

Supplemental Table 1. Primers for RT-PCR. F1 and R1 primers were used for first PCR, and F2 and R2 primers were for second (nested) PCR

Target gene		Sequence
<i>DXS</i>	F1	GGYCCWGTGDGAYGGNCAARYVTHGA
	R1	CCRAANCCYCCWAYDGANCCYTCYTC
	F2	GARCARCAYGCGNGTYACHTTYGCWGC
	R2	GGYTTGCARAAHCRWGCATCNGCWA
<i>IPI</i>	F1	RAGACGYCTHATGTTYGANGAYGAATGCA
	R1	GDAYGGTYTTCATRTCWRHDGCTTCA
	F2	TGGACMAACACHTGTTGYAGCCATCC
<i>GGPS</i>	R2	GWWCCHTTYTSVACATGATCCCACCA
	F1	ATGMGSTAYTCRCTTCTNGCCGNGG
	R1	AYYARRTCYTTTCCRGCDGTYTTHCC
<i>PSY</i>	F2	GCYTGYGCGTGBGARATGATYCAACATGTC
	R2	GTMACATCNARWATRTCATCWACMACYTG
	F1	TGYGGTGAAGTWTGYGCWGARTATGC
<i>PDS</i>	R1	TTRTCRGTYACYTTCWGCRAATAT
	F2	AYGARCTYGTGAYGGGCCWAATGC
	R2	TANAYCTTCTCTYCKNGCATCTTC
<i>Z-ISO</i>	F1	AGCAAGAGAYGTTCTHGGTGGAAAG
	R1	TCCAYTCTTCTGCWGGTGCAAAAAC
	F2	MHGAGGTGTTYATTGCTATGTCAA
<i>ZDS</i>	R2	TGTTYTTSAGTTTTYCTRTCAAACCA
	F1	AAAAGATTTTCATCTTGGGTTTATTTTRSTGGG
	R1	CTTYACGACTTCAAAGCCTCACC
<i>LCYB</i>	F2	TAGAGACAAAGGTGAGGAACCTATTGGAG
	R2	CCAGGCACCAAACAGATGATGTCC
	F1	GADTCDAGGHCDTTYATTGGTGG
<i>LCYE</i>	R1	GYAWYCHGTDACCCARCCATTGT
	F2	ASGTGGRAACCAYATTGAAATGGG
	R2	AGCATRCANCGNGCACTVATGTTATC
<i>CHYB</i>	F1	CTTGCCCTACTATTTGCCCCAGAAATGC
	R1	ACCACTATCAGGAGCAAGGTATCGTC
	F2	CACCAATGATCAATGCAAGCATGGTTC
<i>CHYB/CYP97A</i>	R2	GACCATCTATAGCAGTGGTATTGAAAGGC
	F1	CCWAARYTSATNTGGCCHAAAYAATTA
	R1	CCNCCCATHGGGRATMACACA
<i>CHYE/CYP97C</i>	F2	TGGTGTGGGKKGATGARTTTGA
	R2	YMAGATGKGAATCBCKCCARTCCAT
	F1	AGARGATTWTRTNAARGCYGGTGG
<i>ZEP</i>	R1	SCARRARTTTYCCHGARGCTGC
	F2	TWATYGGTTGTGGYCTGCTGG
	R2	WGCRACAGTARCAAGCCTGCA
<i>CCD1</i>	F1	TCKASYTTKGGRTYACTTCHATGGC
	R1	ACTTCTTCBARYTCCTTDGGTCC
	F2	GRTTYCNTGGCAAATGGAGGG
<i>CCD4</i>	R2	GRACRAACATGTANGCCATHCCAAA
	F1	GCGAGCTGAATTATCTGCTCGTATTGCTTC
	R1	CAACAGATAAAAGGTCCATGTGAGCACTGC
<i>NCED</i>	F2	GCTCAAAAATGGTTTGTCTAAATTGGGTGT
	R2	CGCTATAAGCATTGTCATGAGGTCATCAGC
	F1	CTTTGGACGGCAAGGCCAAGGGC
<i>XES</i>	R1	TCCCTTTGCTTCACTTTTCATGTATAAACCG
	F2	ATCGGGTCTTTTGCAGATGTGCTGAGAG
	R2	TCGTATGAATGGTTGCTCCAGTAGTCATGC
<i>Actin</i>	F1	TTRGAAGCHATTGATWTDGRWGTGCTGA
	R1	TCTTCCACCAACHCKTCCNGGATG
	F2	TGGTTGAYGGYRYYTCTGGNAMYTGGTA
<i>Actin</i>	R2	GCCATGCWCCCHCCTGWCCCA
	F1	TAYCAYMRTTYGAYGGNGAYGGNATG
	R1	TANCGNGGNAARNACNCCNAAYCT
<i>Actin</i>	F1	CARTWYCTMCCNMGBGNCCYTACCA
	R1	AAHCCNNGMACHTYRAACCAYTTCAT
	F2	CCAYYMTTYGACGGNGAYGGNATGCT
<i>Actin</i>	R2	GGRTCNRYYTTNNGGMTGMGCHGTCAT
	F1	CAYCAYTNTTYGAYGGHGAYGGNATG
	R1	TCCCAHGCRTTCCANARATGRAARC
<i>Actin</i>	F2	YCCNAARSCNATHGGNGARCTNCAYGG
	R2	ATHGCGAARTCRTGVAYCATHGTHGG
	F1	TTTTTHATGGGHRATCCDNTKAAGATGGC
<i>Actin</i>	R1	CCAAAYGGYACWATWGTNGCHCCAAA
	F2	TCCCGBMTYCATKCTGTWMAWGCTGAAGT
	R2	CATYCKBAYRAAYTCTKGYTGDYAGGCC
<i>Actin</i>	F1	GARAARATGACNCARATHATGTTYGA
	R1	TTYCTDATRTCACRTRCAYTTCAT

Supplemental Table 2. Primers for *XES* RACE

Plant species	I. D.	Sequence
Petunia and Calibrachoa	GSP1	CTTCAACAAGGGGGACAATTTCTAAACC
	GSP2	CCGGATGTGCTATACCACGAAGTAAAC
	5'end-1F	AAATTTCTGCCCATTTTAAACAGC
	5'end-2F	TCAACAACTTTTGGGACCAATTTGC

Supplemental Table 3. Primers for RT-qPCR

Target gene	Direction	Sequence
<i>DXS</i>	Forward	TTTAGTTGGTGCAGATGGTC
	Reverse	CAACCATGTGCATTAGCTCT
<i>IPI</i>	Forward	GTCCCAGTTGACCAGTTCAC
	Reverse	TGTTCTCGGTTACGTATTT
<i>GGPS1</i>	Forward	GCCTTGTATGGATAACGATG
	Reverse	CCCCTTTAGTTTGTGTAGCA
<i>GGPS2</i>	Forward	GGAAGTGAAGGATTAGTCGC
	Reverse	GTTTTGCCACGTGATCATT
<i>PSY1</i>	Forward	CCAGAGAGAAGAAGGGCTATC
	Reverse	TTCCCACCTATCTAATGCCAT
<i>PSY2</i>	Forward	CAGGCTTTAGATAGGTGGGAG
	Reverse	TGAATGGCTGAATATCGACA
<i>PDS</i>	Forward	ATAAACCCCTGACGAGCTTTC
	Reverse	CCACCTTTTGA CT CGATATG
<i>Z-ISO</i>	Forward	GCAGGTGATATGGTGCTTAGCTCACA
	Reverse	ACTTCAAAGCCTCACCATGTCGTAG
<i>ZDS</i>	Forward	ATAAAGGGGGTGATATAGGG
	Reverse	CGCCATCTGGATCTACTAAA
<i>CRTISO</i>	Forward	GGTGGAGTTGGTGAGATTGCCA
	Reverse	GCTTCACTCCAACAGCTTTGCC
<i>LCYB</i>	Forward	CTATGGATTTGTTGGATTGC
	Reverse	ACTTTAGCCTGGTGG AATTT
<i>LCYE</i>	Forward	AAGATCTTGGGCTTCAAGC
	Reverse	CCTGACTCCACACACCTTTT
<i>CHYB1</i>	Forward	CTCTTCCAGCCATAGCACTT
	Reverse	TAGTCCATCGTGAACGAACA
<i>CHYB2</i>	Forward	GGTGGGCTCATAAAGCTCTA
	Reverse	AAGTCCAGTAGGGCTATTGC
<i>CHYB/CYP97A</i>	Forward	CATTAGACATCATTGGCAAAGCTGTA
	Reverse	CTTTCCAGATAGGTATCTCCCAA ACTG
<i>CHYE/CYP97C</i>	Forward	ATGTTATTGGTCTTGCGCTCTTCA
	Reverse	ACAGATCAGTTGAACGGAGTTCTG
<i>ZEP</i>	Forward	GCTGATGGCATAACGGTCTAA
	Reverse	AAGACGCGGTACCCAACT
<i>CCD1</i>	Forward	GTTTACCTTTGGCTACGCTC
	Reverse	GGGAGATCCATCATAATTGC
<i>CCD4a</i>	Forward	TGATGGAATGCTTCACTC
	Reverse	GGCAGTGAGACCGTTAAAAC
<i>CCD4b</i>	Forward	ACTCGTGGAGCAGTGT CATT
	Reverse	GGGCTAATTTAATTGCAATA
<i>NCED</i>	Forward	GAAGATGATGTGCCATACCA
	Reverse	TTCGGGTGAGCAATCATT
<i>XES</i>	Forward	GGTATAGCACATCCGGCATTGTTTAC
	Reverse	AGCCATTCTGATGAATTCTGGTTGC
<i>Actin</i>	Forward	TCTGGTGTGGTGTGAGTCA
	Reverse	GCAGTGGTGGTGAACATGTA

Supplemental Table 4. Similarity of cDNA sequences between petunia and calibrachoa

Gene	Similarity (%)	Length of compared cDNA (bp)
<i>DXS</i>	92	964
<i>IPI</i>	96	280
<i>GGPS1</i>	94	521
<i>PSY1</i>	95	595
<i>PSY2</i>	96	596
<i>PDS</i>	98	951
<i>Z-ISO</i>	98	459
<i>ZDS</i>	97	842
<i>CRTISO</i>	96	897
<i>LCYB</i>	95	680
<i>LCYE</i>	92	392
<i>CHYB1</i>	96	532
<i>CHYB2</i>	94	530
<i>CHYB/CYP97A</i>	96	993
<i>CHYE/CYP97C</i>	95	1095
<i>ZEP</i>	96	683
<i>CCD1</i>	97	907
<i>CCD4a</i>	94	710
<i>NCED</i>	95	587
<i>XES</i>	91	2133
<i>Actin</i>	92	494