

Table S3. Differentially regulated genes (up and down regulated) in the control compared with THyPRP silenced plants in FAZ at 4 h along with their expression values, fold changes, annotations, GO ids and terms.

Worksheet 2 & 3

Set 2					
Line	Array	Details	Time	Treated vs. Con	Set
Control - New Yorker	254331010025_1_3	4h_3_AZ	4h	Control	Set 2
Control - New Yorker	254331010025_1_4	4h_4_AZ	4h		
TAPG + TPRP	254331010034_1_3	4h_39_AZ	4h	Treated	
TAPG + TPRP	254331010034_1_4	4h_40_AZ	4h		

Cut off used to filter up and down regulated genes

Upregulated

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

Downregulated

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

Differentially Regulated Probes

Sample	Up	Down
4h_TPRP_AZ vs. 4h_Control_AZ_Sense	842	1064
4h_TPRP_AZ vs. 4h_Control_AZ_Antisense	543	714

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
gProcessedSignal	Background subtracted signal intensity

Worksheet 4 & 5

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

GO ID

Gene Ontology ID

GO ACCESSION

Gene Ontology Function name

p-value :

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

Significant pvalue<0.05

Count in Selection :

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

%Count in Selection :

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

Count in Total :

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

%Count in Total :

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

GO ID	GO ACCESSION	GO Term	p-value	Count in Selection	% Count in Selection	Count in Total	% Count in Total
6201	GO:0008794	arsenate reductase (glutaredoxin)	0.00	6	1.8518518	20	0.0577584
13089	GO:0030614	oxidoreductase activity, acting on NADPH or NADH, reduced flavin mononucleotide, and reduced nicotinamide adenine dinucleotide	0.00	6	1.8518518	20	0.0577584
13088	GO:0030613	oxidoreductase activity, acting on NADPH or NADH, reduced flavin mononucleotide, and reduced nicotinamide adenine dinucleotide	0.00	6	1.8518518	20	0.0577584
13086	GO:0030611	arsenate reductase activity	0.00	6	1.8518518	20	0.0577584
28364	GO:0065007	biological regulation	0.00	72	22.2222221	4376	12.637537
25094	GO:0050789(GO:0050791)	regulation of biological process	0.00	71	21.91358	4315	12.461374
25098	GO:0050794(GO:0051244)	regulation of cellular process	0.00	64	19.753086	3987	11.514136
11224	GO:0019222	regulation of metabolic process	0.00	48	14.814815	3115	8.958571
5243	GO:0007218	neuropeptide signaling pathway	0.00	2	0.61728394	5	0.0144396
21058	GO:0045454(GO:0030503)	cell redox homeostasis	0.00	8	2.4691358	211	0.6093511
7074	GO:0009815	1-aminocyclopropane-1-carboxylate dioxygenase activity	0.00	4	1.2345679	49	0.14150807
4530	GO:0006355(GO:0032583)	regulation of transcription, DNA-dependent	0.00	40	12.345679	2591	7.4826
26544	GO:0051252	regulation of RNA metabolic process	0.00	40	12.345679	2593	7.488376
13756	GO:0031326	regulation of cellular biosynthetic process	0.00	40	12.345679	2605	7.523031
7141	GO:0009889	regulation of biosynthetic process	0.00	40	12.345679	2605	7.523031
32213	GO:2000112	regulation of cellular macromolecule biosynthetic process	0.00	40	12.345679	2605	7.523031
7772	GO:0010556	regulation of macromolecule biosynthetic process	0.00	40	12.345679	2605	7.523031
31493	GO:0080118	brassinosteroid sulfotransferase activity	0.00	3	0.9259259	25	0.072197996
5702	GO:0008146	sulfotransferase activity	0.00	4	1.2345679	54	0.15594767
11695	GO:0019725	cellular homeostasis	0.00	8	2.4691358	234	0.67577326
7692	GO:0010468	regulation of gene expression	0.00	40	12.345679	2635	7.6096887
18925	GO:0042592	homeostatic process	0.00	8	2.4691358	238	0.68732494
19393	GO:0043086	negative regulation of catalytic activity	0.00	7	2.1604939	188	0.54292893
20342	GO:0044092	negative regulation of molecular function	0.00	7	2.1604939	188	0.54292893
27228	GO:0060255	regulation of macromolecule biosynthetic process	0.00	40	12.345679	2660	7.6818666
25468	GO:0051171	regulation of nitrogen compound metabolic process	0.00	40	12.345679	2675	7.7251854
11221	GO:0019219	regulation of nucleobase, nucleoside, nucleotide, and nucleic acid metabolic process	0.00	40	12.345679	2675	7.7251854
31465	GO:0080090	regulation of primary metabolic process	0.00	40	12.345679	2710	7.826263
28365	GO:0065008	regulation of biological quality	0.00	9	2.7777777	316	0.9125827
19255	GO:0042938	dipeptide transport	0.00	5	1.5432099	105	0.3032316
19253	GO:0042936	dipeptide transporter activity	0.00	5	1.5432099	105	0.3032316
8517	GO:0015103	inorganic anion transmembrane transport	0.00	6	1.8518518	154	0.44473964
3464	GO:0004857	enzyme inhibitor activity	0.00	6	1.8518518	157	0.4534034
12946	GO:0030414	peptidase inhibitor activity	0.00	5	1.5432099	110	0.31767118
7690	GO:0010466	negative regulation of peptidase activity	0.00	5	1.5432099	110	0.31767118
25636	GO:0051346	negative regulation of hydrolytic enzyme activity	0.00	5	1.5432099	110	0.31767118
9722	GO:0016641	oxidoreductase activity, acting on NADPH or NADH, reduced flavin mononucleotide, and reduced nicotinamide adenine dinucleotide	0.00	4	1.2345679	69	0.19926646
28100	GO:0061134	peptidase regulator activity	0.00	5	1.5432099	112	0.32344702
26711	GO:0052547	regulation of peptidase activity	0.00	5	1.5432099	112	0.32344702
13753	GO:0031323	regulation of cellular metabolic process	0.00	40	12.345679	2770	7.999538
9832	GO:0016782	transferase activity, transferring a phosphate group	0.01	4	1.2345679	74	0.21370606
8967	GO:0015698	inorganic anion transport	0.01	6	1.8518518	176	0.5082739
13082	GO:0030599	pectinesterase activity	0.01	6	1.8518518	178	0.5140497
3307	GO:0004675	transmembrane receptor protein tyrosine kinase activity	0.01	9	2.7777777	367	1.0598665
31431	GO:0080054	low affinity nitrate transporter activity	0.01	3	0.9259259	45	0.1299564
12608	GO:0030001	metal ion transport	0.01	9	2.7777777	374	1.080082
4910	GO:0006811	ion transport	0.01	17	5.2469134	959	2.769515
219	GO:0000287	magnesium ion binding	0.01	2	0.61728394	16	0.046206716
9719	GO:0016638	oxidoreductase activity, acting on NADPH or NADH, reduced flavin mononucleotide, and reduced nicotinamide adenine dinucleotide	0.01	4	1.2345679	89	0.25702485
8608	GO:0015198	oligopeptide transporter activity	0.01	5	1.5432099	139	0.40142086
8607	GO:0015197(GO:0015637)	peptide transporter activity	0.01	5	1.5432099	139	0.40142086
9099	GO:0015833	peptide transport	0.01	5	1.5432099	141	0.4071967
4944	GO:0006857	oligopeptide transport	0.01	5	1.5432099	141	0.4071967
2986	GO:0004252	serine-type endopeptidase activity	0.01	5	1.5432099	144	0.41586044
5792	GO:0008271	secondary active sulfate transport	0.01	2	0.61728394	18	0.051982556
22917	GO:0047429	nucleoside-triphosphate diphosphate exchange factor activity	0.01	2	0.61728394	18	0.051982556
8736	GO:0015381	high affinity sulfate transporter activity	0.01	2	0.61728394	18	0.051982556
6023	GO:0008569	minus-end-directed microtubule motor activity	0.02	1	0.30864197	2	0.00577584
8526	GO:0015112	nitrate transmembrane transport	0.02	3	0.9259259	61	0.1761631
8975	GO:0015706(GO:0006872)	nitrate transport	0.02	3	0.9259259	61	0.1761631
5213	GO:0007186	G-protein coupled receptor protein tyrosine kinase activity	0.02	3	0.9259259	62	0.17905103
8530	GO:0015116	sulfate transmembrane transport	0.02	2	0.61728394	26	0.075085916
8494	GO:0015075	ion transmembrane transport	0.02	14	4.3209877	827	2.3883097
16603	GO:0034220	ion transmembrane transport	0.03	14	4.3209877	833	2.4056373
5793	GO:0008272(GO:0006870)	sulfate transport	0.03	2	0.61728394	28	0.080861755
5981	GO:0008509	anion transmembrane transport	0.03	6	1.8518518	245	0.70754033
4917	GO:0006820(GO:0006822)	anion transport	0.03	6	1.8518518	247	0.7133162
26845	GO:0052689	carboxylic ester hydrolase activity	0.03	10	3.0864198	538	1.5537009
9600	GO:0016491	oxidoreductase activity	0.03	24	7.4074073	1724	4.9787736
4528	GO:0006353	transcription termination, DNA-dependent	0.04	1	0.30864197	4	0.011551679
9351	GO:0016119	carotene metabolic process	0.04	1	0.30864197	4	0.011551679
9352	GO:0016120	carotene biosynthetic process	0.04	1	0.30864197	4	0.011551679
9819	GO:0016767	geranylgeranyl-diphosphate synthase activity	0.04	1	0.30864197	4	0.011551679
18575	GO:0042214	terpene metabolic process	0.04	1	0.30864197	4	0.011551679
21791	GO:0046246	terpene biosynthetic process	0.04	1	0.30864197	4	0.011551679
22408	GO:0046905	phytoene synthase activity	0.04	1	0.30864197	4	0.011551679
5196	GO:0007166	cell surface receptor linked signal transduction	0.04	3	0.9259259	78	0.22525774
25626	GO:0051336	regulation of hydrolase activity	0.04	5	1.5432099	196	0.5660323
3490	GO:0004888(GO:0004926)	transmembrane receptor activity, ion channel	0.04	10	3.0864198	571	1.6490022
8739	GO:0015385(GO:0015502)	sodium:hydrogen antiporter activity	0.04	2	0.61728394	36	0.10396511
4911	GO:0006812(GO:0006819)	cation transport	0.05	11	3.3950617	662	1.9118029
11202	GO:0019199	transmembrane receptor protein tyrosine kinase activity	0.05	9	2.7777777	504	1.4555116
22376	GO:0046873	metal ion transmembrane transport	0.05	5	1.5432099	213	0.6151269
5766	GO:0008236	serine-type peptidase activity	0.05	5	1.5432099	214	0.6180149
3476	GO:0004872(GO:0019041)	receptor activity	0.05	11	3.3950617	672	1.9406822
5810	GO:0008290	F-actin capping protein complex activity	0.05	1	0.30864197	6	0.01732752
8505	GO:0015089	high affinity copper ion transporter activity	0.05	1	0.30864197	6	0.01732752
14264	GO:0031849	olfactory receptor binding	0.05	1	0.30864197	6	0.01732752
2713	GO:0003863	3-methyl-2-oxobutanoate decarboxylase activity	0.05	1	0.30864197	6	0.01732752
5704	GO:0008150(GO:0000004)	biological process	0.06	222	68.51852	22215	64.155136
10103	GO:0017171	serine hydrolase activity	0.06	5	1.5432099	220	0.63534236
4990	GO:0006915(GO:0008632)	apoptosis	0.06	5	1.5432099	227	0.6555578
3021	GO:0004337	geranyltransferase activity	0.06	1	0.30864197	7	0.020215439
27063	GO:0060089	molecular transducer activity	0.07	12	3.7037036	787	2.2727928
3475	GO:0004871(GO:0005062)	signal transducer activity	0.07	12	3.7037036	787	2.2727928
5195	GO:0007165(GO:0023033)	signal transduction	0.07	14	4.3209877	961	2.775291
12602	GO:0023052(GO:0023046)	signaling	0.07	14	4.3209877	961	2.775291
25998	GO:0051716	cellular response to stimulus	0.07	16	4.9382715	1138	3.2864528
7843	GO:0010628	positive regulation of gene expression	0.07	1	0.30864197	8	0.023103358
21461	GO:0045893(GO:0043193)	positive regulation of transcription	0.07	1	0.30864197	8	0.023103358
3022	GO:0004338	glucan exo-1,3-beta-glucosidase activity	0.07	1	0.30864197	8	0.023103358
3402	GO:0004791	thioredoxin-disulfide reductase activity	0.07	1	0.30864197	8	0.023103358
5756	GO:0008219	cell death	0.07	5	1.5432099	239	0.69021285
8209	GO:0012501(GO:0016244)	programmed cell death	0.07	5	1.5432099	239	0.69021285
9462	GO:0016265	death	0.07	5	1.5432099	239	0.69021285
3844	GO:0005451	monovalent cation:hydrogen ion symporter activity	0.08	2	0.61728394	49	0.14150807
25195	GO:0050896(GO:0051869)	response to stimulus	0.08	24	7.4074073	1881	5.432177
19342	GO:0043027	caspase inhibitor activity	0.08	1	0.30864197	9	0.025991278
19343	GO:0043028	caspase regulator activity	0.08	1	0.30864197	9	0.025991278
19458	GO:0043154(GO:0001719)	negative regulation of caspase activity	0.08	1	0.30864197	9	0.025991278
19579	GO:0043281(GO:0043026)	regulation of caspase activity	0.08	1	0.30864197	9	0.025991278
2975	GO:0004175(GO:0016809)	endopeptidase activity	0.08	6	1.8518518	320	0.9241344
25095	GO:0050790	regulation of catalytic activity	0.08	8	2.4691358	480	1.3862015
12794	GO:0030234	enzyme regulator activity	0.09	7	2.1604939	403	1.1638317
28366	GO:0065009	regulation of molecular function	0.09	8	2.4691358	484	1.3977532

8673	GO:0015291 GO:0015290 C	secondary active transmembrane transport	0.09	7	2.1604939	407	1.1753833
5678	GO:0008113 GO:0033742	peptide-methionine-(S)-S-oxidoreductase activity, acting on	0.09	1	0.30864197	10	0.0288792
9741	GO:0016668 GO:0016654	oxidoreductase activity, acting on	0.09	1	0.30864197	10	0.0288792
983	GO:0001664	G-protein-coupled receptor binding	0.09	1	0.30864197	10	0.0288792
12574	GO:0022892	substrate-specific transporter activity	0.10	19	5.8641977	1463	4.2250266
4909	GO:0006810 GO:0015457 C	transport	0.10	28	8.641975	2315	6.6855345
25529	GO:0051234	establishment of localization	0.10	28	8.641975	2315	6.6855345
24966	GO:0050660	flavin adenine dinucleotide binding	0.10	3	0.9259259	118	0.34077454
25476	GO:0051179	localization	0.10	28	8.641975	2319	6.697086
4913	GO:0006814 GO:0006834 C	sodium ion transport	0.10	2	0.61728394	58	0.16749935
8499	GO:0015081 GO:0022816	sodium ion transmembrane transport	0.10	2	0.61728394	58	0.16749935
18086	GO:0035725	sodium ion transmembrane transport	0.10	2	0.61728394	58	0.16749935
29800	GO:0071436	sodium ion export	0.10	2	0.61728394	58	0.16749935
4526	GO:0006351 GO:0006350 C	transcription, DNA-dependent	0.10	20	6.1728396	1575	4.548474
15176	GO:0032774	RNA biosynthetic process	0.10	20	6.1728396	1575	4.548474
7526	GO:0010301 GO:0033710	xanthoxin dehydrogenase activity	0.11	1	0.30864197	12	0.03465504
8748	GO:0015398	high affinity secondary active transport	0.11	1	0.30864197	12	0.03465504
21503	GO:0045935	positive regulation of nucleoside diphosphate binding	0.11	1	0.30864197	12	0.03465504
25470	GO:0051173	positive regulation of nitrogen fixation	0.11	1	0.30864197	12	0.03465504
25546	GO:0051254	positive regulation of RNA metabolism	0.11	1	0.30864197	12	0.03465504
2843	GO:0004034	aldose 1-epimerase activity	0.11	1	0.30864197	12	0.03465504
8149	GO:0010941	regulation of cell death	0.12	1	0.30864197	13	0.037542958
19298	GO:0042981	regulation of apoptosis	0.12	1	0.30864197	13	0.037542958
19381	GO:0043067 GO:0043070	regulation of programmed cell death	0.12	1	0.30864197	13	0.037542958
22416	GO:0046915	transition metal ion transport	0.12	2	0.61728394	64	0.18482687
4641	GO:0006508	proteolysis	0.12	13	4.012346	955	2.7868426
12516	GO:0022804	active transmembrane transport	0.12	11	3.3950617	787	2.2727928
31408	GO:0080031	methyl salicylate esterase activity	0.12	1	0.30864197	14	0.040430877
12573	GO:0022891	substrate-specific transporter activity	0.12	16	4.9382715	1241	3.5839086
3473	GO:0004867	serine-type endopeptidase inhibitor activity	0.13	2	0.61728394	66	0.1906027
7520	GO:0010294	abscisic acid glucosyltransferase activity	0.13	1	0.30864197	15	0.043318797
9340	GO:0016108	tetraterpene metabolic process	0.13	1	0.30864197	15	0.043318797
9341	GO:0016109	tetraterpene biosynthetic process	0.13	1	0.30864197	15	0.043318797
9348	GO:0016116	carotenoid metabolic process	0.13	1	0.30864197	15	0.043318797
9349	GO:0016117	carotenoid biosynthetic process	0.13	1	0.30864197	15	0.043318797
26959	GO:0055114	oxidation-reduction process	0.13	29	8.950617	2490	7.1909204
4954	GO:0006869	lipid transport	0.13	4	1.2345679	208	0.6006873
8085	GO:0010876	lipid localization	0.13	4	1.2345679	208	0.6006873
32	GO:0000041	transition metal ion transport	0.13	2	0.61728394	68	0.19637854
5840	GO:0008324	cation transmembrane transport	0.13	8	2.4691358	538	1.5537009
3829	GO:0005381 GO:0005382 C	iron ion transmembrane transport	0.14	1	0.30864197	16	0.046206716
17134	GO:0034755	iron ion transmembrane transport	0.14	1	0.30864197	16	0.046206716
22412	GO:0046910	pectinesterase inhibitor activity	0.14	1	0.30864197	16	0.046206716
31396	GO:0080019	fatty-acyl-CoA reductase activity	0.14	1	0.30864197	16	0.046206716
2667	GO:0003777	microtubule motor activity	0.14	1	0.30864197	16	0.046206716
3742	GO:0005242	inward rectifier potassium channel activity	0.14	1	0.30864197	16	0.046206716
9740	GO:0018667	oxidoreductase activity, acting on	0.15	2	0.61728394	72	0.20793022
18738	GO:0042389	omega-3 fatty acid desaturase activity	0.15	1	0.30864197	17	0.049094636
31498	GO:0080123	jasmonate-amino synthetase activity	0.15	1	0.30864197	17	0.049094636
5019	GO:0006952 GO:0002217 C	defense response	0.15	4	1.2345679	221	0.63823026
7773	GO:0010557	positive regulation of macrophage chemotaxis	0.16	1	0.30864197	18	0.051982556
12887	GO:0030332	cyclin binding	0.16	1	0.30864197	18	0.051982556
8810	GO:0015491	cation:cation antiporter activity	0.16	2	0.61728394	75	0.21659398
12547	GO:0022857 GO:0005386 C	transmembrane transporter activity	0.16	18	5.5555553	1483	4.282785
11776	GO:0019825	oxygen binding	0.16	6	1.8518518	389	1.1234008
5791	GO:0008270	zinc ion binding	0.17	22	6.7901235	1880	5.4292893
4921	GO:0006826 GO:0015681	iron ion transport	0.17	1	0.30864197	20	0.0577584
5991	GO:0008519	ammonium transmembrane transport	0.17	1	0.30864197	20	0.0577584
8965	GO:0015696	ammonium transport	0.17	1	0.30864197	20	0.0577584
9707	GO:0016624	oxidoreductase activity, acting on	0.17	1	0.30864197	20	0.0577584
30844	GO:0072488	ammonium transmembrane transport	0.17	1	0.30864197	20	0.0577584
716	GO:0001071	nucleic acid binding transcription factor activity	0.18	17	5.2469134	1417	4.0921826
2643	GO:0003700 GO:0000130	sequence-specific DNA binding	0.18	17	5.2469134	1417	4.0921826
3474	GO:0004869 GO:0004870	cysteine-type endopeptidase inhibitor activity	0.18	1	0.30864197	21	0.060646318
17024	GO:0034645 GO:0034961	cellular macromolecule biosynthesis	0.18	23	7.0987654	1999	5.7729516
6428	GO:0009059 GO:0043284	macromolecule biosynthetic process	0.18	23	7.0987654	2003	5.7845035
22415	GO:0046914	transition metal ion binding	0.19	29	8.950617	2599	7.5057034
3828	GO:0005375 GO:0005378 C	copper ion transmembrane transport	0.19	1	0.30864197	22	0.06353424
4920	GO:0006825	copper ion transport	0.19	1	0.30864197	22	0.06353424
7143	GO:0009891	positive regulation of biosynthesis	0.19	1	0.30864197	22	0.06353424
13038	GO:0030551	cyclic nucleotide binding	0.19	1	0.30864197	22	0.06353424
13758	GO:0031328	positive regulation of cellular homeostasis	0.19	1	0.30864197	22	0.06353424
17800	GO:0035434	copper ion transmembrane transport	0.19	1	0.30864197	22	0.06353424
3955	GO:0005634	nucleus	0.19	17	5.2469134	1433	4.138389
7527	GO:0010302	2-oxoglutarate-dependent dioxygenase activity	0.19	1	0.30864197	23	0.06642216
12572	GO:0022890 GO:0015082	inorganic cation transmembrane transport	0.20	5	1.5432099	332	0.9587894
31407	GO:0080030	methyl indole-3-acetate esterase activity	0.20	1	0.30864197	24	0.06931008
26931	GO:0055085	transmembrane transport	0.20	18	5.5555553	1548	4.4705
4476	GO:0006278	RNA-dependent DNA replication	0.20	3	0.9259259	166	0.4793947
3723	GO:0005215 GO:0005478	transporter activity	0.21	21	6.4814816	1844	5.325234
31895	GO:0090304	nucleic acid metabolic process	0.21	26	8.024692	2340	6.5777324
19125	GO:0042802	identical protein binding	0.21	9	2.7777777	697	2.01288
18747	GO:0042398	cellular modified amino acid binding	0.21	1	0.30864197	25	0.072197996
9308	GO:0016070	RNA metabolic process	0.21	21	6.4814816	1855	5.3570914
8516	GO:0015101	organic cation transmembrane transport	0.22	1	0.30864197	26	0.075085916
8964	GO:0015695	organic cation transport	0.22	1	0.30864197	26	0.075085916
9744	GO:0016671	oxidoreductase activity, acting on	0.22	1	0.30864197	26	0.075085916
8159	GO:0010951	negative regulation of endopeptidase activity	0.22	2	0.61728394	95	0.27435237
26712	GO:0052548	regulation of endopeptidase activity	0.22	2	0.61728394	95	0.27435237
28101	GO:0061135	endopeptidase regulator activity	0.22	2	0.61728394	95	0.27435237
3472	GO:0004866	endopeptidase inhibitor activity	0.22	2	0.61728394	95	0.27435237
9346	GO:0016114	terpenoid biosynthetic process	0.22	1	0.30864197	27	0.077973835
3631	GO:0005089	Rho guanyl-nucleotide exchange factor activity	0.22	1	0.30864197	27	0.077973835
6940	GO:0009672	auxin:hydrogen symporter activity	0.23	1	0.30864197	28	0.080861755
7145	GO:0009893	positive regulation of metabolism	0.23	1	0.30864197	28	0.080861755
7819	GO:0010604	positive regulation of macrophage chemotaxis	0.23	1	0.30864197	28	0.080861755
13755	GO:0031325	positive regulation of cellular homeostasis	0.23	1	0.30864197	28	0.080861755
8681	GO:0015299	solute:hydrogen antiporter activity	0.23	2	0.61728394	98	0.28301615
22375	GO:0046872	metal ion binding	0.23	32	9.876543	2985	8.6204405
19126	GO:0042803	protein homodimerization activity	0.24	4	1.2345679	265	0.7652988
4704	GO:0006575	cellular modified amino acid binding	0.24	1	0.30864197	29	0.083749674
4841	GO:0006721	terpenoid metabolic process	0.24	1	0.30864197	29	0.083749674
19470	GO:0043167	ion binding	0.24	32	9.876543	2997	8.655096
19472	GO:0043169	cation binding	0.24	32	9.876543	2997	8.655096
5916	GO:0008422 GO:0016983	beta-glucosidase activity	0.25	1	0.30864197	30	0.086637594
6216	GO:0008810	cellulase activity	0.25	1	0.30864197	30	0.086637594
2666	GO:0003774	motor activity	0.25	1	0.30864197	30	0.086637594
2870	GO:0004064	arylesterase activity	0.25	1	0.30864197	30	0.086637594
3518	GO:0004930 GO:0001622 C	G-protein coupled receptor activity	0.25	1	0.30864197	30	0.086637594
22049	GO:0046527	glucosyltransferase activity	0.25	4	1.2345679	270	0.77973837
11931	GO:0020037	heme binding	0.26	7	2.1604939	550	1.5883559
3785	GO:0005315 GO:0005317	inorganic phosphate transport	0.26	1	0.30864197	32	0.09241343
4481	GO:0006284	base-excision repair	0.26	1	0.30864197	32	0.09241343
12833	GO:0030275	LRR domain binding	0.26	1	0.30864197	32	0.09241343
23914	GO:0048522 GO:0051242	positive regulation of cellular homeostasis	0.26	1	0.30864197	32	0.09241343
3717	GO:0005199	structural constituent of cell wall	0.26	1	0.30864197	32	0.09241343
24968	GO:0050662	coenzyme binding	0.27	3	0.9259259	191	0.5515927
3749	GO:0005249	voltage-gated potassium channel activity	0.27	1	0.30864197	34	0.09818927
3872	GO:0005506	iron ion binding	0.28	7	2.1604939	563	1.6258988
6355	GO:0008970	phospholipase A1 activity	0.28	1	0.30864197	35	0.10107719
23199	GO:0047714	galactolipase activity	0.28	1	0.30864197	35	0.10107719
8680	GO:0015298	solute:cation antiporter activity	0.28	2	0.61728394	112	0.32344702

29918	GO:0071554	cell wall organization or biog	0.28	2	0.61728394	112	0.32344702
9933	GO:0016903	oxidoreductase activity, actin	0.29	2	0.61728394	113	0.32633495
12626	GO:0030029	actin filament-based process	0.29	1	0.30864197	36	0.10396511
12633	GO:0030036	actin cytoskeleton organizati	0.29	1	0.30864197	36	0.10396511
22478	GO:0046982	protein heterodimerization ac	0.29	2	0.61728394	114	0.32922286
3758	GO:0005267	potassium channel activity	0.29	1	0.30864197	37	0.10685303
5066	GO:0007010	cytoskeleton organization	0.30	1	0.30864197	38	0.10974095
12538	GO:0022843	voltage-gated cation channel	0.30	1	0.30864197	38	0.10974095
8584	GO:0015171 GO:0015359	amino acid transmembrane t	0.30	2	0.61728394	118	0.34077454
2521	GO:0003333	amino acid transmembrane t	0.30	2	0.61728394	118	0.34077454
7691	GO:0010467	gene expression	0.30	21	6.4814816	1974	5.7007537
23910	GO:0048518 GO:0043119	positive regulation of biologic	0.31	1	0.30864197	40	0.1155168
6884	GO:0009607	response to biotic stimulus	0.32	2	0.61728394	122	0.3523262
4951	GO:0006865 GO:0006866	amino acid transport	0.32	2	0.61728394	123	0.35521415
22409	GO:0046906	tetrapyrrole binding	0.33	7	2.1604939	596	1.7212002
8461	GO:0015020 GO:0003981	glucuronosyltransferase acti	0.33	1	0.30864197	42	0.121292636
13884	GO:0031461	cullin-RING ubiquitin ligase c	0.33	1	0.30864197	42	0.121292636
13656	GO:0031224	intrinsic to membrane	0.33	13	4.012346	1193	3.4452884
3761	GO:0005275 GO:0005279	amine transmembrane transp	0.33	2	0.61728394	126	0.3638779
17617	GO:0035251	UDP-glucosyltransferase act	0.33	3	0.9259259	218	0.62956655
9186	GO:0015926	glucosidase activity	0.34	1	0.30864197	44	0.12706847
8666	GO:0015276	ligand-gated ion channel acti	0.35	1	0.30864197	45	0.1299564
9893	GO:0016857	racemase and epimerase ac	0.35	1	0.30864197	45	0.1299564
12530	GO:0022834	ligand-gated channel activity	0.35	1	0.30864197	45	0.1299564
3630	GO:0005088	Ras guanyl-nucleotide excha	0.35	1	0.30864197	45	0.1299564
4460	GO:0006260 GO:0055133	DNA replication	0.35	3	0.9259259	224	0.64689404
22479	GO:0046983	protein dimerization activity	0.36	6	1.8518518	517	1.4930545
5732	GO:0008194	UDP-glucosyltransferase act	0.36	4	1.2345679	322	0.9299102
9103	GO:0015837	amine transport	0.36	2	0.61728394	135	0.38986918
14591	GO:0032183	SUMO binding	0.36	1	0.30864197	48	0.13862015
28930	GO:0070566	adenylyltransferase activity	0.36	1	0.30864197	48	0.13862015
3801	GO:0005342	organic acid transmembrane	0.36	2	0.61728394	136	0.3927571
22444	GO:0046943	carboxylic acid transmembra	0.36	2	0.61728394	136	0.3927571
3756	GO:0005261 GO:0015281 GO	cation channel activity	0.37	1	0.30864197	49	0.14150807
6483	GO:0009116	nucleoside metabolic process	0.37	1	0.30864197	49	0.14150807
31421	GO:0080044	quercetin 7-O-glucosyltransfe	0.37	1	0.30864197	49	0.14150807
30066	GO:0071702	organic substance transport	0.38	6	1.8518518	529	1.5277096
5096	GO:0007047	cellular cell wall organization	0.38	1	0.30864197	50	0.14439599
6932	GO:0009664	plant-type cell wall organizati	0.38	1	0.30864197	50	0.14439599
7166	GO:0009914	hormone transport	0.38	1	0.30864197	50	0.14439599
20857	GO:0045229	external encapsulating struct	0.38	1	0.30864197	50	0.14439599
27891	GO:0060918	auxin transport	0.38	1	0.30864197	50	0.14439599
30033	GO:0071669	plant-type cell wall organizati	0.38	1	0.30864197	50	0.14439599
31536	GO:0080161	auxin transmembrane transp	0.38	1	0.30864197	50	0.14439599
3877	GO:0005516	calmodulin binding	0.38	3	0.9259259	236	0.6815491
8908	GO:0015629	actin cytoskeleton	0.38	1	0.30864197	51	0.14728391
9975	GO:0016998	cell wall macromolecule cata	0.38	1	0.30864197	51	0.14728391
3293	GO:0004659	prenyltransferase activity	0.38	1	0.30864197	51	0.14728391
4915	GO:0008817	phosphate transport	0.39	1	0.30864197	52	0.15017183
8528	GO:0015114	phosphate transmembrane t	0.39	1	0.30864197	52	0.15017183
17801	GO:0035435	phosphate transmembrane t	0.39	1	0.30864197	52	0.15017183
20287	GO:0044036	cell wall macromolecule met	0.39	1	0.30864197	52	0.15017183
28378	GO:0070011	peptidase activity, acting on l	0.39	6	1.8518518	537	1.550813
29246	GO:0070882	cellular cell wall organization	0.39	1	0.30864197	53	0.15305975
4478	GO:0006281	DNA repair	0.41	2	0.61728394	149	0.43030006
5037	GO:0006974 GO:0034984	response to DNA damage st	0.41	2	0.61728394	149	0.43030006
3306	GO:0004674 GO:0004695 GO	protein serine/threonine kinas	0.41	11	3.3950617	1062	3.0669708
5715	GO:0008171	O-methyltransferase activity	0.42	1	0.30864197	57	0.16461143
9813	GO:0016759	cellulose synthase activity	0.42	1	0.30864197	57	0.16461143
8679	GO:0015297	antiporter activity	0.42	2	0.61728394	152	0.4389638
8682	GO:0015300	solute:solute antiporter activi	0.42	2	0.61728394	152	0.4389638
5819	GO:0008299 GO:0009241	isoprenoid biosynthetic proc	0.42	1	0.30864197	58	0.16749935
8028	GO:0010817	regulation of hormone levels	0.42	1	0.30864197	58	0.16749935
29919	GO:0071555	cell wall organization	0.42	1	0.30864197	58	0.16749935
6424	GO:0009055 GO:0009053 GO	electron carrier activity	0.42	2	0.61728394	154	0.44473964
9801	GO:0016747	transferase activity, transferr	0.42	5	1.5432099	456	1.3168914
2831	GO:0004022	alcohol dehydrogenase (NAD	0.43	1	0.30864197	59	0.17038727
9114	GO:0015849	organic acid transport	0.43	2	0.61728394	156	0.45051548
22443	GO:0046942	carboxylic acid transport	0.43	2	0.61728394	156	0.45051548
4840	GO:0006720 GO:0016096	isoprenoid metabolic process	0.43	1	0.30864197	60	0.17327519
4357	GO:0006139 GO:0055134	nucleobase, nucleoside, nucle	0.43	32	9.876543	3285	9.486816
5763	GO:0008233	peptidase activity	0.43	6	1.8518518	565	1.6316746
5809	GO:0008289	lipid binding	0.43	3	0.9259259	258	0.74508333
2818	GO:0004003	ATP-dependent DNA helicase	0.44	1	0.30864197	61	0.1761631
6018	GO:0008559 GO:0005226 GO	xenobiotic-transporting ATPa	0.44	1	0.30864197	62	0.17905103
19225	GO:0042908	xenobiotic transport	0.44	1	0.30864197	62	0.17905103
19227	GO:0042910	xenobiotic transporter activity	0.44	1	0.30864197	62	0.17905103
8496	GO:0015078	hydrogen ion transmembrane	0.44	2	0.61728394	160	0.4620627
9266	GO:0016020	membrane	0.46	36	11.111111	3741	10.803708
9267	GO:0016021	integral to membrane	0.46	11	3.3950617	1103	3.1853757
9422	GO:0016209	antioxidant activity	0.46	2	0.61728394	165	0.47650677
9765	GO:0016702	oxidoreductase activity, actin	0.46	1	0.30864197	66	0.1906027
9890	GO:0016854	racemase and epimerase ac	0.46	1	0.30864197	66	0.1906027
2629	GO:0003679 GO:0003679	DNA helicase activity	0.47	1	0.30864197	67	0.19349062
21710	GO:0046148	pigment biosynthetic process	0.48	1	0.30864197	69	0.19926646
31420	GO:0080043	quercetin 3-O-glucosyltransfe	0.48	1	0.30864197	69	0.19926646
15949	GO:0033554	cellular response to stress	0.48	2	0.61728394	173	0.49961013
8943	GO:0015672	monovalent inorganic cation	0.48	4	1.2345679	383	1.1060733
9768	GO:0016706	oxidoreductase activity, actin	0.49	2	0.61728394	175	0.505386
4459	GO:0006259 GO:0055132	DNA metabolic process	0.49	5	1.5432099	493	1.4237444
9764	GO:0016701	oxidoreductase activity, actin	0.49	1	0.30864197	72	0.20793022
12528	GO:0022832	voltage-gated channel activit	0.49	1	0.30864197	72	0.20793022
15280	GO:0032879	regulation of localization	0.49	1	0.30864197	72	0.20793022
17141	GO:0034762	regulation of transmembrane	0.49	1	0.30864197	72	0.20793022
17144	GO:0034765	regulation of ion transmembr	0.49	1	0.30864197	72	0.20793022
19568	GO:0043269	regulation of ion transport	0.49	1	0.30864197	72	0.20793022
25348	GO:0051049	regulation of transport	0.49	1	0.30864197	72	0.20793022
3744	GO:0005244	voltage-gated ion channel ac	0.49	1	0.30864197	72	0.20793022
9703	GO:0016620	oxidoreductase activity, actin	0.50	1	0.30864197	73	0.21081814
18786	GO:0042440	pigment metabolic process	0.50	1	0.30864197	73	0.21081814
9800	GO:0016746	transferase activity, transferr	0.50	5	1.5432099	498	1.438184
20499	GO:0044249	cellular biosynthetic process	0.50	25	7.716049	2635	7.6096687
3716	GO:0005198	structural molecule activity	0.50	4	1.2345679	393	1.1349525
25510	GO:0051213	dioxygenase activity	0.51	1	0.30864197	75	0.21659398
3627	GO:0005085 GO:0008433 GO	guanyl-nucleotide exchange f	0.51	1	0.30864197	75	0.21659398
5018	GO:0006950	response to stress	0.51	6	1.8518518	611	1.764519
15436	GO:0033036	macromolecule localization	0.51	4	1.2345679	397	1.1465042
5663	GO:0008094 GO:0004011	DNA-dependent ATPase act	0.51	1	0.30864197	76	0.2194819
4916	GO:0006818	hydrogen transport	0.52	3	0.9259259	292	0.84327257
9246	GO:0015992	proton transport	0.52	3	0.9259259	292	0.84327257
9811	GO:0016757 GO:0016932	transferase activity, transferr	0.53	7	2.1604939	729	2.1052935
6668	GO:0009314	response to radiation	0.53	1	0.30864197	81	0.23392151
6751	GO:0009416	response to light stimulus	0.53	1	0.30864197	81	0.23392151
19473	GO:0043170 GO:0043283	macromolecule metabolic pr	0.54	61	18.82716	6553	18.92454
3787	GO:0005319	lipid transporter activity	0.54	1	0.30864197	83	0.23969735
6427	GO:0009058	biosynthetic process	0.54	26	8.024692	2796	8.074624
4643	GO:0006511	ubiquitin-dependent protein c	0.55	1	0.30864197	84	0.24258527
4912	GO:0006813 GO:0015458	potassium ion transport	0.55	1	0.30864197	84	0.24258527
11864	GO:0019941	modification-dependent prote	0.55	1	0.30864197	84	0.24258527
19898	GO:0043632	modification-dependent mac	0.55	1	0.30864197	84	0.24258527
20507	GO:0044257	cellular protein catabolic pro	0.55	1	0.30864197	84	0.24258527
25887	GO:0051603	proteolysis involved in cellu	0.55	1	0.30864197	84	0.24258527

30168	GO:0071804	cellular potassium ion transp	0.55	1	0.30864197	84	0.24258527
30169	GO:0071805	potassium ion transmembran	0.55	1	0.30864197	84	0.24258527
12734	GO:0030163	protein catabolic process	0.55	1	0.30864197	86	0.24836111
20515	GO:0044265 GO:0034962	cellular macromolecule cata	0.55	1	0.30864197	86	0.24836111
20624	GO:0044430	cytoskeletal part	0.56	1	0.30864197	88	0.25413695
119	GO:0000151	ubiquitin ligase complex	0.56	1	0.30864197	88	0.25413695
30069	GO:0071705	nitrogen compound transport	0.57	2	0.61728394	202	0.5833598
21331	GO:0045735	nutrient reservoir activity	0.57	1	0.30864197	89	0.25702485
14590	GO:0032182	small conjugating protein bin	0.57	1	0.30864197	90	0.2599128
2982	GO:004197	cysteine-type endopeptidase	0.57	1	0.30864197	90	0.2599128
3644	GO:0005102	receptor binding	0.58	1	0.30864197	91	0.2628007
18956	GO:0042626	ATPase activity, coupled to t	0.59	2	0.61728394	211	0.6093511
11712	GO:0019748	secondary metabolic process	0.59	1	0.30864197	95	0.27435237
9861	GO:0016820	hydrolase activity, acting on	0.59	2	0.61728394	212	0.612239
23515	GO:0048037	cofactor binding	0.59	3	0.9259259	327	0.94434977
9767	GO:0016705	oxidoreductase activity, actin	0.60	3	0.9259259	329	0.95012563
8495	GO:0015077	monovalent inorganic cation	0.60	2	0.61728394	214	0.6180149
17020	GO:0034641	cellular nitrogen compound n	0.63	33	10.185185	3678	10.621769
2668	GO:0003779	actin binding	0.63	1	0.30864197	105	0.3032316
6426	GO:0009057 GO:0043285	macromolecule catabolic pro	0.63	1	0.30864197	106	0.3061195
11833	GO:0019904	protein domain specific bindi	0.64	1	0.30864197	109	0.31478328
19758	GO:0043492	ATPase activity, coupled to r	0.65	2	0.61728394	235	0.67866117
3626	GO:0005083	small GTPase regulator activ	0.65	1	0.30864197	111	0.3205591
5070	GO:0007017	microtubule-based process	0.65	1	0.30864197	112	0.32344702
5071	GO:0007018	microtubule-based movemen	0.65	1	0.30864197	112	0.32344702
9730	GO:0016651	oxidoreductase activity, actin	0.65	1	0.30864197	112	0.32344702
4906	GO:0006807	nitrogen compound metaboli	0.66	33	10.185185	3725	10.757502
30204	GO:0071840	cellular component organizat	0.66	3	0.9259259	362	1.045427
20619	GO:0044425	membrane part	0.67	13	4.012346	1523	4.398302
9579	GO:0016462	pyrophosphatase activity	0.67	8	2.4691358	954	2.7550575
2660	GO:0003735 GO:0003736 G	structural constituent of ribos	0.67	2	0.61728394	246	0.7104283
9859	GO:0016818	hydrolase activity, acting on	0.67	8	2.4691358	956	2.7608514
9858	GO:0016817	hydrolase activity, acting on	0.68	8	2.4691358	959	2.769515
4612	GO:0006468	protein phosphorylation	0.68	19	5.8641977	2205	6.367863
9795	GO:0016740	transferase activity	0.68	33	10.185185	3764	10.870131
12805	GO:0030246	carbohydrate binding	0.68	2	0.61728394	251	0.7248679
12532	GO:0022836	gated channel activity	0.68	1	0.30864197	122	0.3523262
3260	GO:0004620	phospholipase activity	0.69	1	0.30864197	123	0.35521415
9812	GO:0016758	transferase activity, transfer	0.69	4	1.2345679	501	1.4468478
4121	GO:0005856	cytoskeleton	0.69	1	0.30864197	126	0.3638779
8749	GO:0015399	primary active transmembran	0.70	2	0.61728394	260	0.75085914
8753	GO:0015405	P-P-bond-hydrolysis-driven t	0.70	2	0.61728394	260	0.75085914
9285	GO:0016043	cellular component organizat	0.70	2	0.61728394	261	0.7537471
3304	GO:0004672 GO:0050222	protein kinase activity	0.71	11	3.3950617	1333	3.8495927
4215	GO:0005975	carbohydrate metabolic proc	0.71	8	2.4691358	990	2.8590402
4394	GO:0006184	GTP catabolic process	0.71	1	0.30864197	132	0.3812054
21605	GO:0046039	GTP metabolic process	0.71	1	0.30864197	132	0.3812054
2758	GO:0003924	GTPase activity	0.71	1	0.30864197	132	0.3812054
9754	GO:0016684	oxidoreductase activity, actin	0.72	1	0.30864197	135	0.38986918
3242	GO:0004601 GO:0016685 G	peroxidase activity	0.72	1	0.30864197	135	0.38986918
4942	GO:0008855	drug transmembrane transpo	0.73	1	0.30864197	139	0.40142086
8642	GO:0015238 GO:0015239 G	drug transmembrane transpo	0.73	1	0.30864197	139	0.40142086
9154	GO:0015893	drug transport	0.73	1	0.30864197	139	0.40142086
18832	GO:0042493 GO:0017035	response to drug	0.73	1	0.30864197	139	0.40142086
3724	GO:0005216	ion channel activity	0.73	1	0.30864197	140	0.40430877
6046	GO:0008610	lipid biosynthetic process	0.74	1	0.30864197	141	0.4071967
8676	GO:0015294	solute:cation symporter activ	0.74	1	0.30864197	141	0.4071967
13164	GO:0030695	GTPase regulator activity	0.74	1	0.30864197	142	0.4100846
30205	GO:0071841	cellular component organizat	0.75	2	0.61728394	285	0.8230572
9829	GO:0016779	nucleotidyltransferase activi	0.75	1	0.30864197	148	0.42741212
7229	GO:0009987 GO:0008151 G	cellular process	0.75	94	29.012346	10601	30.614838
9488	GO:0016301	kinase activity	0.76	14	4.3209877	1740	5.0249805
20510	GO:0044260 GO:0034960	cellular macromolecule meta	0.76	48	14.814815	5577	16.105928
27562	GO:0006058	nucleoside-triphosphatase re	0.76	1	0.30864197	152	0.4389638
3888	GO:0005529	sugar binding	0.77	1	0.30864197	158	0.45629135
19831	GO:0043565	sequence-specific DNA bindi	0.78	1	0.30864197	159	0.45917925
5764	GO:0008234 GO:0004220	cysteine-type peptidase activ	0.78	1	0.30864197	163	0.47073093
5055	GO:0006996	organelle organization	0.79	1	0.30864197	164	0.47361887
19526	GO:0043227	membrane-bound organel	0.79	17	5.2469134	2142	6.185924
19530	GO:0043231	intracellular membrane-boun	0.79	17	5.2469134	2142	6.185924
3200	GO:0004553 GO:0016800	hydrolase activity, hydrolyzin	0.79	2	0.61728394	312	0.90103096
6077	GO:0008652	cellular amino acid biosynthe	0.80	1	0.30864197	169	0.48805845
6899	GO:0009628	response to abiotic stimulus	0.80	1	0.30864197	170	0.49094638
9493	GO:0016310	phosphorylation	0.80	20	6.1728396	2504	7.2313514
3156	GO:0004497	monooxygenase activity	0.80	1	0.30864197	172	0.49672222
4605	GO:0006457 GO:0007022 G	protein folding	0.80	1	0.30864197	173	0.49961013
8675	GO:0015293	symporter activity	0.80	1	0.30864197	173	0.49961013
4755	GO:0006629	lipid metabolic process	0.80	4	1.2345679	590	1.7038727
9823	GO:0016772	transferase activity, transfer	0.81	15	4.6296296	1932	5.579461
11522	GO:0019538 GO:0006411	protein metabolic process	0.81	34	10.493827	4134	11.938661
3904	GO:0005576	extracellular region	0.81	1	0.30864197	178	0.5140497
6663	GO:0009309	amine biosynthetic process	0.82	1	0.30864197	181	0.5227135
20488	GO:0044238	primary metabolic process	0.82	79	24.382715	9167	26.47356
5610	GO:0008026	ATP-dependent helicase acti	0.82	1	0.30864197	183	0.52848935
28401	GO:0070035	purine NTP-dependent helica	0.82	1	0.30864197	183	0.52848935
20505	GO:0044255	cellular lipid metabolic proces	0.82	1	0.30864197	184	0.53137726
9486	GO:0016298	lipase activity	0.83	1	0.30864197	185	0.53426516
9818	GO:0016765 GO:0016766	transferase activity, transfer	0.83	1	0.30864197	185	0.53426516
9824	GO:0016773	phosphotransferase activity, l	0.83	11	3.3950617	1493	4.311664
3068	GO:0004386	helicase activity	0.83	1	0.30864197	189	0.54581684
10058	GO:0017111	nucleoside-triphosphatase ac	0.83	6	1.8518518	878	2.5355935
30206	GO:0071842	cellular component organizat	0.84	1	0.30864197	193	0.5573685
2897	GO:0004091 GO:0004302 G	carboxylesterase activity	0.84	1	0.30864197	194	0.5602564
20498	GO:0044248	cellular catabolic process	0.84	6	1.8518518	894	2.5818002
4405	GO:0006195	purine nucleotide catabolic p	0.85	5	1.5432099	773	2.232362
6508	GO:0009143	nucleoside triphosphate cata	0.85	5	1.5432099	773	2.232362
6509	GO:0009144	purine nucleoside triphospha	0.85	5	1.5432099	773	2.232362
6511	GO:0009146	purine nucleoside triphospha	0.85	5	1.5432099	773	2.232362
6519	GO:0009154	purine ribonucleotide catabol	0.85	5	1.5432099	773	2.232362
6530	GO:0009166	nucleotide catabolic process	0.85	5	1.5432099	773	2.232362
6567	GO:0009203	ribonucleoside triphosphate c	0.85	5	1.5432099	773	2.232362
6569	GO:0009205	purine ribonucleoside triphos	0.85	5	1.5432099	773	2.232362
6571	GO:0009207	purine ribonucleoside triphos	0.85	5	1.5432099	773	2.232362
6624	GO:0009261	ribonucleotide catabolic proc	0.85	5	1.5432099	773	2.232362
17034	GO:0034655	nucleobase, nucleoside, nucl	0.85	5	1.5432099	773	2.232362
17035	GO:0034656	nucleobase, nucleoside and l	0.85	5	1.5432099	773	2.232362
22209	GO:0046700	heterocycle catabolic proces	0.85	5	1.5432099	773	2.232362
30879	GO:0072523	purine-containing compound	0.85	5	1.5432099	773	2.232362
4408	GO:0006200	ATP catabolic process	0.85	4	1.2345679	641	1.8511566
9918	GO:0016887 GO:0004002	ATPase activity	0.85	4	1.2345679	641	1.8511566
21600	GO:0046034	ATP metabolic process	0.85	4	1.2345679	641	1.8511566
9837	GO:0016788	hydrolase activity, acting on	0.85	11	3.3950617	1534	4.300069
20520	GO:0044270	cellular nitrogen compound c	0.85	5	1.5432099	777	2.2439137
2626	GO:0003674 GO:0005554	molecular function	0.86	220	67.90124	24394	70.447914
9295	GO:0016053	organic acid biosynthetic pro	0.86	1	0.30864197	211	0.6093511
21922	GO:0046394	carboxylic acid biosynthetic p	0.86	1	0.30864197	211	0.6093511
6563	GO:0009199	ribonucleoside triphosphate r	0.86	5	1.5432099	790	2.2814567
6425	GO:0009056	catabolic process	0.86	7	2.1604939	1051	3.0352037
6515	GO:0009150	purine ribonucleotide metabo	0.86	5	1.5432099	791	2.2843447
6506	GO:0009141	nucleoside triphosphate meta	0.87	5	1.5432099	796	2.2987843
4558	GO:0006396 GO:0006394	RNA processing	0.87	1	0.30864197	219	0.63245445
12533	GO:0022838	substrate-specific channel ad	0.88	1	0.30864197	221	0.63823026

4373	GO:0006163	purine nucleotide metabolic p	0.88	5	1.5432099	810	2.339215
26932	GO:0055086	nucleobase, nucleoside and	0.88	6	1.8518518	944	2.7261963
6622	GO:0009259 GO:0009121	ribonucleotide metabolic proc	0.88	5	1.5432099	812	2.344991
18953	GO:0042623	ATPase activity, coupled	0.88	3	0.9259259	537	1.550813
8660	GO:0015267 GO:0015249	channel activity	0.88	1	0.30864197	226	0.6526699
12515	GO:0022803	passive transmembrane tran	0.88	1	0.30864197	226	0.6526699
9913	GO:0016881	acid-amino acid ligase activi	0.88	2	0.61728394	391	1.1291766
4109	GO:0005840 GO:0033279	ribosome	0.88	4	1.2345679	682	1.9695613
30877	GO:0072521	purine-containing compound	0.89	5	1.5432099	827	2.3883097
2628	GO:0003677	DNA binding	0.89	8	2.4691358	1224	3.534814
9845	GO:0016798	hydrolase activity, acting on	0.89	2	0.61728394	401	1.1580559
11828	GO:0019899	enzyme binding	0.89	1	0.30864197	237	0.684437
5712	GO:0008168 GO:0004480	methyltransferase activity	0.90	1	0.30864197	244	0.7046524
3885	GO:0005525	GTP binding	0.90	1	0.30864197	245	0.70754033
11032	GO:0019001	guanyl nucleotide binding	0.90	1	0.30864197	245	0.70754033
14967	GO:0032561	guanyl ribonucleotide binding	0.90	1	0.30864197	245	0.70754033
20532	GO:0044282	small molecule catabolic pro	0.90	5	1.5432099	854	2.4662836
5661	GO:0008092	cytoskeletal protein binding	0.90	1	0.30864197	249	0.719092
3876	GO:0005515 GO:0045308	protein binding	0.91	56	17.28395	6933	20.021948
9836	GO:0016787	hydrolase activity	0.91	28	8.641795	3723	10.751725
2674	GO:0003824	catalytic activity	0.91	90	27.777779	10750	31.045137
19525	GO:0043226	organelle	0.91	22	6.7901235	3013	8.701303
19528	GO:0043229	intracellular organelle	0.91	22	6.7901235	3013	8.701303
4609	GO:0006464	protein modification process	0.91	20	6.1728396	2781	8.031305
9796	GO:0016741	transferase activity, transfer	0.91	1	0.30864197	261	0.7537471
13018	GO:0030529	ribonucleoprotein complex	0.92	4	1.2345679	741	2.1399486
9699	GO:0016616	oxidoreductase activity, actin	0.92	1	0.30864197	266	0.7681867
5705	GO:0008152	metabolic process	0.92	151	46.60494	17432	50.34222
4897	GO:0006793	phosphorus metabolic proces	0.92	21	6.4814816	2925	8.4471655
4900	GO:0006796	phosphate metabolic proces	0.92	21	6.4814816	2925	8.4471655
4649	GO:0006520 GO:0006519	cellular amino acid metabolic	0.93	1	0.30864197	277	0.7999538
3874	GO:0005509	calcium ion binding	0.93	1	0.30864197	279	0.8057296
9911	GO:0016879	ligase activity, forming carb	0.93	2	0.61728394	456	1.3168914
4867	GO:0006753	nucleoside phosphate metab	0.93	5	1.5432099	914	2.6395588
6484	GO:0009117	nucleotide metabolic process	0.93	5	1.5432099	914	2.6395588
14667	GO:0032259	methylation	0.93	1	0.30864197	285	0.8230572
19527	GO:0043228	non-membrane-bounded org	0.93	5	1.5432099	923	2.66555
19531	GO:0043232	intracellular non-membrane-b	0.93	5	1.5432099	923	2.66555
3946	GO:0005623	cell	0.94	66	20.37037	8227	23.758917
20657	GO:0044464	cell part	0.94	66	20.37037	8227	23.758917
9697	GO:0016614	oxidoreductase activity, actin	0.94	1	0.30864197	293	0.84616053
20356	GO:0044106	cellular amine metabolic proc	0.94	1	0.30864197	303	0.8750397
19684	GO:0043412	macromolecule modification	0.94	20	6.1728396	2900	8.374968
9869	GO:0016829	lyase activity	0.94	2	0.61728394	488	1.4093049
9889	GO:0016853	isomerase activity	0.94	1	0.30864197	306	0.8837035
6662	GO:0009308	amine metabolic process	0.95	1	0.30864197	314	0.9068068
4849	GO:0006730 GO:0019753 G	one-carbon metabolic proces	0.95	1	0.30864197	325	0.93857396
3449	GO:0004842 GO:0004840 G	ubiquitin-protein ligase activi	0.95	1	0.30864197	326	0.94146186
18582	GO:0042221	response to chemical stimulu	0.95	1	0.30864197	328	0.94723773
9654	GO:0016567	protein ubiquitination	0.96	1	0.30864197	332	0.9587894
14854	GO:0032446	protein modification by small	0.96	1	0.30864197	332	0.9587894
29011	GO:0070647	protein modification by small	0.96	1	0.30864197	332	0.9587894
20517	GO:0044267	cellular protein metabolic pro	0.96	22	6.7901235	3225	9.313541
3903	GO:0005575 GO:0008372	cellular component	0.96	67	20.679012	8515	24.590637
11747	GO:0019787 GO:0008639 G	small conjugating protein liga	0.96	1	0.30864197	339	0.9790048
20533	GO:0044283	small molecule biosynthetic p	0.96	1	0.30864197	347	1.0021082
20521	GO:0044271	cellular nitrogen compound b	0.97	1	0.30864197	367	1.0598665
4320	GO:0006082	organic acid metabolic proces	0.97	1	0.30864197	369	1.0656425
11716	GO:0019752	carboxylic acid metabolic pro	0.97	1	0.30864197	369	1.0656425
19707	GO:0043436	oxoacid metabolic process	0.97	1	0.30864197	369	1.0656425
18541	GO:0042180	cellular ketone metabolic pro	0.97	1	0.30864197	375	1.0829699
9839	GO:0016791 GO:0016302	phosphatase activity	0.97	1	0.30864197	383	1.1060733
9906	GO:0016874	ligase activity	0.98	2	0.61728394	597	1.7240882
22007	GO:0046483	heterocycle metabolic proces	0.98	5	1.5432099	1094	3.1593843
9494	GO:0016311	dephosphorylation	0.98	1	0.30864197	425	1.227366
18912	GO:0042578	phosphoric ester hydrolase a	0.99	1	0.30864197	444	1.2822365
20487	GO:0044237	cellular metabolic process	0.99	59	18.209877	8185	23.637625
20618	GO:0044424	intracellular part	0.99	23	7.0987654	3853	11.127155
3945	GO:0005622	intracellular	0.99	30	9.259259	4751	13.720507
20531	GO:0044281	small molecule metabolic pro	0.99	8	2.4691358	1788	5.1636004
19533	GO:0043234	protein complex	1.00	2	0.61728394	848	2.448956
3863	GO:0005488	binding	1.00	106	32.71605	13903	40.15075
15392	GO:0032991	macromolecular complex	1.00	6	1.8518518	1616	4.666878
2627	GO:0003676	nucleic acid binding	1.00	11	3.3950617	2453	7.0840673
20640	GO:0044446	intracellular organelle part	1.00	1	0.30864197	710	2.0504231
20616	GO:0044422	organelle part	1.00	1	0.30864197	712	2.0561988
131	GO:0000166	nucleotide binding	1.00	3	0.9259259	1213	3.5030468
18000	GO:0035639	purine ribonucleoside triphos	1.00	1	0.30864197	769	2.2208104
14959	GO:0032553	ribonucleotide binding	1.00	1	0.30864197	795	2.2958963
14961	GO:0032555	purine ribonucleotide binding	1.00	1	0.30864197	795	2.2958963
10033	GO:0017076	purine nucleotide binding	1.00	1	0.30864197	797	2.3016722
2653	GO:0003723	RNA binding	1.00	1	0.30864197	797	2.3016722
20638	GO:0044444	cytoplasmic part	1.00	4	1.2345679	1644	4.7477403
4027	GO:0005737	cytoplasm	1.00	4	1.2345679	2001	5.7787275

GO ID	GO ACCESSION	GO Term	p-value	Count in Selection	% Count in Selection	Count in Total	% Count in Total
12946	GO:0030414	peptidase inhibitor activity	0.00	12	2.6200874	110	0.31767118
7690	GO:0010466	negative regulation of pep	0.00	12	2.6200874	110	0.31767118
25636	GO:0051346	negative regulation of hvc	0.00	12	2.6200874	110	0.31767118
26711	GO:0052547	regulation of peptidase ac	0.00	12	2.6200874	112	0.32344702
28100	GO:0061134	peptidase regulator activit	0.00	12	2.6200874	112	0.32344702
26712	GO:0052548	regulation of endopeptida	0.00	11	2.4017467	95	0.27435237
3472	GO:0004866	endopeptidase inhibitor ac	0.00	11	2.4017467	95	0.27435237
28101	GO:0061135	endopeptidase regulator a	0.00	11	2.4017467	95	0.27435237
8159	GO:0010951	negative regulation of end	0.00	11	2.4017467	95	0.27435237
3464	GO:0004857	enzyme inhibitor activity	0.00	13	2.838428	157	0.4534034
25626	GO:0051336	regulation of hydrolase ac	0.00	14	3.0567687	196	0.5660323
9869	GO:0016829	lyase activity	0.00	22	4.8034935	488	1.4093049
4215	GO:0005975	carbohydrate metabolic pr	0.00	33	7.2052402	990	2.8590407
19393	GO:0043086	negative regulation of cat	0.00	13	2.838428	188	0.54292893
20342	GO:0044092	negative regulation of mol	0.00	13	2.838428	188	0.54292893
4320	GO:0006082	organic acid metabolic pro	0.00	17	3.7117903	369	1.0656425
11716	GO:0019752	carboxylic acid metabolic	0.00	17	3.7117903	369	1.0656425
19707	GO:0043436	oxoacid metabolic proces	0.00	17	3.7117903	369	1.0656425
18541	GO:0042180	cellular ketone metabolic	0.00	17	3.7117903	375	1.0829699
9816	GO:0016762	xyloglucan:xyloglucosyl tr	0.00	5	1.091703	27	0.077973835
3473	GO:0004867	serine-type endopeptidase	0.00	7	1.5283843	66	0.1906027
5704	GO:0008150	biological process	0.00	334	72.925766	22215	64.155136
9845	GO:0016798	hydrolase activity, acting	0.00	16	3.4934497	401	1.1580559
5705	GO:0008152	metabolic process	0.00	270	58.951965	17432	50.34222
26845	GO:0052689	carboxylic ester hydrolase	0.00	19	4.148472	538	1.5537009
2674	GO:0003824	catalytic activity	0.00	179	39.08297	10750	31.045137
9812	GO:0016758	transferase activity, transf	0.00	18	3.930131	501	1.4468478
2864	GO:0004058	aromatic-L-amino-acid de	0.00	3	0.65502185	9	0.025991278
5636	GO:0008061	chitin binding	0.00	4	0.8733624	23	0.06642216
25095	GO:0050790	regulation of catalytic acti	0.00	17	3.7117903	480	1.3862015
28366	GO:0065009	regulation of molecular fu	0.00	17	3.7117903	484	1.3977532
9811	GO:0016757	transferase activity, transf	0.00	22	4.8034935	729	2.1052935
3874	GO:0005509	calcium ion binding	0.00	12	2.6200874	279	0.8057296
9877	GO:0016838	carbon-oxygen lyase activ	0.00	6	1.3100437	77	0.22236982
13082	GO:0030599	pectinesterase activity	0.00	9	1.9650655	178	0.5140497
7557	GO:0010333	terpene synthase activity	0.00	5	1.091703	57	0.16461143
3291	GO:0004657	proline dehydrogenase ac	0.00	2	0.4366812	4	0.011551679
12794	GO:0030234	enzyme regulator activity	0.00	14	3.0567687	403	1.1638317
1169	GO:0001871	pattern binding	0.00	4	0.8733624	35	0.10107719
12806	GO:0030247	polysaccharide binding	0.00	4	0.8733624	35	0.10107719
9393	GO:0016165	lipoxigenase activity	0.00	4	0.8733624	36	0.10396511
4232	GO:0005992	trehalose biosynthetic pro	0.00	4	0.8733624	36	0.10396511
9870	GO:0016830	carbon-carbon lyase activ	0.00	8	1.7467248	161	0.4649551
17016	GO:0034637	cellular carbohydrate bios	0.00	5	1.091703	63	0.18193895
4231	GO:0005991	trehalose metabolic proces	0.00	4	0.8733624	38	0.10974095
9293	GO:0016051	carbohydrate biosynthetic	0.00	5	1.091703	64	0.18482687
20512	GO:0044262	cellular carbohydrate met	0.00	10	2.183406	248	0.7162041
26959	GO:0055114	oxidation-reduction proces	0.00	50	10.91703	2490	7.1909204
3124	GO:0004462	lactoylglutathione lyase ac	0.00	3	0.65502185	20	0.0577584
21880	GO:0046351	disaccharide biosynthetic	0.00	4	0.8733624	42	0.121292636
6666	GO:0009312	oligosaccharide biosynthe	0.00	4	0.8733624	42	0.121292636
9370	GO:0016138	glycoside biosynthetic pro	0.00	4	0.8733624	42	0.121292636
3129	GO:0004467	long-chain fatty acid-CoA	0.00	3	0.65502185	21	0.060646318
9764	GO:0016701	oxidoreductase activity, a	0.00	5	1.091703	72	0.20793022
9600	GO:0016491	oxidoreductase activity	0.00	37	8.078603	1724	4.9787736
25510	GO:0051213	dioxygenase activity	0.00	5	1.091703	75	0.21659398
31394	GO:0080017	alpha-humulene synthase	0.00	3	0.65502185	25	0.072197996
31393	GO:0080016	(-)-E-beta-caryophyllene s	0.00	3	0.65502185	25	0.072197996
9871	GO:0016831	carboxy-lyase activity	0.00	6	1.3100437	115	0.3321108
7168	GO:0009916	alternative oxidase activit	0.00	2	0.4366812	8	0.023103358
3415	GO:0004805	trehalose-phosphatase ac	0.00	3	0.65502185	26	0.075085916
8919	GO:0015645	fatty acid ligase activity	0.01	3	0.65502185	27	0.077973835
9883	GO:0016846	carbon-sulfur lyase activit	0.01	4	0.8733624	56	0.16172351
4224	GO:0005984	disaccharide metabolic pr	0.01	4	0.8733624	56	0.16172351
9369	GO:0016137	glycoside metabolic proces	0.01	4	0.8733624	56	0.16172351
7558	GO:0010334	sesquiterpene synthase a	0.01	3	0.65502185	29	0.083749674
12805	GO:0030246	carbohydrate binding	0.01	9	1.9650655	251	0.7248679
21331	GO:0045735	nutrient reservoir activity	0.01	5	1.091703	89	0.25702485
28643	GO:0070279	vitamin B6 binding	0.01	6	1.3100437	126	0.3638779
12741	GO:0030170	pyridoxal phosphate bindi	0.01	6	1.3100437	126	0.3638779
6665	GO:0009311	oligosaccharide metabolic	0.01	4	0.8733624	58	0.16749935
6464	GO:0009095	aromatic amino acid fami	0.01	2	0.4366812	10	0.0288792
21148	GO:0045547	dehydrodolicyl diphosph	0.01	2	0.4366812	10	0.0288792
7222	GO:0009975	cyclase activity	0.01	3	0.65502185	31	0.08952551
4250	GO:0006012	galactose metabolic proces	0.01	2	0.4366812	11	0.03176712
11787	GO:0019842	vitamin binding	0.01	7	1.5283843	177	0.5111618
11206	GO:0019203	carbohydrate phosphatase	0.01	3	0.65502185	35	0.10107719
11311	GO:0019318	hexose metabolic process	0.01	5	1.091703	101	0.2916799
9765	GO:0016702	oxidoreductase activity, a	0.01	4	0.8733624	66	0.1906027
23515	GO:0048037	cofactor binding	0.01	10	2.183406	327	0.94434977
11224	GO:0019222	regulation of metabolic pr	0.02	55	12.008734	3115	8.995871
9874	GO:0016835	carbon-oxygen lyase activ	0.02	7	1.5283843	202	0.5833598
31396	GO:0080019	fatty-acyl-CoA reductase	0.02	2	0.4366812	16	0.046206716
9909	GO:0016877	liqase activity, forming ca	0.02	4	0.8733624	78	0.22525774
9753	GO:0016682	oxidoreductase activity, a	0.02	3	0.65502185	44	0.12706847
4954	GO:0006869	lipid transport	0.02	7	1.5283843	208	0.6006873
8085	GO:0010876	lipid localization	0.02	7	1.5283843	208	0.6006873
9837	GO:0016788	hydrolase activity, acting	0.02	30	6.5502185	1534	4.430069
28368	GO:0070001	aspartic-type peptidase ac	0.02	2	0.4366812	18	0.051982556
2981	GO:0004190	aspartic-type endopeptida	0.02	2	0.4366812	18	0.051982556
4236	GO:0005996	monosaccharide metaboli	0.03	5	1.091703	125	0.36099
4699	GO:0006570	tyrosine metabolic proces	0.03	1	0.2183406	2	0.00577584
4700	GO:0006571	tyrosine biosynthetic proc	0.03	1	0.2183406	2	0.00577584
21946	GO:0046421	methylisocitrate lyase act	0.03	1	0.2183406	2	0.00577584
192	GO:0000249	C-22 sterol desaturase ac	0.03	1	0.2183406	2	0.00577584
532	GO:0000823	inositol trisphosphate 6-ki	0.03	1	0.2183406	2	0.00577584
3113	GO:0004451	isocitrate lyase activity	0.03	1	0.2183406	2	0.00577584
9725	GO:0016645	oxidoreductase activity, a	0.03	3	0.65502185	49	0.14150807
8726	GO:0015368	calcium:cation antiporter a	0.03	2	0.4366812	20	0.0577584
3293	GO:0004659	prenyltransferase activity	0.03	3	0.65502185	51	0.14728391
3904	GO:0005576	extracellular region	0.03	6	1.3100437	178	0.5140497
9750	GO:0016679	oxidoreductase activity, a	0.03	3	0.65502185	53	0.15305975
8489	GO:0015066	alpha-amylase inhibitor ac	0.03	2	0.4366812	22	0.06353424
24858	GO:0050551	myrcene synthase activity	0.03	2	0.4366812	22	0.06353424
5702	GO:0008146	sulfotransferase activity	0.03	3	0.65502185	54	0.15594767
22414	GO:0046912	transferase activity, transf	0.04	2	0.4366812	23	0.06642216
4319	GO:0006081	cellular aldehyde metabol	0.04	1	0.2183406	3	0.00866376

4330	GO:0006097	glyoxylate cycle	0.04	1	0.2183406	3	0.00866376
13651	GO:0031219	levanase activity	0.04	1	0.2183406	3	0.00866376
22011	GO:0046487	glyoxylate metabolic proc	0.04	1	0.2183406	3	0.00866376
3134	GO:0004474	malate synthase activity	0.04	1	0.2183406	3	0.00866376
3252	GO:0004612	phosphoenolpyruvate car	0.04	1	0.2183406	3	0.00866376
9779	GO:0016717	oxidoreductase activity, a	0.04	2	0.4366812	24	0.06931008
25094	GO:0050789 GO:005079	regulation of biological pr	0.04	70	15.283843	4315	12.461374
4304	GO:0006066	alcohol metabolic process	0.04	5	1.091703	143	0.41297254
31493	GO:0080118	brassinosteroid sulfotrans	0.04	2	0.4366812	25	0.072197996
2897	GO:0004091 GO:0004302	carboxylesterase activity	0.04	6	1.3100437	194	0.5602564
17147	GO:0034768	(E)-beta-ocimene synthas	0.05	2	0.4366812	26	0.075085916
4328	GO:0006094	gluconeogenesis	0.05	1	0.2183406	4	0.011551679
5928	GO:0008440	inositol trisphosphate 3-ki	0.05	1	0.2183406	4	0.011551679
7157	GO:0009905	ent-copalyl diphosphate s	0.05	1	0.2183406	4	0.011551679
9905	GO:0016872	intramolecular lyase activ	0.05	1	0.2183406	4	0.011551679
11312	GO:0019319	hexose biosynthetic proce	0.05	1	0.2183406	4	0.011551679
16391	GO:0034007	S-linalool synthase activit	0.05	1	0.2183406	4	0.011551679
22059	GO:0046538	2,3-bisphosphoglycerate-t	0.05	1	0.2183406	4	0.011551679
23251	GO:0047769	arogenate dehydratase ac	0.05	1	0.2183406	4	0.011551679
23923	GO:0048531	beta-1,3-galactosyltransfe	0.05	1	0.2183406	4	0.011551679
24433	GO:0050113	inositol oxygenase activity	0.05	1	0.2183406	4	0.011551679
26048	GO:0051766	inositol trisphosphate kina	0.05	1	0.2183406	4	0.011551679
2796	GO:0003978	UDP-glucose 4-epimerase	0.05	1	0.2183406	4	0.011551679
2829	GO:0004020	adenylsulfate kinase acti	0.05	1	0.2183406	4	0.011551679
2872	GO:0004066	asparagine synthase (glut	0.05	1	0.2183406	4	0.011551679
3093	GO:0004421	hydroxymethylglutaryl-Co	0.05	1	0.2183406	4	0.011551679
28364	GO:0065007	biological regulation	0.05	70	15.283843	4376	12.637537
11829	GO:0019900	kinase binding	0.06	3	0.65502185	66	0.1906027
3888	GO:0005529	sugar binding	0.06	5	1.091703	158	0.45629135
6216	GO:0008810	cellulase activity	0.06	2	0.4366812	30	0.086637594
2870	GO:0004064	arylesterase activity	0.06	2	0.4366812	30	0.086637594
14422	GO:0032012	regulation of ARF protein	0.06	2	0.4366812	31	0.08952551
14720	GO:0032312	regulation of ARF GTPase	0.06	2	0.4366812	31	0.08952551
20908	GO:0045290	D-arabinose 1-dehydroge	0.06	1	0.2183406	5	0.0144396
23522	GO:0048046	apoplast	0.07	3	0.65502185	70	0.20215438
22049	GO:0046527	glucosyltransferase activi	0.07	7	1.5283843	270	0.77973837
24966	GO:0050660	flavin adenine dinucleotid	0.07	4	0.8733624	118	0.34077454
2985	GO:0004222	metalloendopeptidase act	0.07	2	0.4366812	34	0.09818927
9832	GO:0016782	transferase activity, trans	0.08	3	0.65502185	74	0.21370606
11776	GO:0019825	oxygen binding	0.08	9	1.9650655	389	1.1234008
2626	GO:0003674 GO:000555	molecular function	0.08	337	73.58079	24394	70.447914
20531	GO:0044281	small molecule metabolic	0.08	31	6.768559	1788	5.1636004
3845	GO:0005452	inorganic anion exchange	0.08	1	0.2183406	6	0.01732752
4657	GO:0006528	asparagine metabolic pro	0.08	1	0.2183406	6	0.01732752
4658	GO:0006529	asparagine biosynthetic p	0.08	1	0.2183406	6	0.01732752
5966	GO:0008486	diphosphoinositol-polyph	0.08	1	0.2183406	6	0.01732752
6317	GO:0008923	lysine decarboxylase activ	0.08	1	0.2183406	6	0.01732752
11899	GO:0019992	diacylglycerol binding	0.08	1	0.2183406	6	0.01732752
13471	GO:0031012	extracellular matrix	0.08	1	0.2183406	6	0.01732752
19761	GO:0043495	protein anchor	0.08	1	0.2183406	6	0.01732752
21727	GO:0046165	alcohol biosynthetic proce	0.08	1	0.2183406	6	0.01732752
21893	GO:0046364	monosaccharide biosynth	0.08	1	0.2183406	6	0.01732752
23230	GO:0047746	chlorophyllase activity	0.08	1	0.2183406	6	0.01732752
135	GO:0000170	sphingosine hydroxylase	0.08	1	0.2183406	6	0.01732752
3259	GO:0004619	phosphoglycerate mutase	0.08	1	0.2183406	6	0.01732752
21146	GO:0045544	gibberellin 20-oxidase act	0.08	2	0.4366812	35	0.10107719
9836	GO:0016787	hydrolase activity	0.08	59	12.882096	3723	10.751725
8501	GO:0015085	calcium ion transmembran	0.09	2	0.4366812	38	0.10974095
15189	GO:0032787	monocarboxylic acid meta	0.09	3	0.65502185	81	0.23392151
9486	GO:0016298	lipase activity	0.10	5	1.091703	185	0.53426516
4687	GO:0006558	L-phenylalanine metabolic	0.10	1	0.2183406	8	0.023103358
6378	GO:0008999	ribosomal-protein-alanine	0.10	1	0.2183406	8	0.023103358
6463	GO:0009094 GO:0019274	L-phenylalanine biosynthe	0.10	1	0.2183406	8	0.023103358
9680	GO:0016595	glutamate binding	0.10	1	0.2183406	8	0.023103358
18639	GO:0042284	sphingolipid delta-4 desat	0.10	1	0.2183406	8	0.023103358
29068	GO:0070704	sterol desaturase activity	0.10	1	0.2183406	8	0.023103358
3098	GO:0004427	inorganic diphosphatase	0.10	1	0.2183406	8	0.023103358
4246	GO:0006006	glucose metabolic proces	0.11	3	0.65502185	87	0.25124902
5694	GO:0008137	NADH dehydrogenase (ub	0.11	2	0.4366812	43	0.124180555
119	GO:0000151	ubiquitin ligase complex	0.11	3	0.65502185	88	0.25413695
79	GO:0001031 GO:0019378	sulfate assimilation	0.11	1	0.2183406	9	0.025991278
3251	GO:0004611	phosphoenolpyruvate car	0.11	1	0.2183406	9	0.025991278
4914	GO:0006816	calcium ion transport	0.11	2	0.4366812	44	0.12706847
28952	GO:0070588	calcium ion transmembran	0.11	2	0.4366812	44	0.12706847
2642	GO:0003697 GO:0003698	single-stranded DNA bind	0.11	2	0.4366812	44	0.12706847
11931	GO:0020037	heme binding	0.12	11	2.4017467	550	1.5883559
9893	GO:0016857	racemase and epimerase	0.12	2	0.4366812	45	0.1299564
14726	GO:0032318	regulation of Ras GTPase	0.12	2	0.4366812	45	0.1299564
22096	GO:0046578	regulation of Ras protein	0.12	2	0.4366812	45	0.1299564
24456	GO:0050136	NADH dehydrogenase (gl	0.12	2	0.4366812	45	0.1299564
25355	GO:0051056	regulation of small GTPas	0.12	2	0.4366812	45	0.1299564
4329	GO:0006096 GO:001964	glycolysis	0.12	2	0.4366812	46	0.13284431
2636	GO:0003690	double-stranded DNA bind	0.12	2	0.4366812	46	0.13284431
3842	GO:0005432	calcium:sodium antiporter	0.12	1	0.2183406	10	0.0288792
3849	GO:0005459	UDP-galactose transmem	0.12	1	0.2183406	10	0.0288792
5911	GO:0008417	fucosyltransferase activi	0.12	1	0.2183406	10	0.0288792
7175	GO:0009924	octadecanal decarboxylas	0.12	1	0.2183406	10	0.0288792
8727	GO:0015369	calcium:hydrogen antiport	0.12	1	0.2183406	10	0.0288792
9054	GO:0015785	UDP-galactose transport	0.12	1	0.2183406	10	0.0288792
30135	GO:0071771	aldehyde decarboxylase	0.12	1	0.2183406	10	0.0288792
30693	GO:0072334	UDP-galactose transmem	0.12	1	0.2183406	10	0.0288792
2797	GO:0003979	UDP-glucose 6-dehydroge	0.12	1	0.2183406	10	0.0288792
6442	GO:0009073 GO:0016089	aromatic amino acid famill	0.13	2	0.4366812	47	0.13573223
21943	GO:0046417	chorismate metabolic pro	0.13	2	0.4366812	47	0.13573223
5809	GO:0008289	lipid binding	0.13	6	1.3100437	258	0.74508333
3872	GO:0005506	iron ion binding	0.13	11	2.4017467	563	1.6258988
716	GO:0001071	nucleic acid binding trans	0.13	24	5.240175	1417	4.0921826
2643	GO:0003700 GO:0000130	sequence-specific DNA bi	0.13	24	5.240175	1417	4.0921826
11152	GO:0019139 GO:0046420	cytokinin dehydrogenase	0.14	1	0.2183406	11	0.03176712
24696	GO:0050378	UDP-glucuronate 4-epime	0.14	1	0.2183406	11	0.03176712
3490	GO:0004888 GO:0004926	transmembrane receptor	0.14	11	2.4017467	571	1.6490022
5096	GO:0007047	cellular cell wall organiz	0.14	2	0.4366812	50	0.14439599
6932	GO:0009664	plant-type cell wall organiz	0.14	2	0.4366812	50	0.14439599
19914	GO:0043648	dicarboxylic acid metabol	0.14	2	0.4366812	50	0.14439599
20857	GO:0045229	external encapsulating str	0.14	2	0.4366812	50	0.14439599
30033	GO:0071669	plant-type cell wall organiz	0.14	2	0.4366812	50	0.14439599
7173	GO:0009922	fatty acid elongase activi	0.15	2	0.4366812	51	0.14728391
7213	GO:0009966 GO:0035466	regulation of signal trans	0.15	2	0.4366812	51	0.14728391
9733	GO:0016655	oxidoreductase activity, a	0.15	2	0.4366812	51	0.14728391
12601	GO:0023051	regulation of signaling	0.15	2	0.4366812	51	0.14728391
7526	GO:0010301 GO:0033710	xanthoxin dehydrogenase	0.15	1	0.2183406	12	0.03465504
20615	GO:0044421	extracellular region part	0.15	1	0.2183406	12	0.03465504

25436	GO:0051139	metal ion:hydrogen antip	0.15	1	0.2183406	12	0.03465504
9767	GO:0016705	oxidoreductase activity, a	0.15	7	1.5283843	329	0.95012563
9295	GO:0016053	organic acid biosynthetic	0.15	5	1.091703	211	0.6093511
21922	GO:0046394	carboxylic acid biosynthe	0.15	5	1.091703	211	0.6093511
9795	GO:0016740	transferase activity	0.16	57	12.445415	3764	10.870131
29246	GO:0070882	cellular cell wall organizat	0.16	2	0.4366812	53	0.15305975
2778	GO:0003954	NADH dehydrogenase ac	0.16	2	0.4366812	53	0.15305975
22375	GO:0046872	metal ion binding	0.16	46	10.043668	2985	8.6204405
6436	GO:0009067	aspartate family amino ac	0.16	1	0.2183406	13	0.037542958
8578	GO:0015165	pyrimidine nucleotide sug	0.16	1	0.2183406	13	0.037542958
9050	GO:0015781	pyrimidine nucleotide-sug	0.16	1	0.2183406	13	0.037542958
4649	GO:0006520 GO:0006519	cellular amino acid metab	0.16	6	1.3100437	277	0.7999538
19470	GO:0043167	ion binding	0.16	46	10.043668	2997	8.655096
19472	GO:0043169	cation binding	0.16	46	10.043668	2997	8.655096
17617	GO:0035251	UDP-glucosyltransferase	0.16	5	1.091703	218	0.62956655
30066	GO:0071702	organic substance transp	0.17	10	2.183406	529	1.5277096
5767	GO:0008237	metalloproteinase activity	0.17	2	0.4366812	56	0.16172351
22409	GO:0048906	tetrapyrrole binding	0.17	11	2.4017467	596	1.7212002
4670	GO:0006541	glutamine metabolic proces	0.17	1	0.2183406	14	0.040430877
9399	GO:0016174	NAD(P)H oxidase activity	0.17	1	0.2183406	14	0.040430877
9873	GO:0016833	oxo-acid-lyase activity	0.17	1	0.2183406	14	0.040430877
24970	GO:0050664	oxidoreductase activity, a	0.17	1	0.2183406	14	0.040430877
31408	GO:0080031	methyl salicylate esterase	0.17	1	0.2183406	14	0.040430877
270	GO:0000339	RNA cap binding	0.17	1	0.2183406	14	0.040430877
2998	GO:0004311	farnesyltransferase a	0.17	1	0.2183406	14	0.040430877
3204	GO:0004568 GO:0004562	alpha-glucosidase activity	0.17	1	0.2183406	14	0.040430877
6441	GO:0009072	aromatic amino acid famil	0.17	2	0.4366812	57	0.16461143
9813	GO:0016759	cellulose synthase activit	0.17	2	0.4366812	57	0.16461143
23973	GO:0048583	regulation of response to	0.17	2	0.4366812	57	0.16461143
29919	GO:0071555	cell wall organization	0.18	2	0.4366812	58	0.16749935
7520	GO:0010294	abscisic acid glucosyltran	0.18	1	0.2183406	15	0.043318797
8635	GO:0015229	L-ascorbic acid transporte	0.18	1	0.2183406	15	0.043318797
9144	GO:0015882	L-ascorbic acid transport	0.18	1	0.2183406	15	0.043318797
2868	GO:0004062	aryl sulfotransferase activ	0.18	1	0.2183406	15	0.043318797
3209	GO:0004564	beta-fructofuranosidase a	0.18	1	0.2183406	15	0.043318797
3476	GO:0004872 GO:0019044	receptor activity	0.18	12	2.6200874	672	1.9406822
2831	GO:0004022	alcohol dehydrogenase (N	0.18	2	0.4366812	59	0.17038727
9730	GO:0016651	oxidoreductase activity, a	0.19	3	0.65502185	112	0.32344702
29918	GO:0071554	cell wall organization or bi	0.19	3	0.65502185	112	0.32344702
6077	GO:0008652	cellular amino acid biosyn	0.19	4	0.8733624	169	0.48805845
9427	GO:0016215	CoA desaturase activity	0.19	1	0.2183406	16	0.046206716
18757	GO:0042409	caffeoyl-CoA O-methyltra	0.19	1	0.2183406	16	0.046206716
219	GO:0000287	magnesium ion binding	0.19	1	0.2183406	16	0.046206716
3334	GO:0004713 GO:0004719	protein tyrosine kinase ac	0.19	1	0.2183406	16	0.046206716
3382	GO:0004768 GO:0016214	stearoyl-CoA 9-desaturas	0.19	1	0.2183406	16	0.046206716
8526	GO:0015112	nitrate transmembrane tra	0.19	2	0.4366812	61	0.1761631
8975	GO:0015706 GO:0006872	nitrate transport	0.19	2	0.4366812	61	0.1761631
13753	GO:0031323	regulation of cellular meta	0.20	42	9.170305	2770	7.999538
5213	GO:0007186	G-protein coupled recept	0.20	2	0.4366812	62	0.17905103
9768	GO:0016706	oxidoreductase activity, a	0.20	4	0.8733624	175	0.505386
30887	GO:0072531	pyrimidine-containing con	0.20	1	0.2183406	17	0.049094636
31465	GO:0080090	regulation of primary meta	0.21	41	8.951965	2710	7.826263
16595	GO:0034212	peptide N-acetyltransfer	0.21	1	0.2183406	18	0.051982556
3239	GO:0004596	peptide alpha-N-acetyltra	0.21	1	0.2183406	18	0.051982556
20356	GO:0044106	cellular amine metabolic p	0.21	6	1.3100437	303	0.8750397
9890	GO:0016854	racemase and epimerase	0.22	2	0.4366812	66	0.1906027
6663	GO:0009309	amine biosynthetic proces	0.22	4	0.8733624	181	0.5227135
6884	GO:0009607	response to biotic stimulu	0.22	3	0.65502185	122	0.3523262
3799	GO:0005338 GO:0005339	nucleotide-sugar transme	0.22	1	0.2183406	19	0.054870475
5230	GO:0007205	activation of protein kinas	0.22	1	0.2183406	19	0.054870475
6435	GO:0009066	aspartate family amino ac	0.22	1	0.2183406	19	0.054870475
9049	GO:0015780	nucleotide-sugar transpor	0.22	1	0.2183406	19	0.054870475
14556	GO:0032147	activation of protein kinas	0.22	1	0.2183406	19	0.054870475
5981	GO:0008509	anion transmembrane traf	0.23	5	1.091703	245	0.70754033
11202	GO:0019199	transmembrane receptor t	0.23	9	1.9650655	504	1.4555116
2999	GO:0004312	fatty acid synthase activit	0.23	2	0.4366812	68	0.19637854
4917	GO:0006820 GO:0006822	anion transport	0.23	5	1.091703	247	0.7133162
11221	GO:0019219	regulation of nucleobase	0.23	40	8.733624	2675	7.7251854
25468	GO:0051171	regulation of nitrogen con	0.23	40	8.733624	2675	7.7251854
31420	GO:0080043	quercetin 3-O-glucosyltra	0.23	2	0.4366812	69	0.19926646
3200	GO:0004553 GO:0016800	hydrolase activity, hydroly	0.23	6	1.3100437	312	0.90103096
25477	GO:0051180	vitamin transport	0.23	1	0.2183406	20	0.0577584
25480	GO:0051183	vitamin transporter activit	0.23	1	0.2183406	20	0.0577584
2675	GO:0003825	alpha,alpha-trehalose-phc	0.23	1	0.2183406	20	0.0577584
3328	GO:0004707 GO:0008338	MAP kinase activity	0.23	1	0.2183406	20	0.0577584
9583	GO:0016469	proton-transporting two-se	0.24	3	0.65502185	127	0.36676583
15524	GO:0033124	regulation of GTP catabol	0.24	2	0.4366812	70	0.20215438
19394	GO:0043087	regulation of GTPase acti	0.24	2	0.4366812	70	0.20215438
6662	GO:0009308	amine metabolic process	0.24	6	1.3100437	314	0.9068068
25098	GO:0050794 GO:0051244	regulation of cellular proc	0.24	58	12.663755	3987	11.514136
5878	GO:0008378	galactosyltransferase acti	0.24	1	0.2183406	21	0.060646318
9902	GO:0016868 GO:0016777	intramolecular transferase	0.24	1	0.2183406	21	0.060646318
12999	GO:0030506	ankyrin binding	0.24	1	0.2183406	21	0.060646318
23518	GO:0048040	UDP-glucuronate decarbox	0.24	1	0.2183406	21	0.060646318
27063	GO:0060089	molecular transducer activ	0.25	13	2.838428	787	2.2727928
3475	GO:0004871 GO:0005062	signal transducer activity	0.25	13	2.838428	787	2.2727928
24968	GO:0050662	coenzyme binding	0.25	4	0.8733624	191	0.5515927
2975	GO:0004175 GO:0016809	endopeptidase activity	0.25	6	1.3100437	320	0.9241344
4247	GO:0006007	glucose catabolic process	0.25	2	0.4366812	73	0.21081814
9703	GO:0016620	oxidoreductase activity, a	0.25	2	0.4366812	73	0.21081814
11313	GO:0019320	hexose catabolic process	0.25	2	0.4366812	73	0.21081814
20525	GO:0044275	cellular carbohydrate cata	0.25	2	0.4366812	73	0.21081814
21726	GO:0046164	alcohol catabolic process	0.25	2	0.4366812	73	0.21081814
21894	GO:0046365	monosaccharide catabolic	0.25	2	0.4366812	73	0.21081814
21152	GO:0045551	cinnamyl-alcohol dehydro	0.25	1	0.2183406	22	0.06353424
5732	GO:0008194	UDP-glucosyltransferase	0.26	6	1.3100437	322	0.9299102
8810	GO:0015491	cation:cation antiporter ac	0.26	2	0.4366812	75	0.21659398
9420	GO:0016207	4-coumarate-CoA ligase a	0.26	1	0.2183406	23	0.06642216
16063	GO:0033674	positive regulation of kina	0.26	1	0.2183406	23	0.06642216
19815	GO:0043549	regulation of kinase activi	0.26	1	0.2183406	23	0.06642216
21437	GO:0045859	regulation of protein kinas	0.26	1	0.2183406	23	0.06642216
21438	GO:0045860	positive regulation of prot	0.26	1	0.2183406	23	0.06642216
22753	GO:0047262 GO:0050375	polygalacturonate 4-alpha	0.26	1	0.2183406	23	0.06642216
25628	GO:0051338	regulation of transferase a	0.26	1	0.2183406	23	0.06642216
25637	GO:0051347	positive regulation of tran	0.26	1	0.2183406	23	0.06642216
4526	GO:0006351 GO:0006350	transcription, DNA-depend	0.27	24	5.240175	1575	4.548474
15176	GO:0032774	RNA biosynthetic process	0.27	24	5.240175	1575	4.548474
6248	GO:0008843	endochitinase activity	0.27	1	0.2183406	24	0.06931008
13657	GO:0031225	anchored to membrane	0.27	1	0.2183406	24	0.06931008
13659	GO:0031227	intrinsic to endoplasmic re	0.27	1	0.2183406	24	0.06931008
31407	GO:0080030	methyl indole-3-acetate es	0.27	1	0.2183406	24	0.06931008
3213	GO:0004568	chitinase activity	0.27	1	0.2183406	24	0.06931008
27228	GO:0060255	regulation of macromolec	0.27	39	8.515284	2660	7.6818666

15436	GO:0033036	macromolecule localization	0.27	7	1.5283843	397	1.1465042	
19126	GO:0042803	protein homodimerization	0.27	5	1.091703	265	0.7652988	
5196	GO:0007166	cell surface receptor linkage	0.28	2	0.4366812	78	0.22525774	
19832	GO:0043566	structure-specific DNA binding	0.28	2	0.4366812	78	0.22525774	
30865	GO:0072509	divalent inorganic cation transport	0.28	2	0.4366812	78	0.22525774	
4530	GO:0006355	GO:0032583	regulation of transcription	0.28	38	8.296944	2591	7.4826
9699	GO:0016616	oxidoreductase activity, acting on NADPH	0.28	5	1.091703	266	0.7681867	
25544	GO:0051252	regulation of RNA metabolism	0.28	38	8.296944	2593	7.488376	
13822	GO:0031399	regulation of protein modification	0.28	1	0.2183406	25	0.072197996	
21145	GO:0045543	gibberellin 2-beta-dioxigenin biosynthesis	0.28	1	0.2183406	25	0.072197996	
1225	GO:0001932	regulation of protein phosphorylation	0.28	1	0.2183406	25	0.072197996	
4358	GO:0006140	regulation of nucleotide catabolism	0.29	2	0.4366812	80	0.2310336	
7146	GO:0009894	regulation of catabolic process	0.29	2	0.4366812	80	0.2310336	
9682	GO:0016597	amino acid binding	0.29	2	0.4366812	80	0.2310336	
13278	GO:0030811	regulation of nucleotide catabolism	0.29	2	0.4366812	80	0.2310336	
13759	GO:0031329	regulation of cellular catalytic activity	0.29	2	0.4366812	80	0.2310336	
15521	GO:0033121	regulation of purine nucleotide catabolism	0.29	2	0.4366812	80	0.2310336	
19479	GO:0043176	amine binding	0.29	2	0.4366812	80	0.2310336	
7141	GO:0009889	regulation of biosynthetic process	0.29	38	8.296944	2605	7.523031	
7772	GO:0010556	regulation of macromolecule biosynthesis	0.29	38	8.296944	2605	7.523031	
13756	GO:0031326	regulation of cellular biosynthesis	0.29	38	8.296944	2605	7.523031	
32213	GO:2000112	regulation of cellular macromolecule biosynthesis	0.29	38	8.296944	2605	7.523031	
18674	GO:0042325	regulation of phosphorylation	0.29	2	0.4366812	81	0.23392151	
4030	GO:0005741	mitochondrial outer membrane	0.29	1	0.2183406	26	0.075085916	
9884	GO:0016847	GO:0034100	1-aminocyclopropane-1-carboxylate biosynthesis	0.29	1	0.2183406	26	0.075085916
10911	GO:0018871	1-aminocyclopropane-1-carboxylate biosynthesis	0.29	1	0.2183406	26	0.075085916	
18579	GO:0042218	1-aminocyclopropane-1-carboxylate biosynthesis	0.29	1	0.2183406	26	0.075085916	
30689	GO:0072330	monocarboxylic acid biosynthesis	0.29	1	0.2183406	26	0.075085916	
5195	GO:0007165	GO:0023033	signal transduction	0.29	15	3.275109	961	2.775291
12602	GO:0023052	GO:0023046	signaling	0.29	15	3.275109	961	2.775291
29202	GO:0070838	divalent metal ion transport	0.30	2	0.4366812	82	0.23680943	
6433	GO:0009064	glutamine family amino acid transport	0.30	1	0.2183406	27	0.077973835	
3873	GO:0005507	copper ion binding	0.30	3	0.65502185	146	0.42163628	
4327	GO:0006091	generation of precursor metabolites and energy	0.31	2	0.4366812	84	0.24258527	
30867	GO:0072511	divalent inorganic cation transport	0.31	2	0.4366812	84	0.24258527	
11222	GO:0019220	regulation of phosphate transport	0.31	2	0.4366812	85	0.24547319	
25471	GO:0051174	regulation of phosphorus transport	0.31	2	0.4366812	85	0.24547319	
13634	GO:0031177	phosphopantetheine binding	0.31	1	0.2183406	28	0.080861755	
139	GO:0000175	3'-5'-exoribonuclease activity	0.31	1	0.2183406	28	0.080861755	
3284	GO:0004650	polygalacturonase activity	0.31	1	0.2183406	28	0.080861755	
20533	GO:0044283	small molecule biosynthesis	0.31	6	1.3100437	347	1.0021082	
7692	GO:0010468	regulation of gene expression	0.31	38	8.296944	2635	7.6096687	
11426	GO:0019438	aromatic compound biosynthesis	0.32	3	0.65502185	149	0.43030006	
4029	GO:0005740	mitochondrial envelope	0.32	3	0.65502185	151	0.4360759	
8679	GO:0015297	antiporter activity	0.33	3	0.65502185	152	0.4389638	
8682	GO:0015300	solute:solute antiporter activity	0.33	3	0.65502185	152	0.4389638	
8683	GO:0015301	GO:0015380	anion:anion antiporter activity	0.33	1	0.2183406	30	0.086637594
2774	GO:0003950	NAD+ ADP-ribosyltransferase activity	0.33	1	0.2183406	30	0.086637594	
3518	GO:0004930	GO:0001622	G-protein coupled receptor activity	0.33	1	0.2183406	30	0.086637594
6424	GO:0009055	GO:0009053	electron carrier activity	0.33	3	0.65502185	154	0.44473964
8517	GO:0015103	inorganic anion transport	0.33	3	0.65502185	154	0.44473964	
9294	GO:0016052	GO:0006095	carbohydrate catabolic process	0.34	2	0.4366812	91	0.2628007
9697	GO:0016614	oxidoreductase activity, acting on NADPH	0.35	5	1.091703	293	0.84616053	
3785	GO:0005315	GO:0005311	inorganic phosphate transport	0.35	1	0.2183406	32	0.09241343
4757	GO:0006633	GO:0000037	fatty acid biosynthetic process	0.35	1	0.2183406	32	0.09241343
9927	GO:0016896	exoribonuclease activity, acting on RNA	0.35	1	0.2183406	32	0.09241343	
14381	GO:0031968	organelle outer membrane	0.35	1	0.2183406	32	0.09241343	
21041	GO:0045431	flavonol synthase activity	0.35	1	0.2183406	32	0.09241343	
25836	GO:0051552	flavone metabolic process	0.35	1	0.2183406	32	0.09241343	
25837	GO:0051553	flavone biosynthetic process	0.35	1	0.2183406	32	0.09241343	
25838	GO:0051554	flavonol metabolic process	0.35	1	0.2183406	32	0.09241343	
25839	GO:0051555	flavonol biosynthetic process	0.35	1	0.2183406	32	0.09241343	
3190	GO:0004532	exoribonuclease activity	0.35	1	0.2183406	32	0.09241343	
3265	GO:0004630	phospholipase D activity	0.35	1	0.2183406	32	0.09241343	
20885	GO:0045261	proton-transporting ATP synthase activity	0.36	1	0.2183406	33	0.09530135	
5827	GO:0008308	GO:0022844	voltage-gated anion channel activity	0.36	1	0.2183406	34	0.09818927
20321	GO:0044070	regulation of anion transport	0.36	1	0.2183406	34	0.09818927	
13829	GO:0031406	carboxylic acid binding	0.37	2	0.4366812	98	0.28301615	
18912	GO:0042578	phosphoric ester hydrolase activity	0.37	7	1.5283843	444	1.2822365	
20623	GO:0044429	mitochondrial part	0.37	3	0.65502185	165	0.47650677	
3877	GO:0005516	calmodulin binding	0.38	4	0.8733624	236	0.6815491	
5902	GO:0008408	3'-5' exonuclease activity	0.38	1	0.2183406	36	0.10396511	
9915	GO:0016884	GO:0016003	carbon-nitrogen ligase activity	0.39	1	0.2183406	37	0.10685303
9839	GO:0016791	GO:0016302	phosphatase activity	0.40	6	1.3100437	383	1.1060733
9637	GO:0016538	GO:0003755	cyclin-dependent protein kinase activity	0.40	1	0.2183406	38	0.10974095
4067	GO:0005783	endoplasmic reticulum	0.41	3	0.65502185	174	0.50249803	
13656	GO:0031224	intrinsic to membrane	0.41	17	3.7117903	1193	3.4452884	
8967	GO:0015698	inorganic anion transport	0.41	3	0.65502185	176	0.5082739	
5891	GO:0008395	GO:0008394	steroid hydroxylase activity	0.41	1	0.2183406	40	0.1155168
7072	GO:0009813	flavonoid biosynthetic process	0.41	1	0.2183406	40	0.1155168	
9843	GO:0016796	exonuclease activity, acting on RNA	0.41	1	0.2183406	40	0.1155168	
11804	GO:0019867	outer membrane	0.41	1	0.2183406	40	0.1155168	
3942	GO:0005618	cell wall	0.41	2	0.4366812	107	0.30900744	
6166	GO:0008757	S-adenosylmethionine-dependent methyltransferase activity	0.43	3	0.65502185	180	0.5198256	
3753	GO:0005253	anion channel activity	0.43	1	0.2183406	42	0.121292636	
4756	GO:0006631	fatty acid metabolic process	0.43	1	0.2183406	42	0.121292636	
4849	GO:0006730	GO:0019753	one-carbon metabolic process	0.43	5	1.091703	325	0.93857396
12868	GO:0030312	external encapsulating structure	0.43	2	0.4366812	111	0.3205591	
14676	GO:0032268	regulation of cellular protein biosynthesis	0.44	1	0.2183406	43	0.124180555	
25538	GO:0051246	regulation of protein metabolism	0.44	1	0.2183406	43	0.124180555	
8680	GO:0015298	solute:cation antiporter activity	0.44	2	0.4366812	112	0.32344702	
9933	GO:0016903	oxidoreductase activity, acting on NADPH	0.44	2	0.4366812	113	0.32633495	
7071	GO:0009812	flavonoid metabolic process	0.44	1	0.2183406	44	0.12706847	
9186	GO:0015926	glucosidase activity	0.44	1	0.2183406	44	0.12706847	
13730	GO:0031300	intrinsic to organelle membrane	0.44	1	0.2183406	44	0.12706847	
4844	GO:0006725	cellular aromatic compound biosynthesis	0.44	3	0.65502185	185	0.53426516	
9818	GO:0016765	GO:0016766	transferase activity, transferring phosphate groups	0.44	3	0.65502185	185	0.53426516
20499	GO:0044249	cellular biosynthetic process	0.44	36	7.860262	2635	7.6096687	
22478	GO:0046982	protein heterodimerization	0.45	2	0.4366812	114	0.32922286	
20619	GO:0044425	membrane part	0.45	21	4.5851526	1523	4.398302	
6427	GO:0009058	biosynthetic process	0.46	38	8.296944	2796	8.074624	
4073	GO:0005789	endoplasmic reticulum membrane	0.46	1	0.2183406	46	0.13284431	
18536	GO:0042175	nuclear outer membrane	0.46	1	0.2183406	46	0.13284431	
20626	GO:0044432	endoplasmic reticulum part	0.46	1	0.2183406	46	0.13284431	
5807	GO:0008287	protein serine/threonine phosphorylation	0.47	1	0.2183406	47	0.13573223	
11830	GO:0019901	protein kinase binding	0.48	1	0.2183406	49	0.14150807	
31421	GO:0080044	quercetin 7-O-glucosyltransferase activity	0.48	1	0.2183406	49	0.14150807	
3260	GO:0004620	phospholipase activity	0.49	2	0.4366812	123	0.35521415	
3185	GO:0004527	GO:0008857	exonuclease activity	0.49	1	0.2183406	50	0.14439599
3340	GO:0004721	phosphoprotein phosphatase activity	0.49	3	0.65502185	199	0.57469606	
9494	GO:0016311	dephosphorylation	0.49	6	1.3100437	425	1.227366	
9267	GO:0016021	integral to membrane	0.49	15	3.275109	1103	3.1853757	
9975	GO:0016998	cell wall macromolecule catabolism	0.49	1	0.2183406	51	0.14728391	

3099	GO:0004428	inositol or phosphatidyl	0.49	1	0.2183406	51	0.14728391
14380	GO:0031967	organelle envelope	0.50	3	0.65502185	201	0.5804719
4915	GO:0006817	phosphate transport	0.50	1	0.2183406	52	0.15017183
6965	GO:0009699	phenylpropanoid biosynth	0.50	1	0.2183406	52	0.15017183
8528	GO:0015114	phosphate transmembran	0.50	1	0.2183406	52	0.15017183
17801	GO:0035435	phosphate transmembran	0.50	1	0.2183406	52	0.15017183
20287	GO:0044036	cell wall macromolecule m	0.50	1	0.2183406	52	0.15017183
14387	GO:0031975	envelope	0.51	3	0.65502185	205	0.59202355
4894	GO:0006790	sulfur compound metabol	0.52	1	0.2183406	55	0.15883559
9533	GO:0016405	CoA-ligase activity	0.52	1	0.2183406	55	0.15883559
4755	GO:0006629	lipid metabolic process	0.52	8	1.7467248	590	1.7038727
15577	GO:0033178	proton-transporting two-se	0.53	1	0.2183406	56	0.16172351
22479	GO:0046983	protein dimerization activi	0.53	7	1.5283843	517	1.4930545
5715	GO:0008171	O-methyltransferase activ	0.53	1	0.2183406	57	0.16461143
9910	GO:0016878	acid-thiol ligase activity	0.53	1	0.2183406	57	0.16461143
9906	GO:0016874	ligase activity	0.53	8	1.7467248	597	1.7240882
9754	GO:0016684	oxidoreductase activity, a	0.53	2	0.4366812	135	0.38986918
3242	GO:0004601 GO:0016688	peroxidase activity	0.53	2	0.4366812	135	0.38986918
4913	GO:0006814 GO:0006834	sodium ion transport	0.54	1	0.2183406	58	0.16749935
5819	GO:0008299 GO:0009244	isoprenoid biosynthetic pr	0.54	1	0.2183406	58	0.16749935
8499	GO:0015081 GO:0022816	sodium ion transmembran	0.54	1	0.2183406	58	0.16749935
11820	GO:0019887	protein kinase regulator a	0.54	1	0.2183406	58	0.16749935
18086	GO:0035725	sodium ion transmembran	0.54	1	0.2183406	58	0.16749935
29800	GO:0071436	sodium ion export	0.54	1	0.2183406	58	0.16749935
3323	GO:0004702	receptor signaling protein	0.54	1	0.2183406	58	0.16749935
25998	GO:0051716	cellular response to stimu	0.54	15	3.275109	1138	3.2864528
9900	GO:0016866	intramolecular transferase	0.54	1	0.2183406	59	0.17038727
30700	GO:0072341	modified amino acid bindi	0.54	1	0.2183406	59	0.17038727
4840	GO:0006720 GO:0016096	isoprenoid metabolic proc	0.55	1	0.2183406	60	0.17327519
5652	GO:0008081 GO:0004434	phosphoric diester hydroly	0.55	1	0.2183406	60	0.17327519
6964	GO:0009698	phenylpropanoid metaboli	0.55	1	0.2183406	60	0.17327519
4028	GO:0005739	mitochondrion	0.56	3	0.65502185	219	0.63245445
6046	GO:0008610	lipid biosynthetic process	0.56	2	0.4366812	141	0.4071967
11210	GO:0019207	kinase regulator activity	0.56	1	0.2183406	62	0.17905103
20883	GO:0045259 GO:0045259	proton-transporting ATP s	0.56	1	0.2183406	62	0.17905103
8557	GO:0015144	carbohydrate transmembr	0.57	2	0.4366812	143	0.41297254
16602	GO:0034219	carbohydrate transmembr	0.57	2	0.4366812	143	0.41297254
9308	GO:0016070	RNA metabolic process	0.57	24	5.240175	1855	5.3570914
19125	GO:0042802	identical protein binding	0.58	9	1.9650655	697	2.01288
9889	GO:0016853	isomerase activity	0.58	4	0.8733624	306	0.8837035
9710	GO:0016628	oxidoreductase activity, a	0.58	1	0.2183406	67	0.18771479
6071	GO:0008643 GO:0006866	carbohydrate transport	0.58	2	0.4366812	145	0.42452422
5651	GO:0008080	N-acetyltransferase activi	0.59	1	0.2183406	67	0.19349062
21710	GO:0046148	pigment biosynthetic proc	0.60	1	0.2183406	69	0.19926646
3620	GO:0005057	receptor signaling protein	0.60	1	0.2183406	69	0.19926646
5726	GO:0008187	poly-pyrimidine tract bindi	0.61	1	0.2183406	70	0.20215438
5788	GO:0008266	poly(U) RNA binding	0.61	1	0.2183406	70	0.20215438
11828	GO:0019899	enzyme binding	0.61	3	0.65502185	237	0.684437
3744	GO:0005244	voltage-gated ion channel	0.62	1	0.2183406	72	0.20793022
12528	GO:0022832	voltage-gated channel act	0.62	1	0.2183406	72	0.20793022
15280	GO:0032879	regulation of localization	0.62	1	0.2183406	72	0.20793022
17141	GO:0034762	regulation of transmembran	0.62	1	0.2183406	72	0.20793022
17144	GO:0034765	regulation of ion transmem	0.62	1	0.2183406	72	0.20793022
19568	GO:0043269	regulation of ion transport	0.62	1	0.2183406	72	0.20793022
25348	GO:0051049	regulation of transport	0.62	1	0.2183406	72	0.20793022
18786	GO:0042440	pigment metabolic proces	0.62	1	0.2183406	73	0.21081814
19831	GO:0043565	sequence-specific DNA bi	0.62	2	0.4366812	159	0.45917925
4641	GO:0006508	proteolysis	0.63	12	2.6200874	965	2.7868426
8673	GO:0015291 GO:0015290	secondary active transmem	0.63	5	1.091703	407	1.1753833
9817	GO:0016763	transferase activity, transf	0.63	1	0.2183406	74	0.21370606
5712	GO:0008168 GO:0004480	methyltransferase activity	0.63	3	0.65502185	244	0.7046524
9538	GO:0016410	N-acyltransferase activity	0.64	1	0.2183406	77	0.22236982
9422	GO:0016209	antioxidant activity	0.64	2	0.4366812	165	0.47650677
9800	GO:0016746	transferase activity, transf	0.65	6	1.3100437	498	1.438184
3306	GO:0004674 GO:0004695	protein serine/threonine ki	0.65	13	2.838428	1062	3.0669708
9875	GO:0016836	hydro-lyase activity	0.66	1	0.2183406	80	0.2310336
3827	GO:0005372	water transmembrane tran	0.66	1	0.2183406	81	0.23392151
4927	GO:0006833	water transport	0.66	1	0.2183406	81	0.23392151
8652	GO:0015250	water channel activity	0.66	1	0.2183406	81	0.23392151
18429	GO:0042044	fluid transport	0.66	1	0.2183406	81	0.23392151
2658	GO:0003729	mRNA binding	0.66	1	0.2183406	82	0.23680943
9796	GO:0016741	transferase activity, transf	0.67	3	0.65502185	261	0.7537471
12692	GO:0030117	membrane coat	0.67	1	0.2183406	84	0.24258527
23870	GO:0048475	coated membrane	0.67	1	0.2183406	84	0.24258527
3304	GO:0004672 GO:0050222	protein kinase activity	0.69	16	3.4934497	1333	3.8495972
9824	GO:0016773	phosphotransferase activi	0.69	18	3.930131	1493	4.311664
7691	GO:0010467	gene expression	0.69	24	5.240175	1974	5.7007537
2982	GO:0004197	cysteine-type endopeptid	0.70	1	0.2183406	90	0.2599128
20505	GO:0044255	cellular lipid metabolic pro	0.70	2	0.4366812	184	0.53137726
3644	GO:0005102	receptor binding	0.70	1	0.2183406	91	0.2628007
3808	GO:0005351 GO:0005403	sugar:hydrogen symporte	0.71	1	0.2183406	94	0.27146447
3835	GO:0005402	cation:sugar symporter ac	0.71	1	0.2183406	94	0.27146447
28378	GO:0070011	peptidase activity, acting o	0.72	57	1.3100437	537	1.550813
17024	GO:0034645 GO:0034961	cellular macromolecule bi	0.72	24	5.240175	1999	5.7729516
20521	GO:0044271	cellular nitrogen compoun	0.72	4	0.8733624	367	1.0598665
3307	GO:0004675	transmembrane receptor f	0.72	4	0.8733624	367	1.0598665
11712	GO:0019748	secondary metabolic proc	0.72	1	0.2183406	95	0.27435237
6428	GO:0009059 GO:0043284	macromolecule biosynthe	0.72	24	5.240175	2003	5.7845035
14667	GO:0032259	methylation	0.73	3	0.65502185	285	0.8230572
8677	GO:0015295	solute:hydrogen symporte	0.73	1	0.2183406	98	0.28301615
8681	GO:0015299	solute:hydrogen antiporte	0.73	1	0.2183406	98	0.28301615
12608	GO:0030001	metal ion transport	0.73	4	0.8733624	374	1.080082
2628	GO:0003677	DNA binding	0.75	14	3.0567687	1224	3.534814
9709	GO:0016627	oxidoreductase activity, a	0.75	1	0.2183406	104	0.30034366
19392	GO:0043085	positive regulation of cata	0.75	1	0.2183406	104	0.30034366
20343	GO:0044093	positi regulation of mole	0.75	1	0.2183406	104	0.30034366
22415	GO:0046914	transition metal ion bindi	0.75	31	6.768559	2599	7.5057034
19253	GO:0042936	dipeptide transporter activ	0.75	1	0.2183406	105	0.3032316
19255	GO:0042938	dipeptide transport	0.75	1	0.2183406	105	0.3032316
3195	GO:0004540	ribonuclease activity	0.76	1	0.2183406	106	0.3061195
5763	GO:0008233	peptidase activity	0.76	6	1.3100437	565	1.6316746
9488	GO:0016301	kinase activity	0.77	20	4.366812	1740	5.0249805
22376	GO:0046873	metal ion transmembrane	0.77	2	0.4366812	213	0.6151269
8495	GO:0015077	monovalent inorganic cati	0.78	2	0.4366812	214	0.6180149
14379	GO:0031966	mitochondrial membrane	0.78	1	0.2183406	114	0.32922286
9535	GO:0016407	acetyltransferase activity	0.78	1	0.2183406	115	0.3321108
5019	GO:0006952 GO:0002217	defense response	0.79	2	0.4366812	221	0.63823026
12533	GO:0022838	substrate-specific channe	0.79	2	0.4366812	221	0.63823026
25416	GO:0051119	sugar transmembrane tran	0.79	1	0.2183406	118	0.34077454
20488	GO:0044238	primary metabolic process	0.79	114	24.89083	9167	26.47356
13547	GO:0031090	organelle membrane	0.80	2	0.4366812	224	0.64689404
8660	GO:0015267 GO:0015249	channel activity	0.80	2	0.4366812	226	0.6526699
12515	GO:0022803	passive transmembrane t	0.80	2	0.4366812	226	0.6526699

12532	GO:0022836	gated channel activity	0.80	1	0.2183406	122	0.3523262
4990	GO:0006915 GO:0008633	apoptosis	0.80	2	0.4366812	227	0.6555578
3449	GO:0004842 GO:0004840	ubiquitin-protein ligase ac	0.81	3	0.65502185	326	0.94146186
5909	GO:0008415	acyltransferase activity	0.81	3	0.65502185	330	0.95301354
9654	GO:0016567	protein ubiquitination	0.82	3	0.65502185	332	0.9587894
14854	GO:0032446	protein modification by sm	0.82	3	0.65502185	332	0.9587894
29011	GO:0070647	protein modification by sm	0.82	3	0.65502185	332	0.9587894
25195	GO:0050896 GO:0051869	response to stimulus	0.82	21	4.5851526	1881	5.432177
4910	GO:0006811	ion transport	0.82	10	2.183406	959	2.769515
5756	GO:0008219	cell death	0.83	2	0.4366812	239	0.69021285
8209	GO:0012501 GO:0016244	programmed cell death	0.83	2	0.4366812	239	0.69021285
9462	GO:0016265	death	0.83	2	0.4366812	239	0.69021285
11747	GO:0019787 GO:0008633	small conjugating protein	0.83	3	0.65502185	339	0.9790048
4394	GO:0006184	GTP catabolic process	0.83	1	0.2183406	132	0.3812054
21605	GO:0046039	GTP metabolic process	0.83	1	0.2183406	132	0.3812054
2758	GO:0003924	GTPase activity	0.83	1	0.2183406	132	0.3812054
8607	GO:0015197 GO:0015633	peptide transporter activit	0.84	1	0.2183406	139	0.40142086
8608	GO:0015198	oligopeptide transporter a	0.84	1	0.2183406	139	0.40142086
3724	GO:0005216	ion channel activity	0.85	1	0.2183406	140	0.40430877
3895	GO:0005543	phospholipid binding	0.85	1	0.2183406	140	0.40430877
4944	GO:0006857	oligopeptide transport	0.85	1	0.2183406	141	0.4071967
8676	GO:0015294	solute:cation symporter ac	0.85	1	0.2183406	141	0.4071967
9099	GO:0015833	peptide transport	0.85	1	0.2183406	141	0.4071967
4897	GO:0006793	phosphorus metabolic pro	0.85	33	7.2052402	2925	8.4471655
4900	GO:0006796	phosphate metabolic proc	0.85	33	7.2052402	2925	8.4471655
2986	GO:0004252	serine-type endopeptidase	0.85	1	0.2183406	144	0.41586044
9801	GO:0016747	transferase activity, transf	0.86	4	0.8733624	456	1.3168914
9911	GO:0016879	ligase activity, forming ca	0.86	4	0.8733624	456	1.3168914
8494	GO:0015075	ion transmembrane transp	0.86	8	1.7467248	827	2.3883097
30306	GO:0071944	cell periphery	0.86	2	0.4366812	259	0.74797124
30204	GO:0071840	cellular component organi	0.86	3	0.65502185	362	1.045427
9285	GO:0016043	cellular component organi	0.86	2	0.4366812	261	0.7537471
16603	GO:0034220	ion transmembrane transp	0.86	8	1.7467248	833	2.4056373
4612	GO:0006468	protein phosphorylation	0.86	24	5.240175	2205	6.367863
19533	GO:0043234	protein complex	0.87	8	1.7467248	848	2.448956
9114	GO:0015849	organic acid transport	0.88	1	0.2183406	156	0.45051548
22443	GO:0046942	carboxylic acid transport	0.88	1	0.2183406	156	0.45051548
8496	GO:0015078	hydrogen ion transmembr	0.88	1	0.2183406	160	0.4620672
8943	GO:0015672	monovalent inorganic cati	0.88	3	0.65502185	383	1.1060733
5764	GO:0008234 GO:0004220	cysteine-type peptidase a	0.89	1	0.2183406	163	0.47073093
9493	GO:0016310	phosphorylation	0.89	27	5.8951964	2504	7.2313514
9913	GO:0016881	acid-amino acid ligase ac	0.89	3	0.65502185	391	1.1291766
30205	GO:0071841	cellular component organi	0.89	2	0.4366812	285	0.8230572
9823	GO:0016772	transferase activity, transf	0.90	20	4.366812	1932	5.579461
3341	GO:0004722 GO:0000158	protein serine/threonine p	0.90	1	0.2183406	171	0.4938343
3156	GO:0004497	monooxygenase activity	0.90	1	0.2183406	172	0.49672222
4916	GO:0006818	hydrogen transport	0.90	2	0.4366812	292	0.84327257
9246	GO:0015992	proton transport	0.90	2	0.4366812	292	0.84327257
8675	GO:0015293	symporter activity	0.90	1	0.2183406	173	0.49961013
2657	GO:0003727 GO:0003728	single-stranded RNA bind	0.92	1	0.2183406	188	0.54292893
31895	GO:0090304	nucleic acid metabolic pro	0.92	24	5.240175	2340	6.5777324
30069	GO:0071705	nitrogen compound transp	0.93	1	0.2183406	202	0.5833598
12572	GO:0022890 GO:0015082	inorganic cation transmem	0.94	2	0.4366812	332	0.9587894
20487	GO:0044237	cellular metabolic process	0.94	95	20.742357	8185	23.637625
4911	GO:0006812 GO:0006813	cation transport	0.94	5	1.091703	662	1.9118029
21058	GO:0045454 GO:0030503	cell redox homeostasis	0.94	1	0.2183406	211	0.6093511
5766	GO:0008236	serine-type peptidase acti	0.94	1	0.2183406	214	0.6180149
5791	GO:0008270	zinc ion binding	0.94	18	3.930131	1880	5.4292893
10103	GO:0017171	serine hydrolase activity	0.95	1	0.2183406	220	0.63534236
13531	GO:0031072	heat shock protein binding	0.95	1	0.2183406	230	0.6642216
11695	GO:0019725	cellular homeostasis	0.96	1	0.2183406	234	0.67577326
18925	GO:0042592	homeostatic process	0.96	1	0.2183406	238	0.68732494
8211	GO:0012505	endomembrane system	0.96	1	0.2183406	242	0.6988766
4909	GO:0006810 GO:0015457	transport	0.96	22	4.8034935	2315	6.6855345
25529	GO:0051234	establishment of localizat	0.96	22	4.8034935	2315	6.6855345
25476	GO:0051179	localization	0.96	22	4.8034935	2319	6.697086
5661	GO:0008092	cytoskeletal protein bindi	0.96	1	0.2183406	249	0.719092
4609	GO:0006464	protein modification proce	0.97	27	5.8951964	2781	8.031305
12573	GO:0022891	substrate-specific transme	0.97	10	2.183406	1241	3.5839086
3955	GO:0005634	nucleus	0.97	12	2.6200874	1433	4.138389
9266	GO:0016020	membrane	0.97	38	8.296944	3741	10.803708
9579	GO:0016462	pyrophosphatase activity	0.97	7	1.5283843	954	2.7550755
3884	GO:0005524	ATP binding	0.97	3	0.65502185	524	1.51327
9859	GO:0016818	hydrolase activity, acting	0.97	7	1.5283843	956	2.7608514
20532	GO:0044282	small molecule catabolic p	0.97	6	1.3100437	854	2.4662836
9858	GO:0016817	hydrolase activity, acting	0.97	7	1.5283843	959	2.769515
5840	GO:0008324	cation transmembrane tra	0.97	3	0.65502185	538	1.5537009
13041	GO:0030554	adenyl nucleotide binding	0.98	3	0.65502185	550	1.5883559
14965	GO:0032559	adenyl ribonucleotide bind	0.98	3	0.65502185	550	1.5883559
12516	GO:0022804	active transmembrane tra	0.98	5	1.091703	787	2.2727928
19684	GO:0043412	macromolecule modificati	0.98	27	5.8951964	2900	8.374968
20640	GO:0044446	intracellular organelle part	0.99	4	0.8733624	710	2.0504231
26931	GO:0055085	transmembrane transport	0.99	12	2.6200874	1548	4.4705
28365	GO:0065008	regulation of biological qu	0.99	1	0.2183406	316	0.9125827
20616	GO:0044422	organelle part	0.99	4	0.8733624	712	2.0561988
6425	GO:0009056	catabolic process	0.99	7	1.5283843	1051	3.0352037
19526	GO:0043227	membrane-bounded organ	0.99	18	3.930131	2142	6.185924
19530	GO:0043231	intracellular membrane-bd	0.99	18	3.930131	2142	6.185924
5018	GO:0006950	response to stress	0.99	3	0.65502185	611	1.764519
12547	GO:0022857 GO:0005388	transmembrane transport	0.99	11	2.4017467	1483	4.282785
10058	GO:0017111	nucleoside-triphosphatase	0.99	5	1.091703	878	2.5355935
4408	GO:0006200	ATP catabolic process	0.99	3	0.65502185	641	1.8511566
9918	GO:0016887 GO:0004002	ATPase activity	0.99	3	0.65502185	641	1.8511566
21600	GO:0046034	ATP metabolic process	0.99	3	0.65502185	641	1.8511566
4405	GO:0006195	purine nucleotide cataboli	0.99	4	0.8733624	773	2.232362
6508	GO:0009143	nucleoside triphosphate c	0.99	4	0.8733624	773	2.232362
6509	GO:0009144	purine nucleoside triphos	0.99	4	0.8733624	773	2.232362
6511	GO:0009146	purine nucleoside triphos	0.99	4	0.8733624	773	2.232362
6519	GO:0009154	purine ribonucleotide cata	0.99	4	0.8733624	773	2.232362
6530	GO:0009166	nucleotide catabolic proce	0.99	4	0.8733624	773	2.232362
6567	GO:0009203	ribonucleoside triphospha	0.99	4	0.8733624	773	2.232362
6569	GO:0009205	purine ribonucleoside triph	0.99	4	0.8733624	773	2.232362
6571	GO:0009207	purine ribonucleoside triph	0.99	4	0.8733624	773	2.232362
6624	GO:0009261	ribonucleotide catabolic p	0.99	4	0.8733624	773	2.232362
17034	GO:0034655	nucleobase, nucleoside, r	0.99	4	0.8733624	773	2.232362
17035	GO:0034656	nucleobase, nucleoside a	0.99	4	0.8733624	773	2.232362
22209	GO:0046700	heterocycle catabolic pro	0.99	4	0.8733624	773	2.232362
30879	GO:0072523	purine-containing compou	0.99	4	0.8733624	773	2.232362
17020	GO:0034641	cellular nitrogen compou	0.99	34	7.4235806	3678	10.621769
20520	GO:0044270	cellular nitrogen compou	0.99	4	0.8733624	777	2.2439137
11522	GO:0019538 GO:0006411	protein metabolic process	0.99	39	8.515284	4134	11.938661
7229	GO:0009987 GO:0008151	cellular process	0.99	117	25.54585	10601	30.614838
6563	GO:0009199	ribonucleoside triphospha	0.99	4	0.8733624	790	2.2814567

6515	GO:0009150	purine ribonucleotide met	0.99	4	0.8733624	791	2.2843447
6506	GO:0009141	nucleoside triphosphate m	0.99	4	0.8733624	796	2.2987843
2653	GO:0003723	RNA binding	0.99	4	0.8733624	797	2.3016722
4906	GO:0006807	nitrogen compound metabol	0.99	34	7.4235806	3725	10.757502
12574	GO:0022892	substrate-specific transpo	0.99	10	2.183406	1463	4.2250266
4373	GO:0006163	purine nucleotide metabo	0.99	4	0.8733624	810	2.339215
6622	GO:0009259 GO:000912	ribonucleotide metabolic p	0.99	4	0.8733624	812	2.344991
30877	GO:0072521	purine-containing compou	1.00	4	0.8733624	827	2.3883097
4357	GO:0006139 GO:0055134	nucleobase, nucleoside, r	1.00	28	6.1135373	3285	9.486816
3177	GO:0004518	nuclease activity	1.00	1	0.2183406	427	1.2331418
2627	GO:0003676	nucleic acid binding	1.00	19	4.148472	2453	7.0840673
20517	GO:0044267	cellular protein metabolic	1.00	27	5.8951964	3225	9.313541
3876	GO:0005515 GO:0045308	protein binding	1.00	69	15.065502	6933	20.021948
20498	GO:0044248	cellular catabolic process	1.00	4	0.8733624	894	2.5818002
4027	GO:0005737	cytoplasm	1.00	14	3.0567687	2001	5.7787275
3863	GO:0005488	binding	1.00	155	33.842796	13903	40.15075
18000	GO:0005639	purine ribonucleoside triph	1.00	3	0.65502185	769	2.2208104
19473	GO:0043170 GO:0043283	macromolecule metabolic	1.00	64	13.973799	6553	18.92454
4867	GO:0006753	nucleoside phosphate me	1.00	4	0.8733624	914	2.6395588
6484	GO:0009117	nucleotide metabolic proc	1.00	4	0.8733624	914	2.6395588
15392	GO:0032991	macromolecular complex	1.00	10	2.183406	1616	4.666878
14959	GO:0032553	ribonucleotide binding	1.00	3	0.65502185	795	2.2958963
14961	GO:0032555	purine ribonucleotide bind	1.00	3	0.65502185	795	2.2958963
10033	GO:0017076	purine nucleotide binding	1.00	3	0.65502185	797	2.3016722
3723	GO:0005215 GO:0005478	transporter activity	1.00	12	2.6200874	1844	5.325324
26932	GO:00055086	nucleobase, nucleoside a	1.00	4	0.8733624	944	2.7261963
4109	GO:0005840 GO:0033279	ribosome	1.00	2	0.4366812	682	1.9695613
22007	GO:0046483	heterocycle metabolic pro	1.00	5	1.091703	1094	3.1593843
20510	GO:0044260 GO:0034966	cellular macromolecule m	1.00	51	11.135371	5577	16.105928
18953	GO:0042623	ATPase activity, coupled	1.00	1	0.2183406	537	1.550813
13018	GO:0030529	ribonucleoprotein complex	1.00	2	0.4366812	741	2.1399486
20638	GO:0044444	cytoplasmic part	1.00	9	1.9650655	1644	4.7477403
20618	GO:0044424	intracellular part	1.00	30	6.550218	3853	11.127155
19525	GO:0043226	organelle	1.00	20	4.366812	3013	8.701303
19528	GO:0043229	intracellular organelle	1.00	20	4.366812	3013	8.701303
131	GO:0000166	nucleotide binding	1.00	4	0.8733624	1213	3.5030468
19527	GO:0043228	non-membrane-bounded c	1.00	2	0.4366812	923	2.66555
19531	GO:0043232	intracellular non-membrar	1.00	2	0.4366812	923	2.66555
3903	GO:0005575 GO:0008372	cellular component	1.00	78	17.030567	8515	24.590637
3945	GO:0005622	intracellular	1.00	35	7.6419215	4751	13.720507
3946	GO:0005623	cell	1.00	72	15.720524	8227	23.758917
20657	GO:0044464	cell part	1.00	72	15.720524	8227	23.758917