

Supplementary Materials: A PPO Promoter from Betalain-Producing Red Swiss Chard, Directs Petiole- and Root-Preferential Expression of Foreign Gene in Anthocyanins-Producing Plants

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Table S1. Motif analysis of *BvcPPOP* promoter.

Motif Identity	Motif Sequence	Sense Strand	Antisense Strand
CACTFTPPCA1	YACT	17	16
DOFCOREZM	AAAG	20	6
CAATBOX1	CAAT	16	8
EBOXBNNAPA	CANNTG	10	10
MYCCONSENSUSAT	CANNTG	10	10
GT1CONSENSUS	GRWAAW	11	9
GTGANTG10	GTGA	11	6
ARR1AT	NGATT	4	12
GATABOX	GATA	5	10
POLLEN1LELAT52	AGAAA	10	5
ROOTMOTIFTAPOX1	ATATT	10	4
WRKY71OS	TGAC	7	6
IBOX	GATAAG	7	3
TAAAGSTKST1	TAAAG	6	2
ACGTATERD1	ACGT	6	2
POLASIG3	AATAAT	5	2
IBOXCORE	GATAA	3	4
TATABOX5	TTATT	2	5
BIHD1OS	TGCA	4	3
CARGCW8GAT	CWWWWWWWWG	3	3
WBOXHVIS01	TGACT	3	2
WBOXNTERF3	TGACY	3	2
MYBCORE	CNGTTR	1	4
NTBBF1ARROLB	ACTTTA	2	3
RAV1AAT	CAACA	4	1
GT1GMSCAM4	GAAAAA	4	1
CURECORECR	GTAC	2	2
MYBST1	GGATA	1	3
MYBCOREATCYCB1	AACGG	1	3
CCAATBOX1	CCAAT	3	1
GAREAT	TAACAAR	3	1
POLASIG2	AATAAA	2	1
MYBGAHV	TAACAAA	2	1
AMYBOX1	TAACARA	1	2
TATABOX2	TATAAAT	1	2
OSE2ROOTNODULE	CTCTT	1	2
NODCON2GM	CTCTT	1	2
ECCRCAH1	GANTTNC	2	1
RHERPATEXPA7	KCACGW	3	0
ABRELATERD1	ACGTG	1	2
SEF4MOTIFGM7S	RTTTTTR	1	2
REALPHALGLHCB21	AACCAA	1	1
REBETALGLHCB21	CGGATA	0	2

Table S1. *Cont.*

Motif Identity	Motif Sequence	Sense Strand	Antisense Strand
WBOXATNPR1	TTGAC	2	0
MYB1AT	WAACCA	1	1
REBETALGLHCB21	CGGATA	0	2
LTRECOREATCOR15	CCGAC	1	1
CPBCSPOR	TATTAG	0	2
GT1CORE	GGTAA	1	1
OSE1ROOTNODULE	AAAGAT	2	0
RBCSCONSENSUS	AATCCAA	2	0
INRNTPSADB	YTCANTYY	1	1
ACGTABOX	TACGTA	1	1
-300ELEMENT	TGHAAARK	2	0
ERELEE4	AWTTCAAA	0	2
ABRERATCAL	MACGYGB	1	1
MYCATERD1	CATGTG	1	1
MYCATRD22	CACATG	1	1
MARTBOX	TTWTWTTWTT	0	2
SV40COREENHAN	GTGGWWHG	0	2
TATCCAOSAMY	TATCCA	1	1
CACGTGMOTIF	CACGTG	1	1
TATABOX3	TATTAAT	0	1
ASF1MOTIFCAMV	TGACG	1	0
CEREGUBOX2PSLEGA	TGAAAAC	1	0
WBBOXPCWRKY1	TTTGACY	1	0
GCN4OSGLUB1	TGAGTCA	0	1
CAREOSREP1	CAACTC	1	0
BOXCPSAS1	CTCCCAC	1	0
MYB2CONSENSUSAT	YAACKG	0	1
CCA1ATLHCB1	AAMAATCT	0	1
IBOXCORENT	GATAAGR	0	1
MYB1LEPR	GTTAGTT	1	0
CTRMCAMV35S	TCTCTCTCT	0	1
T/GBOXATPIN2	AACGTG	0	1
WUSATAg	TTAATGG	0	1
SP8BFIBSP8BIB	TACTATT	0	1
NAPINMOTIFBN	TACACAT	0	1
L1BOXATPDF1	TAAATGYA	1	0
SEF3MOTIFGM	AACCCA	0	1
SORLIP5AT	GAGTGAG	0	1
SEBFCONSSTPR10A	YTGTCWC	0	1
SREATMSD	TTATCC	0	1
TBOXATGAPB	ACTTTG	1	0
TGTCACACMCUCUMISIN	TGTCACA	0	1
DRE1COREZMRAB17	ACCGAGA	1	0
-10PEHVPSBD	TATTCT	1	0
BOXIINTPATPB	ATAGAA	0	1
CIACADIANLELHC	CAANNNNATC	1	0
ANAERO2CONSENSUS	AGCAGC	1	0

Table S1. *Cont.*

Motif Identity	Motif Sequence	Sense Strand	Antisense Strand
PRECONSCRHSP70A	SCGAYNRNNNNNNN NNNNNNNNNHD	0	1
IRO2OS	CACGTGG	1	0
DRECRTCOREAT	RCCGAC	0	1
CBFHV	RYCGAC	0	1
PYRIMIDINEBOXOSRAMY1A	CCTTTT	0	1
TATCCAYMOTIFOSRAMY3D	TATCCAY	1	0
TATCCACHVAL21	TATCCAC	1	0
TATAPVTRNALEU	TTTATATA	0	1
TATABOX4	TATATAA	1	0

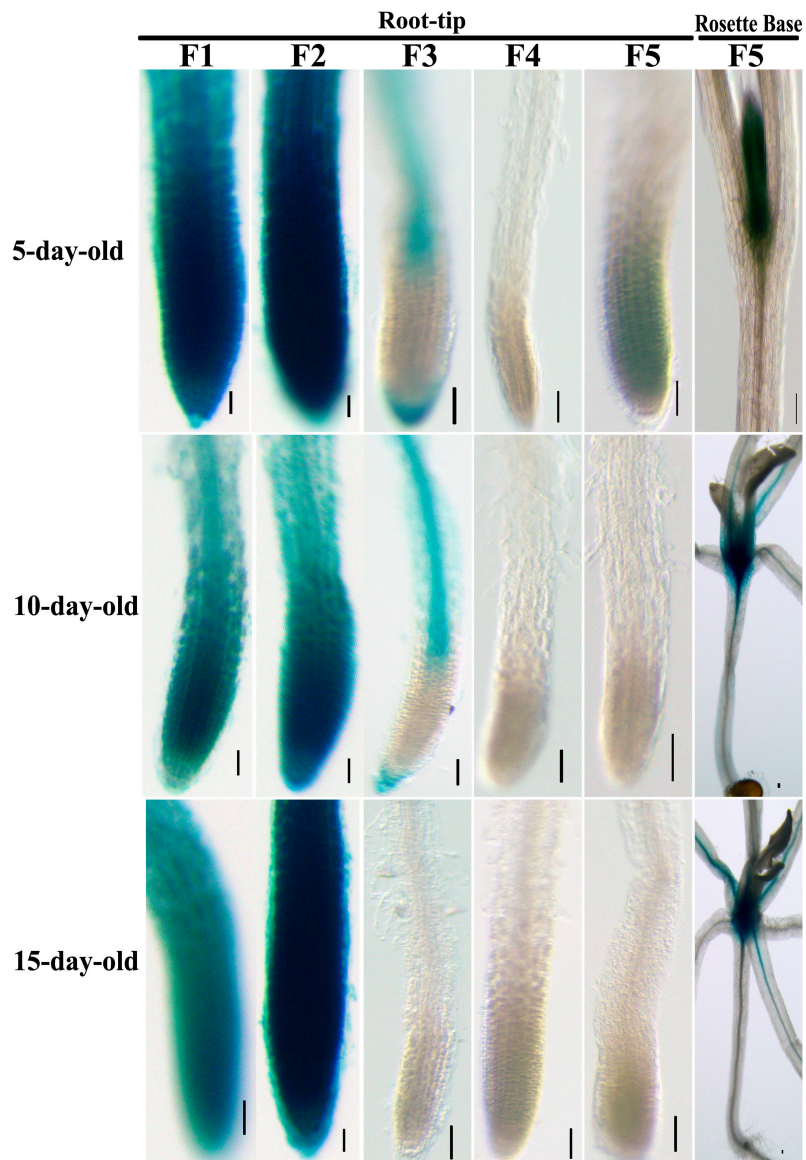


Figure S1. The enlargement of root-tip and rosette base (only for F5) of GUS staining T₃ Arabidopsis. Bar = 100 µm.

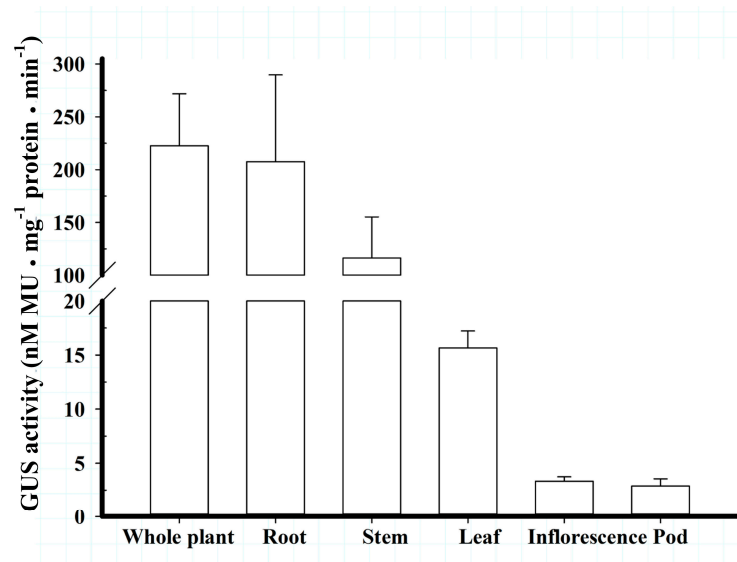


Figure S2. GUS activities of different parts of T₃ *BvcPPOP-GUS* transgenic *Arabidopsis* after anthesis. Data are shown as the means ± SD (*n* = 3).

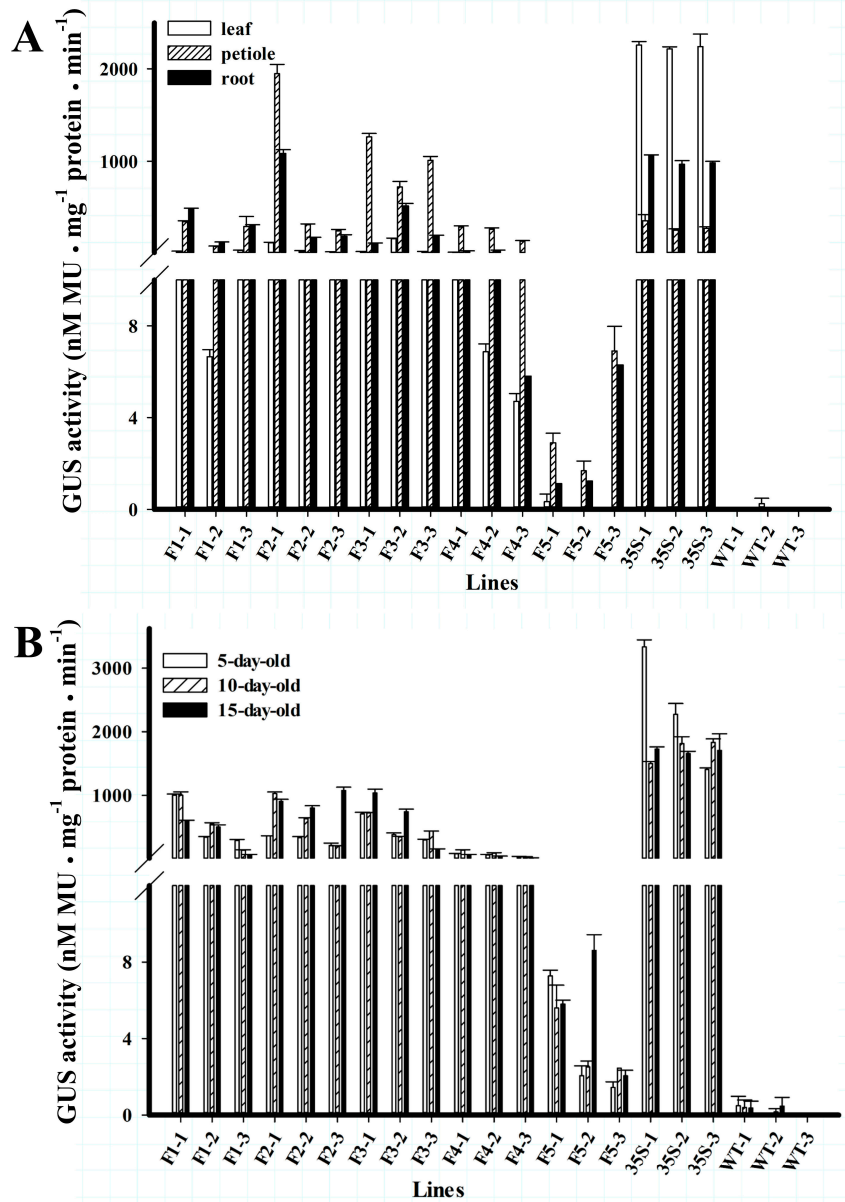


Figure S3. GUS activities of T₃ Arabidopsis. Data are shown as mean value of three replicates for each line \pm SD. Three independent lines of each construct are present. (A) The GUS activity measured in root, petiole and leaf of 15-day-old different constructs transgenic seedlings; (B) The GUS activity driven by serial 5'-truncated *BvcPPOPs* and *CaMV 35S* as well as WT control in different developmental stages.