

**Table S4** Gene annotations of BnATGs, biological process, cellular component, and molecular function are sl

Class	GO_Name	GO_ID	GO_Level	P_value	Enrichment Score	Hits	Genes	Counts	In Selected Set
gical	pigosome orga	D:19050	7	0	283.4242424			13	
gical	pigosome as	D:00000	8	0	283.4242424			13	
gical	prole organiza	D:00070	6	0	155.8833333			13	
gical	pianelle asse	D:00709	6	#####	72.50387597			13	
gical	pitable proc	D:00090	3	#####	12.47066667			52	
gical	pi autophagy	D:00069	5	#####	328.1754386			52	
gical	ping autophag	D:00619	3	#####	328.1754386			52	
gical	macroautoph	D:00162	6	#####	239.8205128			13	
gical	pir catabolic	D:00442	4	#####	15.54945968			52	
gical	pndrion disa	D:00617	7	#####	287.7846154			6	
gical	py of mitoch	D:00004	8	#####	287.7846154			6	
gical	nelle disasse	D:19030	6	#####	287.7846154			6	
gical	pembrane fusi	D:00610	6	#####	48.5712431			8	
gical	protein transp	D:00150	8	#####	8.061193708			18	
gical	pnt of protein	D:00451	5	#####	7.906170752			18	
gical	ptein localiza	D:00081	4	#####	7.694775812			18	
gical	ptptide transp	D:00158	7	#####	7.620069251			18	
gical	pmide transpc	D:00428	6	#####	7.579928412			18	
gical	pr metabolic	D:00442	3	#####	1.631590621			70	
gical	pi compound	D:00717	5	#####	6.438134572			18	
gical	pmolecule loca	D:00330	3	#####	6.175635523			18	
gical	pellular proce	D:00099	2	#####	1.300698814			78	
gical	pbrane organi	D:00610	5	#####	20.19541161			8	
gical	pi substance	D:00717	5	#####	5.151275932			18	
gical	pcomponent	D:00226	5	#####	7.66011466			13	
gical	pcomponent di	D:00224	5	#####	26.40225829			6	
gical	pcomponent or	D:00160	4	#####	3.359726997			21	
gical	pndrion orga	D:00070	6	#####	17.13003663			6	
gical	promponent b	D:00440	4	#####	4.92911726			13	
gical	pnt organizat	D:00718	3	#####	3.021134235			21	
gical	nelle organiz	D:00069	5	#####	4.094112497			13	
gical	pular protein	D:00068	9	#####	5.075566409			8	
gical	pi-mediated tr	D:00161	5	#####	5.009305751			8	
gical	pi protein loca	D:00346	5	#####	4.731354137			8	
gical	promolecule	D:00707	4	#####	4.731354137			8	
gical	pitable proc	D:00081	2	#####	1.219706898			70	
gical	picellular tran	D:00469	5	#####	4.043338467			8	
gical	pnt of localiz	D:00516	4	#####	3.963975419			8	
gical	pular localiza	D:00516	3	0.00172	3.596183885			8	
gical	pnsphorylati	D:00163	6	0.0022	2.052672007			18	
gical	pim phosphory	D:00064	8	0.00281	2.128781251			16	
gical	pi transport	D:00068	4	0.02412	1.620713058			18	
gical	pment of loc	D:00512	3	0.02555	1.610434333			18	
gical	pi localization	D:00511	2	0.02741	1.597915688			18	
gical	png compoun	D:00067	5	0.04942	1.492400771			18	

ar comj cytoplasm D:00057	3	0	5.723847518	43
ar comjintracellularD:00056	2	#####	2.033639385	45
ar comjolti apparatD:00057	6	#####	13.79996114	11
ar comjmembrane sD:00125	3	#####	5.494893617	11
ular fu <sup>2</sup> receptor acD:00054	5	#####	85.31864407	8
ular fumolecule acD:00306	4	#####	81.25585149	8
ular fuilar adaptor iD:00600	3	#####	77.5624037	8
ular furotein bindirD:00055	3	#####	2.787957368	39
ular fuctivity, alcolD:00167	5	#####	3.885970631	18
ular fuinase activitD:00163	5	#####	3.690784891	18
ular fuin kinase acD:00046	6	#####	3.834545801	16
ular fu binding D:00054	2	#####	1.386626973	54
ular fuferring phosD:00167	4	#####	3.189482021	18
ular fuivity, acting D:01400	3	#####	2.341887081	19
ular fuATP bindingD:00055	9	#####	2.342846061	18
ular fudrug bindingD:00081	3	#####	2.211282352	18
ular fubonucleotidD:00325	8	#####	2.187969217	18
ular fu nucleotide iD:00305	7	#####	2.183924336	18
ular fueoside triphD:00356	5	0.00149	2.079252089	18
ular fuunion bindinD:00431	4	0.00238	1.892815176	20
ular fubonucleotidD:00325	7	0.00297	1.956600323	18
ular fu nucleotide iD:00170	6	0.00307	1.950388104	18
ular fuucleotide biD:00325	6	0.00339	1.933201905	18
ular fu <sup>2</sup> ate derivatiD:00973	3	0.00386	1.910356504	18
ular fude phosphatD:19012	4	0.00907	1.762781902	18
ular fu <sup>2</sup> leotide bindD:00001	5	0.00907	1.762781902	18
ular fu molecule biD:00360	3	0.01603	1.665476188	18
ular funsferase actiD:00167	3	0.01901	1.636372502	18

hown in yellow, brown, and blue colors, respectively

Hits	Genes	Counts In Background	All Genes	Counts In Selected Set	All Genes	Counts In Background
		22		78		37412
		22		78		37412
		40		78		37412
		86		78		37412
		2000		78		37412
		76		78		37412
		76		78		37412
		26		78		37412
		1604		78		37412
		10		78		37412
		10		78		37412
		10		78		37412
		79		78		37412
		1071		78		37412
		1092		78		37412
		1122		78		37412
		1133		78		37412
		1139		78		37412
		20578		78		37412
		1341		78		37412
		1398		78		37412
		28763		78		37412
		190		78		37412
		1676		78		37412
		814		78		37412
		109		78		37412
		2998		78		37412
		168		78		37412
		1265		78		37412
		3334		78		37412
		1523		78		37412
		756		78		37412
		766		78		37412
		811		78		37412
		811		78		37412
		27527		78		37412
		949		78		37412
		968		78		37412
		1067		78		37412
		4206		78		37412
		3605		78		37412
		5327		78		37412
		5361		78		37412
		5403		78		37412
		5785		78		37412

4128	47	25826
12159	47	25826
438	47	25826
1100	47	25826
80	59	50338
84	59	50338
88	59	50338
11935	59	50338
3952	59	50338
4161	59	50338
3560	59	50338
33226	59	50338
4815	59	50338
6922	59	50338
6555	59	50338
6945	59	50338
7019	59	50338
7032	59	50338
7386	59	50338
9015	59	50338
7849	59	50338
7874	59	50338
7944	59	50338
8039	59	50338
8712	59	50338
8712	59	50338
9221	59	50338
9385	59	50338

Genes Of Selected Set In GO term	corrected p-value (BH method)
5001,GSBRNA2T00005569001,GSBI	0
5001,GSBRNA2T00005569001,GSBI	0
5001,GSBRNA2T00005569001,GSBI	0
5001,GSBRNA2T00005569001,GSBI	2.50E-15
,GSBRNA2T00099058001,GSBRNA	2.50E-15
,GSBRNA2T00099058001,GSBRNA	3.33E-15
,GSBRNA2T00099058001,GSBRNA	3.33E-15
5001,GSBRNA2T00005569001,GSBI	3.33E-15
,GSBRNA2T00099058001,GSBRNA	5.55E-15
A2T00021816001,GSBRNA2T00062	1.26E-13
A2T00021816001,GSBRNA2T00062	1.26E-13
A2T00021816001,GSBRNA2T00062	1.26E-13
A2T00114320001,GSBRNA2T00009	3.96E-11
A2T00021530001,GSBRNA2T00078	3.92E-11
A2T00021530001,GSBRNA2T00078	5.04E-11
A2T00021530001,GSBRNA2T00078	7.37E-11
A2T00021530001,GSBRNA2T00078	8.14E-11
A2T00021530001,GSBRNA2T00078	8.38E-11
,GSBRNA2T00018013001,GSBRNA	1.39E-10
A2T00021530001,GSBRNA2T00078	1.06E-09
A2T00021530001,GSBRNA2T00078	1.97E-09
,GSBRNA2T00028896001,GSBRNA	4.96E-09
A2T00114320001,GSBRNA2T00009	2.58E-08
A2T00021530001,GSBRNA2T00078	2.96E-08
5001,GSBRNA2T00005569001,GSBI	4.81E-08
A2T00021816001,GSBRNA2T00062	3.99E-07
2001,GSBRNA2T00040491001,GSBI	1.84E-06
A2T00021816001,GSBRNA2T00062	4.74E-06
5001,GSBRNA2T00005569001,GSBI	6.31E-06
2001,GSBRNA2T00040491001,GSBI	9.21E-06
5001,GSBRNA2T00005569001,GSBI	4.36E-05
A2T00114320001,GSBRNA2T00009	5.09E-04
A2T00114320001,GSBRNA2T00009	5.39E-04
A2T00114320001,GSBRNA2T00009	7.68E-04
A2T00114320001,GSBRNA2T00009	7.68E-04
,GSBRNA2T00018013001,GSBRNA	9.21E-04
A2T00114320001,GSBRNA2T00009	0.001879937
A2T00114320001,GSBRNA2T00009	0.002031518
A2T00114320001,GSBRNA2T00009	0.003675574
A2T00076779001,GSBRNA2T00028	0.004597
A2T00042895001,GSBRNA2T00076	0.005744189
A2T00021530001,GSBRNA2T00078	0.045217202
A2T00021530001,GSBRNA2T00078	0.04692613
A2T00021530001,GSBRNA2T00078	0.049335092
A2T00076779001,GSBRNA2T00028	0.08391859

001,GSBRNA2T00078561001,GSBR	0
001,GSBRNA2T00009822001,GSBR	7.74E-12
5001,GSBRNA2T00009822001,GSBI	2.00E-09
5001,GSBRNA2T00009822001,GSBI	1.30E-05
A2T00114320001,GSBRNA2T00009	2.60E-12
A2T00114320001,GSBRNA2T00009	1.95E-12
A2T00114320001,GSBRNA2T00009	1.91E-12
001,GSBRNA2T00009822001,GSBR	6.56E-11
A2T00076779001,GSBRNA2T00028	3.06E-06
A2T00076779001,GSBRNA2T00028	5.43E-06
A2T00042895001,GSBRNA2T00076	9.76E-06
,GSBRNA2T00032991001,GSBRNA	1.96E-05
A2T00076779001,GSBRNA2T00028	2.19E-05
5001,GSBRNA2T00076779001,GSBI	7.76E-04
A2T00076779001,GSBRNA2T00028	0.0011163
A2T00076779001,GSBRNA2T00028	0.002108823
A2T00076779001,GSBRNA2T00028	0.002244592
A2T00076779001,GSBRNA2T00028	0.002159728
A2T00076779001,GSBRNA2T00028	0.003633999
A2T00076779001,GSBRNA2T00028	0.004986797
A2T00076779001,GSBRNA2T00028	0.005674677
A2T00076779001,GSBRNA2T00028	0.005633995
A2T00076779001,GSBRNA2T00028	0.005736165
A2T00076779001,GSBRNA2T00028	0.006294859
A2T00076779001,GSBRNA2T00028	0.014252978
A2T00076779001,GSBRNA2T00028	0.014252978
A2T00076779001,GSBRNA2T00028	0.022747524
A2T00076779001,GSBRNA2T00028	0.026139469