

Supplementary Table 2. Transcriptional factors that regulate the genes involved in flavonoid biosynthesis.

Species	Genes	Transcription factors/ complex	Function	References
Thale Cress (<i>Arabidopsis thaliana</i> L.)	<i>CHS, CHI, F3H</i>	MYB11/ MYB12/ MYB111	Induces proanthocyanidin biosynthesis in seedlings	Stracke et al., 2007
	<i>DFR, LDOX, UGT</i>	PAP1/PAP2/MYB113/MYB114 (R2R3-MYBs) TT8/GL3/EGL3 (bHLH) TTG1 (WDR)	Induces anthocyanin biosynthesis in seedlings	Gonzalez et al., 2008
	<i>F3H, DFR, LDOX</i>	PAP1/PAP2/MYB113/MYB114 TT8/GL3/EGL3 TTG1 SPL9	Inhibits anthocyanin biosynthesis	Gou et al., 2011
	<i>F3H, DFR, LDOX, UGT</i>	R3-MYBs/CPC/MYBL2 TT8/GL3/EGL3	Inhibits anthocyanin biosynthesis	Dubos et al., 2008; Matsui et al., 2008; Zhu et al., 2009
Petunia (<i>Petunia × hybrida</i>)	<i>DFR, LDOX, UGT</i>	AN2/AN4 (R2R3-MYB) AN1 (bHLH) AN11 (WDR)	Activates anthocyanin biosynthesis in floral organs	Spelt et al., 2000
	<i>DFR, LDOX, UGT</i>	MYB27 (R2R3-MYB) AN1	Inhibits anthocyanin biosynthesis	Albert et al., 2011
	<i>DFR, LDOX, UGT</i>	MYBx (R2R3-MYB) AN1	Inhibits anthocyanin biosynthesis	Albert et al., 2011
Tobacco (<i>Nicotiana tabacum</i> L.)	<i>DFR, LDOX, UGT</i>	NtAN2 (R2R3-MYB) NtAN1 (bHLH)	Activates anthocyanin biosynthesis in flowers	Bai et al., 2011; Pattanaik et al., 2010
Snapdragon (<i>Antirrhinum majus</i> L.)	<i>DFR, LDOX, UGT</i>	ROSEA1/ ROSEA2/ VENOSA (R2R3-MYB) DELILA/MUTABILIS (bHLH)	Regulates anthocyanin biosynthesis in flowers	Schwinn et al., 2006
Maize (<i>Zea mays</i> L.)	<i>DFR, LDOX, UGT</i>	C1/PL (R2R3-MYB) R/B (bHLH) PAC1 (WD40)	Activates anthocyanin biosynthesis	Carey et al., 2004; Grotewold et al., 2000

Apple (<i>Malus domestica</i> Brokh. 1983)	<i>DFR, LDOX, UGT</i>	MdMYB1/MdMYB10/MdMYBA	Regulates anthocyanin biosynthesis in fruits	Ban et al., 2007; Espley et al., 2007
Grape (<i>Vitis vinifera</i> L.)	<i>LAR1, ANR</i>	MdbHLH3/ MdbHLH33 VvMYBA1/2/5a/5b (R2R3-MYBs)	Activates anthocyanin biosynthesis in skin and seeds	Deluc et al., 2006; Matus et al., 2010; Hichri et al., 2010
Strawberry (<i>Fragaria × ananassa</i> Duchesne)	<i>DFR, LDOX, UGT</i>	VvMYC1/VvMYCA1 (bHLH) VvWDR1/VvWDR2 (WD40) FaMYB10 (R2R3-MYB)	Activates anthocyanin biosynthesis	Lin-Wang et al., 2010
Rice (<i>Oryza sativa</i> L.)	<i>DFR, ANS</i>	FaMYB1 (R2R3-MYB) OsC1-MYB Rc/Rd (bHLH)	Represses anthocyanin biosynthesis Activates anthocyanin biosynthesis in plant shoot	Himi and Taketa, 2015; Hichri et al., 2011
Wheat (<i>Triticum aestivum</i> L.)	<i>DFR</i>	TaC1-A1/ B1/D1	Regulates anthocyanin synthesis in vegetative tissues	Himi and Taketa, 2015
Barley (<i>Hordeum vulgare</i> L.)	<i>DFR</i>	Hvmyb10 HvbHLH1 HvC1	Regulates proanthocyanidin biosynthesis in grains	Himi and Taketa, 2015