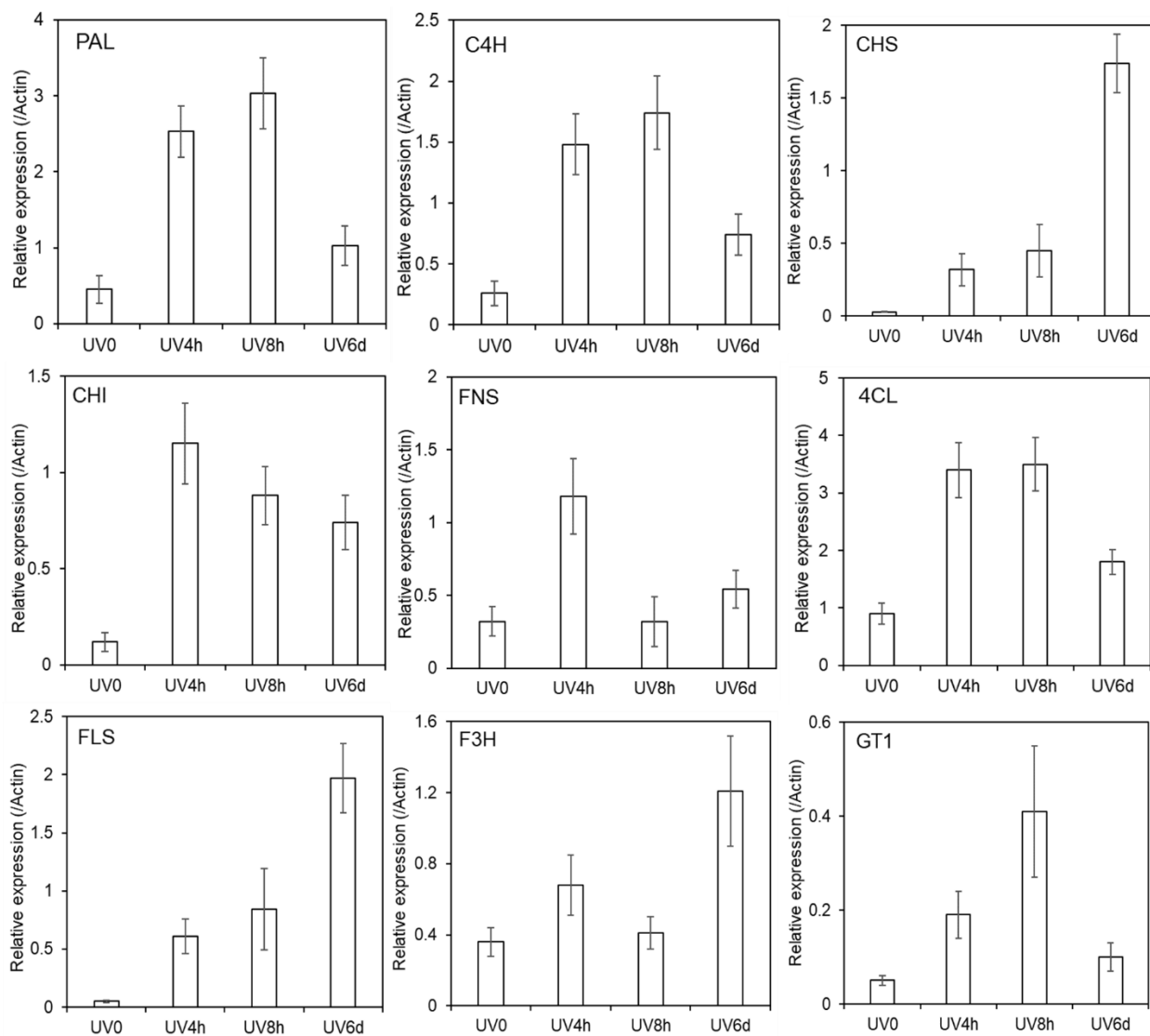
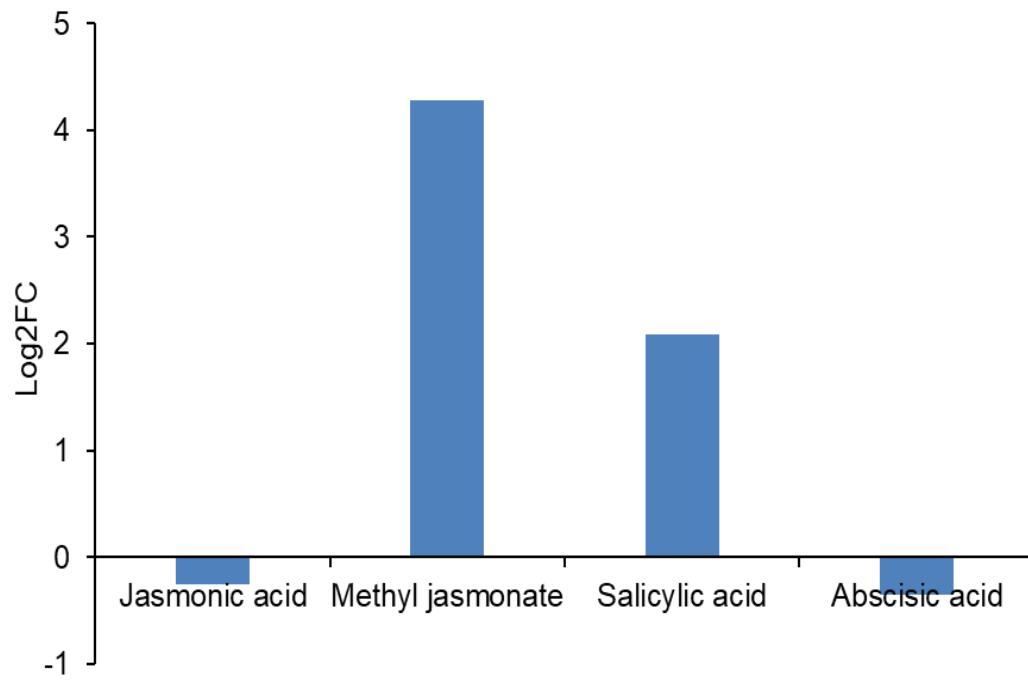


**Figure S1** GO enrichment of DEGs in the comparisons of UV0 versus UV4h (A), UV0 versus UV8h (B), and UV0 versus UV6d (C).



**Figure S2** Validation of genes related to flavonoid biosynthesis by qRT-PCR. Nine genes were selected:

*PAL*, *4CL*, *C4H*, *CHI*, *CHS*, *FNS*, *FLS*, *GT1*, and *F3H*. *Actin* was used as control.



**Figure S3** Changes in plant hormones levels in the comparison of UV0 versus UV6d.

**Table S1 RNA-Seq data statistics of *A. argyi***

Sample	Raw Reads	Clean Reads	Clean Base(G)	Error Rate(%)	Q20(%)	Q30(%)	GC Content(%)
UV0-1	49 882 852	48 178 100	7.23	0.03	98.04	94.04	44.79
UV0-2	52 362 134	49 358 188	7.4	0.03	98.11	94.14	43.14
UV0-3	50 431 796	47 772 232	7.17	0.03	98.02	93.99	44.09
UV4h-1	48 758 378	43 030 048	6.45	0.03	97.92	93.65	44.14
UV4h-2	51 515 640	48 754 544	7.31	0.03	98.01	94.02	43.77
UV4h-3	51 955 540	49 139 208	7.37	0.02	98.27	94.7	43.67
UV8h-1	48 644 040	45 785 968	6.87	0.03	98.09	94.11	43.39
UV8h-2	46 923 082	43 752 900	6.56	0.03	98.09	94.16	44.48
UV8h-3	46 873 258	44 488 018	6.67	0.03	98.09	94.22	44.31
UV6d-1	47 954 586	44 587 432	6.69	0.03	97.93	93.75	43.86
UV6d-2	45 462 664	41 887 562	6.28	0.03	98.11	94.16	44.99
UV6d-3	37 254 316	34 570 128	5.19	0.03	98.19	94.44	43.15

**Table S2 Unigenes annotation of *A. argyi***

Database	Annotated number
GO	68776
KEGG	59854
KOG	74488
NR	79682
Pfam	65307
Tremble	79382
Swiss-Prot	59521

**Table S3 Flavonoids DAMs in *A. argyi* leaves in the comparison of UV0 and UV6d**

Compounds	Class I	Class II	CAS	Level	UV0-1	UV0-2	UV0-3	UV6d-1	UV6d-2	UV6d-3	p_value	FDR	Log2FC	Type
IsoLuteolin (Orobol)(5,7,3',4'- tetrahydroxyisoflavon e)	Flavonoids	Isoflavones	480- 23-9	3	8.86E +04	1.34E +05	8.80E +04	9.00E+0 0	9.00E+0 0	9.00E+0 0	2.11E- 02	5.29 E-02	-1.35E +01	down
Gallocatechin 3-O- gallate	Flavonoids	Flavanols	5127 -64-0	3	2.79E +04	1.66E +04	1.23E +04	9.00E+0 0	9.00E+0 0	9.00E+0 0	5.57E- 02	1.03 E-01	-1.10E +01	down
Tamarixetin (3,3',5,7- Tetrahydroxy-4'- methoxyflavone)	Flavonoids	Flavonols	603- 61-2	2	3.52E +04	4.24E +04	2.09E +04	9.00E+0 0	9.00E+0 0	9.00E+0 0	3.50E- 02	7.44 E-02	- 1.18E+0 1	down
Quercetagenin-3,4'- Dimethyl Ether	Flavonoids	Flavonols	-	2	1.54E +05	2.25E +05	2.17E +05	1.99E+0 4	2.39E+0 4	1.97E+0 4	1.55E- 02	4.60 E-02	-3.23E +00	down
Quercetagenin-3- Methyl Ether	Flavonoids	Flavonols	6419 0-88- 1	3	2.31E +06	2.07E +06	2.37E +06	1.68E+0 5	3.17E+0 5	2.78E+0 5	3.75E- 04	1.07 E-02	- 3.14E+0 0	down
Patuletin (Quercetagenin-6- methyl ether)	Flavonoids	Flavonols	519- 96-0	3	3.87E +06	3.39E +06	3.75E +06	3.27E+0 5	6.09E+0 5	4.75E+0 5	2.02E- 04	9.94 E-03	-2.96E +00	down
Limocitrin (5,7,4'- trihydroxy-8,3'- dimethoxyflavonol)	Flavonoids	Flavonols	489- 33-8	1	3.75E +06	3.97E +06	3.78E +06	7.26E+0 5	1.24E+0 6	1.14E+0 6	8.36E- 04	1.16 E-02	-1.89E +00	down
3,3',5,7- Tetrahydroxy-4',6- Dimethoxyflavone; (Laciniatin)	Flavonoids	Flavonols	7416 1-28- 7	2	3.42E +06	3.56E +06	3.58E +06	7.11E+0 5	1.06E+0 6	1.08E+0 6	6.04E- 04	1.07 E-02	-1.89E +00	down
Isorhamnetin	Flavonoids	Flavonols	480- 19-3	3	2.43E +05	2.38E +05	2.50E +05	6.08E+0 4	8.90E+0 4	8.79E+0 4	1.18E- 03	1.31 E-02	-1.62E +00	down

Quercetin-5-O-glucuronide*	Flavonoids	Flavonols	-	2	1.26E+06	1.06E+06	9.69E+05	4.15E+05	7.50E+05	4.21E+05	1.72E-02	4.84E-02	-1.06E+00	down
Iristectorigenin B	Flavonoids	Isoflavones	3901 2-01-6	1	1.62E+07	1.58E+07	1.63E+07	3.05E+07	3.52E+07	3.22E+07	6.40E-03	2.82E-02	1.02E+00	up
Iristectorigenin A	Flavonoids	Isoflavones	-	2	4.94E+05	4.98E+05	4.64E+05	9.43E+05	1.07E+06	1.01E+06	2.67E-03	1.93E-02	1.05E+00	up
(-)-Maackiain	Flavonoids	Isoflavones	2035 -15-6	3	1.23E+03	1.53E+03	1.85E+03	3.13E+03	3.01E+03	3.64E+03	2.87E-03	2.00E-02	1.08E+00	up
Genistein-7-O-galactoside	Flavonoids	Isoflavones	-	1	3.08E+06	3.08E+06	2.75E+06	6.55E+06	7.19E+06	7.28E+06	6.65E-04	1.11E-02	1.24E+00	up
Sophoricoside	Flavonoids	Isoflavones	152-95-4	1	2.79E+06	2.84E+06	2.85E+06	6.26E+06	6.79E+06	7.28E+06	5.44E-03	2.68E-02	1.26E+00	up
Catechin-5-O-glucoside	Flavonoids	Flavanols	-	3	5.46E+04	4.83E+04	5.74E+04	1.05E+05	1.24E+05	1.04E+05	5.99E-03	2.73E-02	1.06E+00	up
Apigenin-8-C-Arabinoside	Flavonoids	Flavonoid carbonoside	-	3	1.23E+05	1.19E+05	9.24E+04	2.38E+05	2.47E+05	2.77E+05	9.55E-04	1.20E-02	1.19E+00	up
Limocitrin-3-O-arabinoside	Flavonoids	Flavonols	-	1	1.44E+04	1.54E+04	1.40E+04	1.99E+04	3.48E+04	3.44E+04	8.98E-02	1.43E-01	1.03E+00	up
Syringetin-7-O-glucoside	Flavonoids	Flavonols	-	2	7.52E+05	6.74E+05	6.35E+05	1.37E+06	1.49E+06	1.34E+06	3.77E-04	1.07E-02	1.03E+00	up
Laricitrin-3-O-glucoside	Flavonoids	Flavonols	3998 6-90-8	1	1.11E+06	9.93E+05	9.86E+05	2.11E+06	2.32E+06	2.13E+06	4.34E-04	1.07E-02	1.09E+00	up
Kaempferol-7-O-glucoside	Flavonoids	Flavonols	1629 0-07-6	2	5.83E+05	5.35E+05	5.57E+05	1.36E+06	1.01E+06	1.22E+06	2.28E-02	5.61E-02	1.10E+00	up
Kaempferol-3-O-galactoside (Trifolin)	Flavonoids	Flavonols	2362 7-87-4	2	9.30E+05	9.17E+05	8.72E+05	2.23E+06	1.73E+06	1.96E+06	1.65E-02	4.75E-02	1.12E+00	up

Patuletin-3-O-glucoside	Flavonoids	Flavonols	-	1	1.16E+06	8.94E+05	1.00E+06	2.08E+06	2.37E+06	2.27E+06	4.93E-04	1.07E-02	1.14E+00	up
Kaempferol-3-O-(6"-malonyl)galactoside	Flavonoids	Flavonols	-	1	1.49E+06	1.54E+06	1.62E+06	3.61E+06	2.95E+06	3.94E+06	2.02E-02	5.16E-02	1.17E+00	up
Quercetin-3-O-neohesperidoside	Flavonoids	Flavonols	117611-67-3	1	2.05E+05	1.41E+05	1.71E+05	3.04E+05	4.72E+05	4.16E+05	3.24E-02	7.07E-02	1.20E+00	up
Quercetin-7-O-rutinoside	Flavonoids	Flavonols	147714-62-3	3	1.69E+05	1.54E+05	1.19E+05	3.49E+05	3.70E+05	3.30E+05	5.94E-04	1.07E-02	1.25E+00	up
6-C-Methylquercetin-3-O-glucoside	Flavonoids	Flavonols	-	3	3.19E+04	2.12E+04	1.43E+04	3.91E+04	8.35E+04	5.06E+04	1.04E-01	1.59E-01	1.36E+00	up
Kaempferol-3-O-glucoside (Astragalin)	Flavonoids	Flavonols	480-10-4	2	6.20E+06	6.80E+06	6.07E+06	1.80E+07	1.68E+07	1.70E+07	4.93E-05	5.14E-03	1.44E+00	up
Kaempferol-4'-O-glucoside	Flavonoids	Flavonols	-	1	5.78E+06	5.25E+06	5.27E+06	1.44E+07	1.38E+07	1.63E+07	4.64E-03	2.47E-02	1.45E+00	up
Kaempferol-3-O-robinobioside(Biorobin)	Flavonoids	Flavonols	17297-56-2	3	8.79E+05	9.53E+05	8.81E+05	2.41E+06	2.72E+06	2.38E+06	3.33E-03	2.17E-02	1.47E+00	up
Patuletin-3-O-rutinoside	Flavonoids	Flavonols	-	2	1.75E+05	1.60E+05	1.54E+05	3.97E+05	5.68E+05	3.91E+05	3.68E-02	7.70E-02	1.47E+00	up
Isorhamnetin-3-O-sophoroside	Flavonoids	Flavonols	-	3	5.17E+03	6.08E+03	3.41E+03	1.22E+04	1.43E+04	1.47E+04	1.28E-03	1.34E-02	1.49E+00	up
Kaempferol-3-O-neohesperidoside	Flavonoids	Flavonols	32602-81-6	2	2.38E+06	1.85E+06	1.74E+06	4.89E+06	6.31E+06	6.48E+06	8.75E-03	3.44E-02	1.57E+00	up



Kaempferol-3-O-glucorhamnoside	Flavonoids	Flavonols	4043 7-72- 7	2	1.81E +06	1.75E +06	1.68E +06	4.54E+0 6	6.29E+0 6	5.77E+0 6	1.79E- 02	4.96 E-02	1.67E+0 0	up
Kaempferol-3-O-rutinoside(Nicotiflorin)	Flavonoids	Flavonols	1765 0-84- 9	1	1.67E +06	1.63E +06	1.54E +06	4.89E+0 6	5.30E+0 6	5.94E+0 6	5.88E- 03	2.72 E-02	1.74E+0 0	up
Isorhamnetin-3-O-Glucoside*	Flavonoids	Flavonols	5041 -82-7	1	4.01E +06	3.44E +06	3.32E +06	1.30E+0 7	1.17E+0 7	1.27E+0 7	2.84E- 04	1.07 E-02	1.80E+0 0	up
Isorhamnetin-7-O-glucoside (Brassicin)	Flavonoids	Flavonols	6743 -96-0	1	4.35E +06	3.62E +06	3.14E +06	1.30E+0 7	1.19E+0 7	1.39E+0 7	4.69E- 04	1.07 E-02	1.81E+0 0	up
Kaempferol-3-O-arabinoside (Juglanin)	Flavonoids	Flavonols	5041 -67-8	3	2.34E +04	2.93E +04	4.02E +04	1.12E+0 5	9.52E+0 4	1.28E+0 5	4.74E- 03	2.49 E-02	1.85E+0 0	up
Kaempferol-3-O-glucuronide	Flavonoids	Flavonols	2268 8-78- 4	1	2.89E +06	2.31E +06	2.55E +06	9.86E+0 6	9.70E+0 6	9.61E+0 6	7.95E- 05	6.32 E-03	1.91E+0 0	up
Isorhamnetin-3-O-(6"-malonylglucoside)-7-O-glucoside	Flavonoids	Flavonols	-	3	9.39E +03	1.18E +04	7.57E +03	5.81E+0 4	5.77E+0 4	7.23E+0 4	5.56E- 03	2.69 E-02	2.71E+0 0	up
Quercetin-3-O-robinobioside	Flavonoids	Flavonols	5252 5-35- 6	1	1.48E +05	2.27E +05	1.80E +05	1.49E+0 6	1.17E+0 6	1.21E+0 6	6.13E- 03	2.77 E-02	2.80E+0 0	up
Quercetin-3-O-rutinoside (Rutin)	Flavonoids	Flavonols	153- 18-4	1	1.10E +05	1.57E +05	1.13E +05	9.82E+0 5	7.99E+0 5	1.00E+0 6	4.43E- 03	2.43 E-02	2.87E+0 0	up
Quercetin-3-O-(4"-O-glucosyl)rhamnoside	Flavonoids	Flavonols	5926 2-54- 3	3	8.08E +05	1.23E +06	9.06E +05	7.06E+0 6	7.92E+0 6	7.46E+0 6	1.86E- 04	9.94 E-03	2.93E+0 0	up
Isorhamnetin-3-O-arabinoside	Flavonoids	Flavonols	-	2	9.86E +03	7.54E +03	1.80E +04	9.22E+0 4	1.14E+0 5	9.04E+0 4	3.17E- 03	2.12 E-02	3.07E+0 0	up

Isohyperoside	Flavonoids	Flavonols	3558 9-21- 0	1	5.74E +05	5.09E +05	5.24E +05	4.35E+0 6	6.50E+0 6	3.69E+0 6	3.66E- 02	7.66 E-02	3.18E+0 0	up
Quercetin-4'-O- glucoside (Spiraeoside)*	Flavonoids	Flavonols	2022 9-56- 5	1	6.52E +05	4.82E +05	5.46E +05	5.04E+0 6	5.17E+0 6	5.37E+0 6	2.43E- 05	3.89 E-03	3.21E+0 0	up
Quercetin-5-O-β-D- glucoside	Flavonoids	Flavonols	-	1	4.15E +06	3.40E +06	3.45E +06	3.59E+0 7	3.43E+0 7	3.90E+0 7	1.31E- 03	1.34 E-02	3.31E+0 0	up
Isoquercitrin	Flavonoids	Flavonols	2163 7-25- 2	1	4.04E +06	3.93E +06	3.00E +06	3.60E+0 7	3.64E+0 7	3.70E+0 7	2.29E- 07	2.37 E-04	3.32E+0 0	up
Quercetin-7-O- glucoside*	Flavonoids	Flavonols	491- 50-9	1	3.63E +05	3.22E +05	3.62E +05	3.82E+0 6	3.16E+0 6	3.61E+0 6	3.56E- 03	2.27 E-02	3.34E+0 0	up
Quercetin-3-O- glucoside (Isoquercitrin)*	Flavonoids	Flavonols	482- 35-9	1	3.17E +05	3.31E +05	3.41E +05	5.89E+0 6	4.64E+0 6	5.22E+0 6	5.30E- 03	2.63 E-02	3.99E+0 0	up
Quercetin3,7- diglucoside	Flavonoids	Flavonols	-	2	5.59E +03	6.51E +03	6.10E +03	1.14E+0 5	9.47E+0 4	9.28E+0 4	4.85E- 03	2.53 E-02	4.05E+0 0	up
Avicularin(Quercetin- 3-O-α-L- arabinofuranoside)	Flavonoids	Flavonols	572- 30-5	1	2.07E +04	3.21E +04	3.32E +04	6.21E+0 5	6.47E+0 5	6.38E+0 5	6.05E- 06	2.08 E-03	4.47E+0 0	up
Quercetin-3-O- xyloside (Reynoutrin)	Flavonoids	Flavonols	549- 32-6	3	3.85E +04	3.25E +04	4.29E +04	7.95E+0 5	8.55E+0 5	8.92E+0 5	1.09E- 03	1.29 E-02	4.48E+0 0	up
6-C-Methylquercetin- 3-O-rutinoside	Flavonoids	Flavonols	-	3	9.00E +00	9.00E +00	9.00E +00	1.07E+0 4	8.63E+0 4	1.02E+0 4	2.93E- 01	3.71 E-01	1.20E+0 1	up
4',5,7-Trihydroxy- 3',6- dimethoxyflavone (Jaceosidin)	Flavonoids	Flavones	1808 5-97- 7	1	5.17E +05	5.01E +05	5.26E +05	9.73E+0 5	1.10E+0 6	1.05E+0 6	3.98E- 03	2.33 E-02	1.02E+0 0	up

Chrysoeriol-7-O-(2"-O-glucuronyl)glucuronide	Flavonoids	Flavones	-	3	3.45E+05	3.44E+05	3.13E+05	5.92E+05	7.22E+05	7.44E+05	1.43E-02	4.40E-02	1.04E+00	up
Dihydroxy-dimethoxyflavone-7-O-glucoside	Flavonoids	Flavones	-	3	1.65E+04	9.21E+03	2.25E+04	3.69E+04	3.15E+04	3.24E+04	2.96E-02	6.61E-02	1.07E+00	up
Apigenin-7-O-rutinoside (Isorhoifolin)	Flavonoids	Flavones	552-57-8	1	4.49E+06	3.63E+06	3.65E+06	8.17E+06	8.93E+06	7.88E+06	5.01E-04	1.07E-02	1.09E+00	up
Apigenin-7-O-(6"-p-Coumaryl)glucoside	Flavonoids	Flavones	-	1	4.87E+06	5.44E+06	5.52E+06	1.04E+07	1.15E+07	1.17E+07	1.30E-03	1.34E-02	1.09E+00	up
Rhoifolin	Flavonoids	Flavones	1730-6-46-6	2	5.05E+06	4.86E+06	3.96E+06	9.93E+06	1.27E+07	8.78E+06	3.00E-02	6.67E-02	1.18E+00	up
Luteolin-7-O-(6"-malonyl)glucoside	Flavonoids	Flavones	-	3	8.08E+04	6.41E+04	7.65E+04	1.72E+05	1.59E+05	1.78E+05	2.27E-04	1.02E-02	1.20E+00	up
Apigenin-7-O-(2"-glucucrosyl)glucuronide	Flavonoids	Flavones	7469-6-01-8	1	2.87E+06	2.58E+06	2.46E+06	6.71E+06	7.49E+06	7.47E+06	6.95E-04	1.11E-02	1.45E+00	up
Luteolin-4'-O-glucoside	Flavonoids	Flavones	6920-38-3	3	6.63E+06	7.27E+06	5.21E+06	1.74E+07	1.65E+07	1.85E+07	1.93E-04	9.94E-03	1.45E+00	up
Luteolin-7-O-rutinoside	Flavonoids	Flavones	3563-98-2	1	2.07E+06	1.51E+06	1.50E+06	4.19E+06	5.66E+06	4.50E+06	1.09E-02	3.85E-02	1.50E+00	up
Chrysoeriol-7-O-rutinoside	Flavonoids	Flavones	-	3	3.40E+03	7.94E+03	5.97E+03	2.12E+04	9.44E+03	1.92E+04	8.28E-02	1.35E-01	1.53E+00	up
Luteolin-7-O-β-D-glucopyranoside	Flavonoids	Flavones	-	3	6.49E+06	5.64E+06	5.41E+06	1.71E+07	1.71E+07	1.83E+07	3.18E-05	4.11E-03	1.58E+00	up

Luteolin-7-O-glucoside (Cynaroside)	Flavonoids	Flavones	-	1	4.99E+06	5.26E+06	4.74E+06	1.51E+07	1.30E+07	1.70E+07	1.20E-02	4.06E-02	1.59E+00	up
Jaceosidin-7-O-Glucoside	Flavonoids	Flavones	2547 4-11-7	3	4.45E+06	3.61E+06	3.71E+06	1.12E+07	1.30E+07	1.20E+07	9.25E-04	1.18E-02	1.62E+00	up
Luteolin-7-O-glucuronide-(2→1)-glucuronide	Flavonoids	Flavones	-	1	5.29E+05	4.99E+05	5.44E+05	1.60E+06	1.84E+06	1.58E+06	4.60E-03	2.46E-02	1.67E+00	up
tricin-7-O-Glucoside	Flavonoids	Flavones	3276 9-01-0	1	4.08E+06	3.17E+06	3.55E+06	1.16E+07	1.32E+07	1.06E+07	4.43E-03	2.43E-02	1.71E+00	up
Luteolin-7-O-neohesperidoside (Ionicerin)	Flavonoids	Flavones	2569 4-72-8	1	1.53E+06	1.49E+06	1.19E+06	4.11E+06	5.17E+06	4.82E+06	4.74E-03	2.49E-02	1.74E+00	up
5,2'-Dihydroxy-7,8-dimethoxyflavone	Flavonoids	Flavones	4106 0-16-6	2	4.97E+04	3.15E+04	4.49E+04	1.40E+05	1.41E+05	1.49E+05	5.00E-04	1.07E-02	1.77E+00	up
Tetahydroxyflavone-7-O-glucuronide	Flavonoids	Flavones	-	3	2.91E+06	1.97E+06	2.42E+06	9.10E+06	1.05E+07	8.68E+06	1.66E-03	1.49E-02	1.95E+00	up
Scutellarein-7-O-glucuronosyl-(1->2)-glucuronide	Flavonoids	Flavones	1506 41-65-9	1	3.10E+05	2.42E+05	2.36E+05	9.06E+05	1.25E+06	9.85E+05	1.33E-02	4.24E-02	1.99E+00	up
Hispidulin-7-O-(6"-O-p-Coumaroyl)Glucoside	Flavonoids	Flavones	-	2	3.36E+05	3.15E+05	2.50E+05	1.01E+06	1.52E+06	1.36E+06	2.01E-02	5.14E-02	2.11E+00	up
6-C-MethylKaempferol-3-glucoside	Flavonoids	Flavones	-	1	1.32E+06	1.12E+06	1.04E+06	5.93E+06	6.44E+06	6.15E+06	5.77E-05	5.42E-03	2.41E+00	up

Apigenin-7-O-glucuronide	Flavonoids	Flavones	2974 1-09-1	2	2.22E+05	2.86E+05	2.80E+05	1.31E+06	1.96E+06	1.39E+06	2.36E-02	5.73E-02	2.56E+00	up
Scutellarin	Flavonoids	Flavones	2774 0-01-8	1	3.79E+06	3.61E+06	2.98E+06	2.04E+07	2.28E+07	2.01E+07	1.18E-03	1.31E-02	2.61E+00	up
Luteolin-7-O-glucuronide	Flavonoids	Flavones	2974 1-10-4	1	4.23E+06	3.28E+06	3.05E+06	2.23E+07	2.25E+07	2.57E+07	1.40E-03	1.36E-02	2.74E+00	up
7-Hydroxy-3,5,6,8-tetramethoxyflavone	Flavonoids	Flavones	-	2	2.68E+04	1.44E+04	1.52E+04	1.12E+05	1.54E+05	1.14E+05	1.04E-02	3.75E-02	2.75E+00	up
Baicalin	Flavonoids	Flavones	2196 7-41-9	1	3.81E+06	5.14E+06	4.60E+06	3.39E+07	3.84E+07	3.80E+07	1.10E-03	1.29E-02	3.03E+00	up
Chrysoeriol-5-O-glucoside	Flavonoids	Flavones	-	3	2.51E+04	2.32E+04	2.91E+04	3.03E+05	2.82E+05	2.26E+05	8.31E-03	3.32E-02	3.39E+00	up
Luteolin-3'-O-glucoside	Flavonoids	Flavones	5154 -41-6	2	3.05E+04	2.19E+04	2.29E+04	3.90E+05	3.72E+05	4.65E+05	5.06E-03	2.57E-02	4.03E+00	up
Isosinensetin	Flavonoids	Flavones	1729 0-70-9	3	9.00E+00	9.00E+00	9.00E+00	3.36E+04	4.34E+04	4.06E+04	5.47E-03	2.68E-02	1.21E+01	up
Sinensetin (5,6,7,3',4'-Pentamethoxyflavone)	Flavonoids	Flavones	2306 -27-6	3	9.00E+00	9.00E+00	9.00E+00	1.94E+05	2.21E+05	1.89E+05	2.39E-03	1.81E-02	1.44E+01	up
Dihydrokaempferol-3-O-glucoside	Flavonoids	Flavanonols	1049 -08-8	2	2.63E+05	2.85E+05	2.37E+05	8.90E+05	9.53E+05	8.17E+05	1.66E-03	1.49E-02	1.76E+00	up

Taxifolin-3'-O-glucoside	Flavonoids	Flavanonols	3110 6-05- 5	3	9.00E +00	9.00E +00	9.00E +00	1.26E+0 5	1.06E+0 5	1.00E+0 5	5.13E- 03	2.58 E-02	1.36E+0 1	up
Diosmetin-7-O-(6"-malonyl)glucoside	Flavonoids	Flavanones	-	1	6.61E +04	6.58E +04	6.75E +04	1.17E+0 5	1.72E+0 5	1.22E+0 5	5.73E- 02	1.04 E-01	1.04E+0 0	up
Eriodictyol-3'-O-glucoside	Flavonoids	Flavanones	-	3	1.50E +04	1.32E +04	1.60E +04	4.07E+0 4	4.93E+0 4	4.88E+0 4	4.76E- 03	2.49 E-02	1.65E+0 0	up
eriodictyol 7-O-β-D-glucopyranoside	Flavonoids	Flavanones	-	2	3.18E +05	2.48E +05	2.63E +05	8.00E+0 5	8.85E+0 5	9.25E+0 5	5.75E- 04	1.07 E-02	1.65E+0 0	up
5,4'-Dihydroxy-7-methoxyflavanone (Sakuranetin)	Flavonoids	Flavanones	2957 -21-3	3	3.32E +03	8.87E +03	5.06E +03	1.75E+0 4	2.68E+0 4	1.68E+0 4	2.80E- 02	6.41 E-02	1.82E+0 0	up
Diosmetin-7-O-glucuronide	Flavonoids	Flavanones	3511 0-20- 4	1	3.44E +06	2.76E +06	3.08E +06	1.08E+0 7	1.14E+0 7	1.10E+0 7	1.00E- 05	2.58 E-03	1.84E+0 0	up
Diosmetin-7-O-rutinoside (Diosmin)	Flavonoids	Flavanones	520- 27-4	1	6.01E +05	5.39E +05	4.64E +05	1.44E+0 6	2.76E+0 6	1.94E+0 6	5.79E- 02	1.05 E-01	1.94E+0 0	up
Diosmetin-7-O-Neohesperidoside (Neodiosmin)	Flavonoids	Flavanones	3866 5-01- 9	1	2.43E +05	2.57E +05	1.95E +05	9.00E+0 5	1.20E+0 6	7.71E+0 5	2.76E- 02	6.35 E-02	2.05E+0 0	up
Diosmetin-7-O-galactoside*	Flavonoids	Flavanones	-	1	1.45E +06	1.17E +06	1.40E +06	5.65E+0 6	7.06E+0 6	5.97E+0 6	5.82E- 03	2.72 E-02	2.22E+0 0	up
Diosmetin-7-O-Beta-D-Glucopyranoside*	Flavonoids	Flavanones	2012 6-59- 4	1	1.22E +06	1.16E +06	1.10E +06	5.61E+0 6	5.76E+0 6	5.97E+0 6	1.79E- 04	9.94 E-03	2.32E+0 0	up
Naringenin-4',7-dimethyl ether	Flavonoids	Flavanones	2942 4-96- 2	2	3.31E +04	1.89E +04	2.85E +04	7.97E+0 5	7.84E+0 5	8.56E+0 5	5.54E- 04	1.07 E-02	4.92E+0 0	up

Carthamone	Flavonoids	Chalcones	8657 9-00- 2	2	6.56E +05	6.06E +05	6.89E +05	1.50E+0 6	1.46E+0 6	1.36E+0 6	2.94E- 04	1.07 E-02	1.15E+0 0	up
Okanin-4'-O- glucoside(Marein)	Flavonoids	Chalcones	535- 96-6	2	3.78E +05	2.91E +05	2.65E +05	7.87E+0 5	1.18E+0 6	7.80E+0 5	3.76E- 02	7.77 E-02	1.56E+0 0	up
Phloretin	Flavonoids	Chalcones	60- 82-2	3	2.29E +04	2.32E +04	2.68E +04	1.06E+0 5	1.03E+0 5	7.30E+0 4	2.11E- 02	5.29 E-02	1.95E+0 0	up

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**Table S4 Primers for qRT-PCR analysis**

Unigene ID	Gene name	Forward primer (5'to 3')	Reverse primer (5' to 3')
Aarg13G026130	<i>C4H</i>	CTTGCATTGCCAATCCTCGG	GCAGGCTAAACTGTCCACCT
Aarg01G027820	<i>CHS</i>	CTTTGTTCGGGGATGGAGCT	CCGACTTCCCTCAAGTGTCC
Aarg09G017870	<i>CHI</i>	TAGCTTTCCGGCTGCATCAA	AAGCACTCGTACCACCCAAG
Aarg01G021850	<i>PAL</i>	AGAACGAGAAGGAGGCAAGC	GAGCTCCTCCCTCACAAACC
Aarg0G032040	<i>FNS</i>	CATCCCCGCTGGCACTATAC	GATGCCAGGACACACTCTCC
Aarg07G007850	<i>4CL</i>	AAGCTTGGACAGGGTTACGG	AACTGTCCCACATGCTCCTG
Aarg03G017950	<i>FLS</i>	GAACAACCAGCAACGACCAC	AAGACCCCAATCCTTGCTCG
Aarg07G018490	<i>F3H</i>	ATAGGCTTGGGCTGCAAGTT	TTCAGGCCCAAAGTGAGGTC
Aarg06G021810	<i>GT1</i>	CGGTGTTGCTGGAAAATCCG	GGGACCACACGAAGCGATAT
Aarg16G019470	<i>Actin</i>	ATGTTGGTGACGAGGCTCAG	AACGGGATGCTCTTCTGGTG