083182	10	0.0288792
19445	GO:0043141	ATP-dependent 5'-3' DNA H	0.15	1	0.18083182	10	0.0288792
26069	GO:0051787	misfolded protein binding	0.15	1	0.18083182	10	0.0288792
29578	GO:0071214	cellular response to abiotic	0.15	1	0.18083182	10	0.0288792
29842	GO:0071478	cellular response to radiati	0.15	1	0.18083182	10	0.0288792
29846	GO:0071482	cellular response to light st	0.15	1	0.18083182	10	0.0288792
25095	GO:0050790	regulation of catalytic activ	0.15	11	1.98915	480	1.3862015
25998	GO:0051716	cellular response to stimulu	0.15	23	4.159132	1138	3.2864528
9768	GO:0016706	oxidoreductase activity, act	0.15	5	0.9041591	175	0.505386
25195	GO:0050896	response to stimulus	0.15	36	6.509946	1881	5.432177
8967	GO:0015698	inorganic anion transport	0.15	5	0.9041591	176	0.5082739
28378	GO:0070011	peptidase activity, acting o	0.15	12	2.169982	537	1.550813
11222	GO:0019220	regulation of phosphate me	0.15	3	0.5424955	85	0.24547319
25471	GO:0051174	regulation of phosphorus m	0.15	3	0.5424955	85	0.24547319
28366	GO:0065009	regulation of molecular fun	0.16	11	1.98915	484	1.3977532
3904	GO:0005576	extracellular region	0.16	5	0.9041591	178	0.5140497
31431	GO:0080054	low affinity nitrate transme	0.16	2	0.36166364	45	0.1299564
3416	GO:0004806	triglyceride lipase activity	0.16	1	0.18083182	11	0.03176712
11152	GO:0019139	cytokinin dehydrogenase a	0.16	1	0.18083182	11	0.03176712
9719	GO:0016638	oxidoreductase activity, act	0.17	3	0.5424955	89	0.25702485
2843	GO:0004034	aldose 1-epimerase activiti	0.18	1	0.18083182	12	0.03465504
30449	GO:0004365	glycerinaldehyde-3-phosphat	0.18	1	0.18083182	12	0.03465504
3396	GO:0004773	steryl-sulfatase activity	0.18	1	0.18083182	12	0.03465504
4217	GO:0005977	glycogen metabolic proces	0.18	1	0.18083182	12	0.03465504
4344	GO:0008112	energy reserve metabolic p	0.18	1	0.18083182	12	0.03465504
5965	GO:0008484	sulfuric ester hydrolase act	0.18	1	0.18083182	12	0.03465504
6336	GO:0008943	glycerinaldehyde-3-phosphat	0.18	1	0.18083182	12	0.03465504
6826	GO:0009538	photosystem I reaction cen	0.18	1	0.18083182	12	0.03465504
6864	GO:0009581	detection of external stimul	0.18	1	0.18083182	12	0.03465504
6865	GO:0009582	detection of abiotic stimulus	0.18	1	0.18083182	12	0.03465504
6866	GO:0009583	detection of light stimulus	0.18	1	0.18083182	12	0.03465504
8748	GO:0015398	high affinity secondary acti	0.18	1	0.18083182	12	0.03465504
9775	GO:0016713	oxidoreductase activity, act	0.18	1	0.18083182	12	0.03465504
10743	GO:0016885	alkane 1-monooxygenase a	0.18	1	0.18083182	12	0.03465504
20615	GO:0044421	extracellular region part	0.18	1	0.18083182	12	0.03465504
21503	GO:0045935	positive regulation of nucle	0.18	1	0.18083182	12	0.03465504
25470	GO:0051173	positive regulation of nitrog	0.18	1	0.18083182	12	0.03465504
25546	GO:0051254	positive regulation of RNA	0.18	1	0.18083182	12	0.03465504
25890	GO:0051606	detection of stimulus	0.18	1	0.18083182	12	0.03465504
2976	GO:0004176	ATP-dependent peptidase a	0.18	2	0.36166364	48	0.13862015
4942	GO:0006855	drug transmembrane trans	0.18	4	0.7233273	139	0.40142086
8607	GO:0015197	peptide transporter activity	0.18	4	0.7233273	139	0.40142086
8608	GO:0015198	oligopeptide transporter ac	0.18	4	0.7233273	139	0.40142086
8642	GO:0015238	drug transmembrane trans	0.18	4	0.7233273	139	0.40142086
9154	GO:0015893	drug transport	0.18	4	0.7233273	139	0.40142086
18832	GO:0042493	response to drug	0.18	4	0.7233273	139	0.40142086
38444	GO:0005451	monovalent cation/hydroge	0.18	2	0.36166364	49	0.14150807
8909	GO:0015630	microtubule cytoskeleton	0.18	2	0.36166364	49	0.14150807
3002	GO:0004315	3-oxoacyl-[acyl-carrier-pro	0.19	1	0.18083182	13	0.037542958
7551	GO:0010327	acetyl CoA:[Z]-3-hexen-1-o	0.19	1	0.18083182	13	0.037542958
8149	GO:0010941	regulation of cell death	0.19	1	0.18083182	13	0.037542958
13443	GO:0030984	kininogen binding	0.19	1	0.18083182	13	0.037542958
19298	GO:0042981	regulation of apoptosis	0.19	1	0.18083182	13	0.037542958
19381	GO:0043067	regulation of programmed	0.19	1	0.18083182	13	0.037542958
4944	GO:0006857	oligopeptide transport	0.19	4	0.7233273	141	0.40171967
8676	GO:0015294	solute:cation symporter act	0.19	4	0.7233273	141	0.40171967
9099	GO:0015833	peptide transport	0.19	4	0.7233273	141	0.40171967
4216	GO:0005976	polysaccharide metabolic p	0.19	2	0.36166364	50	0.14439599
9783	GO:0016722	oxidoreductase activity, oxi	0.19	2	0.36166364	50	0.14439599
9993	GO:0017016	Ras GTPase binding	0.19	2	0.36166364	50	0.14439599
3476	GO:0004872	receptor activity	0.19	14	2.5316455	672	1.9406822
28364	GO:0065007	biological regulation	0.20	77	13.92405	4376	12.637537
5763	GO:0008233	peptidase activity	0.20	12	2.169982	565	1.6316746



12794	GO:0030234	enzyme regulator activity	0.20	9	1.6274865	403	1.1638317
5981	GO:0008509	anion transmembrane transp	0.20	6	1.084991	245	0.70754033
5195	GO:0007165 GO:0023033	signal transduction	0.20	19	3.4358046	961	2.775291
12602	GO:0023052 GO:0023046	signaling	0.20	19	3.4358046	961	2.775291
3629	GO:0005087	Ran quantl-nucleotide exc	0.20	1	0.18083182	14	0.040430877
11238	GO:0019239	deaminase activity	0.20	1	0.18083182	14	0.040430877
4917	GO:0006820 GO:0006822	anion transport	0.20	6	1.084991	247	0.7133162
25626	GO:0051336	regulation of hydrolase acti	0.21	5	0.9041591	196	0.5660323
3490	GO:0004888 GO:0004928	transmembrane receptor ad	0.21	12	2.169982	571	1.6490022
9600	GO:0016491	oxidoreductase activity	0.21	32	5.786618	1724	4.9787736
6810	GO:0009522	photosystem I	0.21	1	0.18083182	15	0.043318797
9340	GO:0016108	tetraterpenoid metabolic pr	0.21	1	0.18083182	15	0.043318797
9341	GO:0016109	tetraterpenoid biosynthetic	0.21	1	0.18083182	15	0.043318797
9348	GO:0016116	carotenoid metabolic proces	0.21	1	0.18083182	15	0.043318797
9349	GO:0016117	carotenoid biosynthetic pro	0.21	1	0.18083182	15	0.043318797
10079	GO:0017134	fibroblast growth factor bin	0.21	1	0.18083182	15	0.043318797
4478	GO:0006281	DNA repair	0.22	4	0.7232273	149	0.43030006
5037	GO:0006974 GO:0034984	response to DNA damage s	0.22	4	0.7232273	149	0.43030006
13687	GO:0031267	small GTPase binding	0.23	2	0.36166364	56	0.16172351
7133	GO:0009881	photoreceptor activity	0.23	1	0.18083182	16	0.046206716
7178	GO:0009927	histidine phosphotransfer k	0.23	1	0.18083182	16	0.046206716
7521	GO:0010295	(+)-abscisic acid 8-hydroxy	0.23	1	0.18083182	16	0.046206716
9189	GO:0015929	hexosaminidase activity	0.23	1	0.18083182	16	0.046206716
9386	GO:0016157	sucrose synthase activity	0.23	1	0.18083182	16	0.046206716
9898	GO:0016863	intramolecular oxidoreduct	0.23	1	0.18083182	16	0.046206716
18757	GO:0042409	caffeoyl-CoA O-methyltran	0.23	1	0.18083182	16	0.046206716
30066	GO:0071702	organic substance transport	0.23	11	1.98915	529	1.5277096
3307	GO:0004675	transmembrane receptor pt	0.24	8	1.4466546	367	1.0598665
4913	GO:0006814 GO:0006834	sodium ion transport	0.24	2	0.36166364	58	0.16749935
8499	GO:0015081 GO:0022816	sodium ion transmembrane	0.24	2	0.36166364	58	0.16749935
11820	GO:0019887	protein kinase regulator act	0.24	2	0.36166364	58	0.16749935
18086	GO:0035725	sodium ion transmembrane	0.24	2	0.36166364	58	0.16749935
29800	GO:0071436	sodium ion export	0.24	2	0.36166364	58	0.16749935
4135	GO:0005875	microtubule associated con	0.24	1	0.18083182	17	0.049094636
4957	GO:0006875	cellular metal ion homeost	0.24	1	0.18083182	17	0.049094636
12610	GO:0030003	cellular cation homeostasis	0.24	1	0.18083182	17	0.049094636
26912	GO:0055065	metal ion homeostasis	0.24	1	0.18083182	17	0.049094636
26926	GO:0055080	cation homeostasis	0.24	1	0.18083182	17	0.049094636
2831	GO:0004022	alcohol dehydrogenase (NA	0.24	1	0.36166364	59	0.17038727
3942	GO:0005618	cell wall	0.24	3	0.5424955	107	0.30900744
5704	GO:0008150 GO:0000004	biological process	0.25	383	65.64195	22215	64.155136
25319	GO:0051020	GTPase binding	0.25	2	0.36166364	60	0.17327519
2630	GO:0003680	AT DNA binding	0.25	1	0.18083182	18	0.051982556
3963	GO:0005643 GO:0005644	nuclear pore	0.25	1	0.18083182	18	0.051982556
4134	GO:0005874	microtubule	0.25	1	0.18083182	18	0.051982556
4225	GO:0005985	sucrose metabolic process	0.25	1	0.18083182	18	0.051982556
4252	GO:0006014	D-ribose metabolic process	0.25	1	0.18083182	18	0.051982556
5792	GO:0008271	secondary active sulfate tra	0.25	1	0.18083182	18	0.051982556
7773	GO:0010557	positive regulation of macr	0.25	1	0.18083182	18	0.051982556
8662	GO:0015271	outward rectifier potassium	0.25	1	0.18083182	18	0.051982556
8736	GO:0015381	high affinity sulfate transm	0.25	1	0.18083182	18	0.051982556
12887	GO:0030332	cyclin binding	0.25	1	0.18083182	18	0.051982556
22431	GO:0046930	pore complex	0.25	1	0.18083182	18	0.051982556
22917	GO:0047429	nucleoside-triphosphate dip	0.25	1	0.18083182	18	0.051982556
8494	GO:0015075	ion transmembrane transp	0.25	16	2.893309	827	2.3883097
8526	GO:0015112	nitrate transmembrane tran	0.25	2	0.36166364	61	0.1761631
8975	GO:0015706 GO:0006872	nitrate transport	0.25	2	0.36166364	61	0.1761631
25098	GO:0050794 GO:0051244	regulation of cellular proces	0.26	69	12.477396	3987	11.54136
7690	GO:0010466	negative regulation of pepti	0.26	3	0.5424955	110	0.31767118
12946	GO:0030414	peptidase inhibitor activity	0.26	3	0.5424955	110	0.31767118
25636	GO:0051346	negative regulation of hydr	0.26	3	0.5424955	110	0.31767118
5732	GO:0008194	UDP-glycosyltransferase ac	0.26	7	1.2658228	322	0.9299102
16603	GO:0034220	ion transmembrane transp	0.26	16	2.893309	833	2.4056373
12868	GO:0030312	external encapsulating stru	0.26	3	0.5424955	111	0.3205591
12985	GO:0030488	tRNA methylation	0.26	1	0.18083182	19	0.054870475
26711	GO:0052547	regulation of peptidase acti	0.27	3	0.5424955	112	0.32344702
28100	GO:0061134	peptidase regulator activity	0.27	3	0.5424955	112	0.32344702
17016	GO:0034637	cellular carbohydrate biosy	0.27	2	0.36166364	63	0.18193895
8943	GO:0015672	monovalent inorganic catio	0.27	8	1.4466546	383	1.1060733
25094	GO:0050789 GO:0050791	regulation of biological prod	0.27	74	13.381556	4315	12.461374
9293	GO:0016051 GO:0006093	carbohydrate biosynthetic d	0.27	2	0.36166364	64	0.18482687
25820	GO:0051536	iron-sulfur cluster binding	0.27	2	0.36166364	64	0.18482687
25824	GO:0051540	metal cluster binding	0.27	2	0.36166364	64	0.18482687
4910	GO:0006811	ion transport	0.28	18	3.254973	959	2.769515
3798	GO:0005337	nucleoside transmembrane	0.28	1	0.18083182	20	0.0577584
3956	GO:0005635 GO:0005636	nuclear envelope	0.28	1	0.18083182	20	0.0577584
5991	GO:0008519	ammonium transmembrane	0.28	1	0.18083182	20	0.0577584
8965	GO:0015696	ammonium transport	0.28	1	0.18083182	20	0.0577584
9122	GO:0015858	nucleoside transport	0.28	1	0.18083182	20	0.0577584
9856	GO:0016814	hydrolase activity, acting o	0.28	1	0.18083182	20	0.0577584
25477	GO:0051180	vitamin transport	0.28	1	0.18083182	20	0.0577584
25480	GO:0051183	vitamin transporter activity	0.28	1	0.18083182	20	0.0577584
30844	GO:0072488	ammonium transmembrane	0.28	1	0.18083182	20	0.0577584
9811	GO:0016757 GO:0016932	transferase activity, transfe	0.28	14	2.5316455	729	2.1052935
9812	GO:0016758	transferase activity, transfe	0.28	10	1.8083183	501	1.4468478
3129	GO:0004487	long-chain fatty acid-CoA li	0.29	1	0.18083182	21	0.060646318
3364	GO:0004745	retinol dehydrogenase acti	0.29	1	0.18083182	21	0.060646318
3474	GO:0004969 GO:0004870	cysteine-type endopeptidas	0.29	1	0.18083182	21	0.060646318
4955	GO:0006873	cellular ion homeostasis	0.29	1	0.18083182	21	0.060646318
12999	GO:0030506	ankyrin binding	0.29	1	0.18083182	21	0.060646318
25104	GO:0050801	ion homeostasis	0.29	1	0.18083182	21	0.060646318
26928	GO:0055082	cellular chemical homeosta	0.29	1	0.18083182	21	0.060646318
24966	GO:0050660	flavin adenine dinucleotide	0.29	3	0.5424955	118	0.34077454
2662	GO:0003746 GO:0008182	translation elongation facto	0.30	1	0.18083182	22	0.06353424
3831	GO:0005385	zinc ion transmembrane tra	0.30	1	0.18083182	22	0.06353424
4574	GO:0006414 GO:0006442	translational elongation	0.30	1	0.18083182	22	0.06353424
4882	GO:0006778	porphyrin metabolic proces	0.30	1	0.18083182	22	0.06353424
4883	GO:0006779	porphyrin biosynthetic proc	0.30	1	0.18083182	22	0.06353424
4924	GO:0006829	zinc ion transport	0.30	1	0.18083182	22	0.06353424
7143	GO:0008991	positive regulation of biosy	0.30	1	0.18083182	22	0.06353424
13758	GO:0031328	positive regulation of cellu	0.30	1	0.18083182	22	0.06353424
18524	GO:0042162	telomeric DNA binding	0.30	1	0.18083182	22	0.06353424
21152	GO:0045551	cinnamyl-alcohol dehydrog	0.30	1	0.18083182	22	0.06353424
29941	GO:0071577	zinc ion transmembrane tra	0.30	1	0.18083182	22	0.06353424
15949	GO:0033554	cellular response to stress	0.30	4	0.7232273	173	0.49961013
21710	GO:0046148	pigment biosynthetic proces	0.30	2	0.36166364	69	0.19926646
15524	GO:0033124	regulation of GTP catabolic	0.31	2	0.36166364	70	0.20215438
19394	GO:0043087	regulation of GTPase binding	0.31	2	0.36166364	70	0.20215438
2633	GO:0003694	damaged DNA binding	0.31	1	0.18083182	23	0.06942216
7527	GO:0010304	2-oxoglutarate-dependent d	0.31	1	0.18083182	23	0.06942216
22414	GO:0048912	transferase activity, transfe	0.31	1	0.18083182	23	0.06942216
9845	GO:0018798	hydrolase activity, acting o	0.31	8	1.4466546	401	1.1580559
28959	GO:0055114	oxidation-reduction process	0.32	43	7.775688	2490	7.1909204
11695	GO:0019725	cellular homeostasis	0.32	5	0.9041591	234	0.67577326
8559	GO:0015146	pentose transmembrane tra	0.32	1	0.18083182	24	0.06931008
8561	GO:0015148	D-xylose transmembrane tr	0.32	1	0.18083182	24	0.06931008
8829	GO:0015519	D-xylose:hydrogen symport	0.32	1	0.18083182	24	0.06931008
9019	GO:0015750	pentose transport	0.32	1	0.18083182	24	0.06931008
9022	GO:0015753	D-xylose transport	0.32	1	0.18083182	24	0.06931008
4916	GO:0006818	hydrogen transport	0.32	6	1.084991	292	0.84327257
9246	GO:0015992	proton transport	0.32	6	1.084991	292	0.84327257
9703	GO:0016620	oxidoreductase activity, act	0.33	2	0.36166364	73	0.21081814
18786	GO:0042440	pigment metabolic process	0.33	2	0.36166364	73	0.21081814
3884	GO:0005524	ATP binding	0.33	10	1.8083183	524	1.51327
11828	GO:0019899	enzyme binding	0.33	5	0.9041591	237	0.684437
9817	GO:0016763	transferase activity, transfe	0.33	2	0.36166364	74	0.21370606
973	GO:0001653	peptide receptor activity	0.33	1	0.18083182	25	0.07219796



9876	GO:0016837	carbon-oxygen lyase activity	0.33	1	0.18083182	25	0.072197996
13054	GO:0030570	pectate lyase activity	0.33	1	0.18083182	25	0.072197996
24256	GO:0048878	chemical homeostasis	0.33	1	0.18083182	25	0.072197996
31493	GO:0080118	brassinosteroid sulfotransferase activity	0.33	1	0.18083182	25	0.072197996
18925	GO:0042592	homeostatic process	0.33	5	0.9041591	238	0.68732494
8810	GO:0015491	cation:cation antiporter activity	0.34	2	0.36166364	75	0.21659398
3210	GO:0004565	beta-galactosidase activity	0.34	1	0.18083182	26	0.075085916
5978	GO:0008506	sucrose:hydrogen symporter activity	0.34	1	0.18083182	26	0.075085916
5987	GO:0008515(GO:0019188)	sucrose transmembrane transporter activity	0.34	1	0.18083182	26	0.075085916
6907	GO:0009639	response to red or far red light	0.34	1	0.18083182	26	0.075085916
7000	GO:0009734	auxin mediated signaling pathway	0.34	1	0.18083182	26	0.075085916
7540	GO:0010315	auxin efflux	0.34	1	0.18083182	26	0.075085916
7553	GO:0010329	auxin efflux transmembrane transporter activity	0.34	1	0.18083182	26	0.075085916
8516	GO:0015101	organic cation transmembrane transporter activity	0.34	1	0.18083182	26	0.075085916
8530	GO:0015116	sulfate transmembrane transporter activity	0.34	1	0.18083182	26	0.075085916
8567	GO:0015154	disaccharide transmembrane transporter activity	0.34	1	0.18083182	26	0.075085916
8964	GO:0015695	organic cation transport	0.34	1	0.18083182	26	0.075085916
9035	GO:0015766	disaccharide transport	0.34	1	0.18083182	26	0.075085916
9039	GO:0015770	sucrose transport	0.34	1	0.18083182	26	0.075085916
9744	GO:0016671	oxidoreductase activity, acting on NADPH and reduced flavin mononucleotide, oxidizing	0.34	1	0.18083182	26	0.075085916
29729	GO:0071365	cellular response to auxin stimulus	0.34	1	0.18083182	26	0.075085916
126	GO:0000160	two-component signal transduction pathway	0.34	1	0.18083182	26	0.075085916
18000	GO:0035639	purine ribonucleoside triphosphate biosynthetic process	0.35	14	2.5316455	769	2.2208104
4562	GO:0006400(GO:0016549)	tRNA modification	0.35	1	0.18083182	27	0.077973835
8919	GO:0015645	fatty acid ligase activity	0.35	1	0.18083182	27	0.077973835
9346	GO:0016114	terpenoid biosynthetic process	0.35	1	0.18083182	27	0.077973835
25481	GO:0051184	cofactor transporter activity	0.35	1	0.18083182	27	0.077973835
19393	GO:0043086	negative regulation of catalytic activity	0.35	4	0.7233273	188	0.54292893
20342	GO:0044092	negative regulation of molecular function	0.35	4	0.7233273	188	0.54292893
5840	GO:0008324	cation transmembrane transporter activity	0.36	10	1.8083183	538	1.5537009
2833	GO:0004024	alcohol dehydrogenase activity	0.36	1	0.18083182	28	0.080861755
5793	GO:0008272(GO:0006870)	sulfate transport	0.36	1	0.18083182	28	0.080861755
6079	GO:0008654	phospholipid biosynthetic process	0.36	1	0.18083182	28	0.080861755
6809	GO:0009521(GO:0030090)	photosystem	0.36	1	0.18083182	28	0.080861755
7145	GO:0009893	positive regulation of metabolic process	0.36	1	0.18083182	28	0.080861755
7819	GO:0010604	positive regulation of macromolecule biosynthetic process	0.36	1	0.18083182	28	0.080861755
9238	GO:0015980	energy derivation by oxidation-reduction	0.36	1	0.18083182	28	0.080861755
13634	GO:0031177	phosphopantetheine binding	0.36	1	0.18083182	28	0.080861755
13755	GO:0031325	positive regulation of cellular process	0.36	1	0.18083182	28	0.080861755
20512	GO:0044262(GO:0006092)	cellular carbohydrate metabolic process	0.36	5	0.9041591	248	0.7162041
4358	GO:0006140	regulation of nucleotide metabolic process	0.37	2	0.36166364	80	0.2310336
7146	GO:0009894	regulation of catabolic process	0.37	2	0.36166364	80	0.2310336
9875	GO:0016836	hydro-lyase activity	0.37	2	0.36166364	80	0.2310336
13278	GO:0030811	regulation of nucleotide catabolic process	0.37	2	0.36166364	80	0.2310336
13759	GO:0031329	regulation of cellular catabolic process	0.37	2	0.36166364	80	0.2310336
15521	GO:0033121	regulation of purine nucleotide metabolic process	0.37	2	0.36166364	80	0.2310336
4911	GO:0006812(GO:0006819)	cation transport	0.37	12	2.169982	662	1.9118029
4841	GO:0006721	terpenoid metabolic process	0.37	1	0.18083182	29	0.083749674
4641	GO:0006508	proteolysis	0.37	17	3.074141	965	2.7868426
9869	GO:0016829	lyase activity	0.38	9	1.6274865	488	1.4093049
12516	GO:0022804	active transmembrane transporter activity	0.38	14	2.5316455	787	2.2727928
3200	GO:0004553(GO:0016800)	hydrolase activity, hydrolyzing NAD+ ADP-ribosyltransferase activity	0.38	6	1.084991	312	0.90103096
2774	GO:0003950	NAD+ ADP-ribosyltransferase activity	0.38	1	0.18083182	30	0.086637594
8683	GO:0015301(GO:0015380)	anion:anion antiporter activity	0.38	1	0.18083182	30	0.086637594
15414	GO:0033013	tetrapyrrole metabolic process	0.38	1	0.18083182	30	0.086637594
15415	GO:0033014	tetrapyrrole biosynthetic process	0.38	1	0.18083182	30	0.086637594
23	GO:0000030	mannosyltransferase activity	0.38	1	0.18083182	30	0.086637594
3787	GO:0005319	lipid transporter activity	0.38	2	0.36166364	83	0.23969735
16738	GO:0034357	photosynthetic membrane	0.38	2	0.36166364	83	0.23969735
13041	GO:0030554	adenyl nucleotide binding	0.38	10	1.8083183	550	1.5883559
14965	GO:0032559	adenyl ribonucleotide binding	0.38	10	1.8083183	550	1.5883559
50118	GO:0006590	response to stress	0.38	11	1.38515	611	1.764519
4912	GO:0006813(GO:0015458)	potassium ion transport	0.39	2	0.36166364	84	0.24258527
30168	GO:0071804	cellular potassium ion transport	0.39	2	0.36166364	84	0.24258527
30169	GO:0071805	potassium ion transmembrane transport	0.39	2	0.36166364	84	0.24258527
12608	GO:0030001	metal ion transport	0.39	7	1.2658228	374	1.080082
14959	GO:0032553	ribonucleotide binding	0.39	14	2.5316455	795	2.2958963
14961	GO:0032555	purine ribonucleotide binding	0.39	14	2.5316455	795	2.2958963
14422	GO:0032012	regulation of ARF protein signaling pathway	0.39	1	0.18083182	31	0.08952551
14720	GO:0032312	regulation of ARF GTPase activity	0.39	1	0.18083182	31	0.08952551
25478	GO:0051181	cofactor transport	0.39	1	0.18083182	31	0.08952551
5624	GO:0008047	enzyme activator activity	0.39	2	0.36166364	85	0.24547319
10033	GO:0017076	purine nucleotide binding	0.40	14	2.5316455	797	2.3016722
3717	GO:0005199	structural constituent of cell	0.40	1	0.18083182	32	0.09241343
3785	GO:0005315(GO:0005317)	inorganic phosphate transport	0.40	1	0.18083182	32	0.09241343
6942	GO:0009674	potassium:sodium symporter activity	0.40	1	0.18083182	32	0.09241343
9041	GO:0015772	oligosaccharide transport	0.40	1	0.18083182	32	0.09241343
12522	GO:0022820	potassium ion symporter activity	0.40	1	0.18083182	32	0.09241343
23914	GO:0048522(GO:0051242)	positive regulation of cellular process	0.40	1	0.18083182	32	0.09241343
20624	GO:0044430	cytoskeletal part	0.41	2	0.36166364	88	0.25413695
119	GO:0000151	ubiquitin ligase complex	0.41	2	0.36166364	88	0.25413695
4493	GO:0006298(GO:0006300)	mismatch repair	0.41	1	0.18083182	33	0.09530135
3749	GO:0005249	voltage-gated potassium channel activity	0.42	1	0.18083182	34	0.09818927
11831	GO:0019902	phosphatase binding	0.42	1	0.18083182	34	0.09818927
11832	GO:0019903	protein phosphatase binding	0.42	1	0.18083182	34	0.09818927
9829	GO:0016779	nucleosyltransferase activity	0.42	3	0.5424955	148	0.42741212
20630	GO:0044436	thylakoid part	0.42	2	0.36166364	90	0.2599128
18582	GO:0042221	response to chemical stimulus	0.43	6	1.084991	328	0.84723777
16785	GO:0034404	nucleobase, nucleoside and nucleotide metabolic process	0.43	2	0.36166364	92	0.26588863
17033	GO:0034654	nucleobase, nucleoside, nucleotide metabolic process	0.43	2	0.36166364	92	0.26588863
21058	GO:0045454(GO:0030503)	cell redox homeostasis	0.44	4	0.7233273	211	0.6093511
8679	GO:0015297	antiporter activity	0.44	3	0.5424955	152	0.4389638
8682	GO:0015300	solute:solute antiporter activity	0.44	3	0.5424955	152	0.4389638
11314	GO:0019321	pentose metabolic process	0.44	1	0.18083182	36	0.10396511
22376	GO:0046873	metal ion transmembrane transport	0.44	4	0.7233273	213	0.6151269
3808	GO:0005351(GO:0005403)	suaar:hydrogen symporter activity	0.44	2	0.36166364	94	0.27146447
3835	GO:0005402	cation:sugar symporter activity	0.44	2	0.36166364	94	0.27146447
6863	GO:0009579	thylakoid	0.44	2	0.36166364	94	0.27146447
13656	GO:0031224	intrinsic to membrane	0.44	20	3.6166365	1193	3.4452884
15436	GO:0030306	macromolecule localization	0.45	7	1.2658228	397	1.1465042
3758	GO:0005267	potassium channel activity	0.45	1	0.18083182	37	0.10685303
3472	GO:0004866	endopeptidase inhibitor activity	0.45	2	0.36166364	95	0.27435237
8159	GO:0010951	negative regulation of endopeptidase activity	0.45	2	0.36166364	95	0.27435237
26712	GO:0052548	regulation of endopeptidase activity	0.45	2	0.36166364	95	0.27435237
28101	GO:0061135	endopeptidase regulator activity	0.45	2	0.36166364	95	0.27435237
12538	GO:0022843	voltage-gated cation channel activity	0.46	1	0.18083182	38	0.10974095
3464	GO:0004857	enzyme inhibitor activity	0.46	3	0.5424955	157	0.4534034
8677	GO:0015295	solute:hydrogen symporter activity	0.47	2	0.36166364	96	0.28301615
8681	GO:0015299	solute:hydrogen antiporter activity	0.47	2	0.36166364	96	0.28301615
30883	GO:0072527	pyrimidine-containing compound biosynthetic process	0.47	1	0.18083182	39	0.11262887
868	GO:0001510	RNA methylation	0.47	1	0.18083182	39	0.11262887
19831	GO:0043565	sequence-specific DNA binding	0.47	3	0.5424955	159	0.45917925
4755	GO:0006629	lipid metabolic process	0.47	10	1.8083183	590	1.7038727
6882	GO:0009605	response to external stimulus	0.47	1	0.18083182	40	0.1155168
7021	GO:0009755	hormone-mediated signaling pathway	0.47	1	0.18083182	40	0.1155168
15271	GO:0032870	cellular response to hormone stimulus	0.47	1	0.18083182	40	0.1155168
23910	GO:0048518(GO:0043119)	positive regulation of biological process	0.47	1	0.18083182	40	0.1155168
16430	GO:0034046	poly(G) RNA binding	0.48	2	0.36166364	100	0.28879198
14667	GO:0032259	methylation	0.48	5	0.9041591	285	0.8230572
3638	GO:0005096	GTPase activator activity	0.48	1	0.18083182	41	0.118404716
19813	GO:0043547	positive regulation of GTPase activity	0.48	1	0.18083182	41	0.118404716
5874	GO:0008374	O-acyltransferase activity	0.49	2	0.36166364	102	0.29456782
9837	GO:0016788	hydrolase activity, acting on ester bonds	0.49	25	4.520796	1534	4.430069
8461	GO:0015020(GO:0003981)	glucuronosyltransferase activity	0.49	1	0.18083182	42	0.121292636
13884	GO:0031461	cullin-RING ubiquitin ligase complex	0.49	1	0.18083182	42	0.121292636
9267	GO:0016021	integral to membrane	0.50	18	3.254973	1103	3.1853757
19392	GO:0043085	positive regulation of catalytic activity	0.50	2	0.36166364	104	0.30034366



20343	GO:0044093	positive regulation of mole	0.50	2	0.36166364	104	0.30034366
13531	GO:0031072	heat shock protein binding	0.50	4	0.7232273	230	0.6642216
11224	GO:0019222	regulation of metabolic pro	0.51	50	9.041592	3115	8.995871
9753	GO:0016682	oxidoreductase activity, act	0.51	1	0.18083182	44	0.12706847
29859	GO:0071495	cellular response to endoge	0.51	1	0.18083182	44	0.12706847
3630	GO:0005088	Ras guanyl-nucleotide exct	0.52	1	0.18083182	45	0.1299564
5692	GO:0008134	transcription factor binding	0.52	1	0.18083182	45	0.1299564
9893	GO:0016857	racemase and epimerase a	0.52	1	0.18083182	45	0.1299564
14726	GO:0032318	regulation of Ras GTPase a	0.52	1	0.18083182	45	0.1299564
22096	GO:0046578	regulation of Ras protein si	0.52	1	0.18083182	45	0.1299564
25355	GO:0051056	regulation of small GTPase	0.52	1	0.18083182	45	0.1299564
2636	GO:0003690	double-stranded DNA bindi	0.52	1	0.18083182	46	0.13284431
6999	GO:0009733	response to auxin stimulus	0.52	1	0.18083182	46	0.13284431
9795	GO:0016740	transferase activity	0.53	60	10.84991	3764	10.870131
8497	GO:0015079 GO:0022817	potassium ion transmembr	0.53	1	0.18083182	47	0.13572223
8680	GO:0015298	solute:cation antiporter acti	0.54	2	0.36166364	112	0.32344702
29081	GO:0070717	poly-purine tract binding	0.54	2	0.36166364	112	0.32344702
13753	GO:0031323	regulation of cellular metab	0.54	44	7.9566	2770	7.995538
9933	GO:0016903	oxidoreductase activity, act	0.54	2	0.36166364	113	0.32633495
9800	GO:0016746	transferase activity, transfe	0.54	8	1.4466546	498	1.438184
3756	GO:0005261 GO:0015281	cation channel activity	0.55	1	0.18083182	49	0.14150807
9725	GO:0016645	oxidoreductase activity, act	0.55	1	0.18083182	49	0.14150807
11784	GO:0019838	growth factor binding	0.55	1	0.18083182	49	0.14150807
6166	GO:0008757	S-adenosylmethionine-dep	0.55	3	0.5424955	180	0.5198256
9535	GO:0016407	acetyltransferase activity	0.55	2	0.36166364	115	0.3321108
3885	GO:0005625	GTP binding	0.55	4	0.7232273	245	0.70754033
11032	GO:0019001	guanyl nucleotide binding	0.55	4	0.7232273	245	0.70754033
14967	GO:0032561	guanyl ribonucleotide bindi	0.55	4	0.7232273	245	0.70754033
29674	GO:0071310	cellular response to organic	0.55	1	0.18083182	50	0.14439599
3903	GO:0005575 GO:0008372	cellular_component	0.56	135	24.412296	8515	24.590637
20619	GO:0044425	membrane part	0.56	24	4.339964	1523	4.398302
3293	GO:0004659	prenyltransferase activity	0.56	1	0.18083182	51	0.14728391
7213	GO:0009966 GO:0035466	regulation of signal transdu	0.56	1	0.18083182	51	0.14728391
12601	GO:0023051	regulation of signaling	0.56	1	0.18083182	51	0.14728391
25416	GO:0051119	sugar transmembrane trans	0.56	2	0.36166364	118	0.34077454
4915	GO:0006817	phosphate transport	0.57	1	0.18083182	52	0.15017183
8528	GO:0015114	phosphate transmembrane	0.57	1	0.18083182	52	0.15017183
1791	GO:0035435	phosphate transmembrane	0.57	1	0.18083182	52	0.15017183
9818	GO:0016765 GO:0016766	transferase activity, transfe	0.57	3	0.5424955	185	0.53426516
12805	GO:0030246	carbohydrate binding	0.57	4	0.7232273	251	0.7248679
3946	GO:0005623	cell	0.57	130	23.508137	8227	23.758917
20657	GO:0044644	cell part	0.57	130	23.508137	8227	23.758917
9750	GO:0016679	oxidoreductase activity, act	0.57	1	0.18083182	53	0.15305975
25635	GO:0051345	positive regulation of hydro	0.57	1	0.18083182	53	0.15305975
2657	GO:0003727 GO:0003728	single-stranded RNA bindi	0.58	3	0.5424955	188	0.54292893
17918	GO:0035556 GO:0007242	intracellular signal transdu	0.58	1	0.18083182	54	0.15594767
29251	GO:0070887	cellular response to chemi	0.58	1	0.18083182	54	0.15594767
2628	GO:0003677	DNA binding	0.58	19	3.4358046	1224	3.534814
4951	GO:0006865 GO:0006866	amino acid transport	0.59	2	0.36166364	123	0.35521415
24968	GO:0050662	coenzyme binding	0.59	3	0.5424955	191	0.5515927
5809	GO:0008289	lipid binding	0.59	4	0.7232273	258	0.74508333
9801	GO:0016747	transferase activity, transfe	0.59	7	1.2658228	456	1.3168914
4224	GO:0005984	disaccharide metabolic pro	0.59	1	0.18083182	56	0.16172351
9369	GO:0016137	glycoside metabolic proces	0.59	1	0.18083182	56	0.16172351
9883	GO:0016846	carbon-sulfur lyase activity	0.59	1	0.18083182	56	0.16172351
4849	GO:0006730 GO:0019753	one-carbon metabolic proc	0.59	5	0.9041591	325	0.93857396
4121	GO:0005856	cytoskeleton	0.60	2	0.36166364	126	0.3638779
5715	GO:0008171	O-methyltransferase activit	0.60	1	0.18083182	57	0.16461143
9813	GO:0016759	cellulose synthase activity	0.60	1	0.18083182	57	0.16461143
23973	GO:0048583	regulation of response to si	0.60	1	0.18083182	57	0.16461143
3323	GO:0004702	receptor signaling protein s	0.61	1	0.18083182	58	0.16749935
5819	GO:0009299 GO:0009241	isoprenoid biosynthetic pro	0.61	1	0.18083182	58	0.16749935
6665	GO:0009311	oligosaccharide metabolic	0.61	1	0.18083182	58	0.16749935
8558	GO:0015145	monosaccharide transmem	0.61	1	0.18083182	58	0.16749935
9018	GO:0015749	monosaccharide transport	0.61	1	0.18083182	58	0.16749935
3333	GO:0004712	protein serine/threonine/tyr	0.61	1	0.18083182	59	0.17038727
18981	GO:0042651	thylakoid membrane	0.61	1	0.18083182	59	0.17038727
30700	GO:0072341	modified amino acid bindi	0.61	1	0.18083182	59	0.17038727
12572	GO:0022890 GO:0015082	inorganic cation transmem	0.61	5	0.9041591	332	0.9587894
3340	GO:0004721	phosphoprotein phosphata	0.62	3	0.5424955	199	0.57469606
2980	GO:0004185	serine-type carboxypeptida	0.62	1	0.18083182	60	0.17327519
4840	GO:0006720 GO:0016096	isoprenoid metabolic proces	0.62	1	0.18083182	60	0.17327519
28375	GO:0070008	serine-type exopeptidase at	0.62	1	0.18083182	60	0.17327519
2818	GO:0004003	ATP-dependent DNA helica	0.63	1	0.18083182	61	0.1761631
4768	GO:0006644	phospholipid metabolic pro	0.63	1	0.18083182	61	0.1761631
9874	GO:0016835	carbon-oxygen lyase activit	0.63	3	0.5424955	202	0.5833598
30069	GO:0071705	nitrogen compound transp	0.63	3	0.5424955	202	0.5833598
3876	GO:0005515 GO:0045308	protein binding	0.63	108	19.529837	6933	20.021948
2978	GO:0004180	carboxypeptidase activity	0.63	1	0.18083182	62	0.17905103
6018	GO:0008559 GO:0005228	xenobiotic-transporting ATP	0.63	1	0.18083182	62	0.17905103
19225	GO:0042908	xenobiotic transport	0.63	1	0.18083182	62	0.17905103
19227	GO:0042910	xenobiotic transporter activ	0.63	1	0.18083182	62	0.17905103
11221	GO:0019219	regulation of nucleobase, n	0.63	41	7.414105	2675	7.7251854
25468	GO:0051171	regulation of nitrogen comp	0.63	41	7.414105	2675	7.7251854
9852	GO:0016810	hydrolase activity, acting o	0.63	2	0.36166364	134	0.38698125
9103	GO:0015837	amine transport	0.64	2	0.36166364	135	0.38986819
3103	GO:0004437	inositol or phosphatidyinos	0.64	1	0.18083182	64	0.19482687
22416	GO:0046915	transition metal ion transm	0.64	1	0.18083182	64	0.19482687
11616	GO:0019637	organophosphate metaboli	0.65	1	0.18083182	65	0.18771479
2626	GO:0003674 GO:0005554	molecular function	0.65	386	69.80109	24394	70.447914
9836	GO:0016787	hydrolase activity	0.65	57	10.307414	3723	10.751725
3473	GO:0004867	serine-type endopeptidase	0.65	1	0.18083182	66	0.1906027
4561	GO:0006399	tRNA metabolic process	0.65	1	0.18083182	66	0.1906027
5615	GO:0008033	tRNA processing	0.65	1	0.18083182	66	0.1906027
9890	GO:0016854	racemase and epimerase a	0.65	1	0.18083182	66	0.1906027
11829	GO:0019900	kinase binding	0.65	1	0.18083182	66	0.1906027
3895	GO:0005543	phospholipid binding	0.66	2	0.36166364	140	0.40430877
2629	GO:0003678 GO:0003679	DNA helicase activity	0.66	1	0.18083182	67	0.19349062
6046	GO:0008610	lipid biosynthetic process	0.66	2	0.36166364	141	0.4071967
13164	GO:0030695	GTPase regulator activity	0.66	2	0.36166364	142	0.4100846
31465	GO:0080090	regulation of primary metab	0.66	41	7.414105	2710	7.826263
2999	GO:0004312	fatty acid synthase activity	0.67	1	0.18083182	68	0.19637854
18742	GO:0042393	histone binding	0.67	1	0.18083182	68	0.19637854
32	GO:0000041	transition metal ion transp	0.67	1	0.18083182	68	0.19637854
8495	GO:0015077	monovalent inorganic catio	0.67	3	0.5424955	214	0.6180149
8557	GO:0015144	carbohydrate transmembra	0.67	2	0.36166364	143	0.41297254
16602	GO:0034219	carbohydrate transmembra	0.67	2	0.36166364	143	0.41297254
3620	GO:0005057	receptor signaling protein a	0.67	1	0.18083182	69	0.19926646
4530	GO:0006355 GO:0032583	regulation of transcription,	0.67	39	7.052444	2591	7.482376
25544	GO:0051252	regulation of RNA metaboli	0.68	39	7.052444	2593	7.482376
5726	GO:0008187	poly-pyrimidine tract bindi	0.68	1	0.18083182	70	0.20215438
5788	GO:0008266	poly(U) RNA binding	0.68	1	0.18083182	70	0.20215438
9191	GO:0015931	nucleobase, nucleoside, nu	0.68	1	0.18083182	70	0.20215438
9192	GO:0015932	nucleobase, nucleoside, nu	0.68	1	0.18083182	70	0.20215438
9853	GO:0016811	hydrolase activity, acting o	0.68	1	0.18083182	70	0.20215438
23522	GO:0048046	apoplast	0.68	1	0.18083182	70	0.20215438
3873	GO:0005507	copper ion binding	0.68	2	0.36166364	146	0.42136628
6071	GO:0008643 GO:0006861	carbohydrate transport	0.68	2	0.36166364	147	0.42452422
3744	GO:0005244	voltage-gated ion channel s	0.69	1	0.18083182	72	0.20793022
9740	GO:0016667	oxidoreductase activity, act	0.69	1	0.18083182	72	0.20793022
9764	GO:0016701	oxidoreductase activity, act	0.69	1	0.18083182	72	0.20793022
12528	GO:0022832	voltage-gated channel activ	0.69	1	0.18083182	72	0.20793022
15280	GO:0032879	regulation of localization	0.69	1	0.18083182	72	0.20793022
17141	GO:0034762	regulation of transmembran	0.69	1	0.18083182	72	0.20793022
17144	GO:0034765	regulation of ion transmem	0.69	1	0.18083182	72	0.20793022
19568	GO:0043269	regulation of ion transport	0.69	1	0.18083182	72	0.20793022
25348	GO:0051049	regulation of transport	0.69	1	0.18083182	72	0.20793022



7141	GO:0009889	regulation of biosynthetic p	0.69	39	7.052441	2605	7.523031
7772	GO:0010556	regulation of macromolecu	0.69	39	7.052441	2605	7.523031
13756	GO:0031326	regulation of cellular biosyn	0.69	39	7.052441	2605	7.523031
32213	GO:2000112	regulation of cellular macro	0.69	39	7.052441	2605	7.523031
27562	GO:0060589	nucleoside-triphosphatase	0.70	2	0.36166364	152	0.4389638
3627	GO:0005085 GO:0008433	quanyl-nucleotide exchange	0.70	1	0.18083182	75	0.21659398
4990	GO:0006915 GO:0008632	apoptosis	0.70	3	0.5424955	227	0.6555578
5663	GO:0008094 GO:0004011	DNA-dependent ATPase ac	0.71	1	0.18083182	76	0.2194819
6424	GO:0009055 GO:0009053	electron carrier activity	0.71	2	0.36166364	154	0.44473964
5604	GO:0008017	microtubule binding	0.71	1	0.18083182	77	0.22236982
6529	GO:0009165	nucleotide biosynthetic pro	0.71	1	0.18083182	77	0.22236982
7692	GO:0010468	regulation of gene expressi	0.71	39	7.052441	2635	7.6096687
9114	GO:0015849	organic acid transport	0.71	2	0.36166364	156	0.45051548
22443	GO:0046942	ligase activity, forming carb	0.71	2	0.36166364	156	0.45051548
9909	GO:0016877	structure-specific DNA bind	0.72	1	0.18083182	78	0.22825774
19832	GO:0043566	structure-specific DNA bind	0.72	1	0.18083182	78	0.22825774
30865	GO:0072509	divalent inorganic cation tra	0.72	1	0.18083182	78	0.22825774
3888	GO:0005529	sugar binding	0.72	2	0.36166364	158	0.45629135
9682	GO:0016597	amino acid binding	0.72	1	0.18083182	80	0.2310336
19479	GO:0043176	amine binding	0.72	1	0.18083182	80	0.2310336
8496	GO:0015078	hydrogen ion transmembran	0.73	2	0.36166364	160	0.4620672
6668	GO:0009314	response to radiation	0.73	1	0.18083182	81	0.23392151
6751	GO:0009416	response to light stimulus	0.73	1	0.18083182	81	0.23392151
15189	GO:0032787	monocarboxylic acid metab	0.73	1	0.18083182	81	0.23392151
6991	GO:0009725	response to hormone stimu	0.73	1	0.18083182	82	0.23680943
29202	GO:0070838	divalent metal ion transport	0.73	1	0.18083182	82	0.23680943
9839	GO:0016791 GO:0016302	phosphatase activity	0.73	5	0.9041591	383	1.1060733
27228	GO:0060255	regulation of macromolecu	0.73	39	7.052441	2660	7.6818666
5756	GO:0008219	cell death	0.74	3	0.5424955	239	0.69021285
8209	GO:0012501 GO:0016244	programmed cell death	0.74	3	0.5424955	239	0.69021285
9462	GO:0016265	death	0.74	3	0.5424955	239	0.69021285
5055	GO:0006996	organelle organization	0.74	2	0.36166364	164	0.47361887
3048	GO:0004364	glutathione transferase acti	0.74	1	0.18083182	84	0.24258527
4327	GO:0006091	generation of precursor me	0.74	1	0.18083182	84	0.24258527
30867	GO:0072511	divalent inorganic cation tra	0.74	1	0.18083182	84	0.24258527
131	GO:0000186	nucleotide binding	0.74	17	3.074141	1213	3.5030468
2643	GO:0003700 GO:0000130	sequence-specific DNA bin	0.75	20	3.6166365	1417	4.0921826
716	GO:0001071	nucleic acid binding transcr	0.75	20	3.6166365	1417	4.0921826
5712	GO:0008168 GO:0004480	methyltransferase activity	0.75	3	0.5424955	244	0.7046524
5768	GO:0008238	exonuclease activity	0.75	3	0.18083182	86	0.24836111
6985	GO:0009719	response to endogenous st	0.75	1	0.18083182	86	0.24836111
12734	GO:0030163	protein catabolic process	0.75	1	0.18083182	86	0.24836111
3341	GO:0004722 GO:0000158	protein serine/threonine ph	0.76	2	0.36166364	171	0.4938343
21331	GO:0045735	nutrient reservoir activity	0.76	1	0.18083182	89	0.25702485
2982	GO:0004197	cysteine-type endopeptidas	0.77	1	0.18083182	90	0.2599128
4605	GO:0006457 GO:0007022	protein folding	0.77	2	0.36166364	173	0.49961013
3644	GO:0005102	receptor binding	0.77	1	0.18083182	91	0.2628007
6784	GO:0009451 GO:0016547	RNA modification	0.77	1	0.18083182	91	0.2628007
5693	GO:0008135	translation factor activity, n	0.77	1	0.18083182	92	0.26568863
2674	GO:0003824	catalytic activity	0.77	164	29.65642	10750	31.045137
11712	GO:0019748	secondary metabolic proces	0.78	1	0.18083182	95	0.27435237
18633	GO:0042277	peptide binding	0.78	1	0.18083182	95	0.27435237
30306	GO:0071944	cell periphery	0.78	3	0.5424955	259	0.74797124
9796	GO:0016741	transferase activity, transfe	0.79	3	0.5424955	261	0.7537471
9823	GO:0016772	transferase activity, transfe	0.79	27	4.882459	1932	5.579461
5610	GO:0008026	ATP-dependent helicase ac	0.79	2	0.36166364	183	0.52848935
28401	GO:0070035	purine NTP-dependent heli	0.79	2	0.36166364	183	0.52848935
13829	GO:0031406	carboxylic acid binding	0.79	1	0.18083182	98	0.28301615
20505	GO:0044255	cellular lipid metabolic pro	0.79	2	0.36166364	184	0.53137726
9486	GO:0016298	lipase activity	0.80	2	0.36166364	185	0.53426516
3999	GO:0005694	chromosome	0.80	1	0.18083182	99	0.28590405
16851	GO:0034470	mRNA processing	0.80	1	0.18083182	99	0.28590405
17039	GO:0034660	mRNA metabolic process	0.80	1	0.18083182	99	0.28590405
9488	GO:0016301	kinase activity	0.80	24	4.339964	1740	5.0249805
3304	GO:0004672 GO:0050222	protein kinase activity	0.80	18	3.254973	1333	3.8495972
9699	GO:0016616	oxidoreductase activity, act	0.80	3	0.5424955	266	0.7681867
7271	GO:0010033	response to organic subst	0.80	1	0.18083182	100	0.28879198
4459	GO:0006259 GO:0055132	DNA metabolic process	0.80	6	1.084991	493	1.4237444
5705	GO:0008152	metabolic process	0.80	269	48.64376	17432	50.34222
3306	GO:0004674 GO:0004695	protein serine/threonine kin	0.80	14	2.5316455	1062	3.0669708
3068	GO:0004386	helicase activity	0.81	2	0.36166364	189	0.54581684
9494	GO:0016311	dephosphorylation	0.81	5	0.9041591	425	1.227366
30206	GO:0071842	cellular component organiz	0.82	2	0.36166364	193	0.5573685
2897	GO:0004091 GO:0004302	carboxylesterase activity	0.82	2	0.36166364	194	0.5602564
6426	GO:0009057 GO:0043285	macromolecule catabolic p	0.82	1	0.18083182	106	0.3061195
2653	GO:0003723	RNA binding	0.82	10	1.8083183	797	2.3016722
8910	GO:0015631	tubulin binding	0.82	1	0.18083182	107	0.30900744
3178	GO:0004519	endonuclease activity	0.82	4	0.7233273	356	1.0280994
3626	GO:0005083	small GTPase regulator act	0.83	1	0.18083182	111	0.3205591
19686	GO:0043414	macromolecule methylation	0.84	1	0.18083182	113	0.32633495
18912	GO:0042578	phosphoric ester hydrolase	0.84	5	0.9041591	444	1.2822365
22478	GO:0046982	protein heterodimerization	0.84	1	0.18083182	114	0.32922286
4612	GO:0006468	protein phosphorylation	0.84	30	5.424955	2205	6.367863
9697	GO:0016614	oxidoreductase activity, act	0.85	3	0.5424955	293	0.84616053
2521	GO:0003333	amino acid transmembran	0.85	1	0.18083182	118	0.34077454
8584	GO:0016111 GO:0015359	amino acid transmembran	0.85	2	0.36166364	118	0.34077454
18956	GO:0042626	ATPase activity, coupled to	0.85	1	0.36166364	211	0.6093511
9861	GO:0016820	hydrolase activity, acting o	0.85	2	0.36166364	212	0.612239
9493	GO:0016310	phosphorylation	0.86	34	6.148282	2504	7.2313514
18953	GO:0042623	ATPase activity, coupled	0.86	6	1.084991	537	1.550813
6884	GO:0009607	response to biotic stimulus	0.86	1	0.18083182	122	0.3523262
12532	GO:0022836	gated channel activity	0.86	1	0.18083182	122	0.3523262
25485	GO:0051188	cofactor biosynthetic proces	0.86	1	0.18083182	123	0.35521415
3863	GO:0005488	binding	0.86	210	37.97468	13903	40.15075
4236	GO:0005996	monosaccharide metabolic	0.87	1	0.18083182	125	0.36099
3761	GO:0005275 GO:0005279	amine transmembrane tran	0.87	1	0.18083182	126	0.3638779
9913	GO:0016881	acid-amino acid ligase acti	0.87	4	0.7233273	391	1.1291766
22415	GO:0046914	transition metal ion binding	0.87	35	6.329114	2599	7.5057034
4526	GO:0006351 GO:0006350	transcription, DNA-depend	0.88	20	3.6166365	1575	4.548474
15176	GO:0032774	RNA biosynthetic process	0.88	20	3.6166365	1575	4.548474
2758	GO:0003924	GTPase activity	0.88	1	0.18083182	132	0.3812054
4394	GO:0006184	GTP catabolic process	0.88	1	0.18083182	132	0.3812054
21605	GO:0046039	GTP metabolic process	0.88	1	0.18083182	132	0.3812054
4408	GO:0006200	ATP catabolic process	0.89	7	1.2658228	641	1.8511566
9918	GO:0016887 GO:0004002	ATPase activity	0.89	7	1.2658228	641	1.8511566
21600	GO:0046034	ATP metabolic process	0.89	7	1.2658228	641	1.8511566
3801	GO:0005342	organic acid transmembran	0.89	1	0.18083182	136	0.3927571
22444	GO:0046943	carboxylic acid transmembr	0.89	1	0.18083182	136	0.3927571
19758	GO:0005492	ATPase activity, coupled to	0.89	2	0.36166364	235	0.97866117
3724	GO:0005216	ion channel activity	0.90	1	0.18083182	140	0.46430877
23515	GO:0048037	cofactor binding	0.90	3	0.5424955	327	0.84434977
5909	GO:0008415	acyltransferase activity	0.90	3	0.5424955	330	0.85301354
4897	GO:0006793	phosphorus metabolic proc	0.90	39	7.052441	2925	8.4471655
4900	GO:0006796	phosphate metabolic proces	0.90	39	7.052441	2925	8.4471655
4304	GO:0006066	alcohol metabolic process	0.90	1	0.18083182	143	0.41297254
9895	GO:0016860	intramolecular oxidoreduct	0.91	1	0.18083182	146	0.42163628
6824	GO:0009536	plastid	0.91	2	0.36166364	247	0.7133162
5661	GO:0008092	cytoskeletal protein bindin	0.91	2	0.36166364	249	0.719092
3177	GO:0004518	nuclease activity	0.91	4	0.7233273	427	1.2331418
9824	GO:0016773	phosphotransferase activity	0.91	18	3.254973	1493	4.311664
8749	GO:0015399	primary active transmembr	0.92	2	0.36166364	260	0.75085914
8753	GO:0015405	P-P-bond-hydrolysis-driven	0.92	2	0.36166364	260	0.75085914
9285	GO:0016043	cellular component organiz	0.92	2	0.36166364	261	0.7537471
5764	GO:0008234 GO:0004220	cysteine-type peptidase act	0.93	1	0.18083182	163	0.47073093
4405	GO:0006195	purine nucleotide catabolic	0.93	8	1.4466546	773	2.232362
6508	GO:0009143	nucleoside triphosphate cat	0.93	8	1.4466546	773	2.232362
6509	GO:0009144	purine nucleoside triphosph	0.93	8	1.4466546	773	2.232362



6511	GO:0009146	purine nucleoside triphosph	0.93	8	1.4466546	773	2.232362
6519	GO:0009154	purine ribonucleotide catab	0.93	8	1.4466546	773	2.232362
6530	GO:0009166	nucleotide catabolic proces	0.93	8	1.4466546	773	2.232362
6567	GO:0009203	ribonucleoside triphosphate	0.93	8	1.4466546	773	2.232362
6569	GO:0009205	purine ribonucleoside triph	0.93	8	1.4466546	773	2.232362
6571	GO:0009207	purine ribonucleoside triph	0.93	8	1.4466546	773	2.232362
6624	GO:0009261	ribonucleotide catabolic pro	0.93	8	1.4466546	773	2.232362
17034	GO:0034655	nucleobase, nucleoside, nu	0.93	8	1.4466546	773	2.232362
17035	GO:0034656	nucleobase, nucleoside and	0.93	8	1.4466546	773	2.232362
22209	GO:0046700	heterocycle catabolic proces	0.93	8	1.4466546	773	2.232362
30879	GO:0072523	purine-containing compoun	0.93	8	1.4466546	773	2.232362
25483	GO:0051186	cofactor metabolic process	0.93	1	0.18083182	164	0.47361887
2627	GO:0003676	nucleic acid binding	0.93	31	5.505787	2453	7.0840673
20520	GO:0044270	cellular nitrogen compound	0.93	8	1.4466546	777	2.2439137
4476	GO:0005278	RNA-dependent DNA repli	0.93	1	0.18083182	166	0.4739347
20521	GO:0044271	cellular nitrogen compound	0.93	3	0.5424955	367	1.0598665
9911	GO:0018879	ligase activity, forming cart	0.93	4	0.723273	456	1.3188914
6899	GO:0009628	response to abiotic stimul	0.94	1	0.18083182	170	0.49094638
26932	GO:0055086	nucleobase, nucleoside and	0.94	10	1.8083183	944	2.7261963
6563	GO:0009199	ribonucleoside triphosphate	0.94	8	1.4466546	790	2.2814567
6515	GO:0009150	purine ribonucleotide meta	0.94	8	1.4466546	791	2.2834447
3874	GO:0005509	calcium ion binding	0.94	2	0.36166364	279	0.8057296
11522	GO:0019538(GO:0006411)	protein metabolic process	0.94	55	9.94575	4134	11.938661
6506	GO:0009141	nucleoside triphosphate me	0.94	8	1.4466546	796	2.2987843
9579	GO:0016462	pyrophosphatase activity	0.94	10	1.8083183	954	2.7550755
9859	GO:0016818	hydrolase activity, acting o	0.94	10	1.8083183	956	2.7608514
10058	GO:0017111	nucleoside-triphosphatase	0.94	9	1.6274865	878	2.5355935
11787	GO:0019842	vitamin binding	0.94	1	0.18083182	177	0.5111618
20622	GO:0044428	nuclear part	0.94	1	0.18083182	178	0.5140497
30205	GO:0071841	cellular component organiz	0.94	2	0.36166364	285	0.8230572
9858	GO:0016817	hydrolase activity, acting o	0.94	10	1.8083183	959	2.769515
17024	GO:0034645(GO:0034961)	cellular macromolecule bio	0.94	24	4.339964	1999	5.7729516
4572	GO:0006412(GO:0006416)	translation	0.95	1	0.18083182	180	0.5198256
6428	GO:0009059(GO:0043284)	macromolecule biosynthetic	0.95	24	4.339964	2003	5.7845035
4373	GO:0006163	purine nucleotide metabolic	0.95	8	1.4466546	810	2.339215
6622	GO:0009259(GO:0009121)	ribonucleotide metabolic pr	0.95	8	1.4466546	812	2.344991
4844	GO:0006725	cellular aromatic compound	0.95	1	0.18083182	185	0.53426516
30877	GO:0072521	purine-containing compound	0.95	8	1.4466546	827	2.3993097
4867	GO:0006753	nucleoside phosphate meta	0.96	9	1.6274865	914	2.6395588
6484	GO:0009117	nucleotide metabolic proces	0.96	9	1.6274865	914	2.6395588
9889	GO:0016853	isomerase activity	0.96	2	0.36166364	306	0.8837035
10244	GO:0018130	heterocycle biosynthetic pro	0.96	1	0.18083182	199	0.57469606
22375	GO:0046872	metal ion binding	0.96	37	6.690778	2985	8.6204405
14380	GO:0031967	organelle envelope	0.96	1	0.18083182	201	0.5804719
19470	GO:0043167	ion binding	0.96	37	6.690778	2997	8.655096
19472	GO:0043169	cation binding	0.96	37	6.690778	2997	8.655096
9906	GO:0016874	ligase activity	0.96	5	0.9041591	597	1.7240882
14387	GO:0031975	envelope	0.96	1	0.18083182	205	0.59202355
22007	GO:0046483	heterocycle metabolic proc	0.96	11	1.98915	1094	3.1593843
20532	GO:0044282	small molecule catabolic pr	0.96	8	1.4466546	854	2.4662836
9308	GO:0016070	RNA metabolic process	0.96	21	3.7974684	1855	5.3570914
3449	GO:0004842(GO:0004840)	ubiquitin-protein ligase acti	0.97	2	0.36166364	326	0.94146186
20488	GO:0044238	primary metabolic process	0.97	128	23.146473	9167	26.47356
9654	GO:0016567	protein ubiquitination	0.97	2	0.36166364	332	0.9587894
14854	GO:0032446	protein modification by sma	0.97	2	0.36166364	332	0.9587894
29011	GO:0070647	protein modification by sma	0.97	2	0.36166364	332	0.9587894
4558	GO:0006396(GO:0006394)	RNA processing	0.97	1	0.18083182	219	0.63245445
11747	GO:0019787(GO:0008639)	small conjugating protein li	0.97	2	0.36166364	339	0.9790048
31895	GO:0090304	nucleic acid metabolic proc	0.97	27	4.882459	2340	6.75737324
4460	GO:0006260(GO:0055133)	DNA replication	0.97	1	0.18083182	224	0.64689404
7691	GO:0010467	gene expression	0.97	22	3.9783	1974	5.7007537
20498	GO:0044248	cellular catabolic process	0.98	8	1.4466546	894	2.5518002
6796	GO:0003507	chloroplast	0.98	1	0.18083182	229	0.6613336
20533	GO:0044283	small molecule biosynthetic	0.98	2	0.36166364	347	1.0021082
8211	GO:0012505	endomembrane system	0.98	1	0.18083182	242	0.6988766
30204	GO:0071840	cellular component organiz	0.98	2	0.36166364	362	1.045427
4609	GO:0006464	protein modification proces	0.98	32	5.786618	2781	8.031305
19533	GO:0043234	protein complex	0.98	7	1.2658228	848	2.448956
6427	GO:0009058	biosynthetic process	0.98	32	5.786618	2796	8.074624
19684	GO:0043412	macromolecule modificatio	0.99	33	5.96745	2900	8.374968
3716	GO:0005198	structural molecule activity	0.99	2	0.36166364	393	1.1349525
6425	GO:0009056	catabolic process	0.99	9	1.6274865	1051	3.0352037
20499	GO:0044249	cellular biosynthetic proces	0.99	29	5.244123	2635	7.6096687
19473	GO:0043170(GO:0043283)	macromolecule metabolic p	0.99	84	15.189874	6553	18.92454
3955	GO:0006634	nucleus	0.99	13	2.3508136	1433	4.138389
4357	GO:0006139(GO:0055134)	nucleobase, nucleoside, nu	0.99	37	6.690778	3285	9.486816
20517	GO:0044267	cellular protein metabolic p	0.99	36	6.509946	3225	9.313541
20531	GO:0044281	small molecule metabolic p	0.99	17	3.074141	1788	5.1636004
4320	GO:0006082	organic acid metabolic prod	1.00	1	0.18083182	369	1.0656425
11716	GO:0019752	carboxylic acid metabolic p	1.00	1	0.18083182	369	1.0656425
19707	GO:0043436	oxoacid metabolic process	1.00	1	0.18083182	369	1.0656425
7229	GO:0009987(GO:0008151)	cellular process	1.00	140	25.316456	10601	30.814838
18541	GO:0042180	cellular ketone metabolic p	1.00	1	0.18083182	375	1.0829699
20510	GO:0044260(GO:0034960)	cellular macromolecule me	1.00	65	11.754068	5577	16.105928
17020	GO:0034641	cellular nitrogen compound	1.00	38	6.871609	3678	10.621769
20640	GO:0044446	intracellular organelle part	1.00	3	0.5424955	710	2.0504231
20616	GO:0044422	organelle part	1.00	3	0.5424955	712	2.0561988
4906	GO:0006907	nitrogen compound metabo	1.00	38	6.871609	3725	10.757502
19527	GO:0043228	non-membrane-bounded org	1.00	4	0.723273	923	2.66555
19531	GO:0043232	intracellular non-membran	1.00	4	0.723273	923	2.66555
20487	GO:0044237	cellular metabolic process	1.00	94	16.998192	8185	23.637625
19526	GO:0043227	membrane-bounded organ	1.00	15	2.7124774	2142	6.185924
19530	GO:0043231	intracellular membrane-bou	1.00	15	2.7124774	2142	6.185924
4109	GO:0005840(GO:0033279)	ribosome	1.00	1	0.18083182	682	1.9695613
5791	GO:0008270	zinc ion binding	1.00	11	1.98915	1880	5.4292893
15392	GO:0032991	macromolecular complex	1.00	8	1.4466546	1616	4.666878
13018	GO:0030529	ribonucleoprotein complex	1.00	1	0.18083182	741	2.1399486
19525	GO:0043226	organelle	1.00	19	3.4358046	3013	8.701303
19528	GO:0043229	intracellular organelle	1.00	19	3.4358046	3013	8.701303
3945	GO:0005622	intracellular	1.00	37	6.690778	4751	13.720507
20618	GO:0044424	intracellular part	1.00	27	4.882459	3853	11.127155
4027	GO:0005737	cytoplasm	1.00	7	1.2658228	2001	5.7787275
20638	GO:0044444	cytoplasmic part	1.00	4	0.723273	1644	4.7477403



GO ID	GO ACCESSION	GO Term	p-value	Count in Selection	% Count in Selection	Count in Total	% Count in Total
4476	GO:0006278	RNA-dependent DNA re	0.00	38	5.322129	166	0.4793947
4459	GO:0006259 GO:00551	DNA metabolic process	0.00	59	8.263306	493	1.4237444
4460	GO:0006260 GO:00551	DNA replication	0.00	38	5.322129	224	0.64689404
8493	GO:0015074	DNA integration	0.00	21	2.9411764	47	0.13573223
31895	GO:0090304	nucleic acid metabolic p	0.00	94	13.165266	2340	6.7577324
31393	GO:0080016	(-)-E-beta-caryophyllene	0.00	9	1.2605042	25	0.072197996
31394	GO:0080017	alpha-humulene synthase	0.00	9	1.2605042	25	0.072197996
7558	GO:0010334	sesquiterpene synthase	0.00	9	1.2605042	29	0.083749674
7222	GO:0009975	cyclase activity	0.00	9	1.2605042	31	0.08952551
7557	GO:0010333	terpene synthase activit	0.00	11	1.5406163	57	0.16461143
9877	GO:0016838	carbon-oxygen lyase ac	0.00	12	1.6806723	77	0.22236982
4357	GO:0006139 GO:00551	nucleobase, nucleoside	0.00	111	15.546219	3285	9.486816
17024	GO:0034645 GO:00349	cellular macromolecule	0.00	73	10.22409	1999	5.7729516
6428	GO:0009059 GO:00432	macromolecule biosynt	0.00	73	10.22409	2003	5.7845035
17020	GO:0034641	cellular nitrogen compo	0.00	114	15.966387	3678	10.621769
4906	GO:0006807	nitrogen compound met	0.00	114	15.966387	3725	10.757502
6884	GO:0009607	response to biotic stimu	0.00	11	1.5406163	122	0.3523262
23522	GO:0048046	apoplast	0.00	8	1.1204482	70	0.20215438
5705	GO:0008152	metabolic process	0.00	408	57.142857	17432	50.34222
9869	GO:0016829	lyase activity	0.00	23	3.2212884	488	1.4093049
22375	GO:0046872	metal ion binding	0.00	89	12.464986	2985	8.6204405
9874	GO:0016835	carbon-oxygen lyase ac	0.00	13	1.8207283	202	0.5833598
19470	GO:0043167	ion binding	0.00	89	12.464986	2997	8.655096
19472	GO:0043169	cation binding	0.00	89	12.464986	2997	8.655096
20499	GO:0044249	cellular biosynthetic pro	0.00	80	11.204482	2635	7.6096687
3009	GO:0004322	ferroxidase activity	0.00	5	0.70028013	30	0.086637594
9785	GO:0016724	oxidoreductase activity,	0.00	5	0.70028013	30	0.086637594
6427	GO:0009058	biosynthetic process	0.00	83	11.62465	2796	8.074624
26959	GO:0055114	oxidation-reduction proc	0.00	75	10.504202	2490	7.1909204
2864	GO:0004058 GO:00164	aromatic-L-amino-acid d	0.00	3	0.42016807	9	0.025991278
3874	GO:0005509	calcium ion binding	0.00	15	2.1008403	279	0.8057296
3904	GO:0005576	extracellular region	0.00	11	1.5406163	178	0.5140497
3386	GO:0004773	sterol-sulfatase activity	0.00	3	0.42016807	12	0.03465504
5965	GO:0008484	sulfuric ester hydrolase	0.00	3	0.42016807	12	0.03465504
9816	GO:0016762	xyloglucan:xyloglucosyl	0.00	4	0.5602241	27	0.077973835
5704	GO:0008150 GO:00000	biological_process	0.00	494	69.187675	22215	64.155136
3473	GO:0004867	serine-type endopeptida	0.00	6	0.84033614	66	0.1906027
5791	GO:0008270	zinc ion binding	0.00	57	7.9831934	1880	5.4292893
14101	GO:0031683	G-protein beta/gamma-s	0.00	3	0.42016807	15	0.043318797
9783	GO:0016722	oxidoreductase activity,	0.00	5	0.70028013	50	0.14439599
18757	GO:0042409	caffeoyl-CoA O-methylt	0.00	3	0.42016807	16	0.046206716
25837	GO:0051553	flavone biosynthetic pro	0.00	4	0.5602241	32	0.09241343
25838	GO:0051554	flavonol metabolic proc	0.00	4	0.5602241	32	0.09241343
25839	GO:0051555	flavonol biosynthetic pro	0.00	4	0.5602241	32	0.09241343
21041	GO:0045431	flavonol synthase activi	0.00	4	0.5602241	32	0.09241343
25836	GO:0051552	flavone metabolic proces	0.00	4	0.5602241	32	0.09241343
19707	GO:0043436	oxoacid metabolic proces	0.00	16	2.2408965	369	1.0656425
4320	GO:0006082	organic acid metabolic p	0.00	16	2.2408965	369	1.0656425
11716	GO:0019752	carboxylic acid metabol	0.00	16	2.2408965	369	1.0656425
22415	GO:0046914	transition metal ion bind	0.00	73	10.22409	2599	7.5057034
5702	GO:0008146	sulfotransferase activity	0.01	5	0.70028013	54	0.15594767
18541	GO:0042180	cellular ketone metaboli	0.01	6	0.84033614	375	1.0829699
3888	GO:0005529	sugar binding	0.01	9	1.2605042	158	0.45629135
7072	GO:0009813	flavonoid biosynthetic p	0.01	4	0.5602241	40	0.1155168
13038	GO:0030551	cyclic nucleotide binding	0.01	3	0.42016807	22	0.06353424
3256	GO:0004616	phosphogluconate dehy	0.01	2	0.28011206	8	0.023103358
7071	GO:0009812	flavonoid metabolic pro	0.01	4	0.5602241	44	0.12706847
3472	GO:0004866	endopeptidase inhibitor	0.01	6	0.84033614	95	0.27435237
8159	GO:0010951	negative regulation of e	0.01	6	0.84033614	95	0.27435237
26712	GO:0052548	regulation of endopeptid	0.01	6	0.84033614	95	0.27435237
28101	GO:0061135	endopeptidase regulato	0.01	6	0.84033614	95	0.27435237
12805	GO:0030246	carbohydrate binding	0.02	11	1.5406163	251	0.7248679
6632	GO:0009269	response to desiccation	0.02	2	0.28011206	10	0.0288792
21148	GO:0045547	dehydrodichyl diphosp	0.02	2	0.28011206	10	0.0288792
6750	GO:0009415	response to water	0.02	4	0.5602241	49	0.14150807
9832	GO:0016782	transferase activity, tran	0.02	5	0.70028013	74	0.21370606
9767	GO:0016705	oxidoreductase activity,	0.02	13	1.8207283	329	0.95012563
19473	GO:0043170 GO:00432	macromolecule metabo	0.02	157	21.988796	6553	18.92454
6965	GO:0009699	phenylpropanoid biosynt	0.02	4	0.5602241	52	0.15017183
7690	GO:0010466	negative regulation of p	0.03	6	0.84033614	110	0.31767118
12946	GO:0030414	peptidase inhibitor activ	0.03	6	0.84033614	110	0.31767118
25636	GO:0051346	negative regulation of h	0.03	6	0.84033614	110	0.31767118
26711	GO:0052547	regulation of peptidase	0.03	6	0.84033614	112	0.32344702
28100	GO:0061134	peptidase regulator acti	0.03	6	0.84033614	112	0.32344702
5715	GO:0008171	O-methyltransferase ac	0.03	4	0.5602241	57	0.16461143
9871	GO:0016831	carboxy-lyase activity	0.03	6	0.84033614	115	0.3321108
11776	GO:0019825	oxygen binding	0.03	14	1.9607843	389	1.1234008
31408	GO:0080031	methyl salicylate estera	0.03	2	0.28011206	14	0.040430877
6964	GO:0009698	phenylpropanoid metab	0.04	4	0.5602241	60	0.17327519
14811	GO:0032403	protein complex binding	0.04	4	0.5602241	60	0.17327519
9393	GO:0016165	lipoxygenase activity	0.04	3	0.42016807	36	0.10396511
6018	GO:0008559 GO:00052	xenobiotic-transporting	0.04	4	0.5602241	62	0.17905103
19225	GO:0042908	xenobiotic transport	0.04	4	0.5602241	62	0.17905103
19227	GO:0042910	xenobiotic transporter a	0.04	4	0.5602241	62	0.17905103
4699	GO:0006570	tyrosine metabolic proc	0.04	1	0.14005603	2	0.00577584
4700	GO:0006571	tyrosine biosynthetic pr	0.04	1	0.14005603	2	0.00577584
9419	GO:0016206	catechol O-methyltransf	0.04	1	0.14005603	2	0.00577584
3382	GO:0004768 GO:00162	stearoyl-CoA 9-desatura	0.04	2	0.28011206	16	0.046206716
9427	GO:0016215	CoA desaturase activity	0.04	2	0.28011206	16	0.046206716
31396	GO:0080019	fatty-acyl-CoA reductas	0.04	2	0.28011206	16	0.046206716
6749	GO:0009414	response to water depriv	0.04	3	0.42016807	38	0.10974095
21710	GO:0046148	pigment biosynthetic pro	0.05	4	0.5602241	69	0.19926646
9812	GO:0016758	transferase activity, tran	0.06	16	2.2408965	501	1.4468478
13651	GO:0031219	levanase activity	0.06	1	0.14005603	3	0.00866376
9764	GO:0016701	oxidoreductase activity,	0.06	4	0.5602241	72	0.20793022
9753	GO:0016682	oxidoreductase activity,	0.06	3	0.42016807	44	0.12706847
18786	GO:0042440	pigment metabolic proc	0.06	4	0.5602241	73	0.21081814
8666	GO:0015276	ligand-gated ion channel	0.07	3	0.42016807	45	0.1299564
12530	GO:0022834	ligand-gated channel ad	0.07	3	0.42016807	45	0.1299564
23518	GO:0048040	UDP-glucuronate decar	0.07	2	0.28011206	21	0.060646318
3129	GO:0004467	long-chain fatty acid-Co	0.07	2	0.28011206	21	0.060646318



20510	GO:0044260 GO:00349	cellular macromolecul	0.07	130	18.207283	5577	16.105928
9768	GO:0016706	oxidoreductase activi	0.07	7	0.98039216	175	0.505386
18956	GO:0042626	ATPase activity, couple	0.07	8	1.1204482	211	0.6093511
9861	GO:0016820	hydrolase activity, acti	0.07	8	1.1204482	212	0.612239
24858	GO:0050551	myrcene synthase activ	0.07	2	0.28011206	22	0.06353424
11787	GO:0019842	vitamin binding	0.07	7	0.98039216	177	0.5111618
23515	GO:0048037	cofactor binding	0.08	11	1.5406163	327	0.94434977
9811	GO:0016757 GO:00169	transferase activity, tran	0.08	21	2.9411764	729	2.1052935
3291	GO:0004657	proline dehydrogenase	0.08	1	0.14005603	4	0.011551679
3834	GO:0005395	eye pigment precursor t	0.08	1	0.14005603	4	0.011551679
4325	GO:0006089	lactate metabolic proces	0.08	1	0.14005603	4	0.011551679
4345	GO:0006113	fermentation	0.08	1	0.14005603	4	0.011551679
6422	GO:0009051	pentose-phosphate shu	0.08	1	0.14005603	4	0.011551679
8459	GO:0015018	galactosylgalactosylxyl	0.08	1	0.14005603	4	0.011551679
11632	GO:0019656	glucose catabolic proce	0.08	1	0.14005603	4	0.011551679
11635	GO:0019659	glucose catabolic proce	0.08	1	0.14005603	4	0.011551679
11638	GO:0019662	non-glycolytic fermenta	0.08	1	0.14005603	4	0.011551679
16391	GO:0034007	S-linalool synthase activ	0.08	1	0.14005603	4	0.011551679
22893	GO:0047405	pyrimidine-5-nucleotide	0.08	1	0.14005603	4	0.011551679
24433	GO:0050113	inositol oxygenase activ	0.08	1	0.14005603	4	0.011551679
2753	GO:0003919	FMN adenylyltransferas	0.08	1	0.14005603	4	0.011551679
9779	GO:0016717	oxidoreductase activity,	0.09	2	0.28011206	24	0.06931008
31407	GO:0080030	methyl indole-3-acetate	0.09	2	0.28011206	24	0.06931008
3293	GO:0004659	prenyltransferase activi	0.09	3	0.42016807	51	0.14728391
9482	GO:0016291 GO:00087	acyl-CoA thioesterase a	0.09	2	0.28011206	25	0.072197996
31493	GO:0080118	brassinosteroid sulfotra	0.09	2	0.28011206	25	0.072197996
9750	GO:0016679	oxidoreductase activity,	0.10	3	0.42016807	53	0.15305975
5978	GO:0008506	sucrose:hydrogen symp	0.10	2	0.28011206	26	0.075085916
5987	GO:0008515 GO:00191	sucrose transmembran	0.10	2	0.28011206	26	0.075085916
8567	GO:0015154	disaccharide transmem	0.10	2	0.28011206	26	0.075085916
9035	GO:0015766	disaccharide transport	0.10	2	0.28011206	26	0.075085916
9039	GO:0015770	sucrose transport	0.10	2	0.28011206	26	0.075085916
17147	GO:0034768	(E)-beta-ocimene synth	0.10	2	0.28011206	26	0.075085916
4641	GO:0006508	proteolysis	0.10	26	3.6414566	965	2.7868426
8919	GO:0015645	fatty acid ligase activity	0.11	2	0.28011206	27	0.077973835
3464	GO:0004857	enzyme inhibitor activity	0.11	6	0.84033614	157	0.4534034
119	GO:0000151	ubiquitin ligase complex	0.11	4	0.5602241	88	0.25413695
3260	GO:0004620	phospholipase activity	0.11	5	0.70028013	123	0.35521415
25626	GO:0051336	regulation of hydrolase	0.11	7	0.98039216	196	0.5660323
9813	GO:0016759	cellulose synthase activ	0.11	3	0.42016807	57	0.16461143
19758	GO:0043492	ATPase activity, couple	0.11	8	1.1204482	235	0.67866117
9870	GO:0016830	carbon-carbon lyase ac	0.12	6	0.84033614	161	0.4649551
3376	GO:0004758	serine C-palmitoyltransf	0.12	1	0.14005603	6	0.01732752
3845	GO:0005452	inorganic anion exchan	0.12	1	0.14005603	6	0.01732752
4375	GO:0006165	nucleoside diphosphate	0.12	1	0.14005603	6	0.01732752
5966	GO:0008486	diphosphoinositol-polyp	0.12	1	0.14005603	6	0.01732752
6000	GO:0008531	riboflavin kinase activity	0.12	1	0.14005603	6	0.01732752
9572	GO:0016454	C-palmitoyltransferase a	0.12	1	0.14005603	6	0.01732752
9772	GO:0016710	trans-cinnamate 4-mon	0.12	1	0.14005603	6	0.01732752
11899	GO:0019992	diacylglycerol binding	0.12	1	0.14005603	6	0.01732752
19761	GO:0043495	protein anchor	0.12	1	0.14005603	6	0.01732752
3073	GO:0004397	histidine ammonia-lyase	0.12	1	0.14005603	6	0.01732752
3197	GO:0004550	nucleoside diphosphate	0.12	1	0.14005603	6	0.01732752
12741	GO:0030170	pyridoxal phosphate bin	0.12	5	0.70028013	126	0.3638779
28643	GO:0070279	vitamin B6 binding	0.12	5	0.70028013	126	0.3638779
2870	GO:0004064	arylesterase activity	0.13	2	0.28011206	30	0.086637594
28375	GO:0070008	serine-type exopeptidas	0.13	3	0.42016807	60	0.17327519
2980	GO:0004185	serine-type carboxypept	0.13	3	0.42016807	60	0.17327519
11712	GO:0019748	secondary metabolic pr	0.13	4	0.5602241	95	0.27435237
3255	GO:0004615 GO:00089	phosphomannomutase	0.14	1	0.14005603	7	0.020215439
16115	GO:0033729	anthocyanidin reductas	0.14	1	0.14005603	7	0.020215439
21149	GO:0045548	phenylalanine ammonia	0.14	1	0.14005603	7	0.020215439
2945	GO:0004143	diacylglycerol kinase ac	0.14	1	0.14005603	7	0.020215439
2978	GO:0004180	carboxypeptidase activi	0.14	3	0.42016807	62	0.17905103
6942	GO:0009674	potassium:sodium symp	0.14	2	0.28011206	32	0.09241343
9041	GO:0015772	oligosaccharide transp	0.14	2	0.28011206	32	0.09241343
12522	GO:0022820	potassium ion symporte	0.14	2	0.28011206	32	0.09241343
9600	GO:0016491	oxidoreductase activity	0.15	42	5.882353	1724	4.9787736
3356	GO:0004737	pyruvate decarboxylase	0.15	1	0.14005603	8	0.023103358
3402	GO:0004791	thioredoxin-disulfide red	0.15	1	0.14005603	8	0.023103358
5953	GO:0008471	laccase activity	0.15	1	0.14005603	8	0.023103358
6378	GO:0008999	ribosomal-protein-alanin	0.15	1	0.14005603	8	0.023103358
6497	GO:0009132	nucleoside diphosphate	0.15	1	0.14005603	8	0.023103358
7003	GO:0009737	response to abscisic ac	0.15	1	0.14005603	8	0.023103358
7168	GO:0009916	alternative oxidase activ	0.15	1	0.14005603	8	0.023103358
9680	GO:0016595	glutamate binding	0.15	1	0.14005603	8	0.023103358
11196	GO:0019187	beta-1,4-mannosyltrans	0.15	1	0.14005603	8	0.023103358
18639	GO:0042284	sphingolipid delta-4 des	0.15	1	0.14005603	8	0.023103358
26035	GO:0051753	mannan synthase activi	0.15	1	0.14005603	8	0.023103358
2988	GO:0004300 GO:00169	enoyl-CoA hydratase ad	0.15	1	0.14005603	8	0.023103358
9765	GO:0016702	oxidoreductase activity,	0.16	3	0.42016807	66	0.1906027
11829	GO:0019900	kinase binding	0.16	3	0.42016807	66	0.1906027
4942	GO:0006855	drug transmembrane tra	0.16	5	0.70028013	139	0.40142086
8642	GO:0015238 GO:00152	drug transmembrane tra	0.16	5	0.70028013	139	0.40142086
9154	GO:0015893	drug transport	0.16	5	0.70028013	139	0.40142086
18832	GO:0042493 GO:00170	response to drug	0.16	5	0.70028013	139	0.40142086
9480	GO:0016289	CoA hydrolase activity	0.16	2	0.28011206	35	0.10107719
11931	GO:0020037	heme binding	0.17	15	2.1008403	550	1.5883559
8749	GO:0015399	primary active transmem	0.17	8	1.1204482	260	0.75085914
8753	GO:0015405	P-P-bond-hydrolysis-dri	0.17	8	1.1204482	260	0.75085914
4079	GO:0005795 GO:00169	Golgi stack	0.17	1	0.14005603	9	0.025991278
20488	GO:0044238	primary metabolic proces	0.18	200	28.011204	9167	26.47356
9486	GO:0016298	lipase activity	0.18	6	0.84033614	185	0.53426516
9818	GO:0016765 GO:00167	transferase activity, tran	0.18	6	0.84033614	185	0.53426516
5911	GO:0008417	fucosyltransferase activ	0.19	1	0.14005603	10	0.0288792
6464	GO:0009095	aromatic amino acid far	0.19	1	0.14005603	10	0.0288792
8727	GO:0015369	calcium:hydrogen antip	0.19	1	0.14005603	10	0.0288792
9741	GO:0016668 GO:00166	oxidoreductase activity,	0.19	1	0.14005603	10	0.0288792
23116	GO:0047631	ADP-ribose diphosphat	0.19	1	0.14005603	10	0.0288792
2797	GO:0003979	UDP-glucose 6-dehydry	0.19	1	0.14005603	10	0.0288792
4530	GO:0006355 GO:00325	regulation of transcripti	0.19	60	8.403361	2591	7.4826
3872	GO:0005506	iron ion binding	0.19	15	2.1008403	563	1.6258988
25544	GO:0051252	regulation of RNA meta	0.19	60	8.403361	2593	7.488376
20487	GO:0044237	cellular metabolic proces	0.19	179	25.070028	8185	23.637625
19393	GO:0043086	negative regulation of c	0.19	6	0.84033614	188	0.54292893
20342	GO:0044092	negative regulation of m	0.19	6	0.84033614	188	0.54292893
11426	GO:0019438	aromatic compound bio	0.20	5	0.70028013	149	0.43030006

25510	GO:0051213	dioxygenase activity	0.20	3	0.42016807	75	0.21659398
7141	GO:0009889	regulation of biosynthesis	0.20	60	8.403361	2605	7.523031
7772	GO:0010556	regulation of macromol	0.20	60	8.403361	2605	7.523031
13756	GO:0031326	regulation of cellular bio	0.20	60	8.403361	2605	7.523031
32213	GO:2000112	regulation of cellular ma	0.20	60	8.403361	2605	7.523031
24968	GO:0050662	coenzyme binding	0.20	6	0.84033614	191	0.5515927
6288	GO:0008891	glycolate oxidase activit	0.20	1	0.14005603	11	0.03176712
11152	GO:0019139 GO:00464	cytokinin dehydrogenas	0.20	1	0.14005603	11	0.03176712
24696	GO:0050378	UDP-glucuronate 4-epim	0.20	1	0.14005603	11	0.03176712
2791	GO:0003973	(S)-2-hydroxy-acid oxid	0.20	1	0.14005603	11	0.03176712
9845	GO:0016798	hydrolase activity, actin	0.21	11	1.5406163	401	1.1580559
8461	GO:0015020 GO:00039	glucuronosyltransferase	0.21	2	0.28011206	42	0.121292636
3877	GO:0005516	calmodulin binding	0.22	7	0.98039216	236	0.6815491
9909	GO:0016877	ligase activity, forming c	0.22	3	0.42016807	78	0.22525774
25436	GO:0051139	metal ion:hydrogen anti	0.22	1	0.14005603	12	0.03465504
31380	GO:0080002	UDP-glucose:4-aminob	0.22	1	0.14005603	12	0.03465504
11221	GO:0019219	regulation of nucleobas	0.22	61	8.543417	2675	7.7251854
25468	GO:0051171	regulation of nitrogen co	0.22	61	8.543417	2675	7.7251854
7692	GO:0010468	regulation of gene expr	0.23	60	8.403361	2635	7.6096687
9682	GO:0016597	amino acid binding	0.23	3	0.42016807	80	0.2310336
19479	GO:0043176	amine binding	0.23	3	0.42016807	80	0.2310336
13443	GO:0030984	kininogen binding	0.24	1	0.14005603	13	0.037542958
18582	GO:0042221	response to chemical st	0.24	9	1.2605042	328	0.94723773
12532	GO:0022836	gated channel activity	0.24	4	0.5602241	122	0.3523262
4912	GO:0006813 GO:00154	potassium ion transport	0.25	3	0.42016807	84	0.24258527
30168	GO:0071804	cellular potassium ion tr	0.25	3	0.42016807	84	0.24258527
30169	GO:0071805	potassium ion transmem	0.25	3	0.42016807	84	0.24258527
3048	GO:0004364	glutathione transferase	0.25	3	0.42016807	84	0.24258527
27228	GO:0060255	regulation of macromole	0.25	60	8.403361	2660	7.6818666
22409	GO:0046906	tetrapyrrole binding	0.25	15	2.1008403	596	1.7212002
8497	GO:0015079 GO:00228	potassium ion transmem	0.25	2	0.28011206	47	0.13573223
4670	GO:0006541	glutamine metabolic pro	0.25	1	0.14005603	14	0.040430877
6423	GO:0009052	pentose-phosphate shu	0.25	1	0.14005603	14	0.040430877
9399	GO:0016174	NAD(P)H oxidase activi	0.25	1	0.14005603	14	0.040430877
9879	GO:0016841	ammonia-lyase activity	0.25	1	0.14005603	14	0.040430877
11157	GO:0019144	ADP-sugar diphosphata	0.25	1	0.14005603	14	0.040430877
24970	GO:0050664	oxidoreductase activity,	0.25	1	0.14005603	14	0.040430877
2998	GO:0004311	farnesyltransferas	0.25	1	0.14005603	14	0.040430877
31465	GO:0080090	regulation of primary me	0.25	61	8.543417	2710	7.826263
9422	GO:0016209	antioxidant activity	0.25	5	0.70028013	165	0.47650677
5768	GO:0008238	exopeptidase activity	0.26	3	0.42016807	86	0.24836111
7074	GO:0009815	1-aminocyclopropane-1	0.27	2	0.28011206	49	0.14150807
8909	GO:0015630	microtubule cytoskeleto	0.27	2	0.28011206	49	0.14150807
9725	GO:0016645	oxidoreductase activity,	0.27	2	0.28011206	49	0.14150807
3209	GO:0004564	beta-fructofuranosidase	0.27	1	0.14005603	15	0.043318797
9536	GO:0016408	C-acyltransferase activi	0.27	1	0.14005603	15	0.043318797
2868	GO:0004062	aryl sulfotransferase ac	0.27	1	0.14005603	15	0.043318797
21331	GO:0045735	nutrient reservoir activit	0.28	3	0.42016807	89	0.25702485
3334	GO:0004713 GO:00047	protein tyrosine kinase 3	0.28	1	0.14005603	16	0.046206716
3742	GO:0005242	inward rectifier potassi	0.28	1	0.14005603	16	0.046206716
7521	GO:0010295	(+)-abscisic acid 8'-hydr	0.28	1	0.14005603	16	0.046206716
9878	GO:0016840	carbon-nitrogen lyase a	0.28	1	0.14005603	16	0.046206716
13435	GO:0030976	thiamine pyrophosphate	0.28	1	0.14005603	16	0.046206716
4135	GO:0005875	microtubule associated	0.30	1	0.14005603	17	0.049094636
4446	GO:0006241	CTP biosynthetic proces	0.30	1	0.14005603	17	0.049094636
6507	GO:0009142	nucleoside triphosphate	0.30	1	0.14005603	17	0.049094636
6513	GO:0009148	pyrimidine nucleoside tr	0.30	1	0.14005603	17	0.049094636
6565	GO:0009201	ribonucleoside triphosp	0.30	1	0.14005603	17	0.049094636
6572	GO:0009208	pyrimidine ribonucleosid	0.30	1	0.14005603	17	0.049094636
6573	GO:0009209	pyrimidine ribonucleosid	0.30	1	0.14005603	17	0.049094636
9930	GO:0016899	oxidoreductase activity,	0.30	1	0.14005603	17	0.049094636
18738	GO:0042389	omega-3 fatty acid desa	0.30	1	0.14005603	17	0.049094636
21602	GO:0046036 GO:00062	CTP metabolic process	0.30	1	0.14005603	17	0.049094636
3242	GO:0004601 GO:00166	peroxidase activity	0.30	4	0.5602241	135	0.38986918
9754	GO:0016684	oxidoreductase activity,	0.30	4	0.5602241	135	0.38986918
12533	GO:0022838	substrate-specific chan	0.31	6	0.84033614	221	0.63823026
17918	GO:0035556 GO:00072	intracellular signal trans	0.31	2	0.28011206	54	0.15594767
3239	GO:0004596	peptide alpha-N-acetyl	0.31	1	0.14005603	18	0.051982556
4134	GO:0005874	microtubule	0.31	1	0.14005603	18	0.051982556
5776	GO:0008252	nucleotidase activity	0.31	1	0.14005603	18	0.051982556
10899	GO:0018858	benzoate-CoA ligase ac	0.31	1	0.14005603	18	0.051982556
16595	GO:0034212	peptide N-acetyltransfe	0.31	1	0.14005603	18	0.051982556
13753	GO:0031323	regulation of cellular me	0.31	61	8.543417	2770	7.999538
26845	GO:0052689	carboxylic ester hydrola	0.32	13	1.8207283	538	1.5537009
8660	GO:0015267 GO:00152	channel activity	0.32	6	0.84033614	226	0.6526699
12515	GO:0022803	passive transmembrane	0.32	6	0.84033614	226	0.6526699
19887	GO:0043621	protein self-association	0.33	1	0.14005603	19	0.054870475
3724	GO:0005216	ion channel activity	0.33	4	0.5602241	140	0.40430877
13829	GO:0031406	carboxylic acid binding	0.33	3	0.42016807	98	0.28301615
4844	GO:0006725	cellular aromatic compo	0.33	5	0.70028013	185	0.53426516
3323	GO:0004702	receptor signaling prote	0.34	2	0.28011206	58	0.16749935
3328	GO:0004707 GO:00083	MAP kinase activity	0.34	1	0.14005603	20	0.0577584
6201	GO:0008794	arsenate reductase (glu	0.34	1	0.14005603	20	0.0577584
8726	GO:0015368	calcium:cation antiporte	0.34	1	0.14005603	20	0.0577584
13086	GO:0030611	arsenate reductase acti	0.34	1	0.14005603	20	0.0577584
13088	GO:0030613	oxidoreductase activity,	0.34	1	0.14005603	20	0.0577584
13089	GO:0030614	oxidoreductase activity,	0.34	1	0.14005603	20	0.0577584
30700	GO:0072341	modified amino acid bin	0.34	2	0.28011206	59	0.17038727
4526	GO:0006351 GO:00063	transcription, DNA-depe	0.35	35	4.901961	1575	4.548474
15176	GO:0032774	RNA biosynthetic proces	0.35	35	4.901961	1575	4.548474
4420	GO:0006213	pyrimidine nucleoside n	0.35	1	0.14005603	21	0.060646318
6582	GO:0009218	pyrimidine ribonucleotid	0.35	1	0.14005603	21	0.060646318
6584	GO:0009220	pyrimidine ribonucleotid	0.35	1	0.14005603	21	0.060646318
9902	GO:0016868 GO:00167	intramolecular transfera	0.35	1	0.14005603	21	0.060646318
21697	GO:0046131	pyrimidine ribonucleosid	0.35	1	0.14005603	21	0.060646318
8526	GO:0015112	nitrate transmembrane	0.36	2	0.28011206	61	0.1761631
8975	GO:0015706 GO:00068	nitrate transport	0.36	2	0.28011206	61	0.1761631
12516	GO:0022804	active transmembrane t	0.36	18	2.5210085	787	2.2727928
8489	GO:0015066	alpha-amylase inhibitor	0.37	1	0.14005603	22	0.06353424
10032	GO:0017075	syntaxin-1 binding	0.37	1	0.14005603	22	0.06353424
11224	GO:0019222	regulation of metabolic	0.38	67	9.383754	3115	8.995871
6512	GO:0009147	pyrimidine nucleoside tr	0.38	1	0.14005603	23	0.06642216
7052	GO:0009790 GO:00097	embryo development	0.38	1	0.14005603	23	0.06642216
9806	GO:0016752	sinapoyltransferase acti	0.38	1	0.14005603	23	0.06642216
9807	GO:0016753	O-sinapoyltransferase a	0.38	1	0.14005603	23	0.06642216
9808	GO:0016754	sinapoylglucose-malate	0.38	1	0.14005603	23	0.06642216
9710	GO:0016628	oxidoreductase activity,	0.39	2	0.28011206	65	0.18771479



9838	GO:0016790	thiolester hydrolase acti	0.39	2	0.28011206	65	0.18771479
6424	GO:0009055 GO:00090	electron carrier activity	0.39	4	0.5602241	154	0.44473964
3213	GO:0004568	chitinase activity	0.39	1	0.14005603	24	0.06931008
3262	GO:0004622 GO:00451	lysophospholipase activ	0.39	1	0.14005603	24	0.06931008
6248	GO:0008843	endochitinase activity	0.39	1	0.14005603	24	0.06931008
13657	GO:0031225	anchored to membrane	0.39	1	0.14005603	24	0.06931008
22440	GO:0046939	nucleotide phosphorylat	0.39	1	0.14005603	24	0.06931008
25578	GO:0051287 GO:00512	NAD binding	0.39	1	0.14005603	24	0.06931008
6824	GO:0009536	plastid	0.40	6	0.84033614	247	0.7133162
4331	GO:0006098	pentose-phosphate shu	0.41	1	0.14005603	25	0.072197996
4855	GO:0006739	NADP metabolic proces	0.41	1	0.14005603	25	0.072197996
4856	GO:0006740	NADPH regeneration	0.41	1	0.14005603	25	0.072197996
9846	GO:0016799	hydrolase activity, hydro	0.41	1	0.14005603	25	0.072197996
21145	GO:0045543	gibberellin 2-beta-dioxy	0.41	1	0.14005603	25	0.072197996
125	GO:0000159	protein phosphatase typ	0.41	1	0.14005603	25	0.072197996
3620	GO:0005057	receptor signaling prote	0.42	2	0.28011206	69	0.19926646
9722	GO:0016641	oxidoreductase activity,	0.42	2	0.28011206	69	0.19926646
3210	GO:0004565	beta-galactosidase acti	0.42	1	0.14005603	26	0.075085916
4030	GO:0005741	mitochondrial outer mer	0.42	1	0.14005603	26	0.075085916
9421	GO:0016208	AMP binding	0.42	1	0.14005603	26	0.075085916
20625	GO:0044431	Golgi apparatus part	0.42	1	0.14005603	26	0.075085916
3725	GO:0005217	intracellular ligand-gate	0.43	1	0.14005603	27	0.077973835
6433	GO:0009064	glutamine family amino	0.43	1	0.14005603	27	0.077973835
9771	GO:0016709	oxidoreductase activity,	0.43	2	0.28011206	71	0.2050423
3744	GO:0005244	voltage-gated ion chann	0.44	2	0.28011206	72	0.20793022
12528	GO:0022832	voltage-gated channel a	0.44	2	0.28011206	72	0.20793022
15280	GO:0032879	regulation of localizati	0.44	2	0.28011206	72	0.20793022
17141	GO:0034762	regulation of transmem	0.44	2	0.28011206	72	0.20793022
17144	GO:0034765	regulation of ion transm	0.44	2	0.28011206	72	0.20793022
19568	GO:0043269	regulation of ion transp	0.44	2	0.28011206	72	0.20793022
25348	GO:0051049	regulation of transport	0.44	2	0.28011206	72	0.20793022
24966	GO:0050660	flavin adenine dinucleot	0.44	3	0.42016807	118	0.34077454
3284	GO:0004850	polygalacturonase activ	0.44	1	0.14005603	28	0.080861755
9238	GO:0015980	energy derivation by ox	0.44	1	0.14005603	28	0.080861755
9827	GO:0016776	phosphotransferase act	0.44	1	0.14005603	28	0.080861755
13634	GO:0031177	phosphopantetheine bir	0.44	1	0.14005603	28	0.080861755
139	GO:0000175	3'-5'-exoribonuclease ad	0.44	1	0.14005603	28	0.080861755
2833	GO:0004024	alcohol dehydrogenase	0.44	1	0.14005603	28	0.080861755
25195	GO:0050896 GO:00518	response to stimulus	0.44	40	5.602241	1881	5.432177
9703	GO:0016620	oxidoreductase activity,	0.45	2	0.28011206	73	0.21081814
20531	GO:0044281	small molecule metabol	0.45	38	5.322129	1788	5.1636004
5766	GO:0008236	serine-type peptidase a	0.45	5	0.70028013	214	0.6180149
4427	GO:0006221	pyrimidine nucleotide bi	0.45	1	0.14005603	29	0.083749674
11834	GO:0019905	syntaxin binding	0.45	1	0.14005603	29	0.083749674
20887	GO:0045263	proton-transporting ATP	0.45	1	0.14005603	29	0.083749674
3310	GO:0004679	AMP-activated protein k	0.46	1	0.14005603	30	0.086637594
8683	GO:0015301 GO:00153	anion:anion antiporter a	0.46	1	0.14005603	30	0.086637594
23	GO:0000030	mannosyltransferase ac	0.46	1	0.14005603	30	0.086637594
2774	GO:0003950	NAD+ ADP-ribosyltrans	0.46	1	0.14005603	30	0.086637594
6899	GO:0009628	response to abiotic stim	0.47	4	0.5602241	170	0.49094638
11202	GO:0019199	transmembrane recepto	0.47	11	1.5406163	504	1.4555116
716	GO:0001071	nucleic acid binding tra	0.47	30	4.2016807	1417	4.0921826
2643	GO:0003700 GO:00001	sequence-specific DNA	0.47	30	4.2016807	1417	4.0921826
4078	GO:0005794	Golgi apparatus	0.48	1	0.14005603	31	0.08952551
14422	GO:0032012	regulation of ARF prote	0.48	1	0.14005603	31	0.08952551
14720	GO:0032312	regulation of ARF GTPa	0.48	1	0.14005603	31	0.08952551
19590	GO:0043295	glutathione binding	0.48	1	0.14005603	31	0.08952551
22019	GO:0046496	nicotinamide nucleotide	0.48	1	0.14005603	31	0.08952551
30884	GO:0072528	pyrimidine-containing co	0.48	1	0.14005603	31	0.08952551
10103	GO:0017171	serine hydrolase activity	0.48	5	0.70028013	220	0.63534236
8675	GO:0015293	symporter activity	0.48	4	0.5602241	173	0.49961013
4121	GO:0005856	cytoskeleton	0.48	3	0.42016807	126	0.3638779
22049	GO:0046527	glucosyltransferase acti	0.48	6	0.84033614	270	0.77973837
3265	GO:0004630	phospholipase D activity	0.49	1	0.14005603	32	0.09241343
3717	GO:0005199	structural constituent of	0.49	1	0.14005603	32	0.09241343
3785	GO:0005315 GO:00053	inorganic phosphate tra	0.49	1	0.14005603	32	0.09241343
4510	GO:0006323	DNA packaging	0.49	1	0.14005603	32	0.09241343
4514	GO:0006334	nucleosome assembly	0.49	1	0.14005603	32	0.09241343
9537	GO:0016409	palmitoyltransferase act	0.49	1	0.14005603	32	0.09241343
9927	GO:0016896	exoribonuclease activity	0.49	1	0.14005603	32	0.09241343
13920	GO:0031497	chromatin assembly or d	0.49	1	0.14005603	32	0.09241343
14381	GO:0031968	organelle outer membra	0.49	1	0.14005603	32	0.09241343
17107	GO:0034728	nucleosome organizatio	0.49	1	0.14005603	32	0.09241343
28361	GO:0065004	protein-DNA complex as	0.49	1	0.14005603	32	0.09241343
29467	GO:0071103	DNA conformation chan	0.49	1	0.14005603	32	0.09241343
30188	GO:0071824	protein-DNA complex su	0.49	1	0.14005603	32	0.09241343
3190	GO:0004532	exoribonuclease activity	0.49	1	0.14005603	32	0.09241343
3827	GO:0005372	water transmembrane tr	0.50	2	0.28011206	81	0.23392151
4927	GO:0006833	water transport	0.50	2	0.28011206	81	0.23392151
8652	GO:0015250	water channel activity	0.50	2	0.28011206	81	0.23392151
15189	GO:0032787	monocarboxylic acid me	0.50	2	0.28011206	81	0.23392151
18429	GO:0042044	fluid transport	0.50	2	0.28011206	81	0.23392151
4849	GO:0006730 GO:00197	one-carbon metabolic p	0.51	7	0.98039216	325	0.93857396
3749	GO:0005249	voltage-gated potassiur	0.51	1	0.14005603	34	0.09818927
5270	GO:0007264	small GTPase mediated	0.51	1	0.14005603	34	0.09818927
5827	GO:0008308 GO:00228	voltage-gated anion cha	0.51	1	0.14005603	34	0.09818927
6486	GO:0009119	ribonucleoside metaboli	0.51	1	0.14005603	34	0.09818927
11208	GO:0019205	nucleobase, nucleoside	0.51	1	0.14005603	34	0.09818927
11831	GO:0019902	phosphatase binding	0.51	1	0.14005603	34	0.09818927
11832	GO:0019903	protein phosphatase bir	0.51	1	0.14005603	34	0.09818927
20321	GO:0044070	regulation of anion trans	0.51	1	0.14005603	34	0.09818927
6166	GO:0008757	S-adenosylmethionine-d	0.51	4	0.5602241	180	0.5198256
6796	GO:0009507	chloroplast	0.51	5	0.70028013	229	0.6613336
3490	GO:0004888 GO:00049	transmembrane recepto	0.51	12	1.6806723	571	1.6490022
4426	GO:0006220	pyrimidine nucleotide m	0.52	1	0.14005603	35	0.10107719
6355	GO:0008970	phospholipase A1 activi	0.52	1	0.14005603	35	0.10107719
21146	GO:0045544	gibberellin 20-oxidase a	0.52	1	0.14005603	35	0.10107719
23199	GO:0047714	galactolipase activity	0.52	1	0.14005603	35	0.10107719
4513	GO:0006333	chromatin assembly or d	0.53	1	0.14005603	36	0.10396511
5902	GO:0008408	3'-5' exoribonuclease acti	0.53	1	0.14005603	36	0.10396511
9185	GO:0015925	galactosidase activity	0.53	1	0.14005603	36	0.10396511
11314	GO:0019321	pentose metabolic proc	0.53	1	0.14005603	36	0.10396511
3758	GO:0005267	potassium channel activ	0.54	1	0.14005603	37	0.10685303
9193	GO:0015934	large ribosomal subunit	0.54	1	0.14005603	37	0.10685303
11355	GO:0019362	pyridine nucleotide meta	0.54	1	0.14005603	37	0.10685303
30880	GO:0072524	pyridine-containing com	0.54	1	0.14005603	37	0.10685303
20624	GO:0044430	cytoskeletal part	0.54	2	0.28011206	88	0.25413695

8501	GO:0015085	calcium ion transmembr	0.55	1	0.14005603	38	0.10974095
12538	GO:0022843	voltage-gated cation ch	0.55	1	0.14005603	38	0.10974095
117	GO:000149	SNARE binding	0.55	1	0.14005603	38	0.10974095
2628	GO:0003677	DNA binding	0.55	25	3.5014005	1224	3.534814
9719	GO:0016638	oxidoreductase activity,	0.55	2	0.28011206	89	0.25702485
6623	GO:0009260	ribonucleotide biosynthe	0.56	1	0.14005603	39	0.11262887
30883	GO:0072527	pyrimidine-containing co	0.56	1	0.14005603	39	0.11262887
4408	GO:0006200	ATP catabolic process	0.56	13	1.8207283	641	1.8511566
9918	GO:0016887 GO:00040	ATPase activity	0.56	13	1.8207283	641	1.8511566
21600	GO:0046034	ATP metabolic process	0.56	13	1.8207283	641	1.8511566
9697	GO:0016614	oxidoreductase activity,	0.56	6	0.84033614	293	0.84616053
4058	GO:0005773	vacuole	0.57	1	0.14005603	40	0.1155168
5891	GO:0008395 GO:00083	steroid hydroxylase acti	0.57	1	0.14005603	40	0.1155168
9843	GO:0016796	exonuclease activity, ac	0.57	1	0.14005603	40	0.1155168
11804	GO:0019867	outer membrane	0.57	1	0.14005603	40	0.1155168
5712	GO:0008168 GO:00044	methyltransferase activi	0.57	5	0.70028013	244	0.7046524
2897	GO:004091 GO:00043	carboxylesterase activit	0.57	4	0.5602241	194	0.5602564
5981	GO:0008509	anion transmembrane tr	0.57	5	0.70028013	245	0.70754033
4851	GO:0006733	oxidoreduction coenzym	0.57	1	0.14005603	41	0.118404716
25098	GO:0050794 GO:00512	regulation of cellular pro	0.57	81	11.344538	3987	11.514136
4917	GO:0006820 GO:00068	anion transport	0.58	5	0.70028013	247	0.7133162
3808	GO:0005351 GO:00054	sugar:hydrogen symport	0.58	2	0.28011206	94	0.27146447
3835	GO:0005402	cation:sugar symporter	0.58	2	0.28011206	94	0.27146447
3753	GO:0005253	anion channel activity	0.58	1	0.14005603	42	0.121292636
4756	GO:0006631	fatty acid metabolic pro	0.58	1	0.14005603	42	0.121292636
9801	GO:0016747	transferase activity, tran	0.60	9	1.2605042	456	1.3168914
4914	GO:0006816	calcium ion transport	0.60	1	0.14005603	44	0.12706847
6822	GO:0009534	chloroplast thylakoid	0.60	1	0.14005603	44	0.12706847
6823	GO:0009535	chloroplast thylakoid me	0.60	1	0.14005603	44	0.12706847
14388	GO:0031976	plastid thylakoid	0.60	1	0.14005603	44	0.12706847
14395	GO:0031984	organelle subcompartment	0.60	1	0.14005603	44	0.12706847
26883	GO:0055035	plastid thylakoid membr	0.60	1	0.14005603	44	0.12706847
28952	GO:0070588	calcium ion transmembr	0.60	1	0.14005603	44	0.12706847
8677	GO:0015295	solute:hydrogen symport	0.60	2	0.28011206	98	0.28301615
8681	GO:0015299	solute:hydrogen antipor	0.60	2	0.28011206	98	0.28301615
8673	GO:0015291 GO:00152	secondary active transp	0.60	8	1.1204482	407	1.1753833
25094	GO:0050789 GO:00507	regulation of biological p	0.61	87	12.184874	4315	12.461374
9893	GO:0016857	racemase and epimeras	0.61	1	0.14005603	45	0.1299564
14726	GO:0032318	regulation of Ras GTPa	0.61	1	0.14005603	45	0.1299564
17001	GO:0034622	cellular macromolecula	0.61	1	0.14005603	45	0.1299564
22096	GO:0046578	regulation of Ras protei	0.61	1	0.14005603	45	0.1299564
25355	GO:0051056	regulation of small GTP	0.61	1	0.14005603	45	0.1299564
28360	GO:0065003	macromolecular comple	0.61	1	0.14005603	45	0.1299564
8679	GO:0015297	antiporter activity	0.61	3	0.42016807	152	0.4389638
8682	GO:0015300	solute:solute antiporter	0.61	3	0.42016807	152	0.4389638
4073	GO:0005789	endoplasmic reticulum r	0.62	1	0.14005603	46	0.13284431
18536	GO:0042175	nuclear outer membran	0.62	1	0.14005603	46	0.13284431
20626	GO:0044432	endoplasmic reticulum p	0.62	1	0.14005603	46	0.13284431
8517	GO:0015103	inorganic anion transme	0.62	3	0.42016807	154	0.44473964
5280	GO:0007275	multicellular organismal	0.62	2	0.28011206	101	0.2916799
5807	GO:0008287	protein serine/threonine	0.62	1	0.14005603	47	0.13573223
6442	GO:0009073 GO:00160	aromatic amino acid fan	0.62	1	0.14005603	47	0.13573223
21943	GO:0046417	chorismate metabolic pr	0.62	1	0.14005603	47	0.13573223
9796	GO:0016741	transferase activity, tran	0.63	5	0.70028013	261	0.7537471
14591	GO:0032183	SUMO binding	0.63	1	0.14005603	48	0.13862015
28930	GO:0070566	adenylyltransferase acti	0.63	1	0.14005603	48	0.13862015
9709	GO:0016627	oxidoreductase activity,	0.64	2	0.28011206	104	0.30034366
19831	GO:0043565	sequence-specific DNA	0.64	3	0.42016807	159	0.45917925
3756	GO:0005261 GO:00152	cation channel activity	0.64	1	0.14005603	49	0.14150807
6483	GO:0009116	nucleoside metabolic pr	0.64	1	0.14005603	49	0.14150807
11830	GO:0019901	protein kinase binding	0.64	1	0.14005603	49	0.14150807
31421	GO:0080044	quercetin 7-O-glucosyltr	0.64	1	0.14005603	49	0.14150807
19126	GO:0042803	protein homodimerizatio	0.64	5	0.70028013	265	0.7652988
14909	GO:0032501 GO:00508	multicellular organismal	0.64	2	0.28011206	105	0.3032316
2668	GO:0003779	actin binding	0.64	2	0.28011206	105	0.3032316
9795	GO:0016740	transferase activity	0.64	75	10.504202	3764	10.870131
8495	GO:0015077	monovalent inorganic ca	0.65	4	0.5602241	214	0.6180149
5096	GO:0007047	cellular cell wall organiz	0.65	1	0.14005603	50	0.14439599
6932	GO:0009664	plant-type cell wall orga	0.65	1	0.14005603	50	0.14439599
19914	GO:0043648	dicarboxylic acid metab	0.65	1	0.14005603	50	0.14439599
20857	GO:0045229	external encapsulating s	0.65	1	0.14005603	50	0.14439599
30033	GO:0071669	plant-type cell wall orga	0.65	1	0.14005603	50	0.14439599
3185	GO:0004527 GO:00088	exonuclease activity	0.65	1	0.14005603	50	0.14439599
7213	GO:0009966 GO:00354	regulation of signal tran	0.65	1	0.14005603	51	0.14728391
9975	GO:0016998	cell wall macromolecul	0.65	1	0.14005603	51	0.14728391
12492	GO:0022807	cellular component asse	0.65	1	0.14005603	51	0.14728391
12601	GO:0023051	regulation of signaling	0.65	1	0.14005603	51	0.14728391
30208	GO:0071844	cellular component asse	0.65	1	0.14005603	51	0.14728391
3099	GO:0004428	inositol or phosphatidyl	0.65	1	0.14005603	51	0.14728391
28364	GO:0065007	biological regulation	0.66	87	12.184874	4376	12.637537
4915	GO:0006817	phosphate transport	0.66	1	0.14005603	52	0.15017183
8528	GO:0015114	phosphate transmembra	0.66	1	0.14005603	52	0.15017183
17801	GO:0035435	phosphate transmembra	0.66	1	0.14005603	52	0.15017183
20287	GO:0044036	cell wall macromolecul	0.66	1	0.14005603	52	0.15017183
6563	GO:0009199	ribonucleoside triphosp	0.66	15	2.1008403	790	2.2814567
29246	GO:0070882	cellular cell wall organiz	0.67	1	0.14005603	53	0.15305975
18953	GO:0042623	ATPase activity, couple	0.67	10	1.4005603	537	1.550813
6506	GO:0009141	nucleoside triphosphate	0.67	15	2.1008403	796	2.2987843
8680	GO:0015298	solute:cation antiporter	0.67	2	0.28011206	112	0.32344702
9730	GO:0016651	oxidoreductase activity,	0.67	2	0.28011206	112	0.32344702
29918	GO:0071554	cell wall organization or	0.67	2	0.28011206	112	0.32344702
8943	GO:0015672	monovalent inorganic ca	0.68	7	0.98039216	383	1.1060733
9933	GO:0016903	oxidoreductase activity,	0.68	2	0.28011206	113	0.32633495
9533	GO:0016405	CoA-ligase activity	0.68	1	0.14005603	55	0.15883559
15576	GO:0033177	proton-transporting two	0.69	1	0.14005603	56	0.16172351
3156	GO:0004497	monooxygenase activity	0.69	3	0.42016807	172	0.49672222
6441	GO:0009072	aromatic amino acid fan	0.70	1	0.14005603	57	0.16461143
9910	GO:0016878	acid-thiol ligase activity	0.70	1	0.14005603	57	0.16461143
23973	GO:0048583	regulation of response t	0.70	1	0.14005603	57	0.16461143
9800	GO:0016746	transferase activity, tran	0.70	9	1.2605042	498	1.438184
5819	GO:0008299 GO:00092	isoprenoid biosynthetic	0.70	1	0.14005603	58	0.16749935
29919	GO:0071555	cell wall organization	0.70	1	0.14005603	58	0.16749935
14667	GO:0032259	methylation	0.70	5	0.70028013	285	0.8230572
8584	GO:0015171 GO:00153	amino acid transmembr	0.70	2	0.28011206	118	0.34077454
25416	GO:0051119	sugar transmembrane tr	0.70	2	0.28011206	118	0.34077454
2521	GO:0003333	amino acid transmembr	0.70	2	0.28011206	118	0.34077454
6622	GO:0009259 GO:00091	ribonucleotide metaboli	0.70	15	2.1008403	812	2.344991



8967	GO:0015698	inorganic anion transpo	0.71	3	0.42016807	176	0.5082739
9900	GO:0016866	intramolecular transfera	0.71	1	0.14005603	59	0.17038727
18981	GO:0042651	thylakoid membrane	0.71	1	0.14005603	59	0.17038727
2831	GO:0004022	alcohol dehydrogenase	0.71	1	0.14005603	59	0.17038727
13082	GO:0030599	pectinesterase activity	0.71	3	0.42016807	178	0.5140497
4840	GO:0006720 GO:00160	isoprenoid metabolic pr	0.71	1	0.14005603	60	0.17327519
5652	GO:0008081 GO:00044	phosphoric diester hydr	0.71	1	0.14005603	60	0.17327519
14910	GO:0032502	developmental process	0.72	2	0.28011206	121	0.3494383
2818	GO:0004003	ATP-dependent DNA he	0.72	1	0.14005603	61	0.1761631
11828	GO:0019899	enzyme binding	0.72	4	0.5602241	237	0.684437
4951	GO:0006865 GO:00068	amino acid transport	0.72	2	0.28011206	123	0.35521415
17000	GO:0034621	cellular macromolecular	0.73	1	0.14005603	62	0.17905103
20186	GO:0043933 GO:00346	macromolecular comple	0.73	1	0.14005603	62	0.17905103
20883	GO:0045259 GO:00452	proton-transporting ATP	0.73	1	0.14005603	62	0.17905103
4405	GO:0006195	purine nucleotide catab	0.73	14	1.9607843	773	2.232362
6508	GO:0009143	nucleoside triphosphate	0.73	14	1.9607843	773	2.232362
6509	GO:0009144	purine nucleoside triphd	0.73	14	1.9607843	773	2.232362
6511	GO:0009146	purine nucleoside triphd	0.73	14	1.9607843	773	2.232362
6519	GO:0009154	purine ribonucleotide ca	0.73	14	1.9607843	773	2.232362
6530	GO:0009166	nucleotide catabolic pro	0.73	14	1.9607843	773	2.232362
6567	GO:0009203	ribonucleoside triphosph	0.73	14	1.9607843	773	2.232362
6569	GO:0009205	purine ribonucleoside tr	0.73	14	1.9607843	773	2.232362
6571	GO:0009207	purine ribonucleoside tr	0.73	14	1.9607843	773	2.232362
6624	GO:0009261	ribonucleotide catabolic	0.73	14	1.9607843	773	2.232362
17034	GO:0034655	nucleobase, nucleoside	0.73	14	1.9607843	773	2.232362
17035	GO:0034656	nucleobase, nucleoside	0.73	14	1.9607843	773	2.232362
22209	GO:0046700	heterocycle catabolic pr	0.73	14	1.9607843	773	2.232362
30879	GO:0072523	purine-containing comp	0.73	14	1.9607843	773	2.232362
9308	GO:0016070	RNA metabolic process	0.73	35	4.901961	1855	5.3570914
20520	GO:0044270	cellular nitrogen compos	0.73	14	1.9607843	777	2.2439137
3476	GO:0004872 GO:00190	receptor activity	0.73	12	1.6806723	672	1.9406822
3761	GO:0005275 GO:00052	amine transmembrane t	0.74	2	0.28011206	126	0.3638779
25820	GO:0051536	iron-sulfur cluster bindin	0.74	1	0.14005603	64	0.18482687
25824	GO:0051540	metal cluster binding	0.74	1	0.14005603	64	0.18482687
22007	GO:0046483	heterocycle metabolic p	0.74	20	2.8011205	1094	3.1593843
25314	GO:0051015	actin filament binding	0.74	1	0.14005603	65	0.18771479
9890	GO:0016854	racemase and epimeras	0.75	1	0.14005603	66	0.1906027
3475	GO:0004871 GO:00050	signal transducer activit	0.75	14	1.9607843	787	2.2727928
27063	GO:0060089	molecular transducer ad	0.75	14	1.9607843	787	2.2727928
5651	GO:0008080	N-acetyltransferase acti	0.75	1	0.14005603	67	0.19349062
2629	GO:0003678 GO:00036	DNA helicase activity	0.75	1	0.14005603	67	0.19349062
6515	GO:0009150	purine ribonucleotide m	0.76	14	1.9607843	791	2.2843447
31420	GO:0080043	quercetin 3-O-glucosyltr	0.76	1	0.14005603	69	0.19926646
9579	GO:0016462	pyrophosphatase activit	0.76	17	2.3809524	954	2.7550755
9859	GO:0016818	hydrolase activity, actin	0.77	17	2.3809524	956	2.7608514
5726	GO:0008187	poly-pyrimidine tract bin	0.77	1	0.14005603	70	0.20215438
5788	GO:0008266	poly(U) RNA binding	0.77	1	0.14005603	70	0.20215438
15524	GO:0033124	regulation of GTP catab	0.77	1	0.14005603	70	0.20215438
19394	GO:0043087	regulation of GTPase ac	0.77	1	0.14005603	70	0.20215438
9103	GO:0015837	amine transport	0.77	2	0.28011206	135	0.38986918
3307	GO:0004675	transmembrane recepto	0.77	6	0.84033614	367	1.0598665
9858	GO:0016817	hydrolase activity, actin	0.77	17	2.3809524	959	2.769515
20532	GO:0044282	small molecule cataboli	0.77	15	2.1008403	854	2.4662836
3801	GO:0005342	organic acid transmemb	0.77	2	0.28011206	136	0.3927571
22444	GO:0046943	carboxylic acid transme	0.77	2	0.28011206	136	0.3927571
19125	GO:0042802	identical protein binding	0.78	12	1.6806723	697	2.01288
9740	GO:0016667	oxidoreductase activity,	0.78	1	0.14005603	72	0.20793022
5809	GO:0008289	lipid binding	0.78	4	0.5602241	258	0.74508333
4867	GO:0006753	nucleoside phosphate r	0.78	16	2.2408965	914	2.6395588
6484	GO:0009117	nucleotide metabolic pr	0.78	16	2.2408965	914	2.6395588
4247	GO:0006007	glucose catabolic proces	0.78	1	0.14005603	73	0.21081814
11313	GO:0019320	hexose catabolic proces	0.78	1	0.14005603	73	0.21081814
20525	GO:0044275	cellular carbohydrate ca	0.78	1	0.14005603	73	0.21081814
21726	GO:0046164	alcohol catabolic proces	0.78	1	0.14005603	73	0.21081814
21894	GO:0046365	monosaccharide catabo	0.78	1	0.14005603	73	0.21081814
8607	GO:0015197 GO:00156	peptide transporter activ	0.78	2	0.28011206	139	0.40142086
8608	GO:0015198	oligopeptide transporter	0.78	2	0.28011206	139	0.40142086
4373	GO:0006163	purine nucleotide metab	0.78	14	1.9607843	810	2.339215
3311	GO:0004683 GO:00046	calmodulin-dependent p	0.79	1	0.14005603	74	0.21370606
9817	GO:0016763	transferase activity, tran	0.79	1	0.14005603	74	0.21370606
20628	GO:0044434	chloroplast part	0.79	1	0.14005603	74	0.21370606
20629	GO:0044435	plastid part	0.79	1	0.14005603	74	0.21370606
3895	GO:0005543	phospholipid binding	0.79	2	0.28011206	140	0.40430877
4944	GO:0006857	oligopeptide transport	0.79	2	0.28011206	141	0.4071967
8676	GO:0015294	solute:cation symporter	0.79	2	0.28011206	141	0.4071967
9099	GO:0015833	peptide transport	0.79	2	0.28011206	141	0.4071967
8810	GO:0015491	cation:cation antiporter	0.79	1	0.14005603	75	0.21659398
5663	GO:0008094 GO:00040	DNA-dependent ATPas	0.80	1	0.14005603	76	0.2194819
5732	GO:0008194	UDP-glycosyltransferas	0.80	5	0.70028013	322	0.9299102
8557	GO:0015144	carbohydrate transmem	0.80	2	0.28011206	143	0.41297254
16602	GO:0034219	carbohydrate transmem	0.80	2	0.28011206	143	0.41297254
6529	GO:0009165	nucleotide biosynthetic	0.80	1	0.14005603	77	0.22236982
9538	GO:0016410	N-acyltransferase activi	0.80	1	0.14005603	77	0.22236982
2986	GO:0004252	serine-type endopeptida	0.80	2	0.28011206	144	0.41586044
9699	GO:0016616	oxidoreductase activity,	0.80	4	0.5602241	266	0.7681867
30865	GO:0072509	divalent inorganic catio	0.80	1	0.14005603	78	0.22525774
10058	GO:0017111	nucleoside-triphosphata	0.80	15	2.1008403	878	2.5355935
4954	GO:0006869	lipid transport	0.81	3	0.42016807	208	0.6006873
8085	GO:0010876	lipid localization	0.81	3	0.42016807	208	0.6006873
3873	GO:0005507	copper ion binding	0.81	2	0.28011206	146	0.42163628
8494	GO:0015075	ion transmembrane tran	0.81	14	1.9607843	827	2.3883097
30877	GO:0072521	purine-containing comp	0.81	14	1.9607843	827	2.3883097
6071	GO:0008643 GO:00068	carbohydrate transport	0.81	2	0.28011206	147	0.42452422
4215	GO:0005975	carbohydrate metabolic	0.81	17	2.3809524	990	2.8590407
4358	GO:0006140	regulation of nucleotide	0.81	1	0.14005603	80	0.2310336
7146	GO:0009894	regulation of catabolic p	0.81	1	0.14005603	80	0.2310336
9875	GO:0016836	hydro-lyase activity	0.81	1	0.14005603	80	0.2310336
13278	GO:0030811	regulation of nucleotide	0.81	1	0.14005603	80	0.2310336
13759	GO:0031329	regulation of cellular cat	0.81	1	0.14005603	80	0.2310336
15521	GO:0033121	regulation of purine nuc	0.81	1	0.14005603	80	0.2310336
16603	GO:0034220	ion transmembrane tran	0.82	14	1.9607843	833	2.4056373
22376	GO:0046873	metal ion transmembran	0.82	3	0.42016807	213	0.6151269
6991	GO:0009725	response to hormone st	0.82	1	0.14005603	82	0.23680943
29202	GO:0070838	divalent metal ion trans	0.82	1	0.14005603	82	0.23680943
26932	GO:0055086	nucleobase, nucleoside	0.82	16	2.2408965	944	2.7261963
4029	GO:0005740	mitochondrial envelope	0.82	2	0.28011206	151	0.4360759
16738	GO:0034357	photosynthetic membra	0.82	1	0.14005603	83	0.23969735

4327	GO:006091	generation of precursor	0.83	1	0.14005603	84	0.24258527
30867	GO:0072511	divalent inorganic cation	0.83	1	0.14005603	84	0.24258527
12547	GO:0022857 GO:00053	transmembrane transp	0.83	26	3.6414566	1483	4.282785
17617	GO:0035251	UDP-glucosyltransferas	0.83	3	0.42016807	218	0.62956655
6985	GO:0009719	response to endogenous	0.83	1	0.14005603	86	0.24836111
9114	GO:0015849	organic acid transport	0.83	2	0.28011206	156	0.45051548
22443	GO:0046942	carboxylic acid transport	0.83	2	0.28011206	156	0.45051548
4246	GO:0006006	glucose metabolic proc	0.84	1	0.14005603	87	0.25124902
7229	GO:0009987 GO:00081	cellular process	0.84	207	28.991596	10601	30.614838
26931	GO:0055085	transmembrane transp	0.84	27	3.7815125	1548	4.4705
12794	GO:0030234	enzyme regulator activi	0.84	6	0.84033614	403	1.1638317
5195	GO:0007165 GO:00230	signal transduction	0.84	16	2.2408965	961	2.775291
12602	GO:0023052 GO:00230	signaling	0.84	16	2.2408965	961	2.775291
7691	GO:0010467	gene expression	0.84	35	4.901961	1974	5.7007537
8496	GO:0015078	hydrogen ion transmem	0.84	2	0.28011206	160	0.4620672
14590	GO:0032182	small conjugating protei	0.85	1	0.14005603	90	0.2599128
20630	GO:0044436	thylakoid part	0.85	1	0.14005603	90	0.2599128
2982	GO:0004197	cysteine-type endopept	0.85	1	0.14005603	90	0.2599128
4990	GO:0006915 GO:00086	apoptosis	0.85	3	0.42016807	227	0.6555578
3644	GO:0005102	receptor binding	0.85	1	0.14005603	91	0.2628007
9294	GO:0016052 GO:00060	carbohydrate catabolic	0.85	1	0.14005603	91	0.2628007
5764	GO:0008234 GO:00042	cysteine-type peptidase	0.85	2	0.28011206	163	0.47073093
16785	GO:0034404	nucleobase_nucleoside	0.85	1	0.14005603	92	0.26568863
17033	GO:0034654	nucleobase_nucleoside	0.85	1	0.14005603	92	0.26568863
4916	GO:0006818	hydrogen transport	0.85	4	0.5602241	292	0.84327257
9246	GO:0015992	proton transport	0.85	4	0.5602241	292	0.84327257
20336	GO:0044085	cellular component biog	0.86	1	0.14005603	93	0.26857653
20623	GO:0044429	mitochondrial part	0.86	2	0.28011206	165	0.47650677
6863	GO:0009579	thylakoid	0.86	1	0.14005603	94	0.27146447
18633	GO:0042277	peptide binding	0.86	1	0.14005603	95	0.27435237
25095	GO:0050790	regulation of catalytic ac	0.87	7	0.98039216	480	1.3862015
5756	GO:0008219	cell death	0.87	3	0.42016807	239	0.69021285
8209	GO:0012501 GO:00162	programmed cell death	0.87	3	0.42016807	239	0.69021285
9462	GO:0016265	death	0.87	3	0.42016807	239	0.69021285
28366	GO:0065009	regulation of molecular	0.87	7	0.98039216	484	1.3977532
7271	GO:0010033	response to organic sub	0.88	1	0.14005603	100	0.28879198
4067	GO:0005783	endoplasmic reticulum	0.88	2	0.28011206	174	0.50249803
2674	GO:0003824	catalytic activity	0.88	208	29.131653	10750	31.045137
8211	GO:0012505	endomembrane system	0.88	3	0.42016807	242	0.6988766
11311	GO:0019318	hexose metabolic proces	0.88	1	0.14005603	101	0.2916799
5874	GO:0008374	O-acyltransferase activi	0.88	1	0.14005603	102	0.29456782
20498	GO:0044248	cellular catabolic proces	0.88	14	1.9607843	894	2.5818002
3306	GO:0004674 GO:00046	protein serine/threonine	0.89	17	2.3809524	1062	3.0669708
12608	GO:0030001	metal ion transport	0.89	5	0.70028013	374	1.080082
3200	GO:0004553 GO:00168	hydrolase activity, hydr	0.89	4	0.5602241	312	0.90103096
19253	GO:0042936	dipeptide transporter ac	0.89	1	0.14005603	105	0.3032316
19255	GO:0042938	dipeptide transport	0.89	1	0.14005603	105	0.3032316
3195	GO:0004540	ribonuclease activity	0.89	1	0.14005603	106	0.3061195
4910	GO:0006811	ion transport	0.89	15	2.1008403	959	2.769515
3942	GO:0005618	cell wall	0.89	1	0.14005603	107	0.30900744
20505	GO:0044255	cellular lipid metabolic p	0.90	2	0.28011206	184	0.53137726
12868	GO:0030312	external encapsulating s	0.90	1	0.14005603	111	0.3205591
4512	GO:0006325	chromatin organization	0.90	1	0.14005603	112	0.32344702
25568	GO:0051276 GO:00070	chromosome organizati	0.90	1	0.14005603	112	0.32344702
4850	GO:0006732 GO:00067	coenzyme metabolic pro	0.91	1	0.14005603	113	0.32633495
3449	GO:0004842 GO:00048	ubiquitin-protein ligase	0.91	4	0.5602241	326	0.94146186
14379	GO:0031966	mitochondrial membran	0.91	1	0.14005603	114	0.32922286
22478	GO:0046982	protein heterodimerizati	0.91	1	0.14005603	114	0.32922286
9535	GO:0016407	acetyltransferase activit	0.91	1	0.14005603	115	0.3321108
22479	GO:0046983	protein dimerization acti	0.91	7	0.98039216	517	1.4930545
9654	GO:0016567	protein ubiquitination	0.91	4	0.5602241	332	0.9587894
12572	GO:0022890 GO:00150	inorganic cation transp	0.91	4	0.5602241	332	0.9587894
14854	GO:0032446	protein modification by s	0.91	4	0.5602241	332	0.9587894
29011	GO:0070647	protein modification by s	0.91	4	0.5602241	332	0.9587894
3955	GO:0005634	nucleus	0.91	23	3.2212884	1433	4.138389
4144	GO:0005886 GO:00059	plasma membrane	0.92	1	0.14005603	120	0.34655038
6425	GO:0009056	catabolic process	0.92	16	2.2408965	1051	3.0352037
11747	GO:0019787 GO:00086	small conjugating protei	0.92	4	0.5602241	339	0.9790048
14380	GO:0031967	organelle envelope	0.92	2	0.28011206	201	0.5804719
30066	GO:0071702	organic substance trans	0.92	7	0.98039216	529	1.5277096
4755	GO:0006629	lipid metabolic process	0.92	8	1.1204482	590	1.7038727
30069	GO:0071705	nitrogen compound tran	0.92	2	0.28011206	202	0.5833598
14387	GO:0031975	envelope	0.93	2	0.28011206	205	0.59202355
4236	GO:0005996	monosaccharide metab	0.93	1	0.14005603	125	0.36099
4649	GO:0006520 GO:00065	cellular amino acid meta	0.93	3	0.42016807	277	0.7999538
634	GO:0000988	protein binding transcrip	0.93	1	0.14005603	126	0.3638779
635	GO:0000989	transcription factor bind	0.93	1	0.14005603	126	0.3638779
2648	GO:0003712	transcription cofactor ac	0.93	1	0.14005603	126	0.3638779
28378	GO:0070011	peptidase activity, actin	0.93	7	0.98039216	537	1.550813
5840	GO:0008324	cation transmembrane t	0.93	7	0.98039216	538	1.5537009
9583	GO:0016469	proton-transporting two	0.93	1	0.14005603	127	0.36676583
21058	GO:0045454 GO:00305	cell redox homeostasis	0.93	2	0.28011206	211	0.6093511
4394	GO:0006184	GTP catabolic process	0.94	1	0.14005603	132	0.3812054
21605	GO:0046039	GTP metabolic process	0.94	1	0.14005603	132	0.3812054
2758	GO:0003924	GTPase activity	0.94	1	0.14005603	132	0.3812054
9837	GO:0016788	hydrolase activity, actin	0.94	24	3.3613446	1534	4.430069
4028	GO:0005739	mitochondrion	0.94	2	0.28011206	219	0.63245445
13547	GO:0031090	organelle membrane	0.95	2	0.28011206	224	0.64689404
6046	GO:0008610	lipid biosynthetic proces	0.95	1	0.14005603	141	0.4071967
5763	GO:0008233	peptidase activity	0.95	7	0.98039216	565	1.6316746
4304	GO:0006066	alcohol metabolic proces	0.95	1	0.14005603	143	0.41297254
20356	GO:0044106	cellular amine metabol	0.95	3	0.42016807	303	0.8750397
9488	GO:0016301	kinase activity	0.95	27	3.7815125	1740	5.0249805
9829	GO:0016779	nucleotidyltransferase a	0.95	1	0.14005603	148	0.42741212
11695	GO:0019725	cellular homeostasis	0.96	2	0.28011206	234	0.67577326
12573	GO:0022891	substrate-specific trans	0.96	18	2.5210085	1241	3.5839086
18925	GO:0042592	homeostatic process	0.96	2	0.28011206	238	0.68732494
6662	GO:0009308	amine metabolic proces	0.96	3	0.42016807	314	0.9068068
25998	GO:0051716	cellular response to stim	0.96	16	2.2408965	1138	3.2864528
9913	GO:0016881	acid-amino acid ligase a	0.96	4	0.5602241	391	1.1291766
2975	GO:0004175 GO:00168	endopeptidase activity	0.96	3	0.42016807	320	0.9241344
3716	GO:0005198	structural molecule activ	0.96	4	0.5602241	393	1.1349525
2660	GO:0003735 GO:00037	structural constituent of	0.96	2	0.28011206	246	0.7104283
9906	GO:0016874	ligase activity	0.96	7	0.98039216	597	1.7240882
4911	GO:0006812 GO:00068	cation transport	0.96	8	1.1204482	662	1.9118029
5661	GO:0008092	cytoskeletal protein bind	0.97	2	0.28011206	249	0.719092
3723	GO:0005215 GO:00054	transporter activity	0.97	28	3.9215686	1844	5.325324



3304	GO:004672 GO:00502	protein kinase activity	0.97	19	2.6610644	1333	3.8495972
5055	GO:006996	organelle organization	0.97	1	0.14005603	164	0.47361887
25483	GO:0051186	cofactor metabolic proc	0.97	1	0.14005603	164	0.47361887
5909	GO:0008415	acyltransferase activity	0.97	3	0.42016807	330	0.95301354
5018	GO:0006950	response to stress	0.97	7	0.98039216	611	1.764519
6077	GO:0008652	cellular amino acid bios	0.97	1	0.14005603	169	0.48805845
19526	GO:0043227	membrane-bounded org	0.97	33	4.6218486	2142	6.185924
19530	GO:0043231	intracellular membrane-	0.97	33	4.6218486	2142	6.185924
30306	GO:0071944	cell periphery	0.97	2	0.28011206	259	0.74797124
9285	GO:0016043	cellular component orga	0.97	2	0.28011206	261	0.7537471
13656	GO:0031224	intrinsic to membrane	0.98	16	2.2408965	1193	3.4452884
6663	GO:0009309	amine biosynthetic proc	0.98	1	0.14005603	181	0.5227135
9824	GO:0016773	phosphotransferase act	0.98	21	2.9411764	1493	4.311664
5610	GO:0008026	ATP-dependent helicase	0.98	1	0.14005603	183	0.52848935
28401	GO:0070035	purine NTP-dependent	0.98	1	0.14005603	183	0.52848935
9836	GO:0016787	hydrolase activity	0.98	61	8.543417	3723	10.751725
2657	GO:0003727 GO:00037	single-stranded RNA bin	0.98	1	0.14005603	188	0.54292893
30204	GO:0071840	cellular component orga	0.98	3	0.42016807	362	1.045427
3068	GO:0004386	helicase activity	0.98	1	0.14005603	189	0.54581684
30205	GO:0071841	cellular component orga	0.98	2	0.28011206	285	0.8230572
30206	GO:0071842	cellular component orga	0.98	1	0.14005603	193	0.5573685
9267	GO:0016021	integral to membrane	0.98	14	1.9607843	1103	3.1853757
10244	GO:0018130	heterocycle biosynthetic	0.98	1	0.14005603	199	0.57469606
9911	GO:0016879	ligase activity, forming d	0.99	4	0.5602241	456	1.3168914
9889	GO:0016853	isomerase activity	0.99	2	0.28011206	306	0.8837035
9295	GO:0016053	organic acid biosynthetic	0.99	1	0.14005603	211	0.6093511
21922	GO:0046394	carboxylic acid biosynth	0.99	1	0.14005603	211	0.6093511
4612	GO:0006468	protein phosphorylation	0.99	32	4.481793	2205	6.367863
15436	GO:0033036	macromolecule localiza	0.99	3	0.42016807	397	1.1465042
9493	GO:0016310	phosphorylation	0.99	37	5.1820726	2504	7.2313514
9823	GO:0016772	transferase activity, tran	0.99	27	3.7815125	1932	5.579461
28365	GO:0065008	regulation of biological p	0.99	2	0.28011206	316	0.9125827
2627	GO:0003676	nucleic acid binding	0.99	36	5.042017	2453	7.0840673
12574	GO:0022892	substrate-specific transp	0.99	19	2.6610644	1463	4.2250266
5019	GO:0006952 GO:00022	defense response	0.99	1	0.14005603	221	0.63823026
20640	GO:0044446	intracellular organelle pa	0.99	7	0.98039216	710	2.0504231
20616	GO:0044422	organelle part	0.99	7	0.98039216	712	2.0561988
13531	GO:0031072	heat shock protein bindi	0.99	1	0.14005603	230	0.6642216
4909	GO:0006810 GO:00154	transport	0.99	33	4.6218486	2315	6.6855345
25529	GO:0051234	establishment of localiza	0.99	33	4.6218486	2315	6.6855345
25476	GO:0051179	localization	0.99	33	4.6218486	2319	6.697086
20533	GO:0044283	small molecule biosynth	0.99	2	0.28011206	347	1.0021082
20512	GO:0044262 GO:00060	cellular carbohydrate m	0.99	1	0.14005603	248	0.7162041
20521	GO:0044271	cellular nitrogen compo	1.00	2	0.28011206	367	1.0598665
19533	GO:0043234	protein complex	1.00	8	1.1204482	848	2.448956
20619	GO:0044425	membrane part	1.00	18	2.5210085	1523	4.398302
11522	GO:0019538 GO:00064	protein metabolic proces	1.00	62	8.683474	4134	11.938661
4109	GO:0005840 GO:00332	ribosome	1.00	5	0.70028013	682	1.9695613
19527	GO:0043228	non-membrane-bounde	1.00	8	1.1204482	923	2.66555
19531	GO:0043232	intracellular non-membr	1.00	8	1.1204482	923	2.66555
19525	GO:0043226	organelle	1.00	41	5.7422967	3013	8.701303
19528	GO:0043229	intracellular organelle	1.00	41	5.7422967	3013	8.701303
18912	GO:0042578	phosphoric ester hydroly	1.00	2	0.28011206	444	1.2822365
13041	GO:0030554	adenyl nucleotide bindin	1.00	3	0.42016807	550	1.5883559
14965	GO:0032559	adenyl ribonucleotide bi	1.00	3	0.42016807	550	1.5883559
4609	GO:0006464	protein modification pro	1.00	36	5.042017	2781	8.031305
13018	GO:0030529	ribonucleoprotein comp	1.00	5	0.70028013	741	2.1399486
4897	GO:0006793	phosphorus metabolic p	1.00	38	5.322129	2925	8.4471655
4900	GO:0006796	phosphate metabolic pr	1.00	38	5.322129	2925	8.4471655
9839	GO:0016791 GO:00163	phosphatase activity	1.00	1	0.14005603	383	1.1060733
3884	GO:0005524	ATP binding	1.00	2	0.28011206	524	1.51327
19684	GO:0043412	macromolecule modifca	1.00	36	5.042017	2900	8.374968
9494	GO:0016311	dephosphorylation	1.00	1	0.14005603	425	1.227366
3177	GO:0004518	nuclease activity	1.00	1	0.14005603	427	1.2331418
3863	GO:0005488	binding	1.00	240	33.613445	13903	40.15075
20618	GO:0044424	intracellular part	1.00	50	7.002801	3853	11.127155
20638	GO:0044444	cytoplasmic part	1.00	15	2.1008403	1644	4.7477403
131	GO:0000166	nucleotide binding	1.00	9	1.2605042	1213	3.5030468
9266	GO:0016020	membrane	1.00	46	6.442577	3741	10.803708
15392	GO:0032991	macromolecular comple	1.00	13	1.8207283	1616	4.666878
3945	GO:0005622	intracellular	1.00	62	8.683474	4751	13.720507
4027	GO:0005737	cytoplasm	1.00	18	2.5210085	2001	5.7787275
14959	GO:0032553	ribonucleotide binding	1.00	3	0.42016807	795	2.2958963
14961	GO:0032555	purine ribonucleotide bi	1.00	3	0.42016807	795	2.2958963
10033	GO:0017076	purine nucleotide bindi	1.00	3	0.42016807	797	2.3016722
20517	GO:0044267	cellular protein metaboli	1.00	36	5.042017	3225	9.313541
18000	GO:0035639	purine ribonucleoside tr	1.00	2	0.28011206	769	2.2208104
2626	GO:0003674 GO:00055	molecular function	1.00	446	62.464985	24394	70.447914
3903	GO:0005575 GO:00083	cellular_component	1.00	119	16.666666	8515	24.590637
2653	GO:0003723	RNA binding	1.00	1	0.14005603	797	2.3016722
3876	GO:0005515 GO:00453	protein binding	1.00	87	12.184874	6933	20.021948
3946	GO:0005623	cell	1.00	108	15.12605	8227	23.758917
20657	GO:0044464	cell part	1.00	108	15.12605	8227	23.758917