

Supplementary Table S13: The GO

Cluster	ID
dDEG	GO:0009813
dDEG	GO:0052696
dDEG	GO:0005887
dDEG	GO:0080043
dDEG	GO:0080044
dDEG	GO:0016747
dDEG	GO:0043231
dDEG	GO:0005506
dDEG	GO:0055085
dDEG	GO:0008271
dDEG	GO:0042626
dDEG	GO:0016709
dDEG	GO:0015698
dDEG	GO:0034220
dDEG	GO:0043565
dDEG	GO:0052691
dDEG	GO:0044550
dDEG	GO:0004197
dDEG	GO:1902358
dDEG	GO:0006624
dDEG	GO:0033356
dDEG	GO:2000033
dDEG	GO:0019538
dDEG	GO:0015171
uDEG	GO:0010951
uDEG	GO:0004553
uDEG	GO:0005576
uDEG	GO:0004866
uDEG	GO:0009733
uDEG	GO:0020037
uDEG	GO:0009607
uDEG	GO:0004601
uDEG	GO:0005623
uDEG	GO:0005975
uDEG	GO:0009522
uDEG	GO:0098869
uDEG	GO:0005618
uDEG	GO:0030247
uDEG	GO:0046914
uDEG	GO:0009055
uDEG	GO:0031408
uDEG	GO:0042744
uDEG	GO:0009664
uDEG	GO:0005764
uDEG	GO:0046148

uDEG	GO:0015840
uDEG	GO:0019008
uDEG	GO:0006979
uDEG	<u>GO:0046916</u>

enrichment analysis of differentially expressed genes between Gmdrm and WT. d

Description	GeneRatio
flavonoid biosynthetic process	39/1946
flavonoid glucuronidation	32/1946
integral component of plasma membrane	50/1946
quercetin 3-O-glucosyltransferase activity	30/1946
quercetin 7-O-glucosyltransferase activity	30/1946
transferase activity, transferring acyl groups other than amino-acyl grc	32/1946
intracellular membrane-bounded organelle	36/1946
iron ion binding	52/1946
transmembrane transport	58/1946
secondary active sulfate transmembrane transporter activity	8/1946
ATPase activity, coupled to transmembrane movement of substances	23/1946
oxidoreductase activity, acting on paired donors, with incorporation of	22/1946
inorganic anion transport	5/1946
ion transmembrane transport	11/1946
sequence-specific DNA binding	63/1946
UDP-arabinopyranose mutase activity	4/1946
secondary metabolite biosynthetic process	22/1946
cysteine-type endopeptidase activity	12/1946
sulfate transmembrane transport	7/1946
vacuolar protein processing	4/1946
UDP-L-arabinose metabolic process	4/1946
regulation of seed dormancy process	4/1946
protein metabolic process	7/1946
amino acid transmembrane transporter activity	16/1946
negative regulation of endopeptidase activity	28/3046
hydrolase activity, hydrolyzing O-glycosyl compounds	56/3046
extracellular region	80/3046
endopeptidase inhibitor activity	16/3046
response to auxin	57/3046
heme binding	91/3046
response to biotic stimulus	20/3046
peroxidase activity	39/3046
cell	29/3046
carbohydrate metabolic process	78/3046
photosystem I	14/3046
cellular oxidant detoxification	40/3046
cell wall	68/3046
polysaccharide binding	29/3046
transition metal ion binding	24/3046
electron carrier activity	39/3046
oxylipin biosynthetic process	12/3046
hydrogen peroxide catabolic process	28/3046
plant-type cell wall organization	20/3046
lysosome	14/3046
pigment biosynthetic process	6/3046

urea transport	4/3046
molybdopterin synthase complex	4/3046
response to oxidative stress	42/3046
cellular transition metal ion homeostasis	22/3046

lDEG and uDEG represent down-regulated and up-regulated genes, respective

BgRatio	pvalue	p.adjust	qvalue
202/36123	3.30E-12	3.69E-09	3.43E-09
179/36123	2.12E-09	9.68E-07	9.01E-07
371/36123	2.60E-09	9.68E-07	9.01E-07
168/36123	6.84E-09	1.53E-06	1.42E-06
168/36123	6.84E-09	1.53E-06	1.42E-06
195/36123	1.83E-08	3.41E-06	3.17E-06
260/36123	2.14E-07	3.42E-05	3.18E-05
519/36123	1.44E-05	0.00201232	0.001871926
632/36123	6.07E-05	0.007535348	0.007009626
29/36123	0.000108338	0.012112135	0.011267102
184/36123	0.000153816	0.015633345	0.014542646
178/36123	0.000248827	0.022345447	0.020786463
12/36123	0.000259831	0.022345447	0.020786463
61/36123	0.000372682	0.029761328	0.027684956
757/36123	0.000455664	0.033962193	0.031592737
8/36123	0.000493296	0.034469087	0.032064267
188/36123	0.000534653	0.035131222	0.032680206
74/36123	0.000565619	0.035131222	0.032680206
29/36123	0.000712303	0.041913424	0.038989231
9/36123	0.000850027	0.043079174	0.040073651
9/36123	0.000850027	0.043079174	0.040073651
9/36123	0.000850027	0.043079174	0.040073651
30/36123	0.000886244	0.043079174	0.040073651
123/36123	0.000952542	0.04437256	0.0412768
84/36123	1.05E-10	1.42E-07	1.34E-07
282/36123	1.37E-09	9.31E-07	8.81E-07
476/36123	2.25E-09	1.01E-06	9.60E-07
42/36123	1.25E-07	4.22E-05	4.00E-05
332/36123	2.07E-07	5.62E-05	5.32E-05
633/36123	3.87E-07	8.75E-05	8.28E-05
71/36123	1.03E-06	0.000199983	0.000189241
206/36123	1.43E-06	0.000241786	0.000228798
147/36123	1.34E-05	0.002019941	0.001911433
570/36123	1.56E-05	0.002119716	0.002005848
50/36123	4.54E-05	0.005141071	0.004864901
246/36123	4.55E-05	0.005141071	0.004864901
505/36123	8.68E-05	0.009053455	0.008567118
166/36123	0.000135117	0.013087037	0.012384023
130/36123	0.000209281	0.018919033	0.017902733
257/36123	0.000249938	0.021182288	0.02004441
46/36123	0.000324886	0.025914451	0.024522369
168/36123	0.000389574	0.029347935	0.027771412
105/36123	0.000447424	0.031931954	0.030216621
62/36123	0.000538248	0.036493188	0.034532834
14/36123	0.000592462	0.038256133	0.036201076

6/36123	0.000658564	0.038826613	0.036740911
6/36123	0.000658564	0.038826613	0.036740911
300/36123	0.000821953	0.044911567	0.042498991
126/36123	0.000828016	0.044911567	0.042498991

gly.

geneID	Count
Glyma.01G021700/Glyma.0	39
Glyma.01G021700/Glyma.0	32
Glyma.02G094700/Glyma.0	50
Glyma.01G021700/Glyma.0	30
Glyma.01G021700/Glyma.0	30
Glyma.02G185100/Glyma.0	32
Glyma.01G021700/Glyma.0	36
Glyma.01G061100/Glyma.0	52
Glyma.01G033700/Glyma.0	58
Glyma.02G095500/Glyma.0	8
Glyma.01G154400/Glyma.0	23
Glyma.01G061100/Glyma.0	22
Glyma.03G222300/Glyma.0	5
Glyma.02G094700/Glyma.0	11
Glyma.01G041700/Glyma.0	63
Glyma.04G159700/Glyma.0	4
Glyma.01G061100/Glyma.0	22
Glyma.04G190700/Glyma.0	12
Glyma.02G095500/Glyma.0	7
Glyma.05G055700/Glyma.1	4
Glyma.04G159700/Glyma.0	4
Glyma.04G150500/Glyma.1	4
Glyma.06G162200/Glyma.0	7
Glyma.03G063900/Glyma.0	16
Glyma.03G068200/Glyma.0	28
Glyma.01G142400/Glyma.0	56
Glyma.01G050100/Glyma.0	80
Glyma.03G068200/Glyma.0	16
Glyma.01G167000/Glyma.0	57
Glyma.01G163100/Glyma.0	91
Glyma.01G165200/Glyma.0	20
Glyma.01G163100/Glyma.0	39
Glyma.02G082500/Glyma.0	29
Glyma.01G020800/Glyma.0	78
Glyma.02G080800/Glyma.0	14
Glyma.01G163100/Glyma.0	40
Glyma.01G137700/Glyma.0	68
Glyma.01G193100/Glyma.0	29
Glyma.05G203700/Glyma.0	24
Glyma.01G230900/Glyma.0	39
Glyma.03G237300/Glyma.0	12
Glyma.01G163100/Glyma.0	28
Glyma.01G050100/Glyma.0	20
Glyma.04G014700/Glyma.0	14
Glyma.04G121700/Glyma.0	6

Glyma.03G185900/Glyma.0:	4
Glyma.07G235000/Glyma.0'	4
Glyma.01G163100/Glyma.0	42
Glyma.05G203700/Glyma.0'	22
