

Table S6. Differentially regulated genes (up and down regulated) in the control compared with THyPRP silenced plants in FAZ at 16 h along with their expression values, fold changes, annotations, GO ids and terms.

Worksheet 2 & 3

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.

Set5					
Line	Array	Details	Time	Treated vs. Con	Set
Control – New Yorker	254331010027_1_1	16h_9_AZ	16h	Control	Set 5
Control – New Yorker	254331010027_1_2	16h_10_AZ	16h		
TAPG + TPRP	254331010036_1_1	16h_45_AZ	16h	Treated	
TAPG + TPRP	254331010036_1_2	16h_46_AZ	16h		

**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

**Differentially Regulated Probes**

Sample	Up	Down
16h_TPRP_AZ vs. 16h_Control_AZ_Sense	2408	2491
16h_TPRP_AZ vs. 16h_Control_AZ_Antisense	1483	895

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.

























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











CF	Series	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	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									
CF	Series	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200







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































CF	Series	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	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
CF	Series	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	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







GO ID	GO ACCESSION	GO Term	p-value	Count in Selection	% Count in Selection	Count in Total	% Count in Total
6888	GO:0009611 GO:0022	response to wounding	0.00	14	1.4752371	66	0.1906027
9600	GO:0016491	oxidoreductase activity	0.00	81	8.5353	1724	4.9787736
3472	GO:0004866	endopeptidase inhibitor	0.00	13	1.369863	95	0.27435237
28101	GO:0061135	endopeptidase regulator	0.00	13	1.369863	95	0.27435237
8159	GO:0010951	negative regulation of e	0.00	13	1.369863	95	0.27435237
26712	GO:0052548	regulation of endopepti	0.00	13	1.369863	95	0.27435237
7690	GO:0010466	negative regulation of p	0.00	13	1.369863	110	0.31767118
12946	GO:0030414	peptidase inhibitor activ	0.00	13	1.369863	110	0.31767118
25636	GO:0051346	negative regulation of h	0.00	13	1.369863	110	0.31767118
28100	GO:0061134	peptidase regulator act	0.00	13	1.369863	112	0.32344702
26711	GO:0052547	regulation of peptidase	0.00	13	1.369863	112	0.32344702
3473	GO:0004867	serine-type endopeptid	0.00	9	0.9483667	66	0.1906027
3464	GO:0004857	enzyme inhibitor activit	0.00	14	1.4752371	157	0.4534034
22409	GO:0046906	tetrapyrrole binding	0.00	33	3.4773445	596	1.7212002
19255	GO:0042938	dipeptide transport	0.00	11	1.1591148	105	0.3032316
19253	GO:0042936	dipeptide transporter ac	0.00	11	1.1591148	105	0.3032316
26959	GO:0055114	oxidation-reduction pro	0.00	98	10.326659	2490	7.1909204
4641	GO:0006508	proteolysis	0.00	46	4.8472075	965	2.7868426
9396	GO:0016168	chlorophyll binding	0.00	7	0.73761857	46	0.13284431
2896	GO:0004090	carbonyl reductase (NA	0.00	4	0.4214963	13	0.037542958
19393	GO:0043086	negative regulation of c	0.00	14	1.4752371	188	0.54292893
20342	GO:0044092	negative regulation of n	0.00	14	1.4752371	188	0.54292893
9813	GO:0016759	cellulose synthase activ	0.00	7	0.73761857	57	0.16461143
9768	GO:0016706	oxidoreductase activity	0.00	13	1.369863	175	0.505386
8607	GO:0015197 GO:0015	peptide transporter acti	0.00	11	1.1591148	139	0.40142086
8608	GO:0015198	oligopeptide transport	0.00	11	1.1591148	139	0.40142086
4944	GO:0006857	oligopeptide transport	0.00	11	1.1591148	141	0.4071967
9099	GO:0015833	peptide transport	0.00	11	1.1591148	141	0.4071967
9784	GO:0016723	oxidoreductase activity	0.00	4	0.4214963	20	0.0577584
225	GO:0000293	ferric-chelate reductase	0.00	4	0.4214963	20	0.0577584
9266	GO:0016020	membrane	0.00	131	13.804005	3741	10.803708
28364	GO:0065007	biological regulation	0.00	150	15.806111	4376	12.637537
15570	GO:0033170	protein-DNA loading AT	0.00	2	0.21074815	3	0.00866376
2635	GO:0003689	DNA clamp loader activ	0.00	2	0.21074815	3	0.00866376
8489	GO:0015066	alpha-amylase inhibitor	0.00	4	0.4214963	22	0.06353424
3307	GO:0004675	transmembrane recept	0.00	20	2.1074815	367	1.0598665
25626	GO:0051336	regulation of hydrolase	0.00	13	1.369863	196	0.5660323
9808	GO:0016754	sinapoylglucose-malate	0.00	4	0.4214963	23	0.06642216
9807	GO:0016753	O-sinapoyltransferase a	0.00	4	0.4214963	23	0.06642216
9806	GO:0016752	sinapoyltransferase act	0.00	4	0.4214963	23	0.06642216
5702	GO:0008146	sulfotransferase activity	0.00	6	0.63224447	54	0.15594767
6826	GO:0009538	photosystem I reaction	0.00	3	0.31612223	12	0.03465504
25094	GO:0050789 GO:0050	regulation of biological	0.00	146	15.384615	4315	12.461374
5729	GO:0008191	metalloendopeptidase i	0.00	2	0.21074815	4	0.011551679
23942	GO:0048551	metalloenzyme inhibitor	0.00	2	0.21074815	4	0.011551679
7792	GO:0010576	metalloenzyme regulator	0.00	2	0.21074815	4	0.011551679
9718	GO:0016636	oxidoreductase activity	0.00	2	0.21074815	4	0.011551679
11931	GO:0020037	heme binding	0.01	26	2.739726	550	1.5883559
6809	GO:0009521 GO:0030	photosystem	0.01	4	0.4214963	28	0.080861755
6940	GO:0009672	auxin:hydrogen sympor	0.01	4	0.4214963	28	0.080861755
18502	GO:0042132	fructose 1,6-bisphosph	0.01	2	0.21074815	5	0.0144396
6810	GO:0009522	photosystem I	0.01	3	0.31612223	15	0.043318797
2868	GO:0004062	aryl sulfotransferase ac	0.01	3	0.31612223	15	0.043318797
3872	GO:0005506	iron ion binding	0.01	26	2.739726	563	1.6258988
31431	GO:0080054	low affinity nitrate trans	0.01	5	0.52687037	45	0.1299564
22049	GO:0046527	glucosyltransferase act	0.01	15	1.5806112	270	0.77973837
3065	GO:0004382	guanosine-diphosphata	0.01	2	0.21074815	6	0.01732752
21331	GO:0045735	nutrient reservoir activit	0.01	7	0.73761857	89	0.25702485
11776	GO:0019825	oxygen binding	0.01	19	2.0021074	389	1.1234008
9783	GO:0016722	oxidoreductase activity	0.01	5	0.52687037	50	0.14439599
20630	GO:0044436	thylakoid part	0.01	7	0.73761857	90	0.2599128
5792	GO:0008271	secondary active sulfat	0.01	3	0.31612223	18	0.051982556
8736	GO:0015381	high affinity sulfate tran	0.01	3	0.31612223	18	0.051982556
25098	GO:0050794 GO:0051	regulation of cellular pro	0.01	132	13.909378	3987	11.514136
9933	GO:0016903	oxidoreductase activity	0.01	8	0.8429926	113	0.32633495
6863	GO:0009579	thylakoid	0.01	7	0.73761857	94	0.27146447
9832	GO:0016782	transferase activity, tran	0.02	6	0.63224447	74	0.21370606
6201	GO:0008794	arsenate reductase (glu	0.02	3	0.31612223	20	0.0577584
13086	GO:0030611	arsenate reductase act	0.02	3	0.31612223	20	0.0577584
13088	GO:0030613	oxidoreductase activity	0.02	3	0.31612223	20	0.0577584
13089	GO:0030614	oxidoreductase activity	0.02	3	0.31612223	20	0.0577584
10057	GO:0017110	nucleoside-diphosphata	0.02	2	0.21074815	8	0.023103358
11202	GO:0019199	transmembrane recept	0.02	22	2.3182297	504	1.4555116
8967	GO:0015698	inorganic anion transpo	0.02	10	1.0537407	176	0.5082739
9769	GO:0016707	gibberellin 3-beta-dioxy	0.02	2	0.21074815	9	0.025991278
24627	GO:0050308	sugar-phosphatase act	0.02	2	0.21074815	9	0.025991278
8526	GO:0015112	nitrate transmembrane	0.03	5	0.52687037	61	0.1761631
8975	GO:0015706 GO:0006	nitrate transport	0.03	5	0.52687037	61	0.1761631
8517	GO:0015103	inorganic anion transme	0.03	9	0.9483667	154	0.44473964
16738	GO:0034357	photosynthetic membra	0.03	6	0.63224447	83	0.23969735
28365	GO:0065008	regulation of biological	0.03	15	1.5806112	316	0.9125827
8651	GO:0015248	sterol transporter activit	0.03	2	0.21074815	10	0.0288792
9178	GO:0015918	sterol transport	0.03	2	0.21074815	10	0.0288792
10072	GO:0017127	cholesterol transporter	0.03	2	0.21074815	10	0.0288792
12859	GO:0030301	cholesterol transport	0.03	2	0.21074815	10	0.0288792
26022	GO:0051740	ethylene binding	0.03	2	0.21074815	10	0.0288792
30687	GO:0072328	alkene binding	0.03	2	0.21074815	10	0.0288792
21145	GO:0045543	gibberellin 2-beta-dioxy	0.03	3	0.31612223	25	0.072197996
21058	GO:0045454 GO:0030	cell redox homeostasis	0.03	11	1.1591148	211	0.6093511
5704	GO:0008150 GO:0000	biological process	0.03	636	67.017914	22215	64.155136
8673	GO:0015291 GO:0015	secondary active transp	0.03	18	1.8967334	407	1.1753833
8530	GO:0015116	sulfate transmembrane	0.03	3	0.31612223	26	0.075085916
9765	GO:0016702	oxidoreductase activity	0.03	5	0.52687037	66	0.1906027
12574	GO:0022892	substrate-specific trans	0.03	52	5.479452	1463	4.2250266
4329	GO:0006096 GO:0019	glycolysis	0.04	4	0.4214963	46	0.13284431
5981	GO:0008509	anion transmembrane t	0.04	12	1.2644889	245	0.70754033
9767	GO:0016705	oxidoreductase activity	0.04	15	1.5806112	329	0.95012563



22415	GO:0046914	transition metal ion bind	0.04	86	9.062171	2599	7.5057034
5793	GO:0008272(GO:0006820)	sulfate transport	0.04	3	0.31612223	28	0.080861755
4917	GO:0006820(GO:0006820)	anion transport	0.04	12	1.2644889	247	0.7133162
3386	GO:0004773	steryl-sulfatase activity	0.04	2	0.21074815	12	0.03465504
3397	GO:0004784(GO:0004784)	superoxide dismutase a	0.04	2	0.21074815	12	0.03465504
5965	GO:0008484	sulfuric ester hydrolase	0.04	2	0.21074815	12	0.03465504
9704	GO:0016621	cinnamoyl-CoA reducta	0.04	2	0.21074815	12	0.03465504
9782	GO:0016721	oxidoreductase activity	0.04	2	0.21074815	12	0.03465504
3490	GO:0004888(GO:0004888)	transmembrane recept	0.04	23	2.4236038	571	1.6490022
7074	GO:0009815	1-aminocyclopropane-1	0.04	4	0.4214963	49	0.14150807
2986	GO:0004252	serine-type endopeptid	0.05	8	0.8429926	144	0.41586044
9764	GO:0016701	oxidoreductase activity	0.05	5	0.52687037	72	0.20793022
7166	GO:0009914	hormone transport	0.05	4	0.4214963	50	0.14439599
27891	GO:0060918	auxin transport	0.05	4	0.4214963	50	0.14439599
31536	GO:0080161	auxin transmembrane t	0.05	4	0.4214963	50	0.14439599
2870	GO:0004064	arylesterase activity	0.05	3	0.31612223	30	0.086637594
3013	GO:0004328(GO:0034328)	formamidase activity	0.05	1	0.105374075	2	0.00577584
3152	GO:0004493	methylmalonyl-CoA epi	0.05	1	0.105374075	2	0.00577584
3604	GO:0005031(GO:0005031)	tumor necrosis factor re	0.05	1	0.105374075	2	0.00577584
3606	GO:0005035	death receptor activity	0.05	1	0.105374075	2	0.00577584
5907	GO:0008413	8-oxo-7,8-dihydroquano	0.05	1	0.105374075	2	0.00577584
6790	GO:0009496	plastoquinol-plastocyan	0.05	1	0.105374075	2	0.00577584
6828	GO:0009540	zeaxanthin epoxidase l	0.05	1	0.105374075	2	0.00577584
8612	GO:0015204(GO:0015204)	urea transmembrane tr	0.05	1	0.105374075	2	0.00577584
9106	GO:0015840	urea transport	0.05	1	0.105374075	2	0.00577584
11186	GO:0019177	dihydroneopterin tripho	0.05	1	0.105374075	2	0.00577584
11223	GO:0019221	cytokine-mediated sign	0.05	1	0.105374075	2	0.00577584
11870	GO:0019955(GO:0019955)	cytokine binding	0.05	1	0.105374075	2	0.00577584
14849	GO:0032441	pheophorbide a oxygen	0.05	1	0.105374075	2	0.00577584
15608	GO:0033209	tumor necrosis factor-r	0.05	1	0.105374075	2	0.00577584
16481	GO:0034097	response to cytokine st	0.05	1	0.105374075	2	0.00577584
16991	GO:0034612	response to tumor necr	0.05	1	0.105374075	2	0.00577584
18651	GO:0042300	beta-amylin synthase a	0.05	1	0.105374075	2	0.00577584
19204	GO:0042887	amide transmembrane b	0.05	1	0.105374075	2	0.00577584
19424	GO:0043120	tumor necrosis factor b	0.05	1	0.105374075	2	0.00577584
21947	GO:0046422	violaxanthin de-epoxida	0.05	1	0.105374075	2	0.00577584
22490	GO:0046995	oxidoreductase activity	0.05	1	0.105374075	2	0.00577584
24561	GO:0050242	pyruvate, phosphate dif	0.05	1	0.105374075	2	0.00577584
24767	GO:0050454	coenzyme F420 hydroc	0.05	1	0.105374075	2	0.00577584
24925	GO:0050619	phytochromobilin:ferred	0.05	1	0.105374075	2	0.00577584
24931	GO:0050625(GO:0018252)	2-hydroxy-1,4-benzozqu	0.05	1	0.105374075	2	0.00577584
26025	GO:0051743	red chlorophyll cataboli	0.05	1	0.105374075	2	0.00577584
29709	GO:0071345	cellular response to cyt	0.05	1	0.105374075	2	0.00577584
29720	GO:0071356	cellular response to tum	0.05	1	0.105374075	2	0.00577584
30280	GO:0071918	urea transmembrane tr	0.05	1	0.105374075	2	0.00577584
2748	GO:0003913	DNA photolyase activity	0.05	1	0.105374075	2	0.00577584
11224	GO:0019222	regulation of metabolic	0.05	100	10.537408	3115	8.995871
7413	GO:0010181	FMN binding	0.05	2	0.21074815	14	0.040430877
25510	GO:0051213	dioxygenase activity	0.06	5	0.52687037	75	0.21659398
9750	GO:0016679	oxidoreductase activity	0.06	4	0.4214963	53	0.15305975
11695	GO:0019725	cellular homeostasis	0.06	11	1.1591148	234	0.67577326
25195	GO:0050896(GO:0051896)	response to stimulus	0.06	63	6.638567	1881	5.432177
4530	GO:0006355(GO:0032422)	regulation of transcripti	0.06	84	8.851422	2591	7.4826
12650	GO:0030060	L-malate dehydrogenas	0.06	2	0.21074815	15	0.043318797
25544	GO:0051252	regulation of RNA meta	0.06	84	8.851422	2593	7.488376
18925	GO:0042592	homeostatic process	0.06	11	1.1591148	238	0.68732494
7692	GO:0010468	regulation of gene expr	0.07	85	8.956797	2635	7.6096687
12516	GO:0022804	active transmembrane	0.07	29	3.0558484	787	2.2727928
7141	GO:0009889	regulation of biosynthe	0.07	84	8.851422	2605	7.523031
7772	GO:0010556	regulation of macromol	0.07	84	8.851422	2605	7.523031
13756	GO:0031326	regulation of cellular bid	0.07	84	8.851422	2605	7.523031
32213	GO:2000112	regulation of cellular ma	0.07	84	8.851422	2605	7.523031
3742	GO:0005242	inward rectifier potassi	0.07	2	0.21074815	16	0.046206716
3829	GO:0005381(GO:0005381)	iron ion transmembrane	0.07	2	0.21074815	16	0.046206716
7178	GO:0009927	histidine phosphotransf	0.07	2	0.21074815	16	0.046206716
17134	GO:0034755	iron ion transmembrane	0.07	2	0.21074815	16	0.046206716
11206	GO:0019203	carbohydrate phosphat	0.07	3	0.31612223	35	0.10107719
22375	GO:0046872	metal ion binding	0.07	95	10.010537	2985	8.6204405
5766	GO:0008236	serine-type peptidase a	0.07	10	1.0537407	214	0.6180149
8028	GO:0010817	regulation of hormone li	0.07	4	0.4214963	58	0.16749935
8494	GO:0015075	ion transmembrane tra	0.07	30	3.1612225	827	2.3883097
9393	GO:0016165	lipoxygenase activity	0.08	3	0.31612223	36	0.10396511
19470	GO:0043167	ion binding	0.08	95	10.010537	2997	8.655096
19472	GO:0043169	cation binding	0.08	95	10.010537	2997	8.655096
4910	GO:0006811	ion transport	0.08	34	3.5827186	959	2.769515
27228	GO:0060255	regulation of macromol	0.08	85	8.956797	2660	7.6818666
5018	GO:0006950	response to stress	0.08	23	2.4236038	611	1.764519
3405	GO:0004794	L-threonine ammonia-ly	0.08	1	0.105374075	3	0.00866376
16603	GO:0034220	ion transmembrane tra	0.08	30	3.1612225	833	2.4056373
4327	GO:0006091	generation of precursor	0.08	5	0.52687037	84	0.24258527
10103	GO:0017171	serine hydrolase activi	0.08	10	1.0537407	220	0.6354236
2981	GO:0004190	aspartic-type endopept	0.09	2	0.21074815	18	0.051982556
6450	GO:0009081	branched chain family a	0.09	2	0.21074815	18	0.051982556
10899	GO:0018858	benzoate-CoA ligase a	0.09	2	0.21074815	18	0.051982556
22917	GO:0047429	nucleoside-triphosphate	0.09	2	0.21074815	18	0.051982556
28368	GO:0070001	aspartic-type peptidase	0.09	2	0.21074815	18	0.051982556
9267	GO:0016021	integral to membrane	0.09	38	4.004215	1103	3.1853757
9812	GO:0016758	transferase activity, tran	0.10	19	2.0021074	501	1.4468478
3475	GO:0004871(GO:0005035)	signal transducer activi	0.10	28	2.9504743	787	2.2727928
27063	GO:0060089	molecular transducer a	0.10	28	2.9504743	787	2.2727928
4921	GO:0006826(GO:0015204)	iron ion transport	0.10	2	0.21074815	20	0.0577584
9706	GO:0016623	oxidoreductase activity	0.10	2	0.21074815	20	0.0577584
9707	GO:0016624	oxidoreductase activity	0.10	2	0.21074815	20	0.0577584
24482	GO:0050162	oxalate oxidase activity	0.10	2	0.21074815	20	0.0577584
2900	GO:0004096(GO:0016922)	catalase activity	0.11	1	0.105374075	4	0.011551679
2953	GO:0004151	dihydroorotate activity	0.11	1	0.105374075	4	0.011551679
3033	GO:0004349	glutamate 5-kinase acti	0.11	1	0.105374075	4	0.011551679
3057	GO:0004373	glycogen (starch) synth	0.11	1	0.105374075	4	0.011551679
3101	GO:0004435	phosphatidylinositol ph	0.11	1	0.105374075	4	0.011551679
4039	GO:0005751(GO:0005751)	mitochondrial respirato	0.11	1	0.105374075	4	0.011551679
5942	GO:0008456	alpha-N-acetylgalactos	0.11	1	0.105374075	4	0.011551679



6350	GO:0008965	phosphoenolpyruvate-d	0.11	1	0.105374075	4	0.011551679
7170	GO:0009918	sterol delta7 reductase	0.11	1	0.105374075	4	0.011551679
7406	GO:0010174	nucleoside transmembr	0.11	1	0.105374075	4	0.011551679
7534	GO:0010309	acireductone dioxigena	0.11	1	0.105374075	4	0.011551679
8459	GO:0015018	galactosylgalactosylkil	0.11	1	0.105374075	4	0.011551679
8594	GO:0015184	L-cystine transmembra	0.11	1	0.105374075	4	0.011551679
8885	GO:0015603	iron chelate transmemb	0.11	1	0.105374075	4	0.011551679
8902	GO:0015623(GO:0015	iron-chelate-transportin	0.11	1	0.105374075	4	0.011551679
8957	GO:0015688	iron chelate transport	0.11	1	0.105374075	4	0.011551679
9080	GO:0015811	L-cystine transport	0.11	1	0.105374075	4	0.011551679
9351	GO:0016119	carotene metabolic pro	0.11	1	0.105374075	4	0.011551679
9352	GO:0016120	carotene biosynthetic p	0.11	1	0.105374075	4	0.011551679
9760	GO:0016695	oxidoreductase activity	0.11	1	0.105374075	4	0.011551679
9790	GO:0016730	oxidoreductase activity	0.11	1	0.105374075	4	0.011551679
9810	GO:0016756(GO:0042	glutathione gamma-glu	0.11	1	0.105374075	4	0.011551679
9819	GO:0016767	geranylgeranyl-diphosp	0.11	1	0.105374075	4	0.011551679
10039	GO:0017084	delta1-pyrroline-5-carbo	0.11	1	0.105374075	4	0.011551679
11549	GO:0019566	arabinose metabolic pr	0.11	1	0.105374075	4	0.011551679
16639	GO:0034256	chlorophyll(ide) b reduc	0.11	1	0.105374075	4	0.011551679
18575	GO:0042214	terpene metabolic proc	0.11	1	0.105374075	4	0.011551679
20901	GO:0045277(GO:0045	respiratory chain compl	0.11	1	0.105374075	4	0.011551679
21791	GO:0046246	terpene biosynthetic pr	0.11	1	0.105374075	4	0.011551679
21902	GO:0046373	L-arabinose metabolic p	0.11	1	0.105374075	4	0.011551679
22408	GO:0046905	phytoene synthase acti	0.11	1	0.105374075	4	0.011551679
23084	GO:0047598	7-dehydrocholesterol re	0.11	1	0.105374075	4	0.011551679
24646	GO:0050327	testosterone 17-beta-d	0.11	1	0.105374075	4	0.011551679
31507	GO:0080132	fatty acid alpha-hydroxy	0.11	1	0.105374075	4	0.011551679
75	GO:0000099	sulfur amino acid trans	0.11	1	0.105374075	4	0.011551679
77	GO:0000101	sulfur amino acid trans	0.11	1	0.105374075	4	0.011551679
11221	GO:0019219	regulation of nucleobas	0.11	84	8.851422	2675	7.7251854
25468	GO:0051171	regulation of nitrogen c	0.11	84	8.851422	2675	7.7251854
8461	GO:0015020(GO:0003	glucuronosyltransferase	0.11	3	0.31612223	42	0.121292636
9698	GO:0016615	malate dehydrogenase	0.11	2	0.21074815	21	0.060646318
3476	GO:0004872(GO:0019	receptor activity	0.12	24	2.5289779	672	1.9406822
9699	GO:0016616	oxidoreductase activity	0.12	11	1.1591148	266	0.7681867
9753	GO:0016682	oxidoreductase activity	0.12	3	0.31612223	44	0.12706847
9722	GO:0016641	oxidoreductase activity	0.12	4	0.4214963	69	0.19926646
8679	GO:0015297	antiporter activity	0.13	7	0.73761857	152	0.4389638
8682	GO:0015300	solute:solute antiporter	0.13	7	0.73761857	152	0.4389638
12573	GO:0022891	substrate-specific trans	0.13	41	4.3203373	1241	3.5839086
4678	GO:0006549	isoleucine metabolic pr	0.13	1	0.105374075	5	0.0144396
6465	GO:0009097	isoleucine biosynthetic	0.13	1	0.105374075	5	0.0144396
21949	GO:0046424	ferulate 5-hydroxylase a	0.13	1	0.105374075	5	0.0144396
31465	GO:0080090	regulation of primary m	0.13	84	8.851422	2710	7.826263
7527	GO:0010302	2-oxoglutarate-depend	0.13	2	0.21074815	23	0.06642216
3744	GO:0005244	voltage-gated ion chan	0.14	4	0.4214963	72	0.20793022
12528	GO:0022832	voltage-gated channel	0.14	4	0.4214963	72	0.20793022
15280	GO:0032879	regulation of localizat	0.14	4	0.4214963	72	0.20793022
17141	GO:0034762	regulation of transmem	0.14	4	0.4214963	72	0.20793022
17144	GO:0034765	regulation of ion trans	0.14	4	0.4214963	72	0.20793022
19568	GO:0043269	regulation of ion trans	0.14	4	0.4214963	72	0.20793022
25348	GO:0051049	regulation of transport	0.14	4	0.4214963	72	0.20793022
8493	GO:0015074	DNA integration	0.14	3	0.31612223	47	0.13573223
4247	GO:0006007	glucose catabolic proce	0.14	4	0.4214963	73	0.21081814
9703	GO:0016620	oxidoreductase activity	0.14	4	0.4214963	73	0.21081814
11313	GO:0019320	hexose catabolic proce	0.14	4	0.4214963	73	0.21081814
20525	GO:0044275	cellular carbohydrate ca	0.14	4	0.4214963	73	0.21081814
21726	GO:0046164	alcohol catabolic proce	0.14	4	0.4214963	73	0.21081814
21894	GO:0046365	monosaccharide catabo	0.14	4	0.4214963	73	0.21081814
2976	GO:0004176(GO:0004	ATP-dependent peptida	0.14	3	0.31612223	48	0.13862015
12794	GO:0030234	enzyme regulator activi	0.14	15	1.5806112	403	1.1638317
13656	GO:0031224	intrinsic to membrane	0.15	39	4.109589	1193	3.4452884
13753	GO:0031323	regulation of cellular me	0.15	85	8.956797	2770	7.999538
973	GO:0001653	peptide receptor activi	0.15	2	0.21074815	25	0.072197996
12608	GO:0030001	metal ion transport	0.15	14	1.4752371	374	1.080082
8810	GO:0015491	cation:cation antiporter	0.15	4	0.4214963	75	0.21659398
3183	GO:0004525	ribonuclease III activity	0.15	1	0.105374075	6	0.01732752
3413	GO:0004802	transketolase activity	0.15	1	0.105374075	6	0.01732752
3845	GO:0005452	inorganic anion exchan	0.15	1	0.105374075	6	0.01732752
5810	GO:0008290	F-actin capping protein	0.15	1	0.105374075	6	0.01732752
7250	GO:0010012	steroid 22-alpha hydrox	0.15	1	0.105374075	6	0.01732752
9825	GO:0016774	phosphotransferase ac	0.15	1	0.105374075	6	0.01732752
9831	GO:0016781	phosphotransferase ac	0.15	1	0.105374075	6	0.01732752
12826	GO:0030267	glyoxylate reductase (N	0.15	1	0.105374075	6	0.01732752
13832	GO:0031409	pigment binding	0.15	1	0.105374075	6	0.01732752
13982	GO:0031559	oxidosqualene cyclase	0.15	1	0.105374075	6	0.01732752
14264	GO:0031849	olfactory receptor bindi	0.15	1	0.105374075	6	0.01732752
19203	GO:0042886	amide transport	0.15	1	0.105374075	6	0.01732752
23230	GO:0047746	chlorophyllase activity	0.15	1	0.105374075	6	0.01732752
30707	GO:0072348	sulfur compound trans	0.15	1	0.105374075	6	0.01732752
2713	GO:0003863	3-methyl-2-oxobutanoa	0.15	1	0.105374075	6	0.01732752
2846	GO:0004038	allantoinase activity	0.15	1	0.105374075	6	0.01732752
9709	GO:0016627	oxidoreductase activity	0.16	5	0.52687037	104	0.30034366
9744	GO:0016671	oxidoreductase activity	0.16	2	0.21074815	26	0.075085916
126	GO:0000160	two-component signal t	0.16	2	0.21074815	26	0.075085916
8919	GO:0015645	fatty acid liqase activity	0.17	2	0.21074815	27	0.077973835
2975	GO:0004175(GO:0016	endopeptidase activity	0.17	12	1.2644889	320	0.9241344
4909	GO:0006810(GO:0015	transport	0.18	71	7.4815598	2315	6.6855345
25529	GO:0051234	establishment of localiz	0.18	71	7.4815598	2315	6.6855345
5732	GO:0008194	UDP-glycosyltransferas	0.18	12	1.2644889	322	0.9299102
3021	GO:0004337	geranyltransferase ac	0.18	1	0.105374075	7	0.020215439
3255	GO:0004615(GO:0008	phosphomannomutase	0.18	1	0.105374075	7	0.020215439
3357	GO:0004738	pyruvate dehydrogenas	0.18	1	0.105374075	7	0.020215439
3358	GO:0004739	pyruvate dehydrogenas	0.18	1	0.105374075	7	0.020215439
6801	GO:0009512	cytochrome b6f comple	0.18	1	0.105374075	7	0.020215439
16115	GO:0033729	anthocyanidin reductas	0.18	1	0.105374075	7	0.020215439
2833	GO:0004024	alcohol dehydrogenase	0.18	2	0.21074815	28	0.080861755
25476	GO:0051179	localization	0.18	71	7.4815598	2319	6.697086
6668	GO:0009314	response to radiation	0.18	4	0.4214963	81	0.23392151
6751	GO:0009416	response to light stimul	0.18	4	0.4214963	81	0.23392151
9697	GO:0016614	oxidoreductase activity	0.18	11	1.1591148	293	0.84616053
3787	GO:0005319	lipid transporter activi	0.19	4	0.4214963	83	0.23969735
8680	GO:0015298	solute:cation antiporter	0.19	5	0.52687037	112	0.32344702



9730	GO:0016651	oxidoreductase activity	0.19	5	0.52687037	112	0.32344702
9883	GO:0016846	carbon-sulfur lyase acti	0.20	3	0.31612223	56	0.16172351
8683	GO:0015301 GO:0015301	anion:anion antiporter a	0.20	2	0.21074815	30	0.086637594
3306	GO:0004674 GO:0004674	protein serine/threonine	0.20	34	3.5827186	1062	3.0669708
3048	GO:0004364	glutathione transferase	0.20	4	0.4214963	84	0.24258527
3254	GO:0004614	phosphoglucosyltransferase	0.20	1	0.105374075	8	0.023103358
3402	GO:0004791	thioredoxin-disulfide red	0.20	1	0.105374075	8	0.023103358
4035	GO:0005746	mitochondrial respirator	0.20	1	0.105374075	8	0.023103358
5953	GO:0008471	laccase activity	0.20	1	0.105374075	8	0.023103358
6613	GO:0009250	glucan biosynthetic pro	0.20	1	0.105374075	8	0.023103358
18639	GO:0042284	sphingolipid delta-4 des	0.20	1	0.105374075	8	0.023103358
22076	GO:0046556	alpha-N-arabinofuranos	0.20	1	0.105374075	8	0.023103358
28833	GO:0070469	respiratory chain	0.20	1	0.105374075	8	0.023103358
30696	GO:0072337	modified amino acid tra	0.20	1	0.105374075	8	0.023103358
30708	GO:0072349	modified amino acid tra	0.20	1	0.105374075	8	0.023103358
5195	GO:0007165 GO:0023052	signal transduction	0.20	31	3.2665963	961	2.775291
12602	GO:0023052 GO:0023052	signaling	0.20	31	3.2665963	961	2.775291
4911	GO:0006812 GO:0006812	cation transport	0.21	22	2.3182297	662	1.9118029
9811	GO:0016757 GO:0016757	transferase activity, tran	0.21	24	2.5289779	729	2.1052935
19952	GO:0043687	post-translational protei	0.21	4	0.4214963	86	0.24836111
4913	GO:0006814 GO:0006814	sodium ion transport	0.21	3	0.31612223	58	0.16749935
8499	GO:0015081 GO:0022843	sodium ion transmembr	0.21	3	0.31612223	58	0.16749935
18086	GO:0035725	sodium ion transmembr	0.21	3	0.31612223	58	0.16749935
29800	GO:0071436	sodium ion export	0.21	3	0.31612223	58	0.16749935
4954	GO:0006869	lipid transport	0.21	8	0.8429926	208	0.6006873
8085	GO:0010876	lipid localization	0.21	8	0.8429926	208	0.6006873
4246	GO:0006006	glucose metabolic proc	0.22	4	0.4214963	87	0.25124902
4481	GO:0006284	base-excision repair	0.22	2	0.21074815	32	0.09241343
21041	GO:0045431	flavonol synthase activi	0.22	2	0.21074815	32	0.09241343
25836	GO:0051552	flavone metabolic proc	0.22	2	0.21074815	32	0.09241343
25837	GO:0051553	flavone biosynthetic pro	0.22	2	0.21074815	32	0.09241343
25838	GO:0051554	flavonol metabolic proc	0.22	2	0.21074815	32	0.09241343
25839	GO:0051555	flavonol biosynthetic pr	0.22	2	0.21074815	32	0.09241343
2831	GO:0004022	alcohol dehydrogenase	0.22	3	0.31612223	59	0.17038727
4322	GO:0006084	acetyl-CoA metabolic p	0.22	1	0.105374075	9	0.025991278
4332	GO:0006099	tricarboxylic acid cycle	0.22	1	0.105374075	9	0.025991278
6429	GO:0009060	aerobic respiration	0.22	1	0.105374075	9	0.025991278
6476	GO:0009109	coenzyme catabolic pro	0.22	1	0.105374075	9	0.025991278
6670	GO:0009317	acetyl-CoA carboxylase	0.22	1	0.105374075	9	0.025991278
7225	GO:0009978	allene oxide synthase a	0.22	1	0.105374075	9	0.025991278
19254	GO:0042937	tripeptide transporter ad	0.22	1	0.105374075	9	0.025991278
19342	GO:0043027	caspase inhibitor activi	0.22	1	0.105374075	9	0.025991278
19343	GO:0043028	caspase regulator activ	0.22	1	0.105374075	9	0.025991278
19458	GO:0043154 GO:0001088	negative regulation of c	0.22	1	0.105374075	9	0.025991278
19579	GO:0043281 GO:0043281	regulation of caspase a	0.22	1	0.105374075	9	0.025991278
21885	GO:0046356	acetyl-CoA catabolic pr	0.22	1	0.105374075	9	0.025991278
25484	GO:0051187	cofactor catabolic proc	0.22	1	0.105374075	9	0.025991278
2837	GO:0004028	3-chloroalyl aldehyde d	0.22	1	0.105374075	9	0.025991278
24966	GO:0050660	flavin adenine dinucleo	0.22	5	0.52687037	118	0.34077454
5840	GO:0008324	cation transmembrane	0.23	18	1.8967334	538	1.5537009
9719	GO:0016638	oxidoreductase activity	0.23	4	0.4214963	89	0.25702485
3723	GO:0005215 GO:0005215	transporter activity	0.23	56	5.9009485	1844	5.325324
22376	GO:0046873	metal ion transmembra	0.23	8	0.8429926	213	0.6151269
3749	GO:0005249	voltage-gated potassium	0.24	2	0.21074815	34	0.09818927
5827	GO:0008308 GO:0022843	voltage-gated anion ch	0.24	2	0.21074815	34	0.09818927
20321	GO:0044070	regulation of anion tran	0.24	2	0.21074815	34	0.09818927
9294	GO:0016052 GO:0006084	carbohydrate catabolic	0.24	4	0.4214963	91	0.2628007
3040	GO:0004356	glutamate-ammonia lig	0.24	1	0.105374075	10	0.0288792
3203	GO:0004557	alpha-galactosidase ac	0.24	1	0.105374075	10	0.0288792
3264	GO:0004629 GO:0042284	phospholipase C activi	0.24	1	0.105374075	10	0.0288792
3842	GO:0005432	calcium:sodium antiport	0.24	1	0.105374075	10	0.0288792
5678	GO:0008113 GO:0033033	peptide-methionine-(S)	0.24	1	0.105374075	10	0.0288792
9424	GO:0016211	ammonia ligase activity	0.24	1	0.105374075	10	0.0288792
9741	GO:0016668 GO:0016668	oxidoreductase activity	0.24	1	0.105374075	10	0.0288792
9826	GO:0016775	phosphotransferase ac	0.24	1	0.105374075	10	0.0288792
9912	GO:0016880	acid-ammonia (or amid	0.24	1	0.105374075	10	0.0288792
11205	GO:0019202	amino acid kinase activ	0.24	1	0.105374075	10	0.0288792
12918	GO:0030374	ligand-dependent nucle	0.24	1	0.105374075	10	0.0288792
31707	GO:0090116	C-5 methylation of cyto	0.24	1	0.105374075	10	0.0288792
983	GO:0001664	G-protein-coupled rece	0.24	1	0.105374075	10	0.0288792
2736	GO:0003886 GO:0008324	DNA (cytosine-5)-meth	0.24	1	0.105374075	10	0.0288792
4215	GO:0005975	carbohydrate metabolic	0.25	31	3.2665963	990	2.8590407
17016	GO:0034637	cellular carbohydrate bi	0.25	3	0.31612223	63	0.18193895
21146	GO:0045544	gibberellin 20-oxidase	0.25	2	0.21074815	35	0.10107719
17617	GO:0035251	UDP-glucosyltransferas	0.25	8	0.8429926	218	0.62956655
26931	GO:0055085	transmembrane transpo	0.25	47	4.952582	1548	4.4705
9293	GO:0016051 GO:0006084	carbohydrate biosynthe	0.26	3	0.31612223	64	0.18482687
4236	GO:0005996	monosaccharide metab	0.26	5	0.52687037	125	0.36099
4232	GO:0005992	trehalose biosynthetic p	0.26	2	0.21074815	36	0.10396511
8739	GO:0015385 GO:0015385	sodium:hydrogen antiport	0.26	2	0.21074815	36	0.10396511
9185	GO:0015925	galactosidase activity	0.26	2	0.21074815	36	0.10396511
3380	GO:0004766	spermidine synthase ac	0.26	1	0.105374075	11	0.03176712
3416	GO:0004806	triglyceride lipase activ	0.26	1	0.105374075	11	0.03176712
11152	GO:0019139 GO:0046356	cytokinin dehydrogenas	0.26	1	0.105374075	11	0.03176712
13809	GO:0031386	protein tag	0.26	1	0.105374075	11	0.03176712
19256	GO:0042939	tripeptide transport	0.26	1	0.105374075	11	0.03176712
9710	GO:0016628	oxidoreductase activity	0.26	3	0.31612223	65	0.18771479
3761	GO:0005275 GO:0005275	amine transmembrane	0.26	5	0.52687037	126	0.3638779
25998	GO:0051716	cellular response to stir	0.26	35	3.6880927	1138	3.2864528
3318	GO:0004693 GO:0016638	cyclin-dependent protei	0.27	2	0.21074815	37	0.10685303
3758	GO:0005267	potassium channel activ	0.27	2	0.21074815	37	0.10685303
24968	GO:0050662	coenzyme binding	0.27	7	0.73761857	191	0.5515927
5791	GO:0008270	zinc ion binding	0.28	56	5.9009485	1880	5.4292893
4231	GO:0005991	trehalose metabolic pro	0.28	2	0.21074815	38	0.10974095
8501	GO:0015085	calcium ion transmembr	0.28	2	0.21074815	38	0.10974095
12538	GO:0022843	voltage-gated cation ch	0.28	2	0.21074815	38	0.10974095
6383	GO:0009008	DNA-methyltransferase	0.28	1	0.105374075	12	0.03465504
6451	GO:0009082	branched chain family	0.28	1	0.105374075	12	0.03465504
7526	GO:0010301 GO:0033033	xanthoxin dehydrogena	0.28	1	0.105374075	12	0.03465504
8748	GO:0015398	high affinity secondary	0.28	1	0.105374075	12	0.03465504
9235	GO:0015976 GO:0015976	carbon utilization	0.28	1	0.105374075	12	0.03465504
14848	GO:0032440	2-alkenal reductase act	0.28	1	0.105374075	12	0.03465504
16148	GO:0033764	steroid dehydrogenase	0.28	1	0.105374075	12	0.03465504



20943	GO:0045333	cellular respiration	0.28	1	0.105374075	12	0.03465504
4990	GO:0006915 GO:0008	apoptosis	0.29	8	0.8429926	227	0.6555578
6796	GO:0009507	chloroplast	0.29	8	0.8429926	229	0.6613336
21710	GO:0046148	pigment biosynthetic pr	0.29	3	0.31612223	69	0.19926646
31420	GO:0080043	quercetin 3-O-glucosylt	0.29	3	0.31612223	69	0.19926646
9422	GO:0016209	antioxidant activity	0.30	6	0.63224447	165	0.47650677
7072	GO:0009813	flavonoid biosynthetic p	0.30	2	0.21074815	40	0.1155168
11311	GO:0019318	hexose metabolic proces	0.30	4	0.4214963	101	0.2916799
6811	GO:0009523	photosystem II	0.30	1	0.105374075	13	0.037542958
8149	GO:0010941	regulation of cell death	0.30	1	0.105374075	13	0.037542958
19043	GO:0042719	mitochondrial intermem	0.30	1	0.105374075	13	0.037542958
19298	GO:0042981	regulation of apoptosis	0.30	1	0.105374075	13	0.037542958
19381	GO:0043067 GO:0043	regulation of programm	0.30	1	0.105374075	13	0.037542958
5874	GO:0008374	O-acyltransferase activ	0.31	4	0.4214963	102	0.29456782
28378	GO:0070011	peptidase activity, actin	0.31	17	1.7913593	537	1.550813
4408	GO:0006200	ATP catabolic process	0.31	20	2.1074815	641	1.8511566
9918	GO:0016887 GO:0004	ATPase activity	0.31	20	2.1074815	641	1.8511566
21600	GO:0046034	ATP metabolic process	0.31	20	2.1074815	641	1.8511566
9103	GO:0015837	amine transport	0.31	5	0.52687037	135	0.38986918
12547	GO:0022857 GO:0005	transmembrane transpo	0.31	44	4.6364594	1483	4.282785
9740	GO:0016667	oxidoreductase activity	0.32	3	0.31612223	72	0.20793022
30069	GO:0071705	nitrogen compound tran	0.32	7	0.73761857	202	0.5833598
20532	GO:0044282	small molecule cataboli	0.32	26	2.739726	854	2.4662836
3753	GO:0005253	anion channel activity	0.32	2	0.21074815	42	0.121292636
6666	GO:0009312	oligosaccharide biosynt	0.32	2	0.21074815	42	0.121292636
9370	GO:0016138	glycoside biosynthetic p	0.32	2	0.21074815	42	0.121292636
13884	GO:0031461	cullin-RING ubiquitin lig	0.32	2	0.21074815	42	0.121292636
21880	GO:0046351	disaccharide biosynthe	0.32	2	0.21074815	42	0.121292636
7844	GO:0010629	negative regulation of g	0.32	1	0.105374075	14	0.040430877
9399	GO:0016174	NAD(P)H oxidase activ	0.32	1	0.105374075	14	0.040430877
9433	GO:0016229	steroid dehydrogenase	0.32	1	0.105374075	14	0.040430877
9854	GO:0016812	hydrolase activity, actin	0.32	1	0.105374075	14	0.040430877
9879	GO:0016841	ammonia-lyase activity	0.32	1	0.105374075	14	0.040430877
15178	GO:0032776	DNA methylation on cy	0.32	1	0.105374075	14	0.040430877
21460	GO:0045892 GO:0016	negative regulation of tr	0.32	1	0.105374075	14	0.040430877
21502	GO:0045934	negative regulation of r	0.32	1	0.105374075	14	0.040430877
24970	GO:0050664	oxidoreductase activity	0.32	1	0.105374075	14	0.040430877
25469	GO:0051172	negative regulation of r	0.32	1	0.105374075	14	0.040430877
25545	GO:0051253	negative regulation of F	0.32	1	0.105374075	14	0.040430877
6899	GO:0009628	response to abiotic stiri	0.32	6	0.63224447	170	0.49094638
18786	GO:0042440	pigment metabolic proc	0.32	3	0.31612223	73	0.21081814
5756	GO:0008219	cell death	0.33	8	0.8429926	239	0.69021285
8209	GO:0012501 GO:0016	programmed cell death	0.33	8	0.8429926	239	0.69021285
9462	GO:0016265	death	0.33	8	0.8429926	239	0.69021285
8675	GO:0015293	symporter activity	0.34	6	0.63224447	173	0.49961013
25095	GO:0050790	regulation of catalytic a	0.34	15	1.5806112	480	1.3862015
4914	GO:0006816	calcium ion transport	0.34	2	0.21074815	44	0.12706847
7071	GO:0009812	flavonoid metabolic pro	0.34	2	0.21074815	44	0.12706847
28952	GO:0070588	calcium ion transmemb	0.34	2	0.21074815	44	0.12706847
7520	GO:0010294	abscisic acid glucosyltra	0.34	1	0.105374075	15	0.043318797
9340	GO:0016108	tetraterpenoid metabol	0.34	1	0.105374075	15	0.043318797
9341	GO:0016109	tetraterpenoid biosynth	0.34	1	0.105374075	15	0.043318797
9348	GO:0016116	carotenoid metabolic pr	0.34	1	0.105374075	15	0.043318797
9349	GO:0016117	carotenoid biosynthetic	0.34	1	0.105374075	15	0.043318797
10079	GO:0017134	fibroblast growth factor	0.34	1	0.105374075	15	0.043318797
16081	GO:0033692	cellular polysaccharide	0.34	1	0.105374075	15	0.043318797
8676	GO:0015294	solute:cation symporter	0.34	5	0.52687037	141	0.4071967
5663	GO:0008094 GO:0004	DNA-dependent ATPase	0.35	3	0.31612223	76	0.2194819
28366	GO:0065009	regulation of molecular	0.35	15	1.5806112	484	1.3977532
8666	GO:0015276	ligand-gated ion chann	0.35	2	0.21074815	45	0.1299564
12530	GO:0022834	ligand-gated channel at	0.35	2	0.21074815	45	0.1299564
4304	GO:0006066	alcohol metabolic proces	0.36	5	0.52687037	143	0.41297254
9795	GO:0016740	transferase activity	0.36	107	11.275026	3764	10.870131
5995	GO:0008524	glucose 6-phosphate-ph	0.36	1	0.105374075	16	0.046206716
7142	GO:0009890	negative regulation of b	0.36	1	0.105374075	16	0.046206716
7774	GO:0010558	negative regulation of r	0.36	1	0.105374075	16	0.046206716
7820	GO:0010605	negative regulation of r	0.36	1	0.105374075	16	0.046206716
8694	GO:0015315	organophosphate:inorg	0.36	1	0.105374075	16	0.046206716
9189	GO:0015929	hexosaminidase activi	0.36	1	0.105374075	16	0.046206716
9390	GO:0016161	beta-amylase activity	0.36	1	0.105374075	16	0.046206716
9727	GO:0016647	oxidoreductase activity	0.36	1	0.105374075	16	0.046206716
9878	GO:0016840	carbon-nitrogen lyase a	0.36	1	0.105374075	16	0.046206716
13757	GO:0031327	negative regulation of c	0.36	1	0.105374075	16	0.046206716
18757	GO:0042409	caffeoyl-CoA O-methylt	0.36	1	0.105374075	16	0.046206716
22110	GO:0046592	polyamine oxidase activ	0.36	1	0.105374075	16	0.046206716
22412	GO:0046910	peclnesterase inhibitor	0.36	1	0.105374075	16	0.046206716
32214	GO:2000113	negative regulation of c	0.36	1	0.105374075	16	0.046206716
206	GO:0000271	polysaccharide biosynt	0.36	1	0.105374075	16	0.046206716
219	GO:0000287	magnesium ion binding	0.36	1	0.105374075	16	0.046206716
8943	GO:0015672	monovalent inorganic c	0.36	12	1.2644889	383	1.1060733
9909	GO:0016877	ligase activity, forming d	0.36	3	0.31612223	78	0.22525774
6425	GO:0009056	catabolic process	0.36	31	3.2665963	1051	3.0352037
6824	GO:0009536	plastid	0.37	8	0.8429926	247	0.7133162
20512	GO:0044262 GO:0006	cellular carbohydrate m	0.37	8	0.8429926	248	0.7162041
4044	GO:0005758 GO:0031	mitochondrial intermem	0.38	1	0.105374075	17	0.049094636
9923	GO:0016892	endoribonuclease activ	0.38	1	0.105374075	17	0.049094636
9925	GO:0016894	endonuclease activity, s	0.38	1	0.105374075	17	0.049094636
14383	GO:0031970	organelle envelope lum	0.38	1	0.105374075	17	0.049094636
16281	GO:0033897	ribonuclease T2 activity	0.38	1	0.105374075	17	0.049094636
20619	GO:0044425	membrane part	0.38	44	4.6364594	1523	4.398302
22478	GO:0046982	protein heterodimerizat	0.38	4	0.4214963	114	0.32922286
5763	GO:0008233	peptidase activity	0.38	17	1.7913593	565	1.6316746
3756	GO:0005261 GO:0015	cation channel activity	0.39	2	0.21074815	49	0.14150807
3844	GO:0005451	monovalent cation hydr	0.39	2	0.21074815	49	0.14150807
9725	GO:0016645	oxidoreductase activity	0.39	2	0.21074815	49	0.14150807
31421	GO:0080044	quercetin 7-O-glucosylt	0.39	2	0.21074815	49	0.14150807
3832	GO:0005388	calcium-transporting AT	0.39	1	0.105374075	18	0.051982556
4134	GO:0005874	microtubule	0.39	1	0.105374075	18	0.051982556
6416	GO:0009044	xylan 1,4-beta-xylosida	0.39	1	0.105374075	18	0.051982556
12887	GO:0030332	cyclin binding	0.39	1	0.105374075	18	0.051982556
9818	GO:0016765 GO:0016	transferase activity, tran	0.40	6	0.63224447	185	0.53426516
4912	GO:0006813 GO:0015	potassium ion transport	0.41	3	0.31612223	84	0.24258527
30168	GO:0071804	cellular potassium ion t	0.41	3	0.31612223	84	0.24258527



30169	GO:0071805	potassium ion transmembrane	0.41	3	0.31612223	84	0.24258527
8584	GO:0015171 GO:0015172	amino acid transmembrane	0.41	4	0.4214963	118	0.34077454
2521	GO:0003333	amino acid transmembrane	0.41	4	0.4214963	118	0.34077454
7173	GO:0009922	fatty acid elongase activity	0.41	2	0.21074815	51	0.14728391
9733	GO:0016655	oxidoreductase activity	0.41	2	0.21074815	51	0.14728391
9975	GO:0016998	cell wall macromolecule	0.41	2	0.21074815	51	0.14728391
9809	GO:0016755	transferase activity, transmembrane	0.41	1	0.105374075	19	0.054870475
9891	GO:0016855	racemase and epimerase	0.41	1	0.105374075	19	0.054870475
2895	GO:0004089	carbonate dehydratase	0.41	1	0.105374075	19	0.054870475
5097	GO:0007049	cell cycle	0.42	2	0.21074815	52	0.15017183
6965	GO:0009699	phenylpropanoid biosynthesis	0.42	2	0.21074815	52	0.15017183
20287	GO:0044036	cell wall macromolecule	0.42	2	0.21074815	52	0.15017183
3124	GO:0004462	lactoylglutathione lyase	0.43	1	0.105374075	20	0.0577584
3747	GO:0005247	voltage-gated chloride channel	0.43	1	0.105374075	20	0.0577584
3754	GO:0005254	chloride channel activity	0.43	1	0.105374075	20	0.0577584
3798	GO:0005337	nucleoside transmembrane	0.43	1	0.105374075	20	0.0577584
5991	GO:0008519	ammonium transmembrane	0.43	1	0.105374075	20	0.0577584
8726	GO:0015368	calcium:cation antiporter	0.43	1	0.105374075	20	0.0577584
8965	GO:0015696	ammonium transport	0.43	1	0.105374075	20	0.0577584
9122	GO:0015858	nucleoside transport	0.43	1	0.105374075	20	0.0577584
9799	GO:0016744 GO:0016745	transferase activity, transmembrane	0.43	1	0.105374075	20	0.0577584
30844	GO:0072488	ammonium transmembrane	0.43	1	0.105374075	20	0.0577584
2675	GO:0003825	alpha,alpha-trehalose-6-phosphate	0.43	1	0.105374075	20	0.0577584
12532	GO:0022836	gated channel activity	0.43	4	0.4214963	122	0.3523262
119	GO:0000151	ubiquitin ligase complex	0.43	3	0.31612223	88	0.25413695
4951	GO:0006865 GO:0006866	amino acid transport	0.44	4	0.4214963	123	0.35521415
2897	GO:0004091 GO:0004092	carboxylesterase activity	0.44	6	0.63224447	194	0.5602564
3129	GO:0004467	long-chain fatty acid-CoA synthetase	0.44	1	0.105374075	21	0.060646318
3474	GO:0004869 GO:0004870	cysteine-type endopeptidase	0.44	1	0.105374075	21	0.060646318
9902	GO:0016868 GO:0016869	intramolecular transferase	0.44	1	0.105374075	21	0.060646318
12999	GO:0030506	ankyrin binding	0.44	1	0.105374075	21	0.060646318
23518	GO:0048040	UDP-glucuronate decarboxylase	0.44	1	0.105374075	21	0.060646318
716	GO:0001071	nucleic acid binding transcription factor	0.45	40	4.214963	1417	4.0921826
2643	GO:0003700 GO:0003701	sequence-specific DNA binding	0.45	40	4.214963	1417	4.0921826
9533	GO:0016405	CoA-ligase activity	0.45	2	0.21074815	55	0.15883559
4224	GO:0005984	disaccharide metabolic process	0.46	2	0.21074815	56	0.16172351
9369	GO:0016137	glycoside metabolic process	0.46	2	0.21074815	56	0.16172351
10032	GO:0017075	syntaxin-1 binding	0.46	1	0.105374075	22	0.06353424
12660	GO:0030077	plasma membrane light transmission	0.46	1	0.105374075	22	0.06353424
13038	GO:0030551	cyclic nucleotide binding	0.46	2	0.105374075	22	0.06353424
19040	GO:0042716	plasma membrane-derived	0.46	1	0.105374075	22	0.06353424
19325	GO:0043008	ATP-dependent protein	0.46	1	0.105374075	22	0.06353424
24858	GO:0050551	myrcene synthase activity	0.46	1	0.105374075	22	0.06353424
4405	GO:0006195	purine nucleotide catabolic process	0.46	22	2.3182297	773	2.232362
6508	GO:0009143	nucleoside triphosphate	0.46	22	2.3182297	773	2.232362
6509	GO:0009144	purine nucleoside triphosphate	0.46	22	2.3182297	773	2.232362
6511	GO:0009146	purine nucleoside triphosphate	0.46	22	2.3182297	773	2.232362
6519	GO:0009154	purine ribonucleotide catabolic process	0.46	22	2.3182297	773	2.232362
6530	GO:0009166	nucleotide catabolic process	0.46	22	2.3182297	773	2.232362
6567	GO:0009203	ribonucleoside triphosphate	0.46	22	2.3182297	773	2.232362
6569	GO:0009205	purine ribonucleoside triphosphate	0.46	22	2.3182297	773	2.232362
6571	GO:0009207	purine ribonucleoside triphosphate	0.46	22	2.3182297	773	2.232362
6624	GO:0009261	ribonucleotide catabolic process	0.46	22	2.3182297	773	2.232362
17034	GO:0034655	nucleobase, nucleoside	0.46	22	2.3182297	773	2.232362
17035	GO:0034656	nucleobase, nucleoside	0.46	22	2.3182297	773	2.232362
22209	GO:0046700	heterocycle catabolic process	0.46	22	2.3182297	773	2.232362
30879	GO:0072523	purine-containing compound	0.46	22	2.3182297	773	2.232362
5715	GO:0008171	O-methyltransferase activity	0.47	2	0.21074815	57	0.16461143
9910	GO:0016878	acid-thiol ligase activity	0.47	2	0.21074815	57	0.16461143
20520	GO:0044270	cellular nitrogen compound	0.47	22	2.3182297	777	2.2439137
4918	GO:0006821	chloride transport	0.47	1	0.105374075	23	0.06642216
22753	GO:0047262 GO:0050303	polygalacturonate 4-aldolase	0.47	1	0.105374075	23	0.06642216
2633	GO:0003684	damaged DNA binding	0.47	1	0.105374075	23	0.06642216
6665	GO:0009311	oligosaccharide metabolic process	0.47	2	0.21074815	58	0.16749935
9801	GO:0016747	transferase activity, transmembrane	0.48	13	1.369863	456	1.3168914
30066	GO:0071702	organic substance transport	0.48	15	1.5806112	529	1.5277096
9900	GO:0016866	intramolecular transferase	0.48	2	0.21074815	59	0.17038727
18981	GO:0042651	thylakoid membrane	0.48	2	0.21074815	59	0.17038727
11712	GO:0019748	secondary metabolic process	0.48	3	0.31612223	95	0.27435237
18633	GO:0042277	peptide binding	0.48	3	0.31612223	95	0.27435237
4311	GO:0006073	cellular glucan metabolic process	0.49	1	0.105374075	24	0.06931008
7144	GO:0009892	negative regulation of nucleic acid metabolic process	0.49	1	0.105374075	24	0.06931008
13754	GO:0031324	negative regulation of cell growth	0.49	1	0.105374075	24	0.06931008
20293	GO:0044042	glucan metabolic process	0.49	1	0.105374075	24	0.06931008
20498	GO:0044248	cellular catabolic process	0.49	25	2.634352	894	2.5818002
3304	GO:0004672 GO:0050302	protein kinase activity	0.49	37	3.898841	1333	3.8495972
2980	GO:0004185	serine-type carboxypeptidase	0.49	2	0.21074815	60	0.17327519
6964	GO:0009698	phenylpropanoid metabolic process	0.49	2	0.21074815	60	0.17327519
28375	GO:0070008	serine-type exopeptidase	0.49	2	0.21074815	60	0.17327519
9800	GO:0016746	transferase activity, transmembrane	0.50	14	1.4752371	498	1.438184
6563	GO:0009199	ribonucleoside triphosphate	0.50	22	2.3182297	790	2.2814567
9482	GO:0016291 GO:0008172	acyl-CoA thioesterase activity	0.50	1	0.105374075	25	0.072197996
31493	GO:0080118	brassinosteroid sulfotransferase	0.50	1	0.105374075	25	0.072197996
6515	GO:0009150	purine ribonucleotide metabolic process	0.50	22	2.3182297	791	2.2843447
5712	GO:0008168 GO:0004403	methyltransferase activity	0.50	7	0.73761857	244	0.7046524
8681	GO:0015299	solute:hydrogen antiporter	0.51	3	0.31612223	98	0.28301615
25379	GO:0051082	unfolded protein binding	0.51	3	0.31612223	98	0.28301615
2978	GO:0004180	carboxypeptidase activity	0.51	2	0.21074815	62	0.17905103
3801	GO:0005342	organic acid transmembrane	0.51	4	0.4214963	136	0.3927571
22444	GO:0046943	carboxylic acid transmembrane	0.51	4	0.4214963	136	0.3927571
6506	GO:0009141	nucleoside triphosphate	0.51	22	2.3182297	796	2.2987843
3210	GO:0004565	beta-galactosidase activity	0.51	1	0.105374075	26	0.075085916
3415	GO:0004805	trehalose-phosphatase	0.51	1	0.105374075	26	0.075085916
4030	GO:0005741	mitochondrial outer membrane	0.51	1	0.105374075	26	0.075085916
8516	GO:0015101	organic cation transmembrane	0.51	1	0.105374075	26	0.075085916
8964	GO:0015695	organic cation transport	0.51	1	0.105374075	26	0.075085916
9421	GO:0016208	AMP binding	0.51	1	0.105374075	26	0.075085916
9884	GO:0016847 GO:0034181	1-aminocyclopropane-1-carboxylate	0.51	1	0.105374075	26	0.075085916
10911	GO:0018871	1-aminocyclopropane-1-carboxylate	0.51	1	0.105374075	26	0.075085916
17147	GO:0034768	(E)-beta-ocimene synthase	0.51	1	0.105374075	26	0.075085916
18579	GO:0042218	1-aminocyclopropane-1-carboxylate	0.51	1	0.105374075	26	0.075085916
30689	GO:0072330	monocarboxylic acid binding	0.51	1	0.105374075	26	0.075085916
14667	GO:0032259	methylation	0.52	8	0.8429926	285	0.8230572



22416	GO:0046915	transition metal ion tran	0.53	2	0.21074815	64	0.18482687
25820	GO:0051536	iron-sulfur cluster bindin	0.53	2	0.21074815	64	0.18482687
25824	GO:0051540	metal cluster binding	0.53	2	0.21074815	64	0.18482687
9346	GO:0016114	terpenoid biosynthetic p	0.53	1	0.105374075	27	0.077973835
9389	GO:0016160	amylase activity	0.53	1	0.105374075	27	0.077973835
4849	GO:0006730 GO:00191	one-carbon metabolic p	0.53	9	0.9483667	325	0.93857396
10058	GO:0017111	nucleoside-triphosphata	0.53	24	2.5289779	878	2.5355935
25314	GO:0051015	actin filament binding	0.54	2	0.21074815	65	0.18771479
3724	GO:0005216	ion channel activity	0.54	4	0.4214963	140	0.40430877
9579	GO:0016462	pyrophosphatase activi	0.54	26	2.739726	954	2.7550755
3284	GO:0004650	polygalacturonase activ	0.54	1	0.105374075	28	0.080861755
3812	GO:0005355 GO:00153	glucose transmembran	0.54	1	0.105374075	28	0.080861755
6079	GO:0008654	phospholipid biosynthe	0.54	1	0.105374075	28	0.080861755
9027	GO:0015758	glucose transport	0.54	1	0.105374075	28	0.080861755
9238	GO:0015980	energy derivation by ox	0.54	1	0.105374075	28	0.080861755
23911	GO:0048519 GO:0043	negative regulation of b	0.54	1	0.105374075	28	0.080861755
23915	GO:0048523 GO:00512	negative regulation of c	0.54	1	0.105374075	28	0.080861755
139	GO:0001175	3'-5'-exoribonuclease a	0.54	1	0.105374075	28	0.080861755
23515	GO:0048037	cofactor binding	0.54	9	0.9483667	327	0.94434977
3180	GO:0004521	endoribonuclease activ	0.54	2	0.21074815	66	0.1906027
9890	GO:0016854	racemase and epimera	0.54	6	0.21074815	66	0.1906027
9859	GO:0016818	hydrolase activity, actin	0.54	26	2.739726	956	2.7608514
4373	GO:0006163	purine nucleotide metat	0.55	22	2.3182297	810	2.339215
4916	GO:0006818	hydrogen transport	0.55	8	0.8429926	292	0.84327257
9246	GO:0015992	proton transport	0.55	8	0.8429926	292	0.84327257
6166	GO:0008757	S-adenosylmethionine-	0.55	5	0.52687037	180	0.5198256
9858	GO:0016817	hydrolase activity, actin	0.55	26	2.739726	959	2.769515
2668	GO:0003779	actin binding	0.55	3	0.31612223	105	0.3032316
6622	GO:0009259 GO:0009	ribonucleotide metaboli	0.55	22	2.3182297	812	2.344991
4755	GO:0006629	lipid metabolic process	0.55	16	1.6859852	590	1.7038727
4841	GO:0006721	terpenoid metabolic pro	0.55	1	0.105374075	29	0.083749674
11834	GO:0019905	syntaxin binding	0.55	1	0.105374075	29	0.083749674
3195	GO:0004540	ribonuclease activity	0.56	3	0.31612223	106	0.3061195
2999	GO:0004312	fatty acid synthase activ	0.56	2	0.21074815	68	0.19637854
32	GO:0000041	transition metal ion tran	0.56	2	0.21074815	68	0.19637854
12572	GO:0022890 GO:0015	inorganic cation transm	0.56	9	0.9483667	332	0.9587894
3009	GO:0004322	ferroxidase activity	0.57	1	0.105374075	30	0.086637594
3310	GO:0004679	AMP-activated protein f	0.57	1	0.105374075	30	0.086637594
3886	GO:0005527	macrolide binding	0.57	1	0.105374075	30	0.086637594
3887	GO:0005528	FK506 binding	0.57	1	0.105374075	30	0.086637594
4498	GO:0006305	DNA alkylation	0.57	1	0.105374075	30	0.086637594
4499	GO:0006306	DNA methylation	0.57	1	0.105374075	30	0.086637594
6216	GO:0008810	cellulase activity	0.57	1	0.105374075	30	0.086637594
9785	GO:0016724	oxidoreductase activity	0.57	1	0.105374075	30	0.086637594
12533	GO:0022838	substrate-specific chan	0.57	6	0.63224447	221	0.63823026
3620	GO:0005057	receptor signaling prote	0.57	2	0.21074815	69	0.19926646
11522	GO:0019538 GO:0006	protein metabolic proce	0.57	112	11.801897	4134	11.938661
3873	GO:0005507	copper ion binding	0.57	4	0.4214963	146	0.42163628
9486	GO:0016298	lipase activity	0.57	5	0.52687037	185	0.53426516
9191	GO:0015931	nucleobase, nucleoside	0.58	2	0.21074815	70	0.20215438
9192	GO:0015932	nucleobase, nucleoside	0.58	2	0.21074815	70	0.20215438
9796	GO:0016741	transferase activity, traf	0.58	7	0.73761857	261	0.7537471
19590	GO:0043295	glutathione binding	0.58	1	0.105374075	31	0.08952551
20514	GO:0044264	cellular polysaccharide	0.58	1	0.105374075	31	0.08952551
4478	GO:0006281	DNA repair	0.59	4	0.4214963	149	0.43030006
5037	GO:0006974 GO:0034	response to DNA dama	0.59	4	0.4214963	149	0.43030006
30877	GO:0072521	purine-containing comp	0.59	22	2.3182297	827	2.3883097
8660	GO:0015267 GO:0015	channel activity	0.59	6	0.63224447	226	0.6526699
12515	GO:0022803	passive transmembran	0.59	6	0.63224447	226	0.6526699
3190	GO:0004532	exoribonuclease activity	0.59	1	0.105374075	32	0.09241343
3717	GO:0005199	structural constituent of	0.59	1	0.105374075	32	0.09241343
4614	GO:0006470	protein dephosphorylat	0.59	1	0.105374075	32	0.09241343
6942	GO:0009674	potassium:sodium sym	0.59	1	0.105374075	32	0.09241343
9537	GO:0016409	palmitoyltransferase ac	0.59	1	0.105374075	32	0.09241343
9927	GO:0016896	exoribonuclease activity	0.59	1	0.105374075	32	0.09241343
12522	GO:0022820	potassium ion symporte	0.59	1	0.105374075	32	0.09241343
12833	GO:0030275	LRR domain binding	0.59	1	0.105374075	32	0.09241343
14381	GO:0031968	organelle outer membra	0.59	1	0.105374075	32	0.09241343
4459	GO:0006259 GO:0055	DNA metabolic process	0.60	13	1.369863	493	1.4237444
4526	GO:0006351 GO:0006	transcription, DNA-dep	0.60	42	4.425711	1575	4.548474
15176	GO:0032774	RNA biosynthetic proce	0.60	42	4.425711	1575	4.548474
4493	GO:0006298 GO:0006	mismatch repair	0.60	1	0.105374075	33	0.09530135
2632	GO:0003682	chromatin binding	0.60	1	0.105374075	33	0.09530135
3955	GO:0005634	nucleus	0.61	38	4.004215	1433	4.138389
4497	GO:0006304	DNA modification	0.61	1	0.105374075	34	0.09818927
5270	GO:0007264	small GTPase mediated	0.61	1	0.105374075	34	0.09818927
5700	GO:0008144	drug binding	0.61	1	0.105374075	34	0.09818927
6004	GO:0008536	Ran GTPase binding	0.61	1	0.105374075	34	0.09818927
6072	GO:0008645	hexose transport	0.61	1	0.105374075	34	0.09818927
8562	GO:0015149	hexose transmembran	0.61	1	0.105374075	34	0.09818927
17794	GO:0035428	hexose transmembran	0.61	1	0.105374075	34	0.09818927
18382	GO:0040029	regulation of gene expr	0.61	1	0.105374075	34	0.09818927
6424	GO:0009055 GO:0009	electron carrier activity	0.61	4	0.4214963	154	0.44473964
2674	GO:0003824	catalytic activity	0.61	291	30.663857	10750	31.045137
9488	GO:0016301	kinase activity	0.62	46	4.8472075	1740	5.0249805
4538	GO:0006364 GO:0006	rRNA processing	0.62	1	0.105374075	35	0.10107719
9310	GO:0016072	rRNA metabolic proces	0.62	1	0.105374075	35	0.10107719
9480	GO:0016289	CoA hydrolase activity	0.62	1	0.105374075	35	0.10107719
9922	GO:0016891	endoribonuclease activ	0.62	1	0.105374075	35	0.10107719
9114	GO:0015849	organic acid transport	0.62	4	0.4214963	156	0.45051548
22443	GO:0046942	carboxylic acid transpo	0.62	4	0.4214963	156	0.45051548
5604	GO:0008017	microtubule binding	0.63	2	0.21074815	77	0.22236982
3877	GO:0005516	calmodulin binding	0.63	6	0.63224447	236	0.6815491
3888	GO:0005529	sugar binding	0.63	4	0.4214963	158	0.45629135
3804	GO:0005345	purine base transmemt	0.63	1	0.105374075	36	0.10396511
4949	GO:0006863 GO:0015	purine base transport	0.63	1	0.105374075	36	0.10396511
5902	GO:0008408	3'-5' exonuclease activi	0.63	1	0.105374075	36	0.10396511
11314	GO:0019321	pentose metabolic proc	0.63	1	0.105374075	36	0.10396511
20649	GO:0044455	mitochondrial membra	0.63	1	0.105374075	36	0.10396511
30865	GO:0072509	divalent inorganic catio	0.63	2	0.21074815	78	0.22525774
5705	GO:0008152	metabolic process	0.64	473	49.841938	17432	50.34222
19831	GO:0043565	sequence-specific DNA	0.64	4	0.4214963	159	0.45917925
8934	GO:0015662	ATPase activity, couple	0.64	1	0.105374075	37	0.10685303



3874	GO:0005509	calcium ion binding	0.65	7	0.73761857	279	0.8057296
9875	GO:0016836	hydro-lyase activity	0.65	2	0.21074815	80	0.2310336
9637	GO:0016538 GO:0003	cyclin-dependent protei	0.65	1	0.105374075	38	0.10974095
117	GO:0000149	SNARE binding	0.65	1	0.105374075	38	0.10974095
3827	GO:0005372	water transmembrane t	0.65	2	0.21074815	81	0.23392151
4927	GO:0006833	water transport	0.65	2	0.21074815	81	0.23392151
8652	GO:0015250	water channel activity	0.65	2	0.21074815	81	0.23392151
18429	GO:0042044	fluid transport	0.65	2	0.21074815	81	0.23392151
3260	GO:0004620	phospholipase activity	0.66	3	0.31612223	123	0.35521415
29202	GO:0070838	divalent metal ion trans	0.66	2	0.21074815	82	0.23680943
19473	GO:0043170 GO:0043	macromolecule metabo	0.66	175	18.440464	6553	18.92454
20488	GO:0044238	primary metabolic proc	0.66	246	25.922024	9167	26.47356
4476	GO:0006278	RNA-dependent DNA r	0.67	4	0.4214963	166	0.4793947
5891	GO:0008395 GO:0008	steroid hydroxylase act	0.67	1	0.105374075	40	0.1155168
8613	GO:0015205 GO:0015	nucleobase transmembr	0.67	1	0.105374075	40	0.1155168
9116	GO:0015851	nucleobase transport	0.67	1	0.105374075	40	0.1155168
9843	GO:0016796	exonuclease activity, ac	0.67	1	0.105374075	40	0.1155168
11804	GO:0019867	outer membrane	0.67	1	0.105374075	40	0.1155168
4643	GO:0006511	ubiquitin-dependent pro	0.67	2	0.21074815	84	0.24258527
11864	GO:0019941	modification-dependent	0.67	2	0.21074815	84	0.24258527
19898	GO:0043632	modification-dependent	0.67	2	0.21074815	84	0.24258527
20507	GO:0044257	cellular protein cataboli	0.67	2	0.21074815	84	0.24258527
25887	GO:0051603	proteolysis involved in c	0.67	2	0.21074815	84	0.24258527
30867	GO:0072511	divalent inorganic catio	0.67	2	0.21074815	84	0.24258527
26932	GO:0055086	nucleobase, nucleoside	0.68	24	2.5289779	944	2.7261963
20627	GO:0044433	cytoplasmic vesicle par	0.68	1	0.105374075	41	0.118404716
5661	GO:0008092	cytoskeletal protein bind	0.68	6	0.63224447	249	0.719092
5768	GO:0008238	exopeptidase activity	0.69	2	0.21074815	86	0.24836111
12734	GO:0030163	protein catabolic proces	0.69	2	0.21074815	86	0.24836111
20515	GO:0044265 GO:0034	cellular macromolecule	0.69	2	0.21074815	86	0.24836111
12805	GO:0030246	carbohydrate binding	0.69	6	0.63224447	251	0.7248679
3718	GO:0005200	structural constituent of	0.69	1	0.105374075	42	0.121292636
5033	GO:0006970	response to osmotic str	0.69	1	0.105374075	42	0.121292636
12659	GO:0030076	light-harvesting comple	0.69	1	0.105374075	42	0.121292636
18956	GO:0042626	ATPase activity, couple	0.69	5	0.52687037	211	0.6093511
4867	GO:0006753	nucleoside phosphate r	0.69	23	2.4236038	914	2.6395588
6484	GO:0009117	nucleotide metabolic pr	0.69	23	2.4236038	914	2.6395588
9861	GO:0016820	hydrolase activity, actin	0.69	5	0.52687037	212	0.612239
3156	GO:0004497	monooxygenase activit	0.70	4	0.4214963	172	0.49672222
5694	GO:0008137	NADH dehydrogenase	0.70	1	0.105374075	43	0.124180555
8589	GO:0015179	L-amino acid transmem	0.70	1	0.105374075	43	0.124180555
9076	GO:0015807	L-amino acid transport	0.70	1	0.105374075	43	0.124180555
13833	GO:0031410	cytoplasmic vesicle	0.70	1	0.105374075	43	0.124180555
14393	GO:0031982	vesicle	0.70	1	0.105374075	43	0.124180555
20624	GO:0044430	cytoskeletal part	0.70	2	0.21074815	88	0.25413695
8495	GO:0015077	monovalent inorganic c	0.70	5	0.52687037	214	0.6180149
4605	GO:0006457 GO:0007	protein folding	0.70	4	0.4214963	173	0.49961013
15949	GO:0033554	cellular response to stre	0.70	4	0.4214963	173	0.49961013
9824	GO:0016773	phosphotransferase ac	0.70	38	4.004215	1493	4.311664
2982	GO:0004197	cysteine-type endopept	0.71	2	0.21074815	90	0.2599128
18953	GO:0042623	ATPase activity, couple	0.71	13	1.369863	537	1.550813
8787	GO:0015450	P-P-bond-hydrolysis-dr	0.71	1	0.105374075	45	0.1299564
9924	GO:0016893	endonuclease activity, d	0.71	1	0.105374075	45	0.1299564
11780	GO:0019829	cation-transporting ATP	0.71	1	0.105374075	45	0.1299564
24456	GO:0050136	NADH dehydrogenase	0.71	1	0.105374075	45	0.1299564
26845	GO:0052689	carboxylic ester hydroly	0.72	13	1.369863	538	1.5537009
3242	GO:0004601 GO:0016	peroxidase activity	0.72	3	0.31612223	135	0.38986918
9754	GO:0016684	oxidoreductase activity	0.72	3	0.31612223	135	0.38986918
8749	GO:0015399	primary active transmem	0.72	6	0.63224447	260	0.75085914
8753	GO:0015405	P-P-bond-hydrolysis-dr	0.72	6	0.63224447	260	0.75085914
4558	GO:0006396 GO:0006	RNA processing	0.72	5	0.52687037	219	0.63245445
12498	GO:0022613	ribonucleoprotein comp	0.72	1	0.105374075	46	0.13284431
18614	GO:0042254 GO:0007	ribosome biogenesis	0.72	1	0.105374075	46	0.13284431
31895	GO:0090304	nucleic acid metabolic r	0.72	60	6.322445	2340	6.7577324
5714	GO:0008170	N-methyltransferase ac	0.73	1	0.105374075	47	0.13573223
8497	GO:0015079 GO:0022	potassium ion transmem	0.73	1	0.105374075	47	0.13573223
9308	GO:0016070	RNA metabolic process	0.73	47	4.952582	1855	5.3570914
9823	GO:0016772	transferase activity, tran	0.73	49	5.1633296	1932	5.579461
14591	GO:0032183	SUMO binding	0.74	1	0.105374075	48	0.13862015
4460	GO:0006260 GO:0055	DNA replication	0.74	5	0.52687037	224	0.64689404
6483	GO:0009116	nucleoside metabolic p	0.74	1	0.105374075	49	0.14150807
6750	GO:0009415	response to water	0.74	1	0.105374075	49	0.14150807
8909	GO:0015630	microtubule cytoskeleto	0.74	1	0.105374075	49	0.14150807
11784	GO:0019838	growth factor binding	0.74	1	0.105374075	49	0.14150807
3185	GO:0004527 GO:0008	exonuclease activity	0.75	1	0.105374075	50	0.14439599
4216	GO:0005976	polysaccharide metabo	0.75	1	0.105374075	50	0.14439599
9993	GO:0017016	Ras GTPase binding	0.75	1	0.105374075	50	0.14439599
29674	GO:0071310	cellular response to org	0.75	1	0.105374075	50	0.14439599
30886	GO:0072530	purine-containing comp	0.75	1	0.105374075	50	0.14439599
3293	GO:0004659	prenyltransferase activi	0.76	1	0.105374075	51	0.14728391
8908	GO:0015629	actin cytoskeleton	0.76	1	0.105374075	51	0.14728391
30207	GO:0071843	cellular component biog	0.76	1	0.105374075	51	0.14728391
2628	GO:0003677	DNA binding	0.76	30	3.1612225	1224	3.534814
15436	GO:0033036	macromolecule localiza	0.76	9	0.9483667	397	1.1465042
4915	GO:0006817	phosphate transport	0.76	1	0.105374075	52	0.15017183
8528	GO:0015114	phosphate transmembr	0.76	1	0.105374075	52	0.15017183
17801	GO:0035435	phosphate transmembr	0.76	1	0.105374075	52	0.15017183
2809	GO:0003993	acid phosphatase activi	0.76	1	0.105374075	52	0.15017183
2778	GO:0003954	NADH dehydrogenase	0.77	1	0.105374075	53	0.15305975
19758	GO:0043492	ATPase activity, couple	0.77	5	0.52687037	235	0.67866117
17918	GO:0035556 GO:0007	intracellular signal trans	0.78	1	0.105374075	54	0.15594767
29251	GO:0070887	cellular response to che	0.78	1	0.105374075	54	0.15594767
11828	GO:0019899	enzyme binding	0.78	5	0.52687037	237	0.684437
4029	GO:0005740	mitochondrial envelope	0.79	3	0.31612223	151	0.4360759
13697	GO:0031267	small GTPase binding	0.79	1	0.105374075	56	0.16172351
6426	GO:0009057 GO:0043	macromolecule catabol	0.79	2	0.21074815	106	0.3061195
7557	GO:0010333	terpene synthase activi	0.80	1	0.105374075	57	0.16461143
8910	GO:0015631	tubulin binding	0.80	2	0.21074815	107	0.30900744
4357	GO:0006139 GO:0055	nucleobase, nucleoside	0.80	83	8.746049	3285	9.486816
3323	GO:0004702	receptor signaling prote	0.80	1	0.105374075	58	0.16749935
5819	GO:0008299 GO:0009	isoprenoid biosynthetic	0.80	1	0.105374075	58	0.16749935
8558	GO:0015145	monosaccharide transp	0.80	1	0.105374075	58	0.16749935
9018	GO:0015749	monosaccharide transp	0.80	1	0.105374075	58	0.16749935



11820	GO:0019887	protein kinase regulator	0.80	1	0.105374075	58	0.16749935
3946	GO:0005623	cell	0.80	215	22.655426	8227	23.758917
20657	GO:0044464	cell part	0.80	215	22.655426	8227	23.758917
5909	GO:0008415	acyltransferase activity	0.80	7	0.73761857	330	0.95301354
11833	GO:0019904	protein domain specific	0.80	2	0.21074815	109	0.31478328
30700	GO:0072341	modified amino acid binding	0.81	1	0.105374075	59	0.17038727
4840	GO:0006720(GO:0016000)	isoprenoid metabolic process	0.81	1	0.105374075	60	0.17327519
5652	GO:0008081(GO:0004429)	phosphoric diester hydrolysis	0.81	1	0.105374075	60	0.17327519
14811	GO:0032403	protein complex binding	0.81	1	0.105374075	60	0.17327519
25319	GO:0051020	GTPase binding	0.81	1	0.105374075	60	0.17327519
29918	GO:0071554	cell wall organization or biogenesis	0.82	2	0.21074815	112	0.32344702
4768	GO:0006644	phospholipid metabolic process	0.82	1	0.105374075	61	0.1761631
2818	GO:0004003	ATP-dependent DNA helicase activity	0.82	1	0.105374075	61	0.1761631
8496	GO:0015078	hydrogen ion transmembrane transport	0.82	3	0.31612223	160	0.4620672
6018	GO:0008559(GO:0005200)	xenobiotic-transporting activity	0.82	1	0.105374075	62	0.17905103
11210	GO:0019207	kinase regulator activity	0.82	1	0.105374075	62	0.17905103
19225	GO:0042908	xenobiotic transport	0.82	1	0.105374075	62	0.17905103
19227	GO:0042910	xenobiotic transporter activity	0.82	1	0.105374075	62	0.17905103
14379	GO:0031966	mitochondrial membrane organization	0.82	2	0.21074815	114	0.32922286
3103	GO:0004437	inositol or phosphatidylinositol binding	0.83	1	0.105374075	64	0.18482687
20623	GO:0044429	mitochondrial part	0.83	3	0.31612223	165	0.47650677
9838	GO:0016790	thiolester hydrolase activity	0.84	1	0.105374075	65	0.18771479
11616	GO:0019637	organophosphate metabolism	0.84	1	0.105374075	65	0.18771479
19526	GO:0043227	membrane-bounded organelle	0.84	52	5.479452	2142	6.185924
19530	GO:0043231	intracellular membrane-bounded organelle	0.84	52	5.479452	2142	6.185924
25416	GO:0051119	sugar transmembrane transport	0.84	2	0.21074815	118	0.34077454
5809	GO:0008289	lipid binding	0.84	5	0.52687037	258	0.74508333
2629	GO:0003678(GO:0003678)	DNA helicase activity	0.84	1	0.105374075	67	0.19349062
17024	GO:0034645(GO:0034645)	cellular macromolecule biosynthesis	0.85	48	5.0579557	1999	5.7729516
18955	GO:0042625	ATPase activity, coupled	0.85	1	0.105374075	68	0.19637854
6884	GO:0009607	response to biotic stimulus	0.85	2	0.21074815	122	0.3523262
6428	GO:0009059(GO:0043200)	macromolecule biosynthesis	0.85	48	5.0579557	2003	5.7845035
5726	GO:0008187	poly-pyrimidine tract binding	0.86	1	0.105374075	70	0.20215438
5788	GO:0008266	poly(U) RNA binding	0.86	1	0.105374075	70	0.20215438
5838	GO:0008320	protein transmembrane transport	0.86	1	0.105374075	70	0.20215438
9853	GO:0016811	hydrolase activity, acting on ester bonds	0.86	1	0.105374075	70	0.20215438
12568	GO:0022884	macromolecule transmembrane transport	0.86	1	0.105374075	70	0.20215438
23522	GO:0048046	apoplast	0.86	1	0.105374075	70	0.20215438
2649	GO:0003713	transcription coactivator activity	0.86	1	0.105374075	70	0.20215438
4067	GO:0005783	endoplasmic reticulum	0.86	3	0.31612223	174	0.50249803
3200	GO:0004553(GO:0016000)	hydrolase activity, hydrolyzing ester bonds	0.86	6	0.63224447	312	0.90103096
7691	GO:0010467	gene expression	0.86	47	4.952582	1974	5.7007537
9845	GO:0016798	hydrolase activity, acting on ether bonds	0.86	8	0.8429926	401	1.1580559
9771	GO:0016709	oxidoreductase activity, acting on NADPH	0.86	1	0.105374075	71	0.2050423
9869	GO:0016829	lyase activity	0.86	10	1.0537407	488	1.4093049
4121	GO:0005856	cytoskeleton	0.86	2	0.21074815	126	0.3638779
20531	GO:0044281	small molecule metabolic process	0.87	42	4.425711	1788	5.1636004
3311	GO:0004683(GO:0004683)	calmodulin-dependent protein kinase activity	0.87	1	0.105374075	74	0.21370606
4394	GO:0006184	GTP catabolic process	0.88	2	0.21074815	132	0.3812054
21605	GO:0046039	GTP metabolic process	0.88	2	0.21074815	132	0.3812054
2758	GO:0003924	GTPase activity	0.88	2	0.21074815	132	0.3812054
6529	GO:0009165	nucleotide biosynthetic process	0.88	1	0.105374075	77	0.22236982
9877	GO:0016838	carbon-oxygen lyase activity	0.88	1	0.105374075	77	0.22236982
9852	GO:0016810	hydrolase activity, acting on ester bonds	0.89	2	0.21074815	134	0.38698125
5196	GO:0007166	cell surface receptor-linked signaling	0.89	1	0.105374075	78	0.22525774
3903	GO:0005575(GO:0008000)	cellular component	0.89	218	22.971548	8515	24.590637
22007	GO:0046483	heterocycle metabolic process	0.89	214	2.528979	1094	3.1593843
9682	GO:0016597	amino acid binding	0.89	1	0.105374075	80	0.2310336
19479	GO:0043176	amine binding	0.89	1	0.105374075	80	0.2310336
15189	GO:0032787	monocarboxylic acid metabolism	0.89	1	0.105374075	81	0.23392151
18674	GO:0042325	regulation of phosphorylation	0.89	1	0.105374075	81	0.23392151
4942	GO:0006855	drug transmembrane transport	0.90	2	0.21074815	139	0.40142086
8642	GO:0015238(GO:0015238)	drug transmembrane transport	0.90	2	0.21074815	139	0.40142086
9154	GO:0015893	drug transport	0.90	2	0.21074815	139	0.40142086
18832	GO:0042493(GO:0017000)	response to drug	0.90	2	0.21074815	139	0.40142086
2658	GO:0003729	mRNA binding	0.90	1	0.105374075	82	0.23680943
3895	GO:0005543	phospholipid binding	0.90	2	0.21074815	140	0.40430877
6046	GO:0008610	lipid biosynthetic process	0.90	2	0.21074815	141	0.4071967
22479	GO:0046983	protein dimerization activity	0.90	10	1.0537407	517	1.4930545
8557	GO:0015144	carbohydrate transmembrane transport	0.91	2	0.21074815	143	0.41297254
16602	GO:0034219	carbohydrate transmembrane transport	0.91	2	0.21074815	143	0.41297254
11222	GO:0019220	regulation of phosphorylation	0.91	1	0.105374075	85	0.24547319
25471	GO:0051174	regulation of phosphorylation	0.91	1	0.105374075	85	0.24547319
4032	GO:0005743	mitochondrial inner membrane	0.91	1	0.105374075	88	0.25413695
6071	GO:0008643(GO:0006000)	carbohydrate transport	0.91	2	0.21074815	147	0.42452422
14380	GO:0031967	organelle envelope	0.92	3	0.31612223	201	0.5804719
9874	GO:0016835	carbon-oxygen lyase activity	0.92	3	0.31612223	202	0.5833598
11426	GO:0019438	aromatic compound biosynthesis	0.92	2	0.21074815	149	0.43030006
14590	GO:0032182	small conjugating protein	0.92	1	0.105374075	90	0.2599128
3644	GO:0005102	receptor binding	0.92	1	0.105374075	91	0.2628007
14387	GO:0031975	envelope	0.92	3	0.31612223	205	0.59202355
16785	GO:0034404	nucleobase, nucleoside, nucleotide	0.92	1	0.105374075	92	0.26568863
17033	GO:0034654	nucleobase, nucleoside, nucleotide	0.92	1	0.105374075	92	0.26568863
20336	GO:0044085	cellular component biosynthesis	0.92	1	0.105374075	93	0.26857653
3808	GO:0005351(GO:0005351)	sugar:hydrogen symporter	0.93	1	0.105374075	94	0.27146447
3835	GO:0005402	cation:sugar symporter	0.93	1	0.105374075	94	0.27146447
11803	GO:0019866	organelle inner membrane	0.93	1	0.105374075	94	0.27146447
3178	GO:0004519	endonuclease activity	0.93	6	0.63224447	356	1.0280994
4906	GO:0006807	nitrogen compound metabolism	0.93	89	9.378293	3725	10.757502
4612	GO:0006468	protein phosphorylation	0.93	50	5.268704	2205	6.367863
19126	GO:0042803	protein homodimerization activity	0.93	4	0.4214963	265	0.7652988
8677	GO:0015295	solute:hydrogen symporter	0.93	1	0.105374075	98	0.28301615
13829	GO:0031406	carboxylic acid binding	0.93	1	0.105374075	98	0.28301615
16851	GO:0034470	ncRNA processing	0.94	1	0.105374075	99	0.28590405
17039	GO:0034660	ncRNA metabolic process	0.94	1	0.105374075	99	0.28590405
13041	GO:0030554	adenyl nucleotide binding	0.94	10	1.0537407	550	1.5883559
14965	GO:0032559	adenyl ribonucleotide binding	0.94	10	1.0537407	550	1.5883559
9870	GO:0016830	carbon-carbon lyase activity	0.94	2	0.21074815	161	0.4649551
7271	GO:0010033	response to organic substance	0.94	1	0.105374075	100	0.28879198
16430	GO:0034046	poly(G) RNA binding	0.94	1	0.105374075	100	0.28879198
17020	GO:0034641	cellular nitrogen compound metabolic process	0.94	87	9.167544	3678	10.621769
5764	GO:0008234(GO:0004000)	cysteine-type peptidase activity	0.94	2	0.21074815	163	0.47073093
4028	GO:0005739	mitochondrion	0.94	3	0.31612223	219	0.63245445

19125	GO:0042802	identical protein binding	0.95	13	1.369863	697	2.01288
4649	GO:0006520 GO:0006915	cellular amino acid metabolism	0.95	4	0.4214963	277	0.7999538
9494	GO:0016311	dephosphorylation	0.95	7	0.73761857	425	1.227366
6077	GO:0008652	cellular amino acid biosynthesis	0.95	2	0.21074815	169	0.48805845
3177	GO:0004518	nuclease activity	0.95	7	0.73761857	427	1.2331418
3884	GO:0005524	ATP binding	0.95	9	0.9483667	524	1.51327
9839	GO:0016791 GO:0016792	phosphatase activity	0.95	6	0.63224447	383	1.1060733
13531	GO:0031072	heat shock protein binding	0.95	3	0.31612223	230	0.6642216
9493	GO:0016310	phosphorylation	0.96	56	5.9009485	2504	7.2313514
29081	GO:0070717	poly-purine tract binding	0.96	1	0.105374075	112	0.32344702
4850	GO:0006732 GO:0006915	coenzyme metabolic process	0.96	1	0.105374075	113	0.32633495
19686	GO:0043414	macromolecule methylation	0.96	1	0.105374075	113	0.32633495
3904	GO:0005576	extracellular region	0.96	2	0.21074815	178	0.5140497
13082	GO:0030599	pectinesterase activity	0.96	2	0.21074815	178	0.5140497
9837	GO:0016788	hydrolase activity, acting on esters	0.96	32	3.3719704	1534	4.430069
6020	GO:0008565 GO:0015498	protein transporter activity	0.96	1	0.105374075	115	0.3321108
9871	GO:0016831	carboxy-lyase activity	0.96	1	0.105374075	115	0.3321108
6663	GO:0009309	amine biosynthetic process	0.96	2	0.21074815	181	0.5227135
18912	GO:0042578	phosphoric ester hydrolysis	0.96	7	0.73761857	444	1.2822365
20505	GO:0044255	cellular lipid metabolic process	0.96	2	0.21074815	184	0.53137726
4844	GO:0006725	cellular aromatic compound metabolic process	0.96	2	0.21074815	185	0.53426516
3885	GO:0005525	GTP binding	0.97	3	0.31612223	245	0.70754033
11032	GO:0019001	guanyl nucleotide binding	0.97	3	0.31612223	245	0.70754033
14967	GO:0032561	guanyl ribonucleotide binding	0.97	3	0.31612223	245	0.70754033
2657	GO:0003727 GO:0003728	single-stranded RNA binding	0.97	2	0.21074815	188	0.54292893
20356	GO:0044106	cellular amine metabolic process	0.97	4	0.4214963	303	0.8750397
9889	GO:0016853	isomerase activity	0.97	4	0.4214963	306	0.8837035
12741	GO:0030170	pyridoxal phosphate binding	0.97	1	0.105374075	126	0.3638779
28643	GO:0070279	vitamin B6 binding	0.97	1	0.105374075	126	0.3638779
634	GO:0000988	protein binding transcription factor	0.97	1	0.105374075	126	0.3638779
635	GO:0000989	transcription factor binding	0.97	1	0.105374075	126	0.3638779
2648	GO:0003712	transcription cofactor activity	0.97	1	0.105374075	126	0.3638779
6662	GO:0009308	amine metabolic process	0.97	4	0.4214963	314	0.9068068
19533	GO:0043234	protein complex	0.97	15	1.5806112	848	2.448956
20499	GO:0044249	cellular biosynthetic process	0.98	57	6.0063224	2635	7.6096687
9836	GO:0016787	hydrolase activity	0.98	84	8.851422	3723	10.751725
3449	GO:0004842 GO:0004843	ubiquitin-protein ligase activity	0.98	4	0.4214963	326	0.94146186
18582	GO:0042221	response to chemical stimulus	0.98	4	0.4214963	328	0.94723773
9295	GO:0016053	organic acid biosynthesis	0.98	2	0.21074815	211	0.6093511
21922	GO:0046394	carboxylic acid biosynthesis	0.98	2	0.21074815	211	0.6093511
9654	GO:0016567	protein ubiquitination	0.98	4	0.4214963	332	0.9587894
14854	GO:0032446	protein modification by phosphorylation	0.98	4	0.4214963	332	0.9587894
29011	GO:0070647	protein modification by phosphorylation	0.98	4	0.4214963	332	0.9587894
3716	GO:0005198	structural molecule activity	0.98	5	0.52687037	393	1.1349525
11747	GO:0019787 GO:0008954	small conjugating protein	0.98	4	0.4214963	339	0.9790048
4897	GO:0006793	phosphorus metabolic process	0.98	63	6.638567	2925	8.4471655
4900	GO:0006796	phosphate metabolic process	0.98	63	6.638567	2925	8.4471655
5019	GO:0006952 GO:0002252	defense response	0.98	2	0.21074815	221	0.63823026
14959	GO:0032553	ribonucleotide binding	0.99	13	1.369863	795	2.2958963
14961	GO:0032555	purine ribonucleotide binding	0.99	13	1.369863	795	2.2958963
10033	GO:0017076	purine nucleotide binding	0.99	13	1.369863	797	2.3016722
13547	GO:0031090	organelle membrane	0.99	2	0.21074815	224	0.64689404
14386	GO:0031974	membrane-enclosed lumen	0.99	1	0.105374075	154	0.44473964
4609	GO:0006464	protein modification by phosphorylation	0.99	59	6.2170706	2781	8.031305
6427	GO:0009058	biosynthetic process	0.99	59	6.2170706	2796	8.074624
18000	GO:0035639	purine ribonucleoside triphosphate binding	0.99	12	1.2644889	769	2.2208104
25483	GO:0051186	cofactor metabolic process	0.99	1	0.105374075	164	0.47361887
4320	GO:0006082	organic acid metabolic process	0.99	4	0.4214963	369	1.0656425
11716	GO:0019752	carboxylic acid metabolic process	0.99	4	0.4214963	369	1.0656425
19707	GO:0043436	oxoacid metabolic process	0.99	4	0.4214963	369	1.0656425
2660	GO:0003735 GO:0003736	structural constituent of ribosome	0.99	2	0.21074815	246	0.7104283
131	GO:0000166	nucleotide binding	0.99	21	2.2128556	1213	3.5030468
18541	GO:0042180	cellular ketone metabolism	0.99	4	0.4214963	375	1.0829699
11787	GO:0019842	vitamin binding	0.99	1	0.105374075	177	0.5111618
9906	GO:0016874	ligase activity	0.99	8	0.8429926	597	1.7240882
19684	GO:0043412	macromolecule modification	0.99	60	6.322445	2900	8.374968
20510	GO:0044260 GO:0034959	cellular macromolecule metabolic process	0.99	126	13.277134	5577	16.105928
5610	GO:0008026	ATP-dependent helicase activity	0.99	1	0.105374075	183	0.52848935
28401	GO:0070035	purine NTP-dependent helicase activity	0.99	1	0.105374075	183	0.52848935
8466	GO:0015031 GO:0015032	protein transport	0.99	1	0.105374075	185	0.53426516
20820	GO:0045184	establishment of protein transport	0.99	1	0.105374075	185	0.53426516
9913	GO:0016881	acid-amino acid ligase activity	0.99	4	0.4214963	391	1.1291766
3068	GO:0004386	helicase activity	0.99	1	0.105374075	189	0.54581684
5669	GO:0008104	protein localization	0.99	1	0.105374075	189	0.54581684
9911	GO:0016879	ligase activity, forming diphosphate	1.00	5	0.52687037	456	1.3168914
3340	GO:0004721	phosphoprotein phosphorylation	1.00	1	0.105374075	199	0.57469606
20533	GO:0044283	small molecule biosynthesis	1.00	3	0.31612223	347	1.0021082
2626	GO:0003674 GO:0003675	molecular function	1.00	630	66.385666	24394	70.447914
30204	GO:0071840	cellular component organization	1.00	3	0.31612223	362	1.045427
19525	GO:0043226	organelle	1.00	60	6.322445	3013	8.701303
19528	GO:0043229	intracellular organelle	1.00	60	6.322445	3013	8.701303
20517	GO:0044267	cellular protein metabolism	1.00	65	6.849315	3225	9.313541
20521	GO:0044271	cellular nitrogen compound metabolic process	1.00	3	0.31612223	367	1.0598665
7229	GO:0009987 GO:0008954	cellular process	1.00	250	26.34352	10601	30.614838
20487	GO:0044237	cellular metabolic process	1.00	185	19.494204	8185	23.637625
30205	GO:0071841	cellular component organization	1.00	1	0.105374075	285	0.8230572
20618	GO:0044424	intracellular part	1.00	75	7.9030557	3853	11.127155
3876	GO:0005515 GO:0045353	protein binding	1.00	147	15.489989	6933	20.021948
20640	GO:0044446	intracellular organelle part	1.00	6	0.63224447	710	2.0504231
20616	GO:0044422	organelle part	1.00	6	0.63224447	712	2.0561988
3945	GO:0005622	intracellular	1.00	92	9.694415	4751	13.720507
2627	GO:0003676	nucleic acid binding	1.00	39	4.109589	2453	7.0840673
4109	GO:0005840 GO:0033063	ribosome	1.00	5	0.52687037	682	1.9695613
20638	GO:0044444	cytoplasmic part	1.00	21	2.2128556	1644	4.7477403
13018	GO:0030529	ribonucleoprotein complex	1.00	5	0.52687037	741	2.1399486
15392	GO:0032991	macromolecular complex	1.00	20	2.1074815	1616	4.666878
19527	GO:0043228	non-membrane-bound organelle	1.00	7	0.73761857	923	2.66555
19531	GO:0043232	intracellular non-membrane-bound organelle	1.00	7	0.73761857	923	2.66555
4027	GO:0005737	cytoplasm	1.00	25	2.634352	2001	5.7787275
3863	GO:0005488	binding	1.00	308	32.455215	13903	40.15075
2653	GO:0003723	RNA binding	1.00	3	0.31612223	797	2.3016722



GO ID	GO ACCESSION	GO Term	p-value	Count in Selection	% Count in Selection	Count in Total	% Count in Total
5704	GO:0008150 GO:000	biological_process	0.00	922	71.806854	22215	64.155136
2674	GO:0003824	catalytic activity	0.00	474	36.91589	10750	31.045137
4612	GO:0006468	protein phosphorylat	0.00	123	9.579439	2205	6.367863
9493	GO:0016310	phosphorylation	0.00	136	10.5919	2504	7.2313514
4897	GO:0006793	phosphorus metabol	0.00	154	11.99377	2925	8.4471655
4900	GO:0006796	phosphate metabolic	0.00	154	11.99377	2925	8.4471655
9795	GO:0016740	transferase activity	0.00	189	14.719626	3764	10.870131
5705	GO:0008152	metabolic process	0.00	721	56.15265	17432	50.34222
9488	GO:0016301	kinase activity	0.00	99	7.7102804	1740	5.0249805
9824	GO:0016773	phosphotransferase	0.00	86	6.697819	1493	4.311664
3304	GO:0004672 GO:005	protein kinase activit	0.00	78	6.074766	1333	3.8495972
4215	GO:0005975	carbohydrate metabo	0.00	61	4.7507787	990	2.8590407
3874	GO:0005509	calcium ion binding	0.00	24	1.8691589	279	0.8057296
3306	GO:0004674 GO:005	protein serine/threon	0.00	63	4.906542	1062	3.0669708
3490	GO:0004888 GO:005	transmembrane rece	0.00	39	3.037383	571	1.6490022
9823	GO:0016772	transferase activity, t	0.00	102	7.9439254	1932	5.579461
24968	GO:0050662	coenzyme binding	0.00	18	1.4018692	191	0.5515927
3904	GO:0005576	extracellular region	0.00	17	1.3239875	178	0.5140497
3476	GO:0004872 GO:005	receptor activity	0.00	43	3.3489096	672	1.9406822
24966	GO:0050660	flavin adenine dinucl	0.00	13	1.0124611	118	0.34077454
9845	GO:0016798	hydrolase activity, ac	0.00	29	2.258567	401	1.1580559
9486	GO:0016298	lipase activity	0.00	17	1.3239875	185	0.53426516
11202	GO:0019199	transmembrane rece	0.00	34	2.647975	504	1.4555116
4609	GO:0006464	protein modification	0.00	135	10.514019	2781	8.031305
9813	GO:0016759	cellulose synthase a	0.00	8	0.62305295	57	0.16461143
3167	GO:0004508	steroid 17-alpha-mo	0.00	2	0.15576324	2	0.00577584
9847	GO:0016801	hydrolase activity, ac	0.00	4	0.31152648	14	0.040430877
25098	GO:0050794 GO:005	regulation of cellular	0.00	182	14.174455	3987	11.514136
3475	GO:0004871 GO:005	signal transducer ac	0.00	46	3.5825546	787	2.2727928
27063	GO:0060089	molecular transduce	0.00	46	3.5825546	787	2.2727928
3260	GO:0004620	phospholipase activi	0.00	12	0.93457943	123	0.35521415
5981	GO:0008509	anion transmembran	0.00	19	1.4797508	245	0.70754033
8980	GO:0015711	organic anion transp	0.00	6	0.46728972	37	0.10685303
4917	GO:0006820 GO:005	anion transport	0.00	19	1.4797508	247	0.7133162
25094	GO:0050789 GO:005	regulation of biologic	0.00	194	15.109035	4315	12.461374
8159	GO:0010951	negative regulation c	0.00	10	0.7788162	95	0.27435237
3472	GO:0004866	endopeptidase inhibi	0.00	10	0.7788162	95	0.27435237
26712	GO:0052548	regulation of endope	0.00	10	0.7788162	95	0.27435237
28101	GO:0061135	endopeptidase regul	0.00	10	0.7788162	95	0.27435237
9816	GO:0016762	xyloglucan:xylogluco	0.00	5	0.3894081	27	0.077973835
3473	GO:0004867	serine-type endopep	0.00	8	0.62305295	66	0.1906027
5891	GO:0008395 GO:005	steroid hydroxylase a	0.00	6	0.46728972	40	0.1155168
3723	GO:0005215 GO:005	transporter activity	0.00	91	7.0872273	1844	5.325324
19684	GO:0043412	macromolecule mod	0.00	135	10.514019	2900	8.374968
5986	GO:0008514	organic anion transm	0.00	5	0.3894081	29	0.083749674
9848	GO:0016802	trialkylsulfonium hyd	0.00	2	0.15576324	3	0.00866376
2822	GO:0004013	adenosylhomocystei	0.00	2	0.15576324	3	0.00866376
28364	GO:0065007	biological regulation	0.00	194	15.109035	4376	12.637537
3242	GO:0004601 GO:005	peroxidase activity	0.00	12	0.93457943	135	0.38986918
9754	GO:0016684	oxidoreductase activ	0.00	12	0.93457943	135	0.38986918
12602	GO:0023052 GO:005	signaling	0.00	52	4.0498443	961	2.775291
5195	GO:0007165 GO:005	signal transduction	0.00	52	4.0498443	961	2.775291
23116	GO:0047631	ADP-ribose diphosph	0.01	3	0.23364486	10	0.0288792
2797	GO:0003979	UDP-glucose 6-dehy	0.01	3	0.23364486	10	0.0288792
3307	GO:0004675	transmembrane rece	0.01	24	1.8691589	367	1.0598665
23515	GO:0048037	cofactor binding	0.01	22	1.7133956	327	0.94434977
26931	GO:0055085	transmembrane tran	0.01	77	5.996885	1548	4.4705
21331	GO:0045735	nutrient reservoir act	0.01	9	0.7009346	89	0.25702485
3464	GO:0004857	enzyme inhibitor acti	0.01	13	1.0124611	157	0.4534034
13082	GO:0030599	pectinesterase activi	0.01	14	1.0903426	178	0.5140497
3877	GO:0005516	calmodulin binding	0.01	17	1.3239875	236	0.6815491
7690	GO:0010466	negative regulation c	0.01	10	0.7788162	110	0.31767118
12946	GO:0030414	peptidase inhibitor a	0.01	10	0.7788162	110	0.31767118
25636	GO:0051346	negative regulation c	0.01	10	0.7788162	110	0.31767118
6293	GO:0008898	homocysteine S-met	0.01	2	0.15576324	4	0.011551679
16227	GO:0033843	xyloglucan 6-xylosyl	0.01	2	0.15576324	4	0.011551679
6018	GO:0008559 GO:005	xenobiotic-transporti	0.01	7	0.5451713	62	0.17905103
19225	GO:0042908	xenobiotic transport	0.01	7	0.5451713	62	0.17905103
19227	GO:0042910	xenobiotic transporte	0.01	7	0.5451713	62	0.17905103
12547	GO:0022857 GO:005	transmembrane tran	0.01	73	5.685358	1483	4.282785
26711	GO:0052547	regulation of peptida	0.01	10	0.7788162	112	0.32344702
28100	GO:0061134	peptidase regulator a	0.01	10	0.7788162	112	0.32344702
12806	GO:0030247	polysaccharide bindi	0.01	5	0.3894081	35	0.10107719
1169	GO:0001871	pattern binding	0.01	5	0.3894081	35	0.10107719
5636	GO:0008061	chitin binding	0.01	4	0.31152648	23	0.06642216
26845	GO:0052689	carboxylic ester hydr	0.01	31	2.4143302	538	1.5537009
9814	GO:0016760	cellulose synthase (l	0.01	3	0.23364486	13	0.037542958
3213	GO:0004568	chitinase activity	0.01	4	0.31152648	24	0.06931008
6248	GO:0008843	endochitinase activit	0.01	4	0.31152648	24	0.06931008
25578	GO:0051287 GO:005	NAD binding	0.01	4	0.31152648	24	0.06931008
3229	GO:0004586	ornithine decarboxyl	0.01	2	0.15576324	5	0.0144396
9812	GO:0016758	transferase activity, t	0.01	29	2.258567	501	1.4468478
2999	GO:0004312	fatty acid synthase a	0.01	7	0.5451713	68	0.19637854
11157	GO:0019144	ADP-sugar diphosph	0.01	3	0.23364486	14	0.040430877

4909	GO:0006810 GO:00	transport	0.01	106	8.255452	2315	6.6855345
25529	GO:0051234	establishment of loca	0.01	106	8.255452	2315	6.6855345
4942	GO:0006855	drug transmembrane	0.01	11	0.8566978	139	0.40142086
8642	GO:0015238 GO:00	drug transmembrane	0.01	11	0.8566978	139	0.40142086
9154	GO:0015893	drug transport	0.01	11	0.8566978	139	0.40142086
18832	GO:0042493 GO:00	response to drug	0.01	11	0.8566978	139	0.40142086
25626	GO:0051336	regulation of hydrola	0.01	14	1.0903426	196	0.5660323
9811	GO:0016757 GO:00	transferase activity, t	0.01	39	3.037383	729	2.1052935
25476	GO:0051179	localization	0.02	106	8.255452	2319	6.697086
119	GO:0000151	ubiquitin ligase comp	0.02	8	0.62305295	88	0.25413695
3209	GO:0004564	beta-fructofuranosid	0.02	3	0.23364486	15	0.043318797
3305	GO:0004673 GO:00	protein histidine kina	0.02	2	0.15576324	6	0.01732752
4118	GO:0005852	eukaryotic translatio	0.02	2	0.15576324	6	0.01732752
11899	GO:0019992	diacylglycerol bindin	0.02	2	0.15576324	6	0.01732752
18640	GO:0042285	xylosyltransferase ac	0.02	2	0.15576324	6	0.01732752
3382	GO:0004768 GO:00	stearoyl-CoA 9-desa	0.02	3	0.23364486	16	0.046206716
9427	GO:0016215	CoA desaturase acti	0.02	3	0.23364486	16	0.046206716
9422	GO:0016209	antioxidant activity	0.02	12	0.93457943	165	0.47650677
18738	GO:0042389	omega-3 fatty acid d	0.02	3	0.23364486	17	0.049094636
19393	GO:0043086	negative regulation c	0.02	13	1.0124611	188	0.54292893
20342	GO:0044092	negative regulation c	0.02	13	1.0124611	188	0.54292893
6216	GO:0008810	cellulase activity	0.02	4	0.31152648	30	0.086637594
3200	GO:0004553 GO:00	hydrolase activity, hy	0.02	19	1.4797508	312	0.90103096
12805	GO:0030246	carbohydrate binding	0.03	16	1.2461059	251	0.7248679
6416	GO:0009044	xylan 1,4-beta-xylosi	0.03	3	0.23364486	18	0.051982556
9871	GO:0016831	carboxy-lyase activit	0.03	9	0.7009346	115	0.3321108
25998	GO:0051716	cellular response to	0.03	55	4.283489	1138	3.2864528
6424	GO:0009055 GO:00	electron carrier activ	0.03	11	0.8566978	154	0.44473964
3265	GO:0004630	phospholipase D act	0.03	4	0.31152648	32	0.09241343
3785	GO:0005315 GO:00	inorganic phosphate	0.03	4	0.31152648	32	0.09241343
19758	GO:0043492	ATPase activity, cou	0.03	15	1.1682243	235	0.67866117
3827	GO:0005372	water transmembran	0.03	7	0.5451713	81	0.23392151
4927	GO:0006833	water transport	0.03	7	0.5451713	81	0.23392151
8652	GO:0015250	water channel activit	0.03	7	0.5451713	81	0.23392151
18429	GO:0042044	fluid transport	0.03	7	0.5451713	81	0.23392151
9800	GO:0016746	transferase activity, t	0.03	27	2.1028037	498	1.438184
3051	GO:0004367	glycerol-3-phosphate	0.03	2	0.15576324	8	0.023103358
5698	GO:0008142	oxysterol binding	0.03	2	0.15576324	8	0.023103358
6684	GO:0009331	glycerol-3-phosphate	0.03	2	0.15576324	8	0.023103358
15335	GO:0032934 GO:00	sterol binding	0.03	2	0.15576324	8	0.023103358
18639	GO:0042284	sphingolipid delta-4	0.03	2	0.15576324	8	0.023103358
4755	GO:0006629	lipid metabolic proce	0.03	31	2.4143302	590	1.7038727
6750	GO:0009415	response to water	0.03	5	0.3894081	49	0.14150807
11221	GO:0019219	regulation of nucleot	0.03	117	9.112149	2675	7.7251854
25468	GO:0051171	regulation of nitroge	0.03	117	9.112149	2675	7.7251854
12533	GO:0022838	substrate-specific ch	0.04	14	1.0903426	221	0.63823026
21046	GO:0045437	uridine nucleosidase	0.04	1	0.07788162	1	0.00288792
24582	GO:0050263	ribosylpyrimidine nuc	0.04	1	0.07788162	1	0.00288792
31465	GO:0080090	regulation of primary	0.04	118	9.190031	2710	7.826263
9836	GO:0016787	hydrolase activity	0.04	158	12.305296	3723	10.751725
23199	GO:0047714	galactolipase activity	0.04	4	0.31152648	35	0.10107719
7213	GO:0009966 GO:00	regulation of signal t	0.04	5	0.3894081	51	0.14728391
12601	GO:0023051	regulation of signalin	0.04	5	0.3894081	51	0.14728391
4530	GO:0006355 GO:00	regulation of transcri	0.04	113	8.800623	2591	7.4826
25544	GO:0051252	regulation of RNA m	0.04	113	8.800623	2593	7.488376
23518	GO:0048040	UDP-glucuronate de	0.04	3	0.23364486	21	0.060646318
13753	GO:0031323	regulation of cellular	0.04	120	9.345795	2770	7.999538
3734	GO:0005227	calcium activated ca	0.04	2	0.15576324	9	0.025991278
8661	GO:0015269	calcium-activated po	0.04	2	0.15576324	9	0.025991278
12534	GO:0022839	ion gated channel ac	0.04	2	0.15576324	9	0.025991278
19254	GO:0042937	tripeptide transporte	0.04	2	0.15576324	9	0.025991278
20517	GO:0044267	cellular protein meta	0.04	138	10.7476635	3225	9.313541
4915	GO:0006817	phosphate transport	0.04	5	0.3894081	52	0.15017183
8528	GO:0015114	phosphate transmen	0.04	5	0.3894081	52	0.15017183
17801	GO:0035435	phosphate transmen	0.04	5	0.3894081	52	0.15017183
8660	GO:0015267 GO:00	channel activity	0.04	14	1.0903426	226	0.6526699
12515	GO:0022803	passive transmembr	0.04	14	1.0903426	226	0.6526699
23522	GO:0048046	apoplast	0.05	6	0.46728972	70	0.20215438
7141	GO:0009889	regulation of biosynt	0.05	113	8.800623	2605	7.523031
7772	GO:0010556	regulation of macrom	0.05	113	8.800623	2605	7.523031
13756	GO:0031326	regulation of cellular	0.05	113	8.800623	2605	7.523031
32213	GO:2000112	regulation of cellular	0.05	113	8.800623	2605	7.523031
2626	GO:0003674 GO:00	molecular_function	0.05	932	72.58567	24394	70.447914
8489	GO:0015066	alpha-amylase inhibi	0.05	3	0.23364486	22	0.06353424
11224	GO:0019222	regulation of metabo	0.05	133	10.358255	3115	8.995871
5716	GO:0008172	S-methyltransferase	0.05	2	0.15576324	10	0.0288792
6632	GO:0009269	response to desiccac	0.05	2	0.15576324	10	0.0288792
9826	GO:0016775	phosphotransferase	0.05	2	0.15576324	10	0.0288792
18956	GO:0042626	ATPase activity, cou	0.05	13	1.0124611	211	0.6093511
12644	GO:0030054	cell junction	0.05	3	0.23364486	23	0.06642216
22414	GO:0046912	transferase activity, t	0.05	3	0.23364486	23	0.06642216
9861	GO:0016820	hydrolase activity, ac	0.05	13	1.0124611	212	0.612239
8494	GO:0015075	ion transmembrane t	0.05	40	3.115265	827	2.3883097
9801	GO:0016747	transferase activity, t	0.06	24	1.8691589	456	1.3168914
9779	GO:0016717	oxidoreductase activ	0.06	3	0.23364486	24	0.06931008
27228	GO:0060255	regulation of macrom	0.06	114	8.878505	2660	7.6818666



2897	GO:0004091 GO:00	carboxylesterase act	0.06	12	0.93457943	194	0.5602564
7692	GO:0010468	regulation of gene ex	0.06	113	8.800623	2635	7.6096687
12574	GO:0022892	substrate-specific tra	0.06	66	5.140187	1463	4.2250266
16603	GO:0034220	ion transmembrane t	0.06	40	3.115265	833	2.4056373
23973	GO:0048583	regulation of respons	0.06	5	0.3894081	57	0.16461143
2989	GO:0004301	epoxide hydrolase a	0.06	2	0.15576324	11	0.03176712
4250	GO:0006012	galactose metabolic	0.06	2	0.15576324	11	0.03176712
9849	GO:0016803	ether hydrolase activ	0.06	2	0.15576324	11	0.03176712
19256	GO:0042939	tripeptide transport	0.06	2	0.15576324	11	0.03176712
8517	GO:0015103	inorganic anion trans	0.06	10	0.7788162	154	0.44473964
8749	GO:0015399	primary active transp	0.06	15	1.1682243	260	0.75085914
8753	GO:0015405	P-P-bond-hydrolysis	0.06	15	1.1682243	260	0.75085914
22478	GO:0046982	protein heterodimeriz	0.06	8	0.62305295	114	0.3292286
8558	GO:0015145	monosaccharide tran	0.06	5	0.3894081	58	0.16749935
9018	GO:0015749	monosaccharide tran	0.06	5	0.3894081	58	0.16749935
8967	GO:0015698	inorganic anion trans	0.06	11	0.8566978	176	0.5082739
2831	GO:0004022	alcohol dehydrogen	0.07	5	0.3894081	59	0.17038727
9909	GO:0016877	ligase activity, formir	0.07	6	0.46728972	78	0.22525774
7000	GO:0009734	auxin mediated signa	0.07	3	0.23364486	26	0.075085916
7540	GO:0010315	auxin efflux	0.07	3	0.23364486	26	0.075085916
7553	GO:0010329	auxin efflux transmem	0.07	3	0.23364486	26	0.075085916
29729	GO:0071365	cellular response to	0.07	3	0.23364486	26	0.075085916
3864	GO:0005496	steroid binding	0.07	2	0.15576324	12	0.03465504
6946	GO:0009678	hydrogen-translocati	0.07	2	0.15576324	12	0.03465504
7526	GO:0010301 GO:00	xanthoxin dehydroge	0.07	2	0.15576324	12	0.03465504
9699	GO:0016616	oxidoreductase activ	0.07	15	1.1682243	266	0.7681867
2804	GO:0003988	acetyl-CoA C-acyltra	0.07	1	0.07788162	2	0.00577584
2951	GO:0004149	dihydrolypoyllysine-re	0.07	1	0.07788162	2	0.00577584
2990	GO:0004303	estradiol 17-beta-de	0.07	1	0.07788162	2	0.00577584
3148	GO:0004489 GO:00	methylenetetrahydro	0.07	1	0.07788162	2	0.00577584
4699	GO:0006570	tyrosine metabolic pr	0.07	1	0.07788162	2	0.00577584
4700	GO:0006571	tyrosine biosynthetic	0.07	1	0.07788162	2	0.00577584
5941	GO:0008455	alpha-1,6-mannosyl	0.07	1	0.07788162	2	0.00577584
6593	GO:0009229	thiamine diphosphat	0.07	1	0.07788162	2	0.00577584
9190	GO:0015930	glutamate synthase	0.07	1	0.07788162	2	0.00577584
9282	GO:0016040	glutamate synthase	0.07	1	0.07788162	2	0.00577584
9419	GO:0016206	catechol O-methyltra	0.07	1	0.07788162	2	0.00577584
9686	GO:0016602	CCAAT-binding facto	0.07	1	0.07788162	2	0.00577584
9802	GO:0016748	succinyltransferase	0.07	1	0.07788162	2	0.00577584
9805	GO:0016751	S-succinyltransferas	0.07	1	0.07788162	2	0.00577584
15586	GO:0033187	inositol hexakisphos	0.07	1	0.07788162	2	0.00577584
18706	GO:0042357	thiamine diphosphat	0.07	1	0.07788162	2	0.00577584
20817	GO:0045181	glutamate synthase	0.07	1	0.07788162	2	0.00577584
22759	GO:0047268	galactinol-raffinose c	0.07	1	0.07788162	2	0.00577584
168	GO:0000221	vacuolar proton-trans	0.07	1	0.07788162	2	0.00577584
535	GO:0000826	inositol pyrophospha	0.07	1	0.07788162	2	0.00577584
537	GO:0000828	inositol hexakisphos	0.07	1	0.07788162	2	0.00577584
2699	GO:0003849	3-deoxy-7-phosphoh	0.07	1	0.07788162	2	0.00577584
9837	GO:0016788	hydrolase activity, ac	0.07	68	5.29595	1534	4.430069
8526	GO:0015112	nitrate transmembran	0.08	5	0.3894081	61	0.1761631
8975	GO:0015706 GO:00	nitrate transport	0.08	5	0.3894081	61	0.1761631
12573	GO:0022891	substrate-specific tra	0.08	56	4.3613706	1241	3.5839086
8919	GO:0015645	fatty acid ligase activ	0.08	3	0.23364486	27	0.077973835
9541	GO:0016413	O-acetyltransferase	0.08	3	0.23364486	27	0.077973835
22049	GO:0046527	glucosyltransferase	0.08	15	1.1682243	270	0.77973837
3002	GO:0004315	3-oxoacyl-[acyl-carri	0.08	2	0.15576324	13	0.037542958
7551	GO:0010327	acetyl CoA:(Z)-3-hex	0.08	2	0.15576324	13	0.037542958
8863	GO:0015562	efflux transmembran	0.08	3	0.23364486	28	0.080861755
14726	GO:0032318	regulation of Ras G1	0.08	4	0.31152648	45	0.1299564
22096	GO:0046578	regulation of Ras pro	0.08	4	0.31152648	45	0.1299564
25355	GO:0051056	regulation of small G	0.08	4	0.31152648	45	0.1299564
11931	GO:0020037	heme binding	0.09	27	2.1028037	550	1.5883559
12692	GO:0030117	membrane coat	0.09	6	0.46728972	84	0.24258527
23870	GO:0048475	coated membrane	0.09	6	0.46728972	84	0.24258527
3641	GO:0005099	Ras GTPase activat	0.09	2	0.15576324	14	0.040430877
9720	GO:0016639	oxidoreductase activ	0.09	2	0.15576324	14	0.040430877
14728	GO:0032320	positive regulation of	0.09	2	0.15576324	14	0.040430877
19253	GO:0042936	dipeptide transporter	0.10	7	0.5451713	105	0.3032316
19255	GO:0042938	dipeptide transport	0.10	7	0.5451713	105	0.3032316
3009	GO:0004322	ferroxidase activity	0.10	3	0.23364486	30	0.086637594
8683	GO:0015301 GO:00	anion:anion antiporte	0.10	3	0.23364486	30	0.086637594
9785	GO:0016724	oxidoreductase activ	0.10	3	0.23364486	30	0.086637594
5809	GO:0008289	lipid binding	0.10	14	1.0903426	258	0.74508333
3341	GO:0004722 GO:00	protein serine/threon	0.10	10	0.7788162	171	0.4938343
18912	GO:0042578	phosphoric ester hyc	0.10	22	1.7133956	444	1.2822365
25516	GO:0051219	phosphoprotein bind	0.10	2	0.15576324	15	0.043318797
18582	GO:0042221	response to chemica	0.11	17	1.3239875	328	0.94723773
3872	GO:0005506	iron ion binding	0.11	27	2.1028037	563	1.6258988
19590	GO:0043295	glutathione binding	0.11	3	0.23364486	31	0.08952551
9600	GO:0016491	oxidoreductase activ	0.11	74	5.76324	1724	4.9787736
3134	GO:0004474	malate synthase acti	0.11	1	0.07788162	3	0.00866376
3252	GO:0004612	phosphoenolpyruvat	0.11	1	0.07788162	3	0.00866376
4319	GO:0006081	cellular aldehyde me	0.11	1	0.07788162	3	0.00866376
4330	GO:0006097	glyoxylate cycle	0.11	1	0.07788162	3	0.00866376
4376	GO:0006166	purine ribonucleosid	0.11	1	0.07788162	3	0.00866376
9478	GO:0016286	small conductance c	0.11	1	0.07788162	3	0.00866376
13651	GO:0031219	levanase activity	0.11	1	0.07788162	3	0.00866376
19408	GO:0043101	purine-containing co	0.11	1	0.07788162	3	0.00866376
19477	GO:0043174	nucleoside salvage	0.11	1	0.07788162	3	0.00866376
21936	GO:0046409	p-coumarate 3-hydr	0.11	1	0.07788162	3	0.00866376
22011	GO:0046487	glyoxylate metabolic	0.11	1	0.07788162	3	0.00866376

11522	GO:0019538 GO:00	protein metabolic pro	0.11	168	13.084112	4134	11.938661
9267	GO:0016021	integral to membrane	0.11	49	3.8161993	1103	3.1853757
5096	GO:0007047	cellular cell wall orga	0.11	4	0.31152648	50	0.14439599
6932	GO:0009664	plant-type cell wall o	0.11	4	0.31152648	50	0.14439599
20857	GO:0045229	external encapsulati	0.11	4	0.31152648	50	0.14439599
30033	GO:0071669	plant-type cell wall o	0.11	4	0.31152648	50	0.14439599
20488	GO:0044238	primary metabolic pr	0.12	359	27.959501	9167	26.47356
12516	GO:0022804	active transmembran	0.12	36	2.8037384	787	2.2727928
4910	GO:0006811	ion transport	0.12	43	3.3489096	959	2.769515
3072	GO:0004396	hexokinase activity	0.12	2	0.15576324	16	0.046206716
3334	GO:0004713 GO:00	protein tyrosine kina	0.12	2	0.15576324	16	0.046206716
15688	GO:0033293	monocarboxylic acid	0.12	2	0.15576324	16	0.046206716
22412	GO:0046910	pectinesterase inhibi	0.12	2	0.15576324	16	0.046206716
2982	GO:0004197	cysteine-type endop	0.12	6	0.46728972	90	0.2599128
7173	GO:0009922	fatty acid elongase a	0.12	4	0.31152648	51	0.14728391
3340	GO:0004721	phosphoprotein phos	0.12	11	0.8566978	199	0.57469606
2809	GO:0003993	acid phosphatase ac	0.13	4	0.31152648	52	0.15017183
9923	GO:0016892	endoribonuclease ac	0.13	2	0.15576324	17	0.049094636
9925	GO:0016894	endonuclease activit	0.13	2	0.15576324	17	0.049094636
16281	GO:0033897	ribonuclease T2 acti	0.13	2	0.15576324	17	0.049094636
6072	GO:0008645	hexose transport	0.13	3	0.23364486	34	0.09818927
8562	GO:0015149	hexose transmembra	0.13	3	0.23364486	34	0.09818927
17794	GO:0035428	hexose transmembra	0.13	3	0.23364486	34	0.09818927
9697	GO:0016614	oxidoreductase activ	0.13	15	1.1682243	293	0.84616053
29246	GO:0070882	cellular cell wall orga	0.13	4	0.31152648	53	0.15305975
6355	GO:0008970	phospholipase A1 ac	0.14	3	0.23364486	35	0.10107719
5702	GO:0008146	sulfotransferase acti	0.14	4	0.31152648	54	0.15594767
2872	GO:0004066	asparagine synthase	0.14	1	0.07788162	4	0.011551679
2900	GO:0004096 GO:00	catalase activity	0.14	1	0.07788162	4	0.011551679
2967	GO:0004165 GO:00	dodecenoyl-CoA del	0.14	1	0.07788162	4	0.011551679
3093	GO:0004421	hydroxymethylglutan	0.14	1	0.07788162	4	0.011551679
3119	GO:0004457	lactate dehydrogena	0.14	1	0.07788162	4	0.011551679
3121	GO:0004459	L-lactate dehydrogen	0.14	1	0.07788162	4	0.011551679
3291	GO:0004657	proline dehydrogena	0.14	1	0.07788162	4	0.011551679
3399	GO:0004788	thiamine diphosphok	0.14	1	0.07788162	4	0.011551679
3406	GO:0004795	threonine synthase a	0.14	1	0.07788162	4	0.011551679
3456	GO:0004849	uridine kinase activit	0.14	1	0.07788162	4	0.011551679
3639	GO:0005097	Rab GTPase activat	0.14	1	0.07788162	4	0.011551679
3661	GO:0005125	cytokine activity	0.14	1	0.07788162	4	0.011551679
3674	GO:0005138	interleukin-6 recepto	0.14	1	0.07788162	4	0.011551679
4328	GO:0006094	gluconeogenesis	0.14	1	0.07788162	4	0.011551679
4428	GO:0006222	UMP biosynthetic pr	0.14	1	0.07788162	4	0.011551679
5934	GO:0008446	GDP-mannose 4,6-d	0.14	1	0.07788162	4	0.011551679
6199	GO:0008792	arginine decarboxyla	0.14	1	0.07788162	4	0.011551679
6494	GO:0009129	pyrimidine nucleosid	0.14	1	0.07788162	4	0.011551679
6495	GO:0009130	pyrimidine nucleosid	0.14	1	0.07788162	4	0.011551679
6537	GO:0009173	pyrimidine ribonucle	0.14	1	0.07788162	4	0.011551679
6538	GO:0009174	pyrimidine ribonucle	0.14	1	0.07788162	4	0.011551679
7083	GO:0009824	AMP dimethylallyltra	0.14	1	0.07788162	4	0.011551679
7511	GO:0010285 GO:00	L,L-diaminopimelate	0.14	1	0.07788162	4	0.011551679
8637	GO:0015231	5-formyltetrahydrofo	0.14	1	0.07788162	4	0.011551679
8877	GO:0015578 GO:00	mannose transmembr	0.14	1	0.07788162	4	0.011551679
9030	GO:0015761	mannose transport	0.14	1	0.07788162	4	0.011551679
9147	GO:0015885	5-formyltetrahydrofo	0.14	1	0.07788162	4	0.011551679
9485	GO:0016297 GO:00	acyl-acyl-carrier-pro	0.14	1	0.07788162	4	0.011551679
11312	GO:0019319	hexose biosynthetic	0.14	1	0.07788162	4	0.011551679
14721	GO:0032313	regulation of Rab GT	0.14	1	0.07788162	4	0.011551679
14891	GO:0032483	regulation of Rab pr	0.14	1	0.07788162	4	0.011551679
15252	GO:0032851	positive regulation of	0.14	1	0.07788162	4	0.011551679
21615	GO:0046049	UMP metabolic proc	0.14	1	0.07788162	4	0.011551679
22893	GO:0047405	pyrimidine-5'-nucleo	0.14	1	0.07788162	4	0.011551679
24433	GO:0050113	inositol oxygenase a	0.14	1	0.07788162	4	0.011551679
24692	GO:0050373	UDP-arabinose 4-ep	0.14	1	0.07788162	4	0.011551679
2753	GO:0003919	FMN adenylyltransfe	0.14	1	0.07788162	4	0.011551679
2799	GO:0003983	UTP:glucose-1-phos	0.14	1	0.07788162	4	0.011551679
5776	GO:0008252	nucleotidase activity	0.14	2	0.15576324	18	0.051982556
8213	GO:0012507 GO:00	ER to Golgi transpor	0.14	2	0.15576324	18	0.051982556
10899	GO:0018858	benzoate-CoA ligase	0.14	2	0.15576324	18	0.051982556
12702	GO:0030127	COPII vesicle coat	0.14	2	0.15576324	18	0.051982556
12708	GO:0030133	transport vesicle	0.14	2	0.15576324	18	0.051982556
12709	GO:0030134 GO:00	ER to Golgi transpor	0.14	2	0.15576324	18	0.051982556
13129	GO:0030658	transport vesicle me	0.14	2	0.15576324	18	0.051982556
9869	GO:0016829	lyase activity	0.14	23	1.7912773	488	1.4093049
9870	GO:0016830	carbon-carbon lyase	0.15	9	0.7009346	161	0.4649551
8607	GO:0015197 GO:00	peptide transporter a	0.15	8	0.62305295	139	0.40142086
8608	GO:0015198	oligopeptide transpo	0.15	8	0.62305295	139	0.40142086
4232	GO:0005992	trehalose biosynthet	0.15	3	0.23364486	36	0.10396511
25416	GO:0051119	sugar transmembran	0.15	7	0.5451713	118	0.34077454
4944	GO:0006857	oligopeptide transpo	0.15	8	0.62305295	141	0.4071967
9099	GO:0015833	peptide transport	0.15	8	0.62305295	141	0.4071967
3290	GO:0004656	procollagen-proline 4	0.16	2	0.15576324	19	0.054870475
8212	GO:0012506	vesicle membrane	0.16	2	0.15576324	19	0.054870475
11752	GO:0019798	procollagen-proline c	0.16	2	0.15576324	19	0.054870475
12695	GO:0030120	vesicle coat	0.16	2	0.15576324	19	0.054870475
12710	GO:0030135 GO:00	coated vesicle	0.16	2	0.15576324	19	0.054870475
13130	GO:0030659	cytoplasmic vesicle	0.16	2	0.15576324	19	0.054870475
13133	GO:0030662	coated vesicle mem	0.16	2	0.15576324	19	0.054870475
13966	GO:0031543	peptidyl-proline diox	0.16	2	0.15576324	19	0.054870475
13968	GO:0031545	peptidyl-proline 4-dic	0.16	2	0.15576324	19	0.054870475
13829	GO:0031406	carboxylic acid bindi	0.16	6	0.46728972	98	0.28301615
3758	GO:0005267	potassium channel a	0.16	3	0.23364486	37	0.10685303



8557	GO:0015144	carbohydrate transp	0.16	8	0.62305295	143	0.41297254
16602	GO:0034219	carbohydrate transp	0.16	8	0.62305295	143	0.41297254
9767	GO:0016705	oxidoreductase activ	0.17	16	1.2461059	329	0.95012563
4231	GO:0005991	trehalose metabolic	0.17	3	0.23364486	38	0.10974095
8501	GO:0015085	calcium ion transme	0.17	3	0.23364486	38	0.10974095
22409	GO:0046906	tetrapyrrole binding	0.17	27	2.1028037	596	1.7212002
29919	GO:0071555	cell wall organizator	0.17	4	0.31152648	58	0.16749935
12532	GO:0022836	gated channel activit	0.17	7	0.5451713	122	0.3523262
3328	GO:0004707 GO:00	MAP kinase activity	0.17	2	0.15576324	20	0.0577584
3798	GO:0005337	nucleoside transmen	0.17	2	0.15576324	20	0.0577584
8726	GO:0015368	calcium:cation antip	0.17	2	0.15576324	20	0.0577584
9122	GO:0015858	nucleoside transport	0.17	2	0.15576324	20	0.0577584
25477	GO:0051180	vitamin transport	0.17	2	0.15576324	20	0.0577584
25480	GO:0051183	vitamin transporter a	0.17	2	0.15576324	20	0.0577584
3035	GO:0004351	glutamate decarboxy	0.17	1	0.07788162	5	0.0144396
3314	GO:0004689 GO:00	phosphorylase kinas	0.17	1	0.07788162	5	0.0144396
5989	GO:0008517	folic acid transporter	0.17	1	0.07788162	5	0.0144396
9146	GO:0015884	folic acid transport	0.17	1	0.07788162	5	0.0144396
22765	GO:0047274	galactinol-sucrose g	0.17	1	0.07788162	5	0.0144396
31506	GO:0080131	hydroxyjasmonate su	0.17	1	0.07788162	5	0.0144396
6071	GO:0008643 GO:00	carbohydrate transp	0.18	8	0.62305295	147	0.42452422
8673	GO:0015291 GO:00	secondary active tra	0.18	19	1.4797508	407	1.1753833
3129	GO:0004467	long-chain fatty acid	0.18	2	0.15576324	21	0.060646318
9268	GO:0016023	cytoplasmic membra	0.18	2	0.15576324	21	0.060646318
14399	GO:0031988	membrane-bounded	0.18	2	0.15576324	21	0.060646318
9839	GO:0016791 GO:00	phosphatase activity	0.18	18	1.4018692	383	1.1060733
5652	GO:0008081 GO:00	phosphoric diester h	0.18	4	0.31152648	60	0.17327519
7021	GO:0009755	hormone-mediated s	0.18	3	0.23364486	40	0.1155168
15271	GO:0032870	cellular response to	0.18	3	0.23364486	40	0.1155168
3156	GO:0004497	monooxygenase acti	0.19	9	0.7009346	172	0.49672222
24858	GO:0050551	myrcene synthase ac	0.20	2	0.15576324	22	0.06353424
25195	GO:0050896 GO:00	response to stimulus	0.20	77	5.996885	1881	5.432177
17457	GO:0035091	phosphatidylinositol	0.20	4	0.31152648	62	0.17905103
20619	GO:0044425	membrane part	0.20	63	4.906542	1523	4.398302
4912	GO:0006813 GO:00	potassium ion transp	0.20	5	0.3894081	84	0.24258527
30168	GO:0071804	cellular potassium io	0.20	5	0.3894081	84	0.24258527
30169	GO:0071805	potassium ion transp	0.20	5	0.3894081	84	0.24258527
2906	GO:0004103	choline kinase activi	0.20	1	0.07788162	6	0.01732752
3131	GO:0004470	malic enzyme activit	0.20	1	0.07788162	6	0.01732752
3133	GO:0004473	malate dehydrogena	0.20	1	0.07788162	6	0.01732752
3208	GO:0004563	beta-N-acetylhexosa	0.20	1	0.07788162	6	0.01732752
3269	GO:0004634	phosphopyruvate hy	0.20	1	0.07788162	6	0.01732752
3342	GO:0004723 GO:00	calcium-dependent p	0.20	1	0.07788162	6	0.01732752
3413	GO:0004802	transketolase activi	0.20	1	0.07788162	6	0.01732752
3467	GO:0004860	protein kinase inhibit	0.20	1	0.07788162	6	0.01732752
3642	GO:0005100	Rho GTPase activat	0.20	1	0.07788162	6	0.01732752
3845	GO:0005452	inorganic anion exch	0.20	1	0.07788162	6	0.01732752
4059	GO:0005774	vacuolar membrane	0.20	1	0.07788162	6	0.01732752
4264	GO:0006026	aminoglycan catabol	0.20	1	0.07788162	6	0.01732752
4268	GO:0006030	chitin metabolic proc	0.20	1	0.07788162	6	0.01732752
4270	GO:0006032	chitin catabolic proc	0.20	1	0.07788162	6	0.01732752
4657	GO:0006528	asparagine metaboli	0.20	1	0.07788162	6	0.01732752
4658	GO:0006529	asparagine biosynth	0.20	1	0.07788162	6	0.01732752
4953	GO:0006868 GO:00	glutamine transport	0.20	1	0.07788162	6	0.01732752
5713	GO:0008169	C-methyltransferase	0.20	1	0.07788162	6	0.01732752
6000	GO:0008531	riboflavin kinase acti	0.20	1	0.07788162	6	0.01732752
6344	GO:0008959	phosphate acetyltran	0.20	1	0.07788162	6	0.01732752
7651	GO:0010427	abscisic acid binding	0.20	1	0.07788162	6	0.01732752
8505	GO:0015089	high affinity copper i	0.20	1	0.07788162	6	0.01732752
8596	GO:0015186	L-glutamine transme	0.20	1	0.07788162	6	0.01732752
9435	GO:0016231	beta-N-acetylglucosa	0.20	1	0.07788162	6	0.01732752
9584	GO:0016471	vacuolar proton-trans	0.20	1	0.07788162	6	0.01732752
14727	GO:0032319	regulation of Rho GTP	0.20	1	0.07788162	6	0.01732752
14729	GO:0032321	positive regulation of	0.20	1	0.07788162	6	0.01732752
17394	GO:0035023	regulation of Rho pr	0.20	1	0.07788162	6	0.01732752
19761	GO:0043495	protein anchor	0.20	1	0.07788162	6	0.01732752
20631	GO:0044437	vacuolar part	0.20	1	0.07788162	6	0.01732752
21727	GO:0046165	alcohol biosynthetic	0.20	1	0.07788162	6	0.01732752
21893	GO:0046364	monosaccharide bios	0.20	1	0.07788162	6	0.01732752
26030	GO:0051748	UTP-monosaccharid	0.20	1	0.07788162	6	0.01732752
5	GO:0000007	low-affinity zinc ion t	0.20	1	0.07788162	6	0.01732752
135	GO:0000170	sphingosine hydroxy	0.20	1	0.07788162	6	0.01732752
2688	GO:0003838	sterol 24-C-methyltra	0.20	1	0.07788162	6	0.01732752
2713	GO:0003863	3-methyl-2-oxobutan	0.20	1	0.07788162	6	0.01732752
3718	GO:0005200	structural constituent	0.20	3	0.23364486	42	0.121292636
6666	GO:0009312	oligosaccharide bios	0.20	3	0.23364486	42	0.121292636
8461	GO:0015020 GO:00	glucuronosyltransfer	0.20	3	0.23364486	42	0.121292636
9370	GO:0016138	glycoside biosynthes	0.20	3	0.23364486	42	0.121292636
21880	GO:0046351	disaccharide biosynt	0.20	3	0.23364486	42	0.121292636
13656	GO:0031224	intrinsic to membran	0.20	50	3.894081	1193	3.4452884
8679	GO:0015297	antipporter activity	0.20	8	0.62305295	152	0.4389638
8682	GO:0015300	solute:solute antipor	0.20	8	0.62305295	152	0.4389638
17016	GO:0034637	cellular carbohydrate	0.21	4	0.31152648	63	0.18193895
3662	GO:0005126	cytokine receptor bir	0.21	2	0.15576324	23	0.06642216
22753	GO:0047262 GO:00	polygalacturonate 4-	0.21	2	0.15576324	23	0.06642216
9293	GO:0016051 GO:00	carbohydrate biosyn	0.21	4	0.31152648	64	0.18482687
4914	GO:0006816	calcium ion transport	0.22	3	0.23364486	44	0.12706847
28952	GO:0070588	calcium ion transme	0.22	3	0.23364486	44	0.12706847
29859	GO:0071495	cellular carbohydrate	0.22	3	0.23364486	44	0.12706847
2821	GO:0004012 GO:00	phospholipid-translo	0.22	2	0.15576324	24	0.06931008
8559	GO:0015146	pentose transmembr	0.22	2	0.15576324	24	0.06931008

8561	GO:0015148	D-xylose transmembr	0.22	2	0.15576324	24	0.06931008
8829	GO:0015519	D-xylose:hydrogen s	0.22	2	0.15576324	24	0.06931008
9019	GO:0015750	pentose transport	0.22	2	0.15576324	24	0.06931008
9022	GO:0015753	D-xylose transport	0.22	2	0.15576324	24	0.06931008
2945	GO:0004143	diacylglycerol kinase	0.23	1	0.07788162	7	0.020215439
4260	GO:0006022	aminoglycan metabo	0.23	1	0.07788162	7	0.020215439
6527	GO:0009163	nucleoside biosynthe	0.23	1	0.07788162	7	0.020215439
18796	GO:0042451	purine nucleoside bio	0.23	1	0.07788162	7	0.020215439
18800	GO:0042455	ribonucleoside biosy	0.23	1	0.07788162	7	0.020215439
19401	GO:0043094	cellular metabolic co	0.23	1	0.07788162	7	0.020215439
21695	GO:0046129	purine ribonucleosid	0.23	1	0.07788162	7	0.020215439
8666	GO:0015276	ligand-gated ion cha	0.23	3	0.23364486	45	0.1299564
12530	GO:0022834	ligand-gated channe	0.23	3	0.23364486	45	0.1299564
31431	GO:0080054	low affinity nitrate tra	0.23	3	0.23364486	45	0.1299564
3888	GO:0005529	sugar binding	0.23	8	0.62305295	158	0.45629135
5070	GO:0007017	microtubule-based p	0.24	6	0.46728972	112	0.32344702
5071	GO:0007018	microtubule-based m	0.24	6	0.46728972	112	0.32344702
9846	GO:0016799	hydrolase activity, hy	0.24	2	0.15576324	25	0.072197996
31493	GO:0080118	brassinosteroid sulf	0.24	2	0.15576324	25	0.072197996
973	GO:0001653	peptide receptor acti	0.24	2	0.15576324	25	0.072197996
6999	GO:0009733	response to auxin sti	0.24	3	0.23364486	46	0.13284431
20652	GO:0044459	plasma membrane p	0.24	3	0.23364486	46	0.13284431
5909	GO:0008415	acyltransferase activ	0.25	15	1.1682243	330	0.95301354
3415	GO:0004805	trehalose-phosphata	0.25	2	0.15576324	26	0.075085916
17147	GO:0034768	(E)-beta-ocimene sy	0.25	2	0.15576324	26	0.075085916
4773	GO:0006650 GO:000	glycerophospholipid	0.25	3	0.23364486	47	0.13573223
22010	GO:0046486	glycerolipid metaboli	0.25	3	0.23364486	47	0.13573223
31420	GO:0080043	quercetin 3-O-glucos	0.25	4	0.31152648	69	0.19926646
3098	GO:0004427	inorganic diphospha	0.26	1	0.07788162	8	0.023103358
4778	GO:0006656	phosphatidylcholine	0.26	1	0.07788162	8	0.023103358
4779	GO:0006657	CDP-choline pathwa	0.26	1	0.07788162	8	0.023103358
5753	GO:0008216	spermidine metaboli	0.26	1	0.07788162	8	0.023103358
5815	GO:0008295	spermidine biosynthe	0.26	1	0.07788162	8	0.023103358
6262	GO:0008865	fructokinase activity	0.26	1	0.07788162	8	0.023103358
7779	GO:0010563	negative regulation c	0.26	1	0.07788162	8	0.023103358
8725	GO:0015367	oxoglutarate:malate	0.26	1	0.07788162	8	0.023103358
9011	GO:0015742	alpha-ketoglutarate t	0.26	1	0.07788162	8	0.023103358
11209	GO:0019206	nucleoside kinase ac	0.26	1	0.07788162	8	0.023103358
11213	GO:0019210	kinase inhibitor activ	0.26	1	0.07788162	8	0.023103358
12736	GO:0030165	PDZ domain binding	0.26	1	0.07788162	8	0.023103358
13262	GO:0030795 GO:004	jasmonate O-methyl	0.26	1	0.07788162	8	0.023103358
18675	GO:0042326	negative regulation c	0.26	1	0.07788162	8	0.023103358
18785	GO:0042439	ethanolamine-contai	0.26	1	0.07788162	8	0.023103358
21504	GO:0045936	negative regulation c	0.26	1	0.07788162	8	0.023103358
21995	GO:0046470	phosphatidylcholine	0.26	1	0.07788162	8	0.023103358
22076	GO:0046556	alpha-N-arabinofuraf	0.26	1	0.07788162	8	0.023103358
22702	GO:0047209	coniferyl-alcohol gluc	0.26	1	0.07788162	8	0.023103358
23264	GO:0047782	coniferin beta-glucos	0.26	1	0.07788162	8	0.023103358
28933	GO:0070569	uridylyltransferase a	0.26	1	0.07788162	8	0.023103358
4	GO:0000006	high affinity zinc upte	0.26	1	0.07788162	8	0.023103358
11	GO:0000015	phosphopyruvate hyd	0.26	1	0.07788162	8	0.023103358
47	GO:0000062	fatty-acyl-CoA bindin	0.26	1	0.07788162	8	0.023103358
2728	GO:0003878 GO:004	ATP citrate synthase	0.26	1	0.07788162	8	0.023103358
15524	GO:0033124	regulation of GTP ca	0.26	4	0.31152648	70	0.20215438
19394	GO:0043087	regulation of GTPase	0.26	4	0.31152648	70	0.20215438
4188	GO:0005938	cell cortex	0.26	3	0.23364486	48	0.13862015
20642	GO:0044448	cell cortex part	0.26	3	0.23364486	48	0.13862015
113	GO:0000145	exocyst	0.26	3	0.23364486	48	0.13862015
3724	GO:0005216	ion channel activity	0.26	7	0.5451713	140	0.40430877
3895	GO:0005543	phospholipid binding	0.26	7	0.5451713	140	0.40430877
3725	GO:0005217	intracellular ligand-g	0.26	2	0.15576324	27	0.077973835
3808	GO:0005351 GO:000	sugar:hydrogen sym	0.27	5	0.3894081	94	0.27146447
3835	GO:0005402	cation:sugar symport	0.27	5	0.3894081	94	0.27146447
3756	GO:0005261 GO:000	cation channel activi	0.27	3	0.23364486	49	0.14150807
9725	GO:0016645	oxidoreductase activ	0.27	3	0.23364486	49	0.14150807
18633	GO:0042277	peptide binding	0.28	5	0.3894081	95	0.27435237
3744	GO:0005244	voltage-gated ion ch	0.28	4	0.31152648	72	0.20793022
12528	GO:0022832	voltage-gated chann	0.28	4	0.31152648	72	0.20793022
15280	GO:0032879	regulation of localiza	0.28	4	0.31152648	72	0.20793022
17141	GO:0034762	regulation of transme	0.28	4	0.31152648	72	0.20793022
17144	GO:0034765	regulation of ion tran	0.28	4	0.31152648	72	0.20793022
19568	GO:0043269	regulation of ion tran	0.28	4	0.31152648	72	0.20793022
25348	GO:0051049	regulation of transpo	0.28	4	0.31152648	72	0.20793022
3332	GO:0004711	ribosomal protein S6	0.28	2	0.15576324	28	0.080861755
3812	GO:0005355 GO:000	glucose transmembr	0.28	2	0.15576324	28	0.080861755
9027	GO:0015758	glucose transport	0.28	2	0.15576324	28	0.080861755
716	GO:0001071	nucleic acid binding	0.28	57	4.4392524	1417	4.0921826
2643	GO:0003700 GO:000	sequence-specific D	0.28	57	4.4392524	1417	4.0921826
4304	GO:0006066	alcohol metabolic pr	0.28	7	0.5451713	143	0.41297254
7166	GO:0009914	hormone transport	0.28	3	0.23364486	50	0.14439599
9783	GO:0016722	oxidoreductase activ	0.28	3	0.23364486	50	0.14439599
27891	GO:0060918	auxin transport	0.28	3	0.23364486	50	0.14439599
29674	GO:0071310	cellular response to	0.28	3	0.23364486	50	0.14439599
31536	GO:0080161	auxin transmembran	0.28	3	0.23364486	50	0.14439599
2801	GO:0003985	acetyl-CoA C-acetyl	0.29	1	0.07788162	9	0.025991278
3251	GO:0004611	phosphoenolpyruvat	0.29	1	0.07788162	9	0.025991278
3625	GO:0005080	protein kinase C bind	0.29	1	0.07788162	9	0.025991278
3694	GO:0005160	transforming growth	0.29	1	0.07788162	9	0.025991278
4322	GO:0006084	acetyl-CoA metaboli	0.29	1	0.07788162	9	0.025991278
4332	GO:0006099	tricarboxylic acid cyc	0.29	1	0.07788162	9	0.025991278
6429	GO:0009060	aerobic respiration	0.29	1	0.07788162	9	0.025991278



6476	GO:0009109	coenzyme catabolic	0.29	1	0.07788162	9	0.025991278
7506	GO:0010279	indole-3-acetic acid	0.29	1	0.07788162	9	0.025991278
9571	GO:0016453	C-acetyltransferase	0.29	1	0.07788162	9	0.025991278
11785	GO:0019840	isoprenoid binding	0.29	1	0.07788162	9	0.025991278
13224	GO:0030755	quercetin 3-O-methyl	0.29	1	0.07788162	9	0.025991278
15579	GO:0033180	proton-transporting V	0.29	1	0.07788162	9	0.025991278
19342	GO:0043027	caspase inhibitor act	0.29	1	0.07788162	9	0.025991278
19343	GO:0043028	caspase regulator ac	0.29	1	0.07788162	9	0.025991278
19458	GO:0043154 GO:00	negative regulation c	0.29	1	0.07788162	9	0.025991278
19579	GO:0043281 GO:00	regulation of caspas	0.29	1	0.07788162	9	0.025991278
21885	GO:0046356	acetyl-CoA catabolic	0.29	1	0.07788162	9	0.025991278
25484	GO:0051187	cofactor catabolic pr	0.29	1	0.07788162	9	0.025991278
17617	GO:0035251	UDP-glucosyltransfe	0.29	10	0.7788162	218	0.62956655
4427	GO:0006221	pyrimidine nucleotide	0.29	2	0.15576324	29	0.083749674
3311	GO:0004683 GO:00	calmodulin-depende	0.29	4	0.31152648	74	0.21370606
9832	GO:0016782	transferase activity, t	0.29	4	0.31152648	74	0.21370606
8677	GO:0015295	solute:hydrogen sym	0.30	5	0.3894081	98	0.28301615
8810	GO:0015491	cation:cation antipor	0.30	4	0.31152648	75	0.21659398
2666	GO:0003774	motor activity	0.31	2	0.15576324	30	0.086637594
5732	GO:0008194	UDP-glycosyltransfe	0.31	14	1.0903426	322	0.9299102
3024	GO:0004340	glucokinase activity	0.31	1	0.07788162	10	0.0288792
3056	GO:0004372	glycine hydroxymeth	0.31	1	0.07788162	10	0.0288792
3813	GO:0005356 GO:00	hydrogen:glucose sy	0.31	1	0.07788162	10	0.0288792
3815	GO:0005358	high-affinity hydroge	0.31	1	0.07788162	10	0.0288792
3842	GO:0005432	calcium:sodium antip	0.31	1	0.07788162	10	0.0288792
3849	GO:0005459	UDP-galactose trans	0.31	1	0.07788162	10	0.0288792
3871	GO:0005504	fatty acid binding	0.31	1	0.07788162	10	0.0288792
4309	GO:0006071	glycerol metabolic pr	0.31	1	0.07788162	10	0.0288792
4724	GO:0006596	polyamine biosynthe	0.31	1	0.07788162	10	0.0288792
5678	GO:0008113 GO:00	peptide-methionine-(	0.31	1	0.07788162	10	0.0288792
6464	GO:0009095	aromatic amino acid	0.31	1	0.07788162	10	0.0288792
6947	GO:0009679	hexose:hydrogen syr	0.31	1	0.07788162	10	0.0288792
8727	GO:0015369	calcium:hydrogen an	0.31	1	0.07788162	10	0.0288792
9054	GO:0015785	UDP-galactose trans	0.31	1	0.07788162	10	0.0288792
9828	GO:0016778	diphosphotransferas	0.31	1	0.07788162	10	0.0288792
11391	GO:0019400	alditol metabolic pro	0.31	1	0.07788162	10	0.0288792
11715	GO:0019751	polyol metabolic pro	0.31	1	0.07788162	10	0.0288792
13472	GO:0031013	tropoin I binding	0.31	1	0.07788162	10	0.0288792
17563	GO:0035197	siRNA binding	0.31	1	0.07788162	10	0.0288792
25453	GO:0051156 GO:00	glucose 6-phosphate	0.31	1	0.07788162	10	0.0288792
26069	GO:0051787	misfolded protein bir	0.31	1	0.07788162	10	0.0288792
26975	GO:0060001	minus-end directed r	0.31	1	0.07788162	10	0.0288792
29215	GO:0070851	growth factor recept	0.31	1	0.07788162	10	0.0288792
30693	GO:0072334	UDP-galactose trans	0.31	1	0.07788162	10	0.0288792
31441	GO:0080065	4-alpha-methyl-delta	0.31	1	0.07788162	10	0.0288792
114	GO:0000146	microfilament motor	0.31	1	0.07788162	10	0.0288792
196	GO:0000254	C-4 methylsterol oxi	0.31	1	0.07788162	10	0.0288792
9494	GO:0016311	dephosphorylation	0.32	18	1.4018692	425	1.227366
26959	GO:0055114	oxidation-reduction p	0.32	97	7.5545173	2490	7.1909204
9877	GO:0016838	carbon-oxygen lyase	0.32	4	0.31152648	77	0.22236982
14422	GO:0032012	regulation of ARF pr	0.32	2	0.15576324	31	0.08952551
14720	GO:0032312	regulation of ARF G	0.32	2	0.15576324	31	0.08952551
30884	GO:0072528	pyrimidine-containin	0.32	2	0.15576324	31	0.08952551
30066	GO:0071702	organic substance tr	0.32	22	1.7133956	529	1.5277096
29251	GO:0070887	cellular response to	0.32	3	0.23364486	54	0.15594767
5874	GO:0008374	O-acyltransferase ac	0.33	5	0.3894081	102	0.29456782
12794	GO:0030234	enzyme regulator ac	0.33	17	1.3239875	403	1.1638317
30865	GO:0072509	divalent inorganic ca	0.33	4	0.31152648	78	0.22525774
25095	GO:0050790	regulation of catalyti	0.33	20	1.5576324	480	1.3862015
3717	GO:0005199	structural constituent	0.33	2	0.15576324	32	0.09241343
9533	GO:0016405	CoA-ligase activity	0.33	3	0.23364486	55	0.15883559
5733	GO:0008195 GO:00	phosphatidate phosph	0.34	1	0.07788162	11	0.03176712
11152	GO:0019139 GO:00	cytokinin dehydroge	0.34	1	0.07788162	11	0.03176712
16183	GO:0033799	myricetin 3'-O-methyl	0.34	1	0.07788162	11	0.03176712
24696	GO:0050378	UDP-glucuronate 4-ep	0.34	1	0.07788162	11	0.03176712
2669	GO:0003785	actin monomer bindi	0.34	1	0.07788162	11	0.03176712
28366	GO:0065009	regulation of molecu	0.34	20	1.5576324	484	1.3977532
4224	GO:0005984	disaccharide metabo	0.34	3	0.23364486	56	0.16172351
9369	GO:0016137	glycoside metabolic	0.34	3	0.23364486	56	0.16172351
4358	GO:0006140	regulation of nucleot	0.35	4	0.31152648	80	0.2310336
7146	GO:0009894	regulation of catabol	0.35	4	0.31152648	80	0.2310336
9682	GO:0016597	amino acid binding	0.35	4	0.31152648	80	0.2310336
13278	GO:0030811	regulation of nucleot	0.35	4	0.31152648	80	0.2310336
13759	GO:0031329	regulation of cellular	0.35	4	0.31152648	80	0.2310336
15521	GO:0033121	regulation of purine r	0.35	4	0.31152648	80	0.2310336
19479	GO:0043176	amine binding	0.35	4	0.31152648	80	0.2310336
4705	GO:0006576	cellular biogenic ami	0.35	2	0.15576324	33	0.09530135
9576	GO:0016459	myosin complex	0.35	2	0.15576324	33	0.09530135
8943	GO:0015672	monovalent inorgani	0.35	16	1.2461059	383	1.1060733
6166	GO:0008757	S-adenosylmethionin	0.35	8	0.62305295	180	0.5198256
7557	GO:0010333	terpene synthase ac	0.35	3	0.23364486	57	0.16461143
9910	GO:0016878	acid-thiol ligase activ	0.35	3	0.23364486	57	0.16461143
9266	GO:0016020	membrane	0.36	143	11.137072	3741	10.803708
3749	GO:0005249	voltage-gated potass	0.36	2	0.15576324	34	0.09818927
5827	GO:0008308 GO:00	voltage-gated anion	0.36	2	0.15576324	34	0.09818927
6486	GO:0009119	ribonucleoside meta	0.36	2	0.15576324	34	0.09818927
11203	GO:0019200	carbohydrate kinase	0.36	2	0.15576324	34	0.09818927
20321	GO:0044070	regulation of anion tr	0.36	2	0.15576324	34	0.09818927
22341	GO:0046835	carbohydrate phosph	0.36	2	0.15576324	34	0.09818927
29202	GO:0070838	divalent metal ion tra	0.36	4	0.31152648	82	0.23680943
3037	GO:0004353	glutamate dehydroge	0.36	1	0.07788162	12	0.03465504

3386	GO:0004773	sterol-sulfatase activ	0.36	1	0.07788162	12	0.03465504
4506	GO:0006313 GO:000	transposition, DNA-r	0.36	1	0.07788162	12	0.03465504
4786	GO:0006664	glycolipid metabolic	0.36	1	0.07788162	12	0.03465504
5965	GO:0008484	sulfuric ester hydroly	0.36	1	0.07788162	12	0.03465504
6024	GO:0008574	plus-end-directed mi	0.36	1	0.07788162	12	0.03465504
6610	GO:0009247	glycolipid biosynthet	0.36	1	0.07788162	12	0.03465504
14604	GO:0032196	transposition	0.36	1	0.07788162	12	0.03465504
14674	GO:0032266	phosphatidylinositol-	0.36	1	0.07788162	12	0.03465504
16148	GO:0033764	steroid dehydrogena	0.36	1	0.07788162	12	0.03465504
19047	GO:0042723	thiamine-containing	0.36	1	0.07788162	12	0.03465504
19048	GO:0042724	thiamine-containing	0.36	1	0.07788162	12	0.03465504
20943	GO:0045333	cellular respiration	0.36	1	0.07788162	12	0.03465504
21992	GO:0046467	membrane lipid bios	0.36	1	0.07788162	12	0.03465504
25436	GO:0051139	metal ion:hydrogen a	0.36	1	0.07788162	12	0.03465504
31380	GO:0080002	UDP-glucose:4-amin	0.36	1	0.07788162	12	0.03465504
29	GO:0000036	acyl carrier activity	0.36	1	0.07788162	12	0.03465504
3323	GO:0004702	receptor signaling pr	0.36	3	0.23364486	58	0.16749935
6665	GO:0009311	oligosaccharide met	0.36	3	0.23364486	58	0.16749935
8028	GO:0010817	regulation of hormon	0.36	3	0.23364486	58	0.16749935
4954	GO:0006869	lipid transport	0.37	9	0.7009346	208	0.6006873
8085	GO:0010876	lipid localization	0.37	9	0.7009346	208	0.6006873
4426	GO:0006220	pyrimidine nucleotid	0.37	2	0.15576324	35	0.10107719
11206	GO:0019203	carbohydrate phosph	0.37	2	0.15576324	35	0.10107719
22012	GO:0046488 GO:003	phosphatidylinositol	0.37	2	0.15576324	35	0.10107719
30700	GO:0072341	modified amino acid	0.37	3	0.23364486	59	0.17038727
3048	GO:0004364	glutathione transfer	0.38	4	0.31152648	84	0.24258527
30867	GO:0072511	divalent inorganic ca	0.38	4	0.31152648	84	0.24258527
9393	GO:0016165	lipoygenase activity	0.39	2	0.15576324	36	0.10396511
12626	GO:0030029	actin filament-based	0.39	2	0.15576324	36	0.10396511
12633	GO:0030036	actin cytoskeleton or	0.39	2	0.15576324	36	0.10396511
6436	GO:0009067	aspartate family ami	0.39	1	0.07788162	13	0.037542958
8149	GO:0010941	regulation of cell de	0.39	1	0.07788162	13	0.037542958
8578	GO:0015165	pyrimidine nucleotid	0.39	1	0.07788162	13	0.037542958
9050	GO:0015781	pyrimidine nucleotid	0.39	1	0.07788162	13	0.037542958
18634	GO:0042278	purine nucleoside m	0.39	1	0.07788162	13	0.037542958
19298	GO:0042981	regulation of apoptos	0.39	1	0.07788162	13	0.037542958
19381	GO:0043067 GO:004	regulation of prograr	0.39	1	0.07788162	13	0.037542958
20923	GO:0045309	protein phosphorylat	0.39	1	0.07788162	13	0.037542958
21694	GO:0046128	purine ribonucleosid	0.39	1	0.07788162	13	0.037542958
25118	GO:0050815	phosphoserine bindi	0.39	1	0.07788162	13	0.037542958
4768	GO:0006644	phospholipid metabo	0.40	3	0.23364486	61	0.1761631
8680	GO:0015298	solute:cation antipor	0.40	5	0.3894081	112	0.32344702
29918	GO:0071554	cell wall organizator	0.40	5	0.3894081	112	0.32344702
4670	GO:0006541	glutamine metabolic	0.41	1	0.07788162	14	0.040430877
4723	GO:0006595	polyamine metabolic	0.41	1	0.07788162	14	0.040430877
5875	GO:0008375	acetylglucosaminyltr	0.41	1	0.07788162	14	0.040430877
8553	GO:0015140	malate transmembra	0.41	1	0.07788162	14	0.040430877
8859	GO:0015556	C4-dicarboxylate tra	0.41	1	0.07788162	14	0.040430877
9009	GO:0015740	C4-dicarboxylate tra	0.41	1	0.07788162	14	0.040430877
9012	GO:0015743	malate transport	0.41	1	0.07788162	14	0.040430877
9399	GO:0016174	NAD(P)H oxidase ac	0.41	1	0.07788162	14	0.040430877
9433	GO:0016229	steroid dehydrogena	0.41	1	0.07788162	14	0.040430877
9711	GO:0016629	12-oxophytodienoate	0.41	1	0.07788162	14	0.040430877
20671	GO:0045017	glycerolipid biosynth	0.41	1	0.07788162	14	0.040430877
20791	GO:0045153	electron transporter,	0.41	1	0.07788162	14	0.040430877
21998	GO:0046474	glycerophospholipid	0.41	1	0.07788162	14	0.040430877
24970	GO:0050664	oxidoreductase activ	0.41	1	0.07788162	14	0.040430877
25040	GO:0050734	hydroxycinnamoyltra	0.41	1	0.07788162	14	0.040430877
29787	GO:0071423	malate transmembra	0.41	1	0.07788162	14	0.040430877
270	GO:0000339	RNA cap binding	0.41	1	0.07788162	14	0.040430877
20624	GO:0044430	cytoskeletal part	0.41	4	0.31152648	88	0.25413695
19533	GO:0043234	protein complex	0.41	33	2.5700934	848	2.448956
5066	GO:0007010	cytoskeleton organiz	0.41	2	0.15576324	38	0.10974095
6749	GO:0009414	response to water de	0.41	2	0.15576324	38	0.10974095
8588	GO:0015175	neutral amino acid tr	0.41	2	0.15576324	38	0.10974095
9073	GO:0015804	neutral amino acid tr	0.41	2	0.15576324	38	0.10974095
12538	GO:0022843	voltage-gated cation	0.41	2	0.15576324	38	0.10974095
9535	GO:0016407	acetyltransferase ac	0.42	5	0.3894081	115	0.3321108
8676	GO:0015294	solute:cation sympor	0.42	6	0.46728972	141	0.4071967
30883	GO:0072527	pyrimidine-containing	0.43	2	0.15576324	39	0.11262887
2868	GO:0004062	aryl sulfotransferase	0.43	1	0.07788162	15	0.043318797
7520	GO:0010294	abscisic acid glucos	0.43	1	0.07788162	15	0.043318797
8635	GO:0015229	L-ascorbic acid trans	0.43	1	0.07788162	15	0.043318797
8740	GO:0015386	potassium:hydrogen	0.43	1	0.07788162	15	0.043318797
9144	GO:0015882	L-ascorbic acid trans	0.43	1	0.07788162	15	0.043318797
9536	GO:0016408	C-acyltransferase ac	0.43	1	0.07788162	15	0.043318797
12523	GO:0022821	potassium ion antipo	0.43	1	0.07788162	15	0.043318797
11616	GO:0019637	organophosphate me	0.44	3	0.23364486	65	0.18771479
20512	GO:0044262 GO:004	cellular carbohydrate	0.44	10	0.7788162	248	0.7162041
11829	GO:0019900	kinase binding	0.44	3	0.23364486	66	0.1906027
3638	GO:0005096	GTPase activator ac	0.45	2	0.15576324	41	0.118404716
19813	GO:0043547	positive regulation of	0.45	2	0.15576324	41	0.118404716
20627	GO:0044433	cytoplasmic vesicle	0.45	2	0.15576324	41	0.118404716
3742	GO:0005242	inward rectifier potas	0.45	1	0.07788162	16	0.046206716
3782	GO:0005310 GO:004	dicarboxylic acid tra	0.45	1	0.07788162	16	0.046206716
4767	GO:0006643	membrane lipid met	0.45	1	0.07788162	16	0.046206716
4928	GO:0006835 GO:004	dicarboxylic acid tra	0.45	1	0.07788162	16	0.046206716
5691	GO:0008131 GO:004	primary amine oxida	0.45	1	0.07788162	16	0.046206716
5995	GO:0008524	glucose 6-phosphate	0.45	1	0.07788162	16	0.046206716
7521	GO:0010295	(+)-abscisic acid 8'-H	0.45	1	0.07788162	16	0.046206716
8694	GO:0015315	organophosphate:ind	0.45	1	0.07788162	16	0.046206716



9189	GO:0015929	hexosaminidase acti	0.45	1	0.07788162	16	0.046206716
9797	GO:0016742	hydroxymethyl-, form	0.45	1	0.07788162	16	0.046206716
9898	GO:0016863	intramolecular oxid	0.45	1	0.07788162	16	0.046206716
18757	GO:0042409	caffeoyl-CoA O-mett	0.45	1	0.07788162	16	0.046206716
18899	GO:0042562	hormone binding	0.45	1	0.07788162	16	0.046206716
31396	GO:0080019	fatty-acyl-CoA reduc	0.45	1	0.07788162	16	0.046206716
2667	GO:0003777	microtubule motor ad	0.45	1	0.07788162	16	0.046206716
22479	GO:0046983	protein dimerization	0.46	20	1.5576324	517	1.4930545
3873	GO:0005507	copper ion binding	0.46	6	0.46728972	146	0.42163628
8675	GO:0015293	symporter activity	0.46	7	0.5451713	173	0.49961013
7229	GO:0009987 GO:00	cellular process	0.46	395	30.76324	10601	30.614838
3753	GO:0005253	anion channel activit	0.46	2	0.15576324	42	0.121292636
5607	GO:0008022	protein C-terminus b	0.46	2	0.15576324	42	0.121292636
3620	GO:0005057	receptor signaling pr	0.47	3	0.23364486	69	0.19926646
4135	GO:0005875	microtubule associat	0.47	1	0.07788162	17	0.049094636
8585	GO:0015172	acidic amino acid tra	0.47	1	0.07788162	17	0.049094636
9069	GO:0015800	acidic amino acid tra	0.47	1	0.07788162	17	0.049094636
30887	GO:0072531	pyrimidine-containin	0.47	1	0.07788162	17	0.049094636
3900	GO:0005548 GO:00	phospholipid transp	0.48	2	0.15576324	43	0.124180555
9174	GO:0015914	phospholipid transp	0.48	2	0.15576324	43	0.124180555
13833	GO:0031410	cytoplasmic vesicle	0.48	2	0.15576324	43	0.124180555
14393	GO:0031982	vesicle	0.48	2	0.15576324	43	0.124180555
9579	GO:0016462	pyrophosphatase ac	0.48	36	2.8037384	954	2.7550755
9191	GO:0015931	nucleobase, nucleos	0.48	3	0.23364486	70	0.20215438
9192	GO:0015932	nucleobase, nucleos	0.48	3	0.23364486	70	0.20215438
9859	GO:0016818	hydrolase activity, ac	0.49	36	2.8037384	956	2.7608514
9753	GO:0016682	oxidoreductase activ	0.49	2	0.15576324	44	0.12706847
2642	GO:0003697 GO:00	single-stranded DNA	0.49	2	0.15576324	44	0.12706847
3832	GO:0005388	calcium-transporting	0.49	1	0.07788162	18	0.051982556
4134	GO:0005874	microtubule	0.49	1	0.07788162	18	0.051982556
4252	GO:0006014	D-ribose metabolic p	0.49	1	0.07788162	18	0.051982556
8662	GO:0015271	outward rectifier pot	0.49	1	0.07788162	18	0.051982556
9726	GO:0016646	oxidoreductase activ	0.49	1	0.07788162	18	0.051982556
12887	GO:0030332	cyclin binding	0.49	1	0.07788162	18	0.051982556
207	GO:0000272	polysaccharide catal	0.49	1	0.07788162	18	0.051982556
2737	GO:0003887 GO:00	DNA-directed DNA p	0.49	1	0.07788162	18	0.051982556
9858	GO:0016817	hydrolase activity, ac	0.49	36	2.8037384	959	2.769515
8681	GO:0015299	solute:hydrogen anti	0.49	4	0.31152648	98	0.28301615
4236	GO:0005996	monosaccharide me	0.50	5	0.3894081	125	0.36099
9893	GO:0016857	racemase and epime	0.50	2	0.15576324	45	0.1299564
11780	GO:0019829	cation-transporting A	0.50	2	0.15576324	45	0.1299564
9764	GO:0016701	oxidoreductase activ	0.50	3	0.23364486	72	0.20793022
3799	GO:0005338 GO:00	nucleotide-sugar tra	0.51	1	0.07788162	19	0.054870475
5230	GO:0007205	activation of protein	0.51	1	0.07788162	19	0.054870475
6435	GO:0009066	aspartate family ami	0.51	1	0.07788162	19	0.054870475
9049	GO:0015780	nucleotide-sugar tra	0.51	1	0.07788162	19	0.054870475
9490	GO:0016307	phosphatidylinositol	0.51	1	0.07788162	19	0.054870475
9491	GO:0016308 GO:00	1-phosphatidylinosit	0.51	1	0.07788162	19	0.054870475
14556	GO:0032147	activation of protein	0.51	1	0.07788162	19	0.054870475
18750	GO:0042401	cellular biogenic ami	0.51	1	0.07788162	19	0.054870475
2636	GO:0003690	double-stranded DN	0.51	2	0.15576324	46	0.13284431
11311	GO:0019318	hexose metabolic pr	0.52	4	0.31152648	101	0.2916799
9817	GO:0016763	transferase activity, t	0.52	3	0.23364486	74	0.21370606
4916	GO:0006818	hydrogen transport	0.52	11	0.8566978	292	0.84327257
9246	GO:0015992	proton transport	0.52	11	0.8566978	292	0.84327257
12608	GO:0030001	metal ion transport	0.52	14	1.0903426	374	1.080082
6442	GO:0009073 GO:00	aromatic amino acid	0.52	2	0.15576324	47	0.13573223
8497	GO:0015079 GO:00	potassium ion trans	0.52	2	0.15576324	47	0.13573223
21943	GO:0046417	chorismate metaboli	0.52	2	0.15576324	47	0.13573223
25510	GO:0051213	dioxygenase activity	0.53	3	0.23364486	75	0.21659398
3747	GO:0005247	voltage-gated chloric	0.53	1	0.07788162	20	0.0577584
3754	GO:0005254	chloride channel acti	0.53	1	0.07788162	20	0.0577584
6201	GO:0008794	arsenate reductase (	0.53	1	0.07788162	20	0.0577584
9707	GO:0016624	oxidoreductase activ	0.53	1	0.07788162	20	0.0577584
9799	GO:0016744 GO:00	transferase activity, t	0.53	1	0.07788162	20	0.0577584
13086	GO:0030611	arsenate reductase a	0.53	1	0.07788162	20	0.0577584
13088	GO:0030613	oxidoreductase activ	0.53	1	0.07788162	20	0.0577584
13089	GO:0030614	oxidoreductase activ	0.53	1	0.07788162	20	0.0577584
15575	GO:0033176	proton-transporting V	0.53	1	0.07788162	20	0.0577584
16445	GO:0034061	DNA polymerase act	0.53	1	0.07788162	20	0.0577584
22376	GO:0046873	metal ion transmemt	0.54	8	0.62305295	213	0.6151269
3844	GO:0005451	monovalent cation:hy	0.55	2	0.15576324	49	0.14150807
6483	GO:0009116	nucleoside metabolic	0.55	2	0.15576324	49	0.14150807
8909	GO:0015630	microtubule cytoskel	0.55	2	0.15576324	49	0.14150807
31421	GO:0080044	quercetin 7-O-glucos	0.55	2	0.15576324	49	0.14150807
3364	GO:0004745	retinol dehydrogenas	0.55	1	0.07788162	21	0.060646318
3474	GO:0004869 GO:00	cysteine-type endop	0.55	1	0.07788162	21	0.060646318
4420	GO:0006213	pyrimidine nucleosid	0.55	1	0.07788162	21	0.060646318
5878	GO:0008378	galactosyltransferas	0.55	1	0.07788162	21	0.060646318
6582	GO:0009218	pyrimidine ribonucle	0.55	1	0.07788162	21	0.060646318
6584	GO:0009220	pyrimidine ribonucle	0.55	1	0.07788162	21	0.060646318
9698	GO:0016615	malate dehydrogena	0.55	1	0.07788162	21	0.060646318
21697	GO:0046131	pyrimidine ribonucle	0.55	1	0.07788162	21	0.060646318
2668	GO:0003779	actin binding	0.55	4	0.31152648	105	0.3032316
3449	GO:0004842 GO:00	ubiquitin-protein liga	0.55	12	0.93457943	326	0.94146186
19914	GO:0043648	dicarboxylic acid me	0.56	2	0.15576324	50	0.14439599
3828	GO:0005375 GO:00	copper ion transmem	0.56	1	0.07788162	22	0.06353424
3831	GO:0005385	zinc ion transmembr	0.56	1	0.07788162	22	0.06353424
4920	GO:0006825	copper ion transport	0.56	1	0.07788162	22	0.06353424
4924	GO:0006829	zinc ion transport	0.56	1	0.07788162	22	0.06353424
6521	GO:0009156	ribonucleoside mon	0.56	1	0.07788162	22	0.06353424

6525	GO:0009161	ribonucleoside monophosphate	0.56	1	0.07788162	22	0.06353424	
9545	GO:0016417	S-acyltransferase activity	0.56	1	0.07788162	22	0.06353424	
17800	GO:0035434	copper ion transmembrane transport	0.56	1	0.07788162	22	0.06353424	
21152	GO:0045551	cinnamyl-alcohol dehydrogenase activity	0.56	1	0.07788162	22	0.06353424	
29941	GO:0071577	zinc ion transmembrane transport	0.56	1	0.07788162	22	0.06353424	
2691	GO:0003841	GO:0003841	1-acylglycerol-3-phosphate	0.56	1	0.07788162	22	0.06353424
5764	GO:0008234	GO:0008234	cysteine-type peptidase activity	0.56	6	0.46728972	163	0.47073093
3099	GO:0004428	inositol or phosphate	0.57	2	0.15576324	51	0.14728391	
8908	GO:0015629	actin cytoskeleton	0.57	2	0.15576324	51	0.14728391	
9654	GO:0016567	protein ubiquitination	0.58	12	0.93457943	332	0.9587894	
14854	GO:0032446	protein modification	0.58	12	0.93457943	332	0.9587894	
29011	GO:0070647	protein modification	0.58	12	0.93457943	332	0.9587894	
11833	GO:0019904	protein domain specification	0.58	4	0.31152648	109	0.31478328	
4918	GO:0006821	chloride transport	0.58	1	0.07788162	23	0.06642216	
9420	GO:0016207	4-coumarate-CoA ligase activity	0.58	1	0.07788162	23	0.06642216	
9806	GO:0016752	sinapoyltransferase activity	0.58	1	0.07788162	23	0.06642216	
9807	GO:0016753	O-sinapoyltransferase activity	0.58	1	0.07788162	23	0.06642216	
9808	GO:0016754	sinapoylglucose-malate lyase activity	0.58	1	0.07788162	23	0.06642216	
16063	GO:0033674	positive regulation of gene expression	0.58	1	0.07788162	23	0.06642216	
19815	GO:0043549	regulation of kinase activity	0.58	1	0.07788162	23	0.06642216	
21437	GO:0045859	regulation of protein activity	0.58	1	0.07788162	23	0.06642216	
21438	GO:0045860	positive regulation of gene expression	0.58	1	0.07788162	23	0.06642216	
25628	GO:0051338	regulation of transferase activity	0.58	1	0.07788162	23	0.06642216	
25637	GO:0051347	positive regulation of gene expression	0.58	1	0.07788162	23	0.06642216	
2633	GO:0003684	damaged DNA binding	0.58	1	0.07788162	23	0.06642216	
15189	GO:0032787	monocarboxylic acid transport	0.58	3	0.23364486	81	0.23392151	
18674	GO:0042325	regulation of phosphatase activity	0.58	3	0.23364486	81	0.23392151	
11776	GO:0019825	oxygen binding	0.58	14	1.0903426	389	1.1234008	
9750	GO:0016679	oxidoreductase activity	0.59	2	0.15576324	53	0.15305975	
25635	GO:0051345	positive regulation of gene expression	0.59	2	0.15576324	53	0.15305975	
2661	GO:0003743	GO:0003743	translation initiation factor activity	0.59	2	0.15576324	53	0.15305975
6991	GO:0009725	response to hormone	0.59	3	0.23364486	82	0.23680943	
4526	GO:0006351	GO:0006351	transcription, DNA-dependent	0.60	57	4.4392524	1575	4.548474
15176	GO:0032774	RNA biosynthetic process	0.60	57	4.4392524	1575	4.548474	
3262	GO:0004622	GO:0004622	lysophospholipase activity	0.60	1	0.07788162	24	0.06931008
4692	GO:0006563	L-serine metabolic process	0.60	1	0.07788162	24	0.06931008	
7144	GO:0009892	negative regulation of gene expression	0.60	1	0.07788162	24	0.06931008	
12694	GO:0030119	AP-type membrane channel activity	0.60	1	0.07788162	24	0.06931008	
12706	GO:0030131	clathrin adaptor complex activity	0.60	1	0.07788162	24	0.06931008	
13754	GO:0031324	negative regulation of gene expression	0.60	1	0.07788162	24	0.06931008	
15390	GO:0032989	cellular component morphogenesis	0.60	1	0.07788162	24	0.06931008	
551	GO:0000902	GO:0000902	cell morphogenesis	0.60	1	0.07788162	24	0.06931008
11747	GO:0019787	GO:0019787	small conjugating protein activity	0.61	12	0.93457943	339	0.9790048
4503	GO:0006310	DNA recombination	0.61	1	0.07788162	25	0.072197996	
9482	GO:0016291	GO:0016291	acyl-CoA thioesterase activity	0.61	1	0.07788162	25	0.072197996
13822	GO:0031399	regulation of protein activity	0.61	1	0.07788162	25	0.072197996	
21145	GO:0045543	gibberellin 2-beta-D-glucopyranosyltransferase activity	0.61	1	0.07788162	25	0.072197996	
22357	GO:0046854	GO:0046854	phosphatidylinositol 3-kinase activity	0.61	1	0.07788162	25	0.072197996
22459	GO:0046961	proton-transporting ATPase activity	0.61	1	0.07788162	25	0.072197996	
31393	GO:0080016	(-)-E-beta-caryophyllene synthase activity	0.61	1	0.07788162	25	0.072197996	
31394	GO:0080017	alpha-humulene synthase activity	0.61	1	0.07788162	25	0.072197996	
125	GO:0000159	protein phosphatase activity	0.61	1	0.07788162	25	0.072197996	
1225	GO:0001932	regulation of protein activity	0.61	1	0.07788162	25	0.072197996	
11222	GO:0019220	regulation of phosphatase activity	0.61	3	0.23364486	85	0.24547319	
25471	GO:0051174	regulation of phosphatase activity	0.61	3	0.23364486	85	0.24547319	
5840	GO:0008324	cation transmembrane transport	0.62	19	1.4797508	538	1.5537009	
6985	GO:0009719	response to endogenous stimulus	0.62	3	0.23364486	86	0.24836111	
3896	GO:0005544	calcium-dependent protein phosphatase activity	0.63	1	0.07788162	26	0.075085916	
4030	GO:0005741	mitochondrial outer membrane protein import	0.63	1	0.07788162	26	0.075085916	
5978	GO:0008506	sucrose:hydrogen symporter activity	0.63	1	0.07788162	26	0.075085916	
5987	GO:0008515	GO:0008515	sucrose transmembrane transport	0.63	1	0.07788162	26	0.075085916
8567	GO:0015154	disaccharide transmembrane transport	0.63	1	0.07788162	26	0.075085916	
9035	GO:0015766	disaccharide transport	0.63	1	0.07788162	26	0.075085916	
9039	GO:0015770	sucrose transport	0.63	1	0.07788162	26	0.075085916	
9421	GO:0016208	AMP binding	0.63	1	0.07788162	26	0.075085916	
9539	GO:0016411	acylglycerol O-acyltransferase activity	0.63	1	0.07788162	26	0.075085916	
9744	GO:0016671	oxidoreductase activity	0.63	1	0.07788162	26	0.075085916	
9884	GO:0016847	GO:0016847	1-aminocyclopropanecarboxylate lyase activity	0.63	1	0.07788162	26	0.075085916
9897	GO:0016862	intramolecular oxidoreductase activity	0.63	1	0.07788162	26	0.075085916	
9899	GO:0016864	intramolecular oxidoreductase activity	0.63	1	0.07788162	26	0.075085916	
10911	GO:0018871	1-aminocyclopropanecarboxylate lyase activity	0.63	1	0.07788162	26	0.075085916	
18579	GO:0042218	1-aminocyclopropanecarboxylate lyase activity	0.63	1	0.07788162	26	0.075085916	
30689	GO:0072330	monocarboxylic acid transport	0.63	1	0.07788162	26	0.075085916	
2665	GO:0003756	protein disulfide isomerase activity	0.63	1	0.07788162	26	0.075085916	
5715	GO:0008171	O-methyltransferase activity	0.63	2	0.15576324	57	0.16461143	
6441	GO:0009072	aromatic amino acid decarboxylase activity	0.63	2	0.15576324	57	0.16461143	
9768	GO:0016706	oxidoreductase activity	0.63	6	0.46728972	175	0.505386	
9796	GO:0016741	transferase activity	0.63	9	0.7009346	261	0.7537471	
4913	GO:0006814	GO:0006814	sodium ion transport	0.64	2	0.15576324	58	0.16749935
8499	GO:0015081	GO:0015081	sodium ion transmembrane transport	0.64	2	0.15576324	58	0.16749935
11820	GO:0019887	protein kinase regulation	0.64	2	0.15576324	58	0.16749935	
18086	GO:0035725	sodium ion transmembrane transport	0.64	2	0.15576324	58	0.16749935	
29800	GO:0071436	sodium ion export	0.64	2	0.15576324	58	0.16749935	
3329	GO:0004708	MAP kinase kinase activity	0.64	1	0.07788162	27	0.077973835	
3631	GO:0005089	Rho guanyl-nucleotide exchange factor activity	0.64	1	0.07788162	27	0.077973835	
6433	GO:0009064	glutamine family amino acid transport	0.64	1	0.07788162	27	0.077973835	
22340	GO:0046834	lipid phosphorylation	0.64	1	0.07788162	27	0.077973835	
25481	GO:0051184	cofactor transporter activity	0.64	1	0.07788162	27	0.077973835	
1029	GO:0001727	lipid kinase activity	0.64	1	0.07788162	27	0.077973835	
9719	GO:0016638	oxidoreductase activity	0.65	3	0.23364486	89	0.25702485	
19126	GO:0042803	protein homodimerization	0.65	9	0.7009346	265	0.7652988	



2833	GO:0004024	alcohol dehydrogenase	0.65	1	0.07788162	28	0.080861755
3284	GO:0004650	polygalacturonase activity	0.65	1	0.07788162	28	0.080861755
6079	GO:0008654	phospholipid biosynthesis	0.65	1	0.07788162	28	0.080861755
6438	GO:0009069	serine family amino acid	0.65	1	0.07788162	28	0.080861755
6940	GO:0009672	auxin:hydrogen symport	0.65	1	0.07788162	28	0.080861755
9238	GO:0015980	energy derivation by	0.65	1	0.07788162	28	0.080861755
9827	GO:0016776	phosphotransferase	0.65	1	0.07788162	28	0.080861755
13144	GO:0030674	protein binding, bridge	0.65	1	0.07788162	28	0.080861755
23911	GO:0048519 GO:00	negative regulation of	0.65	1	0.07788162	28	0.080861755
23915	GO:0048523 GO:00	negative regulation of	0.65	1	0.07788162	28	0.080861755
27064	GO:0060090	binding, bridging	0.65	1	0.07788162	28	0.080861755
20487	GO:0044237	cellular metabolic pro	0.65	298	23.208723	8185	23.637625
20510	GO:0044260 GO:00	cellular macromolec	0.66	202	15.732087	5577	16.105928
2980	GO:0004185	serine-type carboxyp	0.66	2	0.15576324	60	0.17327519
28375	GO:0070008	serine-type exopepti	0.66	2	0.15576324	60	0.17327519
3644	GO:0005102	receptor binding	0.66	3	0.23364486	91	0.2628007
4849	GO:0006730 GO:00	one-carbon metaboli	0.66	11	0.8566978	325	0.93857396
7558	GO:0010334	sesquiterpene synth	0.67	1	0.07788162	29	0.083749674
9409	GO:0016192 GO:00	vesicle-mediated tra	0.67	1	0.07788162	29	0.083749674
16785	GO:0034404	nucleobase, nucleos	0.67	3	0.23364486	92	0.26568863
17033	GO:0034654	nucleobase, nucleos	0.67	3	0.23364486	92	0.26568863
2978	GO:0004180	carboxypeptidase ac	0.67	2	0.15576324	62	0.17905103
5213	GO:0007186	G-protein coupled re	0.67	2	0.15576324	62	0.17905103
11210	GO:0019207	kinase regulator acti	0.67	2	0.15576324	62	0.17905103
3310	GO:0004679	AMP-activated prote	0.68	1	0.07788162	30	0.086637594
3518	GO:0004930 GO:00	G-protein coupled re	0.68	1	0.07788162	30	0.086637594
3975	GO:0005667	transcription factor c	0.68	1	0.07788162	30	0.086637594
5916	GO:0008422 GO:00	beta-glucosidase ac	0.68	1	0.07788162	30	0.086637594
6488	GO:0009123	nucleoside monophc	0.68	1	0.07788162	30	0.086637594
6489	GO:0009124	nucleoside monophc	0.68	1	0.07788162	30	0.086637594
24247	GO:0048869	cellular developmen	0.68	1	0.07788162	30	0.086637594
2774	GO:0003950	NAD+ ADP-ribosyltr	0.68	1	0.07788162	30	0.086637594
8495	GO:0015077	monovalent inorgan	0.68	7	0.5451713	214	0.6180149
9818	GO:0016765 GO:00	transferase activity, t	0.69	6	0.46728972	185	0.53426516
5712	GO:0008168 GO:00	methyltransferase ac	0.69	8	0.62305295	244	0.7046524
7222	GO:0009975	cyclase activity	0.69	1	0.07788162	31	0.08952551
25478	GO:0051181	cofactor transport	0.69	1	0.07788162	31	0.08952551
9114	GO:0015849	organic acid transpo	0.69	5	0.3894081	156	0.45051548
22443	GO:0046942	carboxylic acid trans	0.69	5	0.3894081	156	0.45051548
4121	GO:0005856	cytoskeleton	0.69	4	0.31152648	126	0.3638779
12741	GO:0030170	pyridoxal phosphate	0.69	4	0.31152648	126	0.3638779
28643	GO:0070279	vitamin B6 binding	0.69	4	0.31152648	126	0.3638779
22416	GO:0046915	transition metal ion t	0.69	2	0.15576324	64	0.18482687
9913	GO:0016881	acid-amino acid liga	0.69	13	1.0124611	391	1.1291766
9583	GO:0016469	proton-transporting t	0.70	4	0.31152648	127	0.36676583
3861	GO:0005484 GO:00	SNAP receptor activ	0.70	2	0.15576324	65	0.18771479
9838	GO:0016790	thiolester hydrolase	0.70	2	0.15576324	65	0.18771479
25314	GO:00051015	actin filament bindin	0.70	2	0.15576324	65	0.18771479
4757	GO:0006633 GO:00	fatty acid biosynthe	0.70	1	0.07788162	32	0.09241343
6942	GO:0009674	potassium:sodium sy	0.70	1	0.07788162	32	0.09241343
9041	GO:0015772	oligosaccharide tran	0.70	1	0.07788162	32	0.09241343
12522	GO:0022820	potassium ion sympt	0.70	1	0.07788162	32	0.09241343
12833	GO:0030275	LRR domain binding	0.70	1	0.07788162	32	0.09241343
14381	GO:0031968	organelle outer mem	0.70	1	0.07788162	32	0.09241343
21041	GO:0045431	flavonol synthase ac	0.70	1	0.07788162	32	0.09241343
25836	GO:0051552	flavone metabolic pr	0.70	1	0.07788162	32	0.09241343
25837	GO:0051553	flavone biosynthetic	0.70	1	0.07788162	32	0.09241343
25838	GO:0051554	flavonol metabolic p	0.70	1	0.07788162	32	0.09241343
25839	GO:0051555	flavonol biosynthetic	0.70	1	0.07788162	32	0.09241343
10058	GO:0017111	nucleoside-triphosph	0.70	30	2.3364487	878	2.5355935
3180	GO:0004521	endoribonuclease ac	0.71	2	0.15576324	66	0.1906027
9765	GO:0016702	oxidoreductase activ	0.71	2	0.15576324	66	0.1906027
9890	GO:0016854	racemase and epime	0.71	2	0.15576324	66	0.1906027
9906	GO:0016874	ligase activity	0.71	20	1.5576324	597	1.7240882
10103	GO:0017171	serine hydrolase act	0.71	7	0.5451713	220	0.63534236
8496	GO:0015078	hydrogen ion transm	0.71	5	0.3894081	160	0.4620672
4493	GO:0006298 GO:00	mismatch repair	0.71	1	0.07788162	33	0.09530135
30878	GO:0072522	purine-containing co	0.71	1	0.07788162	33	0.09530135
2632	GO:0003682	chromatin binding	0.71	1	0.07788162	33	0.09530135
4320	GO:0006082	organic acid metabo	0.72	12	0.93457943	369	1.0656425
11716	GO:0019752	carboxylic acid meta	0.72	12	0.93457943	369	1.0656425
19707	GO:0043436	oxoacid metabolic pr	0.72	12	0.93457943	369	1.0656425
7271	GO:0010033	response to organic	0.72	3	0.23364486	100	0.28879198
18955	GO:0042625	ATPase activity, cou	0.72	2	0.15576324	68	0.19637854
32	GO:0000041	transition metal ion t	0.72	2	0.15576324	68	0.19637854
6004	GO:0008536	Ran GTPase binding	0.72	1	0.07788162	34	0.09818927
11208	GO:0019205	nucleobase, nucleos	0.72	1	0.07788162	34	0.09818927
11831	GO:0019902	phosphatase binding	0.72	1	0.07788162	34	0.09818927
11832	GO:0019903	protein phosphatase	0.72	1	0.07788162	34	0.09818927
4394	GO:0006184	GTP catabolic proces	0.73	4	0.31152648	132	0.3812054
21605	GO:0046039	GTP metabolic proce	0.73	4	0.31152648	132	0.3812054
2758	GO:0003924	GTPase activity	0.73	4	0.31152648	132	0.3812054
19473	GO:0043170 GO:00	macromolecule meta	0.73	235	18.302181	6553	18.92454
4911	GO:0006812 GO:00	cation transport	0.73	22	1.7133956	662	1.9118029
9480	GO:0016289	CoA hydrolase activ	0.73	1	0.07788162	35	0.10107719
12817	GO:0030258	lipid modification	0.73	1	0.07788162	35	0.10107719
18541	GO:0042180	cellular ketone meta	0.74	12	0.93457943	375	1.0829699
3804	GO:0005345	purine base transme	0.74	1	0.07788162	36	0.10396511
4949	GO:0006863 GO:00	purine base transpor	0.74	1	0.07788162	36	0.10396511
8739	GO:0015385 GO:00	sodium:hydrogen an	0.74	1	0.07788162	36	0.10396511
11314	GO:0019321	pentose metabolic p	0.74	1	0.07788162	36	0.10396511

9771	GO:0016709	oxidoreductase activ	0.75	2	0.15576324	71	0.2050423
19392	GO:0043085	positive regulation of	0.75	3	0.23364486	104	0.30034366
20343	GO:0044093	positive regulation of	0.75	3	0.23364486	104	0.30034366
4408	GO:0006200	ATP catabolic proce	0.75	21	1.635514	641	1.8511566
9918	GO:0016887 GO:000	ATPase activity	0.75	21	1.635514	641	1.8511566
21600	GO:0046034	ATP metabolic proce	0.75	21	1.635514	641	1.8511566
2975	GO:0004175 GO:000	endopeptidase activi	0.75	10	0.7788162	320	0.9241344
8934	GO:0015662	ATPase activity, cou	0.75	1	0.07788162	37	0.10685303
9915	GO:0016884 GO:000	carbon-nitrogen ligas	0.75	1	0.07788162	37	0.10685303
6899	GO:0009628	response to abiotic s	0.76	5	0.3894081	170	0.49094638
9637	GO:0016538 GO:000	cyclin-dependent pro	0.76	1	0.07788162	38	0.10974095
12834	GO:0030276	clathrin binding	0.76	1	0.07788162	38	0.10974095
9874	GO:0016835	carbon-oxygen lyase	0.76	6	0.46728972	202	0.5833598
22375	GO:0046872	metal ion binding	0.76	104	8.099689	2985	8.6204405
6623	GO:0009260	ribonucleotide biosy	0.77	1	0.07788162	39	0.11262887
6046	GO:0008610	lipid biosynthetic pro	0.77	4	0.31152648	141	0.4071967
4573	GO:0006413 GO:000	translational initiati	0.78	2	0.15576324	76	0.2194819
19470	GO:0043167	ion binding	0.78	104	8.099689	2997	8.655096
19472	GO:0043169	cation binding	0.78	104	8.099689	2997	8.655096
11828	GO:0019899	enzyme binding	0.78	7	0.5451713	237	0.684437
4058	GO:0005773	vacuole	0.78	1	0.07788162	40	0.1155168
7072	GO:0009813	flavonoid biosynthesi	0.78	1	0.07788162	40	0.1155168
8613	GO:0015205 GO:000	nucleobase transme	0.78	1	0.07788162	40	0.1155168
9116	GO:0015851	nucleobase transpor	0.78	1	0.07788162	40	0.1155168
11804	GO:0019867	outer membrane	0.78	1	0.07788162	40	0.1155168
18953	GO:0042623	ATPase activity, cou	0.78	17	1.3239875	537	1.550813
5604	GO:0008017	microtubule binding	0.78	2	0.15576324	77	0.22236982
6529	GO:0009165	nucleotide biosynthe	0.78	2	0.15576324	77	0.22236982
3626	GO:0005083	small GTPase regula	0.78	3	0.23364486	111	0.3205591
2986	GO:0004252	serine-type endopep	0.79	4	0.31152648	144	0.41586044
4405	GO:0006195	purine nucleotide cat	0.79	25	1.9470406	773	2.232362
6508	GO:0009143	nucleoside triphosph	0.79	25	1.9470406	773	2.232362
6509	GO:0009144	purine nucleoside tri	0.79	25	1.9470406	773	2.232362
6511	GO:0009146	purine nucleoside tri	0.79	25	1.9470406	773	2.232362
6519	GO:0009154	purine ribonucleotide	0.79	25	1.9470406	773	2.232362
6530	GO:0009166	nucleotide catabolic	0.79	25	1.9470406	773	2.232362
6567	GO:0009203	ribonucleoside triphc	0.79	25	1.9470406	773	2.232362
6569	GO:0009205	purine ribonucleosid	0.79	25	1.9470406	773	2.232362
6571	GO:0009207	purine ribonucleosid	0.79	25	1.9470406	773	2.232362
6624	GO:0009261	ribonucleotide catab	0.79	25	1.9470406	773	2.232362
17034	GO:0034655	nucleobase, nucleos	0.79	25	1.9470406	773	2.232362
17035	GO:0034656	nucleobase, nucleos	0.79	25	1.9470406	773	2.232362
22209	GO:0046700	heterocycle catabolic	0.79	25	1.9470406	773	2.232362
30879	GO:0072523	purine-containing co	0.79	25	1.9470406	773	2.232362
12572	GO:0022890 GO:000	inorganic cation tran	0.79	10	0.7788162	332	0.9587894
5196	GO:0007166	cell surface receptor	0.79	2	0.15576324	78	0.22525774
19832	GO:0043566	structure-specific DN	0.79	2	0.15576324	78	0.22525774
20520	GO:0044270	cellular nitrogen com	0.79	25	1.9470406	777	2.2439137
4756	GO:0006631	fatty acid metabolic p	0.80	1	0.07788162	42	0.121292636
4874	GO:0006767	water-soluble vitamir	0.80	1	0.07788162	42	0.121292636
13884	GO:0031461	cullin-RING ubiquitin	0.80	1	0.07788162	42	0.121292636
18713	GO:0042364	water-soluble vitamir	0.80	1	0.07788162	42	0.121292636
9911	GO:0016879	ligase activity, formir	0.80	14	1.0903426	456	1.3168914
9875	GO:0016836	hydro-lyase activity	0.80	2	0.15576324	80	0.2310336
5694	GO:0008137	NADH dehydrogenas	0.80	1	0.07788162	43	0.124180555
8589	GO:0015179	L-amino acid transm	0.80	1	0.07788162	43	0.124180555
9076	GO:0015807	L-amino acid transpo	0.80	1	0.07788162	43	0.124180555
14676	GO:0032268	regulation of cellular	0.80	1	0.07788162	43	0.124180555
25538	GO:0051246	regulation of protein	0.80	1	0.07788162	43	0.124180555
6663	GO:0009309	amine biosynthetic p	0.81	5	0.3894081	181	0.5227135
6622	GO:0009259 GO:000	ribonucleotide metal	0.81	26	2.0249221	812	2.344991
11426	GO:0019438	aromatic compound	0.81	4	0.31152648	149	0.43030006
5766	GO:0008236	serine-type peptidas	0.81	6	0.46728972	214	0.6180149
4873	GO:0006766	vitamin metabolic pr	0.81	1	0.07788162	44	0.12706847
6477	GO:0009110	vitamin biosynthetic	0.81	1	0.07788162	44	0.12706847
7071	GO:0009812	flavonoid metabolic p	0.81	1	0.07788162	44	0.12706847
9186	GO:0015926	glucosidase activity	0.81	1	0.07788162	44	0.12706847
20522	GO:0044272	sulfur compound bio	0.81	1	0.07788162	44	0.12706847
20505	GO:0044255	cellular lipid metabo	0.82	5	0.3894081	184	0.53137726
2628	GO:0003677	DNA binding	0.82	40	3.115265	1224	3.534814
3630	GO:0005088	Ras guanyl-nucleotic	0.82	1	0.07788162	45	0.1299564
12693	GO:0030118 GO:000	clathrin coat	0.82	1	0.07788162	45	0.1299564
24456	GO:0050136	NADH dehydrogenas	0.82	1	0.07788162	45	0.1299564
3787	GO:0005319	lipid transporter activ	0.82	2	0.15576324	83	0.23969735
6563	GO:0009199	ribonucleoside triphc	0.82	25	1.9470406	790	2.2814567
5661	GO:0008092	cytoskeletal protein i	0.82	7	0.5451713	249	0.719092
6515	GO:0009150	purine ribonucleotide	0.82	25	1.9470406	791	2.2843447
6662	GO:0009308	amine metabolic pro	0.83	9	0.7009346	314	0.9068068
4144	GO:0005886 GO:000	plasma membrane	0.83	3	0.23364486	120	0.34655038
5624	GO:0008047	enzyme activator act	0.83	2	0.15576324	85	0.24547319
6506	GO:0009141	nucleoside triphosph	0.83	25	1.9470406	796	2.2987843
5807	GO:0008287	protein serine/threon	0.83	1	0.07788162	47	0.13573223
20533	GO:0044283	small molecule biosy	0.83	10	0.7788162	347	1.0021082
30877	GO:0072521	purine-containing co	0.83	26	2.0249221	827	2.3883097
14667	GO:0032259	methylation	0.83	8	0.62305295	285	0.8230572
5768	GO:0008238	exopeptidase activity	0.83	2	0.15576324	86	0.24836111
28930	GO:0070566	adenyltransferase	0.84	1	0.07788162	48	0.13862015
4246	GO:0006006	glucose metabolic pi	0.84	2	0.15576324	87	0.25124902
4951	GO:0006865 GO:000	amino acid transport	0.84	3	0.23364486	123	0.35521415
20531	GO:0044281	small molecule meta	0.84	59	4.5950155	1788	5.1636004
11830	GO:0019901	protein kinase bindin	0.84	1	0.07788162	49	0.14150807



19831	GO:0043565	sequence-specific D	0.84	4	0.31152648	159	0.45917925
30306	GO:0071944	cell periphery	0.85	7	0.5451713	259	0.74797124
4216	GO:0005976	polysaccharide meta	0.85	1	0.07788162	50	0.14439599
6921	GO:0009653	anatomical structure	0.85	1	0.07788162	50	0.14439599
9993	GO:0017016	Ras GTPase binding	0.85	1	0.07788162	50	0.14439599
30886	GO:0072530	purine-containing co	0.85	1	0.07788162	50	0.14439599
3876	GO:0005515 GO:00	protein binding	0.85	243	18.925234	6933	20.021948
4373	GO:0006163	purine nucleotide me	0.85	25	1.9470406	810	2.339215
9285	GO:0016043	cellular component c	0.85	7	0.5451713	261	0.7537471
9733	GO:0016655	oxidoreductase activ	0.85	1	0.07788162	51	0.14728391
9975	GO:0016998	cell wall macromolec	0.85	1	0.07788162	51	0.14728391
22410	GO:0046907	intracellular transpor	0.85	1	0.07788162	51	0.14728391
25925	GO:0051641	cellular localization	0.85	1	0.07788162	51	0.14728391
25933	GO:0051649	establishment of loca	0.85	1	0.07788162	51	0.14728391
13531	GO:0031072	heat shock protein bi	0.86	6	0.46728972	230	0.6642216
5693	GO:0008135	translation factor act	0.86	2	0.15576324	92	0.26568863
5097	GO:0007049	cell cycle	0.86	1	0.07788162	52	0.15017183
6965	GO:0009699	phenylpropanoid bio	0.86	1	0.07788162	52	0.15017183
20287	GO:0044036	cell wall macromolec	0.86	1	0.07788162	52	0.15017183
2778	GO:0003954	NADH dehydrogenas	0.87	1	0.07788162	53	0.15305975
17918	GO:0035556 GO:00	intracellular signal tr	0.87	1	0.07788162	54	0.15594767
30069	GO:0071705	nitrogen compound t	0.87	5	0.3894081	202	0.5833598
15436	GO:0033036	macromolecule loca	0.87	11	0.8566978	397	1.1465042
4894	GO:0006790	sulfur compound me	0.88	1	0.07788162	55	0.15883559
6077	GO:0008652	cellular amino acid b	0.88	4	0.31152648	169	0.48805845
20356	GO:0044106	cellular amine metab	0.88	8	0.62305295	303	0.8750397
9883	GO:0016846	carbon-sulfur lyase a	0.88	1	0.07788162	56	0.16172351
13697	GO:0031267	small GTPase bindin	0.88	1	0.07788162	56	0.16172351
15576	GO:0033177	proton-transporting t	0.88	1	0.07788162	56	0.16172351
15577	GO:0033178	proton-transporting t	0.88	1	0.07788162	56	0.16172351
9308	GO:0016070	RNA metabolic proc	0.88	60	4.6728973	1855	5.3570914
9103	GO:0015837	amine transport	0.88	3	0.23364486	135	0.38986918
25379	GO:0051082	unfolded protein bind	0.88	2	0.15576324	98	0.28301615
3801	GO:0005342	organic acid transme	0.88	3	0.23364486	136	0.3927571
22444	GO:0046943	carboxylic acid trans	0.88	3	0.23364486	136	0.3927571
5964	GO:0008483	transaminase activit	0.88	1	0.07788162	57	0.16461143
9821	GO:0016769	transferase activity, t	0.88	1	0.07788162	57	0.16461143
3333	GO:0004712	protein serine/threon	0.89	1	0.07788162	59	0.17038727
9900	GO:0016866	intramolecular transf	0.89	1	0.07788162	59	0.17038727
9295	GO:0016053	organic acid biosynt	0.90	5	0.3894081	211	0.6093511
21058	GO:0045454 GO:00	cell redox homeostat	0.90	5	0.3894081	211	0.6093511
21922	GO:0046394	carboxylic acid biosy	0.90	5	0.3894081	211	0.6093511
6964	GO:0009698	phenylpropanoid me	0.90	1	0.07788162	60	0.17327519
25319	GO:0051020	GTPase binding	0.90	1	0.07788162	60	0.17327519
11787	GO:0019842	vitamin binding	0.90	4	0.31152648	177	0.5111618
4641	GO:0006508	proteolysis	0.90	29	2.258567	965	2.7868426
13164	GO:0030695	GTPase regulator ac	0.90	3	0.23364486	142	0.4100846
28365	GO:0065008	regulation of biologic	0.90	8	0.62305295	316	0.9125827
20639	GO:0044445	cytosolic part	0.90	1	0.07788162	62	0.17905103
3195	GO:0004540	ribonuclease activity	0.91	2	0.15576324	106	0.3061195
26932	GO:0055086	nucleobase, nucleos	0.91	28	2.1806853	944	2.7261963
4867	GO:0006753	nucleoside phosphat	0.91	27	2.1028037	914	2.6395588
6484	GO:0009117	nucleotide metabolic	0.91	27	2.1028037	914	2.6395588
20532	GO:0044282	small molecule catal	0.91	25	1.9470406	854	2.4662836
8910	GO:0015631	tubulin binding	0.91	2	0.15576324	107	0.30900744
9710	GO:0016628	oxidoreductase activ	0.91	1	0.07788162	65	0.18771479
4844	GO:0006725	cellular aromatic con	0.92	4	0.31152648	185	0.53426516
9829	GO:0016779	nucleotidyltransfera	0.92	3	0.23364486	148	0.42741212
4478	GO:0006281	DNA repair	0.92	3	0.23364486	149	0.43030006
5037	GO:0006974 GO:00	response to DNA da	0.92	3	0.23364486	149	0.43030006
4561	GO:0006399	tRNA metabolic proc	0.92	1	0.07788162	66	0.1906027
5615	GO:0008033	tRNA processing	0.92	1	0.07788162	66	0.1906027
20498	GO:0044248	cellular catabolic pro	0.92	26	2.0249221	894	2.5818002
9730	GO:0016651	oxidoreductase activ	0.92	2	0.15576324	112	0.32344702
27562	GO:0060589	nucleoside-triphosp	0.92	3	0.23364486	152	0.4389638
4850	GO:0006732 GO:00	coenzyme metabolic	0.93	2	0.15576324	113	0.32633495
9933	GO:0016903	oxidoreductase activ	0.93	2	0.15576324	113	0.32633495
9722	GO:0016641	oxidoreductase activ	0.93	1	0.07788162	69	0.19926646
21710	GO:0046148	pigment biosynthetic	0.93	1	0.07788162	69	0.19926646
5726	GO:0008187	poly-pyrimidine tract	0.93	1	0.07788162	70	0.20215438
5788	GO:0008266	poly(U) RNA binding	0.93	1	0.07788162	70	0.20215438
2649	GO:0003713	transcription coactiv	0.93	1	0.07788162	70	0.20215438
20521	GO:0044271	cellular nitrogen com	0.93	9	0.7009346	367	1.0598665
6020	GO:0008565 GO:00	protein transporter a	0.93	2	0.15576324	115	0.3321108
6475	GO:0009108	coenzyme biosynthe	0.93	1	0.07788162	72	0.20793022
9740	GO:0016667	oxidoreductase activ	0.93	1	0.07788162	72	0.20793022
8584	GO:0015171 GO:00	amino acid transmer	0.94	2	0.15576324	118	0.34077454
2521	GO:0003333	amino acid transmer	0.94	2	0.15576324	118	0.34077454
9703	GO:0016620	oxidoreductase activ	0.94	1	0.07788162	73	0.21081814
18786	GO:0042440	pigment metabolic p	0.94	1	0.07788162	73	0.21081814
19125	GO:0042802	identical protein bind	0.94	19	1.4797508	697	2.01288
11695	GO:0019725	cellular homeostasis	0.94	5	0.3894081	234	0.67577326
10244	GO:0018130	heterocycle biosynth	0.94	4	0.31152648	199	0.57469606
3627	GO:0005085 GO:00	guanyl-nucleotide ex	0.94	1	0.07788162	75	0.21659398
3965	GO:0005654	nucleoplasm	0.94	1	0.07788162	75	0.21659398
20645	GO:0044451	nucleoplasm part	0.94	1	0.07788162	75	0.21659398
18925	GO:0042592	homeostatic process	0.94	5	0.3894081	238	0.68732494
7691	GO:0010467	gene expression	0.94	61	4.7507787	1974	5.7007537
4649	GO:0006520 GO:00	cellular amino acid n	0.95	6	0.46728972	277	0.7999538
2819	GO:0004004	ATP-dependent RNA	0.95	1	0.07788162	78	0.22525774
4100	GO:0005829	cytosol	0.95	1	0.07788162	78	0.22525774

5725	GO:0008186 GO:00	RNA-dependent ATF	0.95	1	0.07788162	78	0.22525774
3761	GO:0005275 GO:00	amine transmembran	0.95	2	0.15576324	126	0.3638779
634	GO:0000988	protein binding trans	0.95	2	0.15576324	126	0.3638779
635	GO:0000989	transcription factor b	0.95	2	0.15576324	126	0.3638779
2648	GO:0003712	transcription cofacto	0.95	2	0.15576324	126	0.3638779
2654	GO:0003724	RNA helicase activit	0.95	1	0.07788162	80	0.2310336
22007	GO:0046483	heterocycle metaboli	0.95	31	2.4143302	1094	3.1593843
2658	GO:0003729	mRNA binding	0.96	1	0.07788162	82	0.23680943
30205	GO:0071841	cellular component c	0.96	6	0.46728972	285	0.8230572
15949	GO:0033554	cellular response to	0.96	3	0.23364486	173	0.49961013
4327	GO:0006091	generation of precurs	0.96	1	0.07788162	84	0.24258527
4067	GO:0005783	endoplasmic reticulu	0.96	3	0.23364486	174	0.50249803
30204	GO:0071840	cellular component c	0.96	8	0.62305295	362	1.045427
24235	GO:0048856	anatomical structure	0.97	1	0.07788162	90	0.2599128
6428	GO:0009059 GO:00	macromolecule bios	0.97	60	4.6728973	2003	5.7845035
9294	GO:0016052 GO:00	carbohydrate catabo	0.97	1	0.07788162	91	0.2628007
13547	GO:0031090	organelle membrane	0.97	4	0.31152648	224	0.64689404
13041	GO:0030554	adenyl nucleotide bir	0.97	13	1.0124611	550	1.5883559
14965	GO:0032559	adenyl ribonucleotid	0.97	13	1.0124611	550	1.5883559
11712	GO:0019748	secondary metabolic	0.97	1	0.07788162	95	0.27435237
9895	GO:0016860	intramolecular oxid	0.97	2	0.15576324	146	0.42163628
17024	GO:0034645 GO:00	cellular macromolec	0.97	59	4.5950155	1999	5.7729516
3884	GO:0005524	ATP binding	0.97	12	0.93457943	524	1.51327
6425	GO:0009056	catabolic process	0.98	28	2.1806853	1051	3.0352037
16851	GO:0034470	ncRNA processing	0.98	1	0.07788162	99	0.28590405
17039	GO:0034660	ncRNA metabolic pro	0.98	1	0.07788162	99	0.28590405
16430	GO:0034046	poly(G) RNA binding	0.98	1	0.07788162	100	0.28879198
5763	GO:0008233	peptidase activity	0.98	13	1.0124611	565	1.6316746
28378	GO:0070011	peptidase activity, ac	0.98	12	0.93457943	537	1.550813
9709	GO:0016627	oxidoreductase activ	0.98	1	0.07788162	104	0.30034366
3885	GO:0005525	GTP binding	0.98	4	0.31152648	245	0.70754033
11032	GO:0019001	guanyl nucleotide bir	0.98	4	0.31152648	245	0.70754033
14967	GO:0032561	guanyl ribonucleotid	0.98	4	0.31152648	245	0.70754033
6426	GO:0009057 GO:00	macromolecule cata	0.98	1	0.07788162	106	0.3061195
3942	GO:0005618	cell wall	0.98	1	0.07788162	107	0.30900744
12868	GO:0030312	external encapsulati	0.99	1	0.07788162	111	0.3205591
5055	GO:0006996	organelle organizati	0.99	2	0.15576324	164	0.47361887
25483	GO:0051186	cofactor metabolic p	0.99	2	0.15576324	164	0.47361887
29081	GO:0070717	poly-purine tract binc	0.99	1	0.07788162	112	0.32344702
14379	GO:0031966	mitochondrial memb	0.99	1	0.07788162	114	0.32922286
9889	GO:0016853	isomerase activity	0.99	5	0.3894081	306	0.8837035
5019	GO:0006952 GO:00	defense response	0.99	3	0.23364486	221	0.63823026
14910	GO:0032502	developmental proce	0.99	1	0.07788162	121	0.3494383
6884	GO:0009607	response to biotic st	0.99	1	0.07788162	122	0.3523262
14392	GO:0031981	nuclear lumen	0.99	1	0.07788162	123	0.35521415
25485	GO:0051188	cofactor biosynthetic	0.99	1	0.07788162	123	0.35521415
131	GO:0000166	nucleotide binding	0.99	31	2.4143302	1213	3.5030468
4572	GO:0006412 GO:00	translation	0.99	2	0.15576324	180	0.5198256
8466	GO:0015031 GO:00	protein transport	0.99	2	0.15576324	185	0.53426516
20820	GO:0045184	establishment of pro	0.99	2	0.15576324	185	0.53426516
3863	GO:0005488	binding	0.99	474	36.91589	13903	40.15075
20499	GO:0044249	cellular biosynthetic	0.99	76	5.919003	2635	7.6096687
2657	GO:0003727 GO:00	single-stranded RNA	0.99	2	0.15576324	188	0.54292893
5669	GO:0008104	protein localization	0.99	2	0.15576324	189	0.54581684
30206	GO:0071842	cellular component c	0.99	2	0.15576324	193	0.5573685
19532	GO:0043233	organelle lumen	0.99	1	0.07788162	137	0.39564502
28380	GO:0070013	intracellular organell	0.99	1	0.07788162	137	0.39564502
22415	GO:0046914	transition metal ion b	0.99	74	5.76324	2599	7.5057034
6427	GO:0009058	biosynthetic process	1.00	80	6.23053	2796	8.074624
5018	GO:0006950	response to stress	1.00	12	0.93457943	611	1.764519
14959	GO:0032553	ribonucleotide bindin	1.00	17	1.3239875	795	2.2958963
14961	GO:0032555	purine ribonucleotide	1.00	17	1.3239875	795	2.2958963
3955	GO:0005634	nucleus	1.00	36	2.8037384	1433	4.138389
10033	GO:0017076	purine nucleotide bir	1.00	17	1.3239875	797	2.3016722
18000	GO:0035639	purine ribonucleosid	1.00	16	1.2461059	769	2.2208104
4029	GO:0005740	mitochondrial envelo	1.00	1	0.07788162	151	0.4360759
3716	GO:0005198	structural molecule a	1.00	6	0.46728972	393	1.1349525
31895	GO:0090304	nucleic acid metabol	1.00	64	4.9844236	2340	6.7577324
14386	GO:0031974	membrane-enclosed	1.00	1	0.07788162	154	0.44473964
4558	GO:0006396 GO:00	RNA processing	1.00	2	0.15576324	219	0.63245445
20623	GO:0044429	mitochondrial part	1.00	1	0.07788162	165	0.47650677
4990	GO:0006915 GO:00	apoptosis	1.00	2	0.15576324	227	0.6555578
4357	GO:0006139 GO:00	nucleobase, nucleos	1.00	93	7.2429905	3285	9.486816
4605	GO:0006457 GO:00	protein folding	1.00	1	0.07788162	173	0.49961013
5756	GO:0008219	cell death	1.00	2	0.15576324	239	0.69021285
8209	GO:0012501 GO:00	programmed cell dea	1.00	2	0.15576324	239	0.69021285
9462	GO:0016265	death	1.00	2	0.15576324	239	0.69021285
20622	GO:0044428	nuclear part	1.00	1	0.07788162	178	0.5140497
8211	GO:0012505	endomembrane syst	1.00	2	0.15576324	242	0.6988766
5610	GO:0008026	ATP-dependent helic	1.00	1	0.07788162	183	0.52848935
28401	GO:0070035	purine NTP-depende	1.00	1	0.07788162	183	0.52848935
3068	GO:0004386	helicase activity	1.00	1	0.07788162	189	0.54581684
3178	GO:0004519	endonuclease activit	1.00	4	0.31152648	356	1.0280994
14380	GO:0031967	organelle envelope	1.00	1	0.07788162	201	0.5804719
14387	GO:0031975	envelope	1.00	1	0.07788162	205	0.59202355
17020	GO:0034641	cellular nitrogen com	1.00	102	7.9439254	3678	10.621769
2653	GO:0003723	RNA binding	1.00	14	1.0903426	797	2.3016722
4906	GO:0006807	nitrogen compound r	1.00	103	8.021807	3725	10.757502
2627	GO:0003676	nucleic acid binding	1.00	62	4.8286605	2453	7.0840673
4028	GO:0005739	mitochondrion	1.00	1	0.07788162	219	0.63245445
6796	GO:0009507	chloroplast	1.00	1	0.07788162	229	0.6613336



5791	GO:0008270	zinc ion binding	1.00	43	3.3489096	1880	5.4292893
6824	GO:0009536	plastid	1.00	1	0.07788162	247	0.7133162
3177	GO:0004518	nuclease activity	1.00	4	0.31152648	427	1.2331418
3903	GO:0005575 GO:0005623	cellular_component	1.00	260	20.249222	8515	24.590637
15392	GO:0032991	macromolecular complex	1.00	34	2.647975	1616	4.666878
20640	GO:0044446	intracellular organelle	1.00	9	0.7009346	710	2.0504231
20616	GO:0044422	organelle part	1.00	9	0.7009346	712	2.0561988
4459	GO:0006259 GO:0005623	DNA metabolic process	1.00	4	0.31152648	493	1.4237444
3946	GO:0005623	cell	1.00	242	18.847351	8227	23.758917
20657	GO:0044464	cell part	1.00	242	18.847351	8227	23.758917
19526	GO:0043227	membrane-bounded organelle	1.00	44	3.4267912	2142	6.185924
19530	GO:0043231	intracellular membrane-bounded organelle	1.00	44	3.4267912	2142	6.185924
3945	GO:0005622	intracellular	1.00	106	8.255452	4751	13.720507
4027	GO:0005737	cytoplasm	1.00	29	2.258567	2001	5.7787275
4109	GO:0005840 GO:0005623	ribosome	1.00	1	0.07788162	682	1.9695613
13018	GO:0030529	ribonucleoprotein complex	1.00	1	0.07788162	741	2.1399486
19525	GO:0043226	organelle	1.00	49	3.8161993	3013	8.701303
19527	GO:0043228	non-membrane-bounded organelle	1.00	5	0.3894081	923	2.66555
19528	GO:0043229	intracellular organelle	1.00	49	3.8161993	3013	8.701303
19531	GO:0043232	intracellular non-membrane-bounded organelle	1.00	5	0.3894081	923	2.66555
20618	GO:0044424	intracellular part	1.00	78	6.074766	3853	11.127155
20638	GO:0044444	cytoplasmic part	1.00	21	1.635514	1644	4.7477403