

Table S1. Specific primers used for genome walking PCR.

Target ^a	Method ^b	Digest ^c	Direction	Length	Sequence (5' to 3') ^d	Anneal
genome (#3)-LB	S (1st)	<i>MboI, XbaI</i>	R	31	AACGCGCAATAATGGTTTCTGACGTATGTGC	65
	S (2nd)		R	30	CCATCCAATTCTCATGTTTGACAGCTTATC	60
genome (#15)-LB	S (1st)	<i>MboI</i>	R	34	AGAAATATTTGCTAGCTGATAGTGACCTTAGGCG	60
	S (2nd)		R	31	AACGCGCAATAATGGTTTCTGACGTATGTGC	65
genome (#19)-LB	S (1st)	<i>MboI</i>	R	31	AACGCGCAATAATGGTTTCTGACGTATGTGC	65
	S (2nd)		R	30	CCATCCAATTCTCATGTTTGACAGCTTATC	60
RB-genome (#3)	I (1st)	<i>TaqI, EcoRI</i>	F	34	TCCTTCAACGTTGCGGTTCTGTGAGTTCCAAACG	63
			R	27	ATCGGTGCGGGCCTCTTCGCTATTACG	
	I (2nd)		F	25	TCAGATTGTCGTTTCCCGCCTTCAG	60
			R	27	ATCGGTGCGGGCCTCTTCGCTATTACG	
RB-genome (#15)	I (1st)	<i>TaqI</i>	F	34	TCCTTCAACGTTGCGGTTCTGTGAGTTCCAAACG	63
			R	27	ATCGGTGCGGGCCTCTTCGCTATTACG	
	I (2nd)		F	25	TCAGATTGTCGTTTCCCGCCTTCAG	60
			R	27	ATCGGTGCGGGCCTCTTCGCTATTACG	
RB-genome (#19)	S (1st)	<i>SpeI, XbaI</i>	F	37	ATGAYGTTATTTATGAGATGGGTTTTTATGATTAGAG	56
	S (2nd)		F	30	AATGAGYTTGYATGYGGTYGGYTGAGTGG	68

^a LB (RB)-genome, T-DNA left (right) border with its boundary region in the gentian genome.

^b S, Straight Walk; I, Inverse-PCR.

^c Restriction enzyme used for genome digestion.

^d Y=C, T.

Table S2. Primers used for bisulfite-PCR in the analysis of methylation of the pSMABR35SsGFP T-DNA region.

Target ^a	Direction	Length	Sequence (5' to 3') ^b	Conc. ^c	Anneal	Product ^d
NOSp- <i>bar</i>	F	26	GGGTTTYTGGAGTTTAATGAGYTAAG	1	57	497
	R	28	TCCARTCRTARRCRTTRCRTRCCTTCCA	5		
<i>bar</i> - <i>rbcsT1</i>	F	28	TGGYTYGTYGYGAGGTGGAYGGYGAGG	5	63	431
	R	30	TTCRATRARTTCCCRACCARCTCCAACCTC	4		
<i>bar</i> - <i>rbcsT2</i>	F	28	AGATYTGAAYGAGTGYGYGTGGYATYG	5	49	403
	R	31	TCAAAARCAARAATTATRARRATAATTTAAA	4		
<i>rbcsT</i>	F	31	TTTAAAYAAAYATTGTGGYTYTTTAAATTAT	4	53	397
	R	35	TAACTAAACAAAATTTCCAAAATTTARTAACTTC	1		
<i>rbcsT</i> -35S	F	30	AAAGAYTGAAATTTGTYAAGYATGAAGTTA	2	52	426
	R	36	AATARTACTTCTRATCTTRARAAATATATCTTTCTC	2		
35S	F	33	AAGAAGGTTAAAGATGYAGTYAAAAGATTYAGG	2	57	462
	R	29	ACCTTCCTTTTCCACTATCTTCACAATAA	0.5		
35S- <i>sGFP</i>	F	32	AGYTATYTGTYAYTTTATTGTGAAGATAGTGG	2	57	423
	R	24	ATCRCCCTCRCCCTCRCCRAC	4		
<i>sGFP</i>	F	27	GAYGTAAAYGGYAYAAAGTTYAGYGTG	5	57	440
	R	30	ATCTTRAARTTCACCTTRATRCRRTTCTTC	4		
<i>sGFP</i> -NOST	F	30	AAYGTYTATATYATGGYYGAYAAGYAGAAG	5	57	448
	R	33	ACTCTAATCATAAAAACCCATCTCATAAATAAC	0.5		
NOST	F	37	ATGAYGTTATTTATGAGATGGGTTTTTATGATTAGAG	1	55	351
	R	34	AACTRACARAACCRCAACRTTRAARRARCCACTC	5		
NOST-RB	F	37	ATGAYGTTATTTATGAGATGGGTTTTTATGATTAGAG	1	55	480
	R	33	AATATATCCTRTCAAACACTRATARTTTAAACT	2		
genome (#3)-LB	F	32	AAGAAAAAATTAGAGGAATATGAGAATATATG	0.5	53	350
genome (#15)-LB	F	37	ATTAAATTAYYAAAATTGAAAAYATGAGTTTATTTGG	2	55	313
genome (#19)-LB	F	33	TAAGGAAYAYGATATTAAYYATAAAGAGAAAAG	2	53	326
genome-LB	R	30	ACTTTTRAACRCRCAATAATRRTTTCTRAC	5		
RB-genome	F	30	AATGAGYTTGYATGYGGTYGGYTGAGTGG	5		
RB-genome (#3)	R	34	ATCCTTCTTCCATTTCCATTATTACAAARTCTAC	1	55	308
RB-genome (#15)	R	32	AAACCCTAAAACATTTTCAATRRATTTCATTT	1	55	337
RB-genome (#19)	R	31	ATCCTTCTCTCTTCTTTATCGACTCAATCAC	1	57	358

^a LB (RB)-genome, T-DNA left (right) border with its boundary region in the gentian genome.

^b Y=C, T; R=A, G.

^c Primer concentration (μM) used for the reaction.

^d Amplified product length (bp).