

Supplementary Table S1. Molecular markers used for *trgI* mapping

Marker name	Primer Sequence (mer)	Chr.	Marker type	Position (bp)	Annealing temp. (°C)	Restriction enzyme	Estimated size on a gel (bp)		Agarose conc. (%)
							Ws	Col+	
nga63	AACCAAGGCACAGAAGCG (18) ACCCAAGTGATCGCCACC (18)	1	SSLP	3,244,463 3,244,573	55		92	118	5
nga248	TCTGTATCTCGGTGAATTCTCC (22) TACCGAACCAAAACACAAAGG (21)	1	SSLP	9,887,359 9,887,503	55		92	109	5
nga280	CTGATCTCACGGACAATAGTGC (22) GGCTCCATAAAAAGTGCACC (20)	1	SSLP	20,877,364 20,877,467	55		92	109	5
F5I14-49495	CTGCCTGAAATTGTCGAAAC (20) GGCATCACAGTTCTGATTCC (20)	1	SSLP	24,374,008 24,374,203	55		295	200	3
14G4	CGTCACCGTTGCCACTTCCGCC (22) CACATATATGGCCACAACCTCTCTGTAG (27)	1	CAPS	25,567,517 25,567,942	65	<i>ScrFI</i>	465	340, 105	2
TJ-5	CTTCTCGCCATAGCTTCA (18) CAGATCCGTCAATAACAG (18)	1	INDEL	25,697,281 25,697,452	53		190	176	4
FJ-4	TCCGACCAACCGTTTCT (18) AAGCCTTACACGCTAACA (18)	1	CAPS	25,755,578 25,754,557	55	<i>BamHI</i>	405, 350, 210	565, 405	2
FN-1	ATAATTCTGTCTGTTGG (18) AAGTGACGAAGATTAACA (18)	1	INDEL	25,982,118 25,982,885	45		1,100	810	1
KNAT2	GGTAGCCATATCAGTTCATTG (21) ATTTAGTTGACACATCAGCTATC (23)	1	CAPS	26,585,436 26,586,066	55	<i>AluI</i>	216, 175, 194, 62	410, 170, 62	4
nga111	TGTTTTTTAGGACAAATGGCG (21) CTCCAGTTGGAAGCTAAAGGG (21)	1	SSLP	27,356,874 27,357,002	55		142	124	4
m246	GCTTGAACTCCTCCTCCTTC (20) TGAAGAGCTATCCGAGATGG (20)	2	CAPS	1,130,867 1,132,341	55	<i>MaeIII</i>	1122, 232	1450	0.8
nga168	TCGTCTACTGCACTGCCG (18) GAGGACATGTATAGGAGCCTCG (22)	2	SSLP	16,298,919 16,299,069	55		140	157	5
nga162	CATGCAATTTGCATCTGAGG (20) CTCTGTCACTCTTTTCTCTGG (22)	3	SSLP	4,608,284 4,608,390	55		88	107	5
nga6	TGGATTTCTTCTCTTTCAC (21) ATGGAGAAGCTTACACTGATC (21)	3	SSLP	23,042,025 23,042,167	55		160	146	5
nga8	GAGGGCAAATCTTTATTTCCG (21) TGGCTTTCGTTTATAAACATCC (22)	4	SSLP	5,628,810 5,628,966	55		165	150	5
nga1107	GCGAAAAACAAAAAATCCA (21) CGACGAATCGACAGAATTAGG (21)	4	SSLP	18,096,131 18,096,282	55		139	148	5
nga151	GTTTTGGGAAGTTTTGCTGG (20) CAGTCTAAAAGCGAGAGTATGATG (24)	5	SSLP	4,669,932 4,670,081	55		102	146	5
nga76	GGAGAAAATGTCCTCTCCACC (22) AGGCATGGGAGACATTTACG (20)	5	SSLP	10,418,614 10,418,844	55		198	234	5

Supplementary Table S2. Primers used for *TRG1/XYL1* (At1g68560) and *trg1-1* mutant allele cloning by PCR

Clone Name	Forward primer	Reverse primer	Appendix
<i>TRG1/trg1</i>	ACAATACACTTGCCTATTAGTGTT	TCATATCCTGAGACTGCCTACCC	For identification of the mutation
<i>TRG1pro:TRG1</i>	<u>CACCGATTCGTCGGCTACGTGGTAT</u>	TGGATCTTCTGGGCTGGACTT	For complementation analysis, transform <i>trg1-1</i>
<i>TRG1pro:GUS</i>	<u>CACCGATTCGTCGGCTACGTGGTAT</u>	CATGGCTATAGAGTGGTACTTIA	For gene expression analysis, transform Ws

CACC sequence underlined is attached to the 5' end of gene specific sequence for cloning with pENTR Directional TOPO vector of Invitrogen.

Supplementary Table S3. Primers used for *TRG1/XYL1* and *trg1-1* sequencing

Primer name	Sequence
U-59	CATTGTCTGGTTTTCTGGCTTGGG
U493	TGCTCAATGCAAACCTTACCTTC
U1061	CATACCAAGAGCGTTACGAGCTGA
U1603	CAGGACCTTCCCCACTTGGACAC
U2211	CAAGAACCGTGGTCCATGTCT
U2739	ACATACCTAAAGACCAGTACGGCA
U3304	GACTTGTGGTGGTTGTTCTCGTGGG
U3713	CCATGGCTATAGAGTGGTACTT

Supplementary Table S4. Primers for gene expression analysis with qRT-PCR

AGI code	Gene name	Sequence	Reference
Reference genes			
At2g20000	<i>HBT</i>	GTATAGCTCCACCACCACTT TCTTCTAGGTGCTTGAAGAGT	Graeber et al., 2011
At2g28390	SAND family	AACTCTATGCAGCATTGATCCACT TGATTGCATATCTTTATCGCCATC	Czechowski et al., 2005
At4g34270	TIP41-like	GTGAAAACCTGTTGGAGAGAAGCAA TCAACTGGATAACCCTTTTCGCA	Czechowski et al., 2005
At5g15710	F-box protein	TTTCGGCTGAGAGGTTTCGAGT GATTCCAAGACGTAAAGCAGATCAA	Czechowski et al., 2005
At2g01010, At3g41768	<i>18S rRNA</i>	CAGATACCGTCCTAGTCTCAACCA CAGCGGAGTCCTATAAGCAACAT	
ABA biosynthesis and catabolism			
At5g67030	<i>ABA1/ZEP</i>	TTGTTTGGCCGTAGTGAAGCT AGACTCGATATCCGCTGGTATAAAA	
At4g18350	<i>NCED2</i>	GCGGCTGAGCGTGCATTAA GGGAATAATTCCCGGCAATCT	
At1g30100	<i>NCED5</i>	CCTCCGTTAGTTTCACCAACACT GGTGTGTCGGAGACGGAGTT	
At1g78390	<i>NCED9</i>	GGAAAACGCCATGATCTCACA AGGATCCGCCGTTTTAGGAT	
At4g19230	<i>CYP707A1</i>	CTCACTCTCTCGCCGGAAG GGAGGGAGTGGGAGTTTGGAA	
At2g29090	<i>CYP707A2</i>	CGTCTCTCACATCGAGCTCCTT GAGGGTGTGATGGACTTTTGG	
At5g45340	<i>CYP707A3</i>	CTCTGTTTCTCTGTTTACTCCCGATTTA CGTATCTTCTCTGTTTTGCTGCA	
GA biosynthesis			
AT1G15550	<i>GA3ox1</i>	GGACAAACCGGGTAGTGATTT ATGGGCCAGTCTCAGTTCAG	
At1g80340	<i>GA3ox2</i>	GTTTCCAAGTGAGAGATGGGTAG TCTCCACTTCCCAAACCTGGT	
α -xylosidase			
AT1G68560	<i>TRG1/XYL1</i>	TTAGCCTCGTCATTGCTTTCC TCCCGGTGGCGTAACCT	

Supplementary Table S5. Primers used for the confirmation of clone sequence for complementation and tissue specific gene expression analyses

Clone Name	Primer Name	Sequence
<i>TRG1pro:TRG1</i>	68560-L1351	CAGCTATCAATCTTAACACTGACC
	68560-L-184	GGTCATCGCATTAAATTCTCAAACAAC
	68560-L1907	GAGTATCTGATTTTCCGACACAAC
	68560-L2574	GTCCGGTTTACTTCCCTGATTT
	68560-L3097	GAACTTCGGTATATTTGGAGTTCC
	68560-L3609	CCAAAACACTATCTTACCAACGCA
	68560-L556	CCATAAGCTAAAGAGGGTTCCGGTT
	68560-L-613	CGAGATGTTACATGCATGTATG
	68560-L825	CTACGGCTCTGATATCACCCT
	68560-U1061	CATACCAAGAGCGTTACGAGCTGA
	68560-U1603	CAGGACCTTCCCCACTTGGACAC
	68560-U2211	CAAGAACCGTGGTCCATGTCT
	68560-U2739	ACATACCTAAAGACCAGTACGGCA
	68560-U4265	GTATTGTAGTGATCTATCATCTATC
	68560-U4794	AATATATACTCCGTGTCCGTGAC
	68560-U493	TGCTCAATGCAAACCTTACCTC
	68560-U5326ws	AACAGTATAAATTTTAAACGGTACAC
	68560-U-551	ACCGGTTTGTCTTCCTAGAGT
	68560-U-775	ATGCATTCCTCACCTGGCTTC
	<i>TRG1pro:GUS</i>	GUS-L1222
GUS-L1540		GCTGCACTCAATGTACACC
GUS-L415		ACTGAACTGGCAGACTATCC
GUS-L880		CTTTGGTCGTCATGAAGATGC
GUS-U309		CTGATGCTCCATCACTTCT
TOPO Vector	M13 forward primer	GTAACACGACGGCCAG
	M13 reverse primer	CAGGAAACAGCTATGAC
pGWB Vector	attB1	ACAAGTTTGTACAAAAAAGCAGGCT
	attB2	CACTTTGTACAAGAAAGCTGGGT