

**Supplementary Table 2.** The expression level of DEGs relating to anthocyanins biosynthesis.

	Gene ID	Description	Length	Base Mean	log2 FoldChange	pvalue
MYB transcription factors	sunup05G0007570	<i>MYB3R-1</i> -like	1470	56.17	-2.03	0.00
	sunup02G0026430	cyclin-D-binding <i>MYB</i> -like 1 isoform X1	1962	0.53	2.60	0.59
	sunup09G0008700	<i>MYBS3</i> -like	978	1.79	2.78	0.38
	sunup06G0019390	<i>MYB93</i> -like	267	17.47	-2.50	0.02
	sunup06G0021220	<i>MYB5</i>	783	0.53	2.60	0.59
	sunup05G0022150	<i>MYB-HB</i> -like	801	106.54	-3.45	0.00
	sunup02G0018060	<i>MYB26</i> -like	831	45.82	-3.03	0.00
	sunup06G0025430	<i>MYB7</i> -like isoform X1	879	892.62	2.51	0.00
	sunup01G0022810	<i>MYB53</i> -like	1059	48.44	-2.89	0.00
	sunup06G0010820	<i>MYB53</i> -like	1077	9.41	-2.31	0.14
	sunup09G0003920	<i>MYB41</i> -like	1152	310.16	8.06	0.00
	sunup04G0002370	<i>MYB-HB</i> -like	1200	56.60	-2.37	0.00
	sunup09G0008720	<i>MYBS3</i> -like	960	1.05	3.60	0.44
	sunup07G0009500	<i>MYB114</i> -like	582	9.21	-4.05	0.02
	sunup04G0017340	<i>MYB23</i>	651	1.37	-3.83	0.31
	sunup07G0001020	putative MYB family	891	0.52	2.60	0.60
	sunup02G0018910	putative MYB family	903	142.77	-3.21	0.00
	sunup09G0006340	<i>MYB2</i> -like	906	2001.59	-2.93	0.00
	sunup05G0000700	<i>MYB78</i> -like	999	34.50	-2.31	0.00
	sunup01G0004460	<i>MYB20</i> -like	783	1.05	3.60	0.39
	sunup05G0022210	<i>MYB41</i> -like	1029	16.89	-5.98	0.00
	sunup01G0001810	<i>MYB</i> -related transcription factor	714	3.15	5.18	0.06
	sunup02G0004410	SANT/ <i>MYB</i> domain	264	1.47	-3.93	0.28
	sunup05G0001690	<i>MYB</i> transcription factor	969	3.15	5.18	0.06
	sunup10G0000240	<i>MYB</i> -related protein 305-like	579	0.52	2.60	0.60
	sunup05G0016200	<i>MYB78</i> -like	717	124.24	-3.69	0.00
	sunup02G0024550	<i>MYB48</i> -like	564	1179.98	-3.17	0.00
	sunup03G0019640	<i>MYB</i> transcription factor	1044	11.42	-4.38	0.01
	sunup07G0003280	<i>MYB41</i> -like	1071	173.11	-2.50	0.00
	sunup01G0013100	<i>MYB-HB</i> -like	1008	22.41	-2.76	0.01
sunup09G0014150	<i>MYB98</i>	1347	0.53	2.60	0.59	
sunup05G0021740	<i>MYB</i> -related protein	1044	92.70	-3.33	0.00	

		Zm1-like				
	sunup09G0008710	<i>MYBS3</i> -like	879	20.51	4.46	0.00
	sunup09G0017080	MYB-related protein 306	999	317.82	-2.18	0.00
	sunup04G0023950	MYB transcription factor	1095	67.34	-4.35	0.00
bHLH transcription factors	sunup04G0004380	<i>bHLH110</i>	1212	0.95	-3.29	0.45
	sunup07G0012070	putative <i>bHLH041</i>	1461	12.05	-2.04	0.11
	sunup06G0002350	<i>bHLH112</i> -like isoform X1	813	2.57	2.15	0.39
	sunup07G0018850	bHLH146	666	331.55	2.25	0.00
	sunup07G0003030	<i>bHLH112</i> -like isoform X1	1380	179.41	-2.13	0.00
	sunup05G0023250	<i>bHLH162</i>	480	1.26	-3.70	0.34
	sunup05G0011060	<i>bHLH70</i> isoform X3	1191	113.13	2.43	0.00
	sunup01G0023840	<i>bHLH30</i> -like	660	40.11	-2.03	0.01
	sunup02G0015390	<i>bHLH30</i>	1041	86.36	-2.05	0.00
	sunup04G0002000	<i>bHLH93</i> -like	993	409.82	2.17	0.00
	sunup04G0002160	<i>bHLH18</i> -like	1134	1.57	4.18	0.29
	sunup02G0019000	<i>bHLH68</i> isoform X2	1611	214.93	-3.21	0.00
	sunup05G0000060	<i>bHLH91</i> -like	1323	3.21	-5.06	0.06
	sunup09G0017300	putative bHLH family	237	0.47	-2.29	0.64
	sunup09G0011220	<i>bHLH137</i>	888	433.82	2.41	0.00
	sunup04G0015870	<i>bHLH68</i> isoform X2	927	1.05	3.60	0.44
	sunup09G0020550	<i>bHLH53</i> -like	921	5.16	-5.74	0.01
flavonoid biosynthetic pathway	sunup02G0009160	chalcone isomerase	714	5189.91	2.16	0.00
	sunup01G0010560	dihydroflavonol 4- reductase	972	915.55	3.31	0.00
	sunup04G0024070	dihydroflavonol 4- reductase	996	3.05	2.59	0.30
	sunup01G0006270	chalcone synthase	1194	5255.42	2.78	0.00
	sunup06G0005530	flavonol synthase	1008	8972.21	2.36	0.00
	sunup04G0020040	dihydroflavonol 4- reductase	1065	94.05	-2.92	0.00
	sunup03G0008400	chalcone synthase	1179	11336.20	4.63	0.00
sunup04G0005160	naringenin,2- oxoglutarate 3- dioxygenase	1092	6562.36	3.05	0.00	