

Supplemental Data S5. GO analysis of the genes in Supplemental Data S4.

GO level 1	GO level 2	# of gene in S4	Total gene	Percentage	Difference	GO level 1	GO level 2	# of genes	Total # of genes in this study	Percentage
GO Biological Process	other cellular processes	32	34	94.12%	36.57%	GO Biological Process	other cellular processes	10087	17528	57.55%
GO Biological Process	other metabolic processes	28	34	82.35%	28.69%	GO Biological Process	other metabolic processes	9406	17528	53.66%
GO Biological Process	other biological processes	13	34	38.24%	28.35%	GO Biological Process	other biological processes	1733	17528	9.89%
GO Biological Process	response to abiotic or biotic stimulus	12	34	35.29%	25.04%	GO Biological Process	response to abiotic or biotic stimulus	1798	17528	10.26%
GO Cellular Component	chloroplast	14	34	41.18%	23.37%	GO Cellular Component	chloroplast	3121	17528	17.81%
GO Cellular Component	other membranes	14	34	41.18%	22.79%	GO Cellular Component	other membranes	3223	17528	18.39%
GO Molecular Function	transferase activity	12	34	35.29%	21.29%	GO Molecular Function	transferase activity	2454	17528	14.00%
GO Cellular Component	other intracellular components	15	34	44.12%	20.73%	GO Cellular Component	other intracellular components	4099	17528	23.39%
GO Molecular Function	other enzyme activity	13	34	38.24%	19.09%	GO Molecular Function	other enzyme activity	3356	17528	19.15%
GO Cellular Component	plasma membrane	10	34	29.41%	17.70%	GO Cellular Component	plasma membrane	2053	17528	11.71%
GO Molecular Function	protein binding	11	34	32.35%	17.35%	GO Molecular Function	protein binding	2629	17528	15.00%
GO Molecular Function	nucleotide binding	10	34	29.41%	17.03%	GO Molecular Function	nucleotide binding	2170	17528	12.38%
GO Cellular Component	other cytoplasmic components	11	34	32.35%	14.93%	GO Cellular Component	other cytoplasmic components	3054	17528	17.42%
GO Cellular Component	nucleus	10	34	29.41%	14.80%	GO Cellular Component	nucleus	2561	17528	14.61%
GO Molecular Function	kinase activity	7	34	20.59%	12.95%	GO Molecular Function	kinase activity	1339	17528	7.64%
GO Biological Process	response to stress	8	34	23.53%	12.42%	GO Biological Process	response to stress	1947	17528	11.11%
GO Biological Process	protein metabolism	11	34	32.35%	9.79%	GO Biological Process	protein metabolism	3954	17528	22.56%
GO Molecular Function	hydrolase activity	8	34	23.53%	9.47%	GO Molecular Function	hydrolase activity	2464	17528	14.06%
GO Molecular Function	other molecular functions	6	34	17.65%	9.37%	GO Molecular Function	other molecular functions	1451	17528	8.28%
GO Cellular Component	plastid	5	34	14.71%	8.52%	GO Cellular Component	plastid	1084	17528	6.18%
GO Cellular Component	Golgi apparatus	3	34	8.82%	7.52%	GO Cellular Component	Golgi apparatus	229	17528	1.31%
GO Biological Process	transport	6	34	17.65%	7.49%	GO Biological Process	transport	1781	17528	10.16%
GO Cellular Component	mitochondria	4	34	11.76%	5.42%	GO Cellular Component	mitochondria	1112	17528	6.34%
GO Biological Process	signal transduction	4	34	11.76%	5.22%	GO Biological Process	signal transduction	1148	17528	6.55%
GO Molecular Function	DNA or RNA binding	7	34	20.59%	5.15%	GO Molecular Function	DNA or RNA binding	2706	17528	15.44%
GO Molecular Function	transcription factor activity	5	34	14.71%	5.13%	GO Molecular Function	transcription factor activity	1679	17528	9.58%
GO Molecular Function	transporter activity	4	34	11.76%	4.70%	GO Molecular Function	transporter activity	1238	17528	7.06%
GO Cellular Component	cytosol	3	34	8.82%	4.66%	GO Cellular Component	cytosol	730	17528	4.16%
GO Cellular Component	ER	1	34	2.94%	0.81%	GO Cellular Component	ER	373	17528	2.13%
GO Cellular Component	extracellular	1	34	2.94%	0.44%	GO Cellular Component	extracellular	439	17528	2.50%
GO Biological Process	transcription	3	34	8.82%	-0.96%	GO Biological Process	transcription	1714	17528	9.78%
GO Molecular Function	receptor binding or activity	0	34	0.00%	-1.33%	GO Molecular Function	receptor binding or activity	233	17528	1.33%
GO Molecular Function	other binding	8	34	23.53%	-2.24%	GO Molecular Function	other binding	4517	17528	25.77%
GO Cellular Component	other cellular components	7	34	20.59%	-2.44%	GO Cellular Component	other cellular components	4037	17528	23.03%
GO Cellular Component	ribosome	0	34	0.00%	-2.72%	GO Cellular Component	ribosome	476	17528	2.72%
GO Molecular Function	structural molecule activity	0	34	0.00%	-3.07%	GO Molecular Function	structural molecule activity	538	17528	3.07%
GO Cellular Component	cell wall	0	34	0.00%	-3.17%	GO Cellular Component	cell wall	556	17528	3.17%
GO Molecular Function	nucleic acid binding	1	34	2.94%	-6.18%	GO Molecular Function	nucleic acid binding	1599	17528	9.12%
GO Biological Process	unknown biological processes	28	34	82.35%	-9.16%	GO Biological Process	unknown biological processes	16041	17528	91.52%
GO Molecular Function	unknown molecular functions	23	34	67.65%	-19.22%	GO Molecular Function	unknown molecular functions	15226	17528	86.87%