

Fig. S1. Flowering time of GA signaling mutants. Phenotypes (A) and flowering time (B,C) of GA signaling mutants demonstrate the redundant role of DELLA proteins as repressors of flowering. All lines were grown under inductive LD at 23°C. Error bars indicate s.d., n indicates the number of plants analyzed. Significance was calculated using the unpaired Student's t-test: * $P<0.05$, ** $P<0.01$, *** $P<0.001$.

Promoter

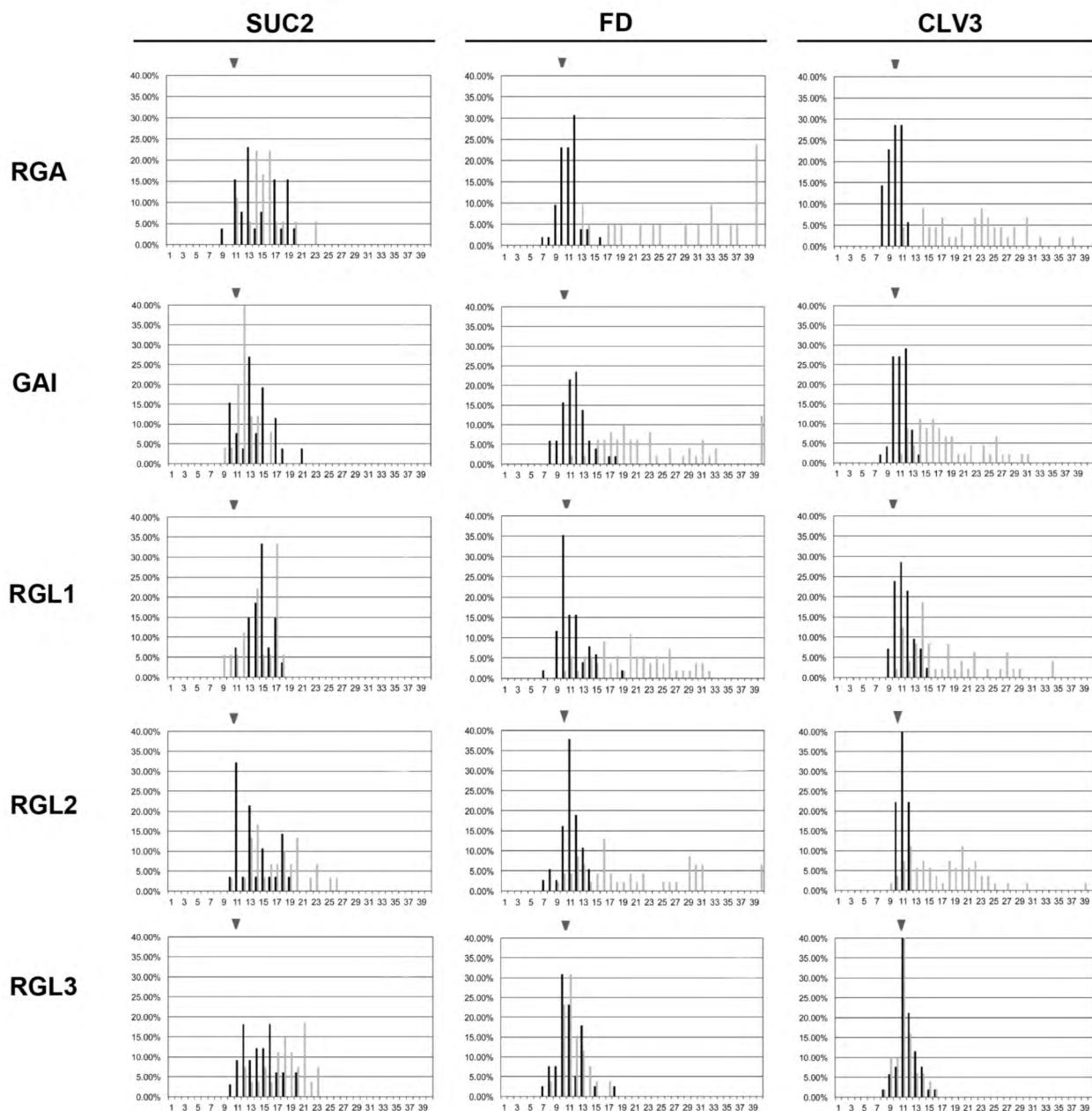


Fig. S2. Histogram of flowering time distribution. T1 lines expressing wild-type (black bars) and GA-insensitive (grey bars) of the *A. thaliana* DELLA proteins from the phloem companion cell-specific (*pSUC2*), the meristem-specific (*pFD*) and the shoot stem cell niche-specific (*pCLV3*) promoters. Triangle indicates the average flowering time of Col-0 controls. Number of rosette leaves at the time of flowering was determined in LD at 23°C.

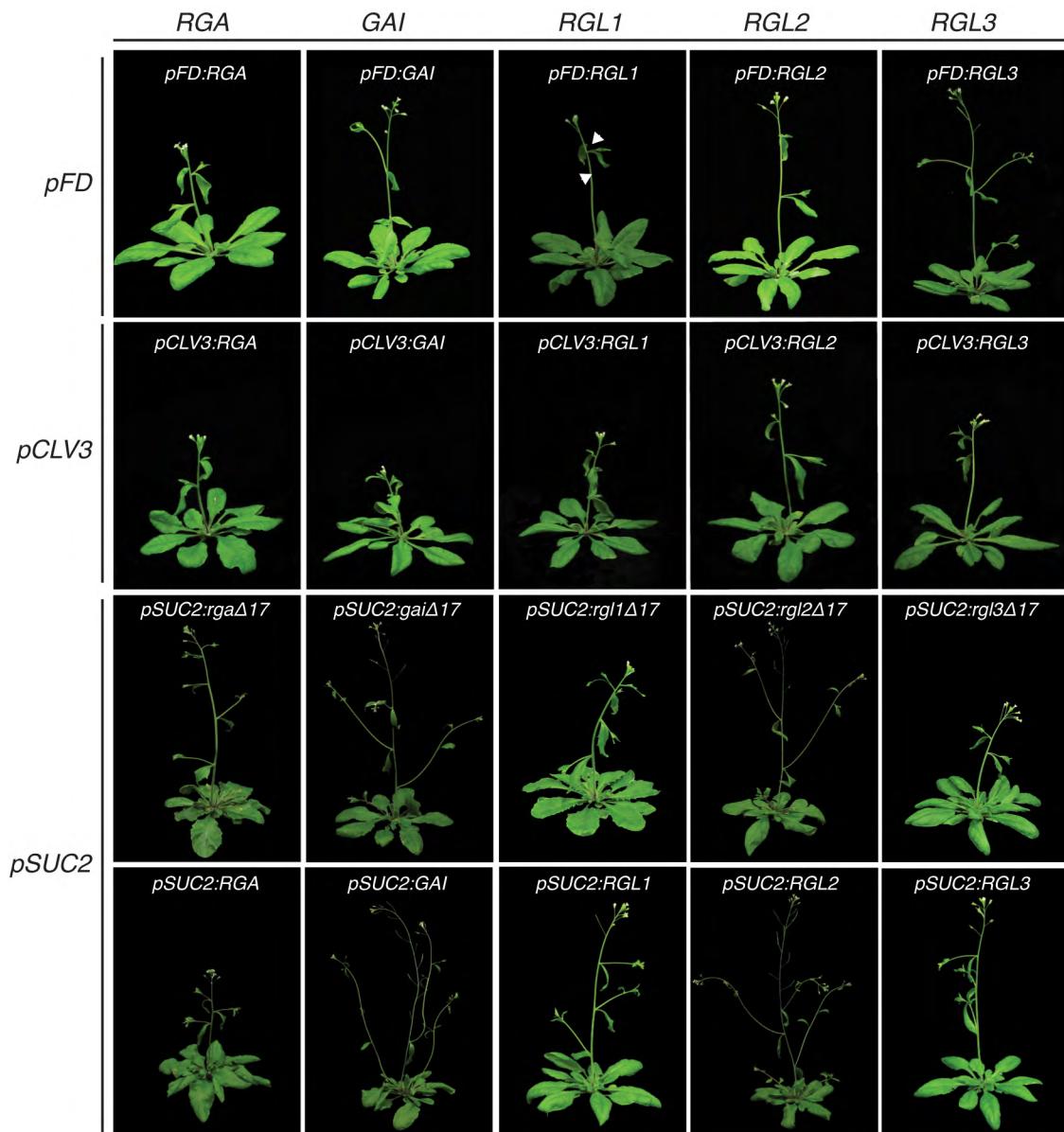


Fig. S3. Phenotypes of transgenic plants. Wild-type or GA-insensitive (*dellaΔ17*) versions of the *A. thaliana* DELLA proteins from the phloem companion cell-specific (*pSUC2*), the meristem-specific (*pFD*) or the shoot stem cell niche-specific (*pCLV3*) promoter. All plants were grown in LD at 23°C. One representative individual is shown for each class.

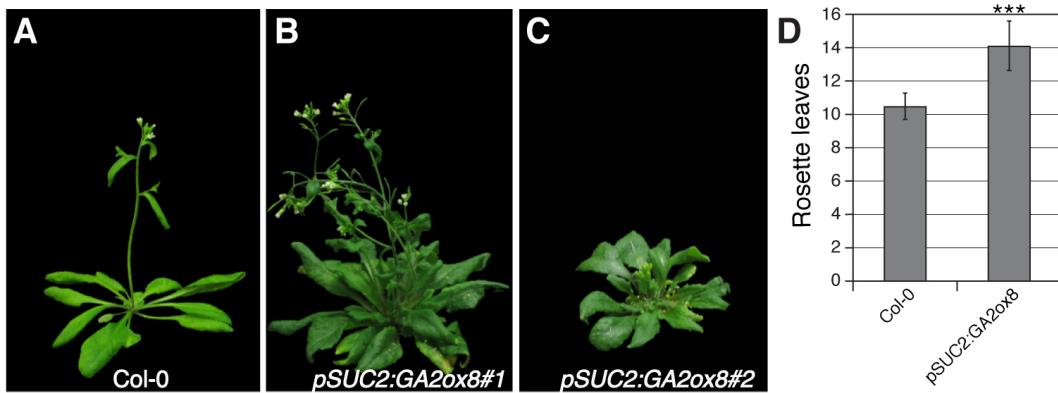


Fig. S4. Flowering time and phenotypes of *SUC2:GA2ox8* transgenic plant. (A-C) Phenotypes of (A) wild-type and (B,C) *pSUC2:GA2ox8* transgenic plants. (D) Flowering time as determined by rosette leaf number. Error bars indicate s.d. Significance was calculated using the unpaired Student's *t*-test: *P<0.05, **P<0.01, ***P<0.001.

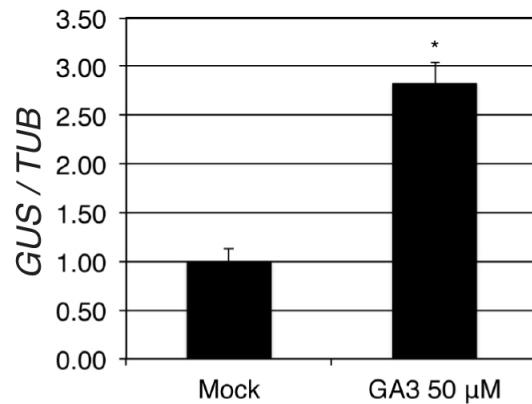


Fig. S5. Quantitative RT PCR in GA₃-treated plants grown under LD at 23°C. Plant material was collected from 12 day-old plants at ZT 16. Error bars indicate s.d. Significance was calculated using the unpaired Student's *t*-test: *P<0.05, **P<0.01, ***P<0.001.

Promoter

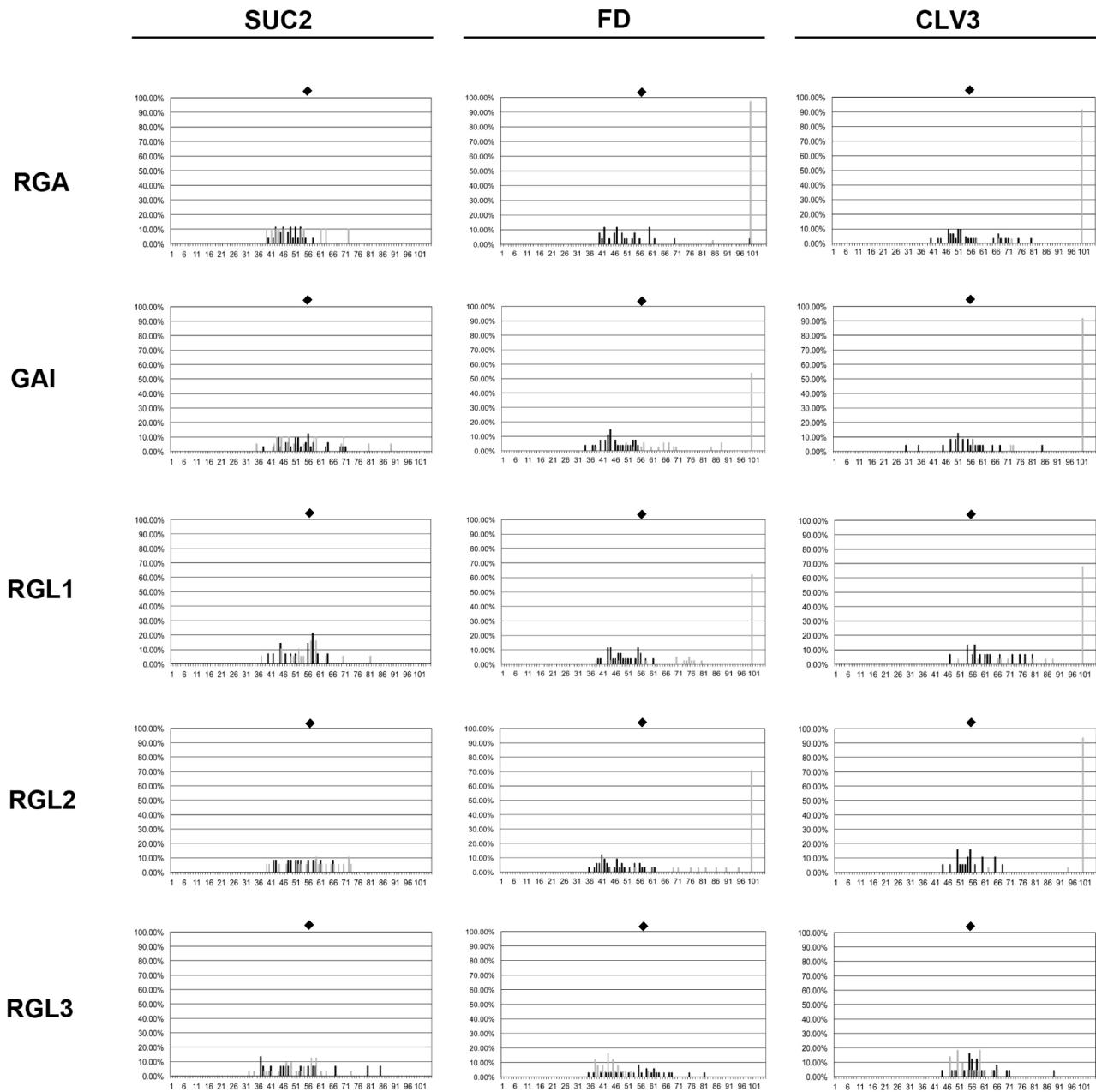


Fig. S6. Histogram of flowering time distribution. T1 lines expressing wild-type (black bars) and GA-insensitive (grey bars) of the *A. thaliana* DELLA proteins from the phloem companion cell-specific (*pSUC2*), the meristem-specific (*pFD*) and the shoot stem cell niche-specific (*pCLV3*) promoters. Triangle indicates the average flowering time of Col-0 controls. Number of rosette leaves at the time of flowering was determined in SD photoperiod at 23°C.

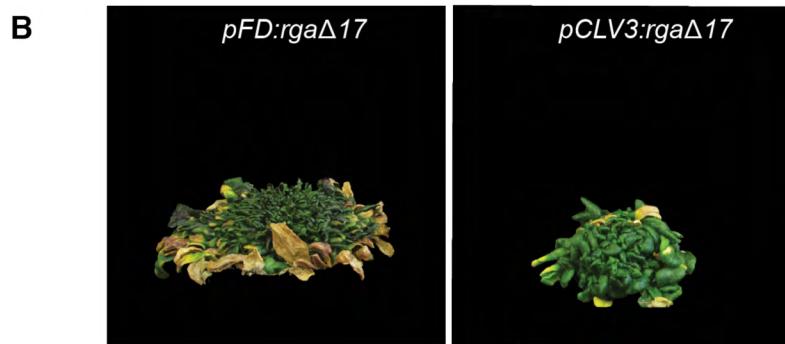
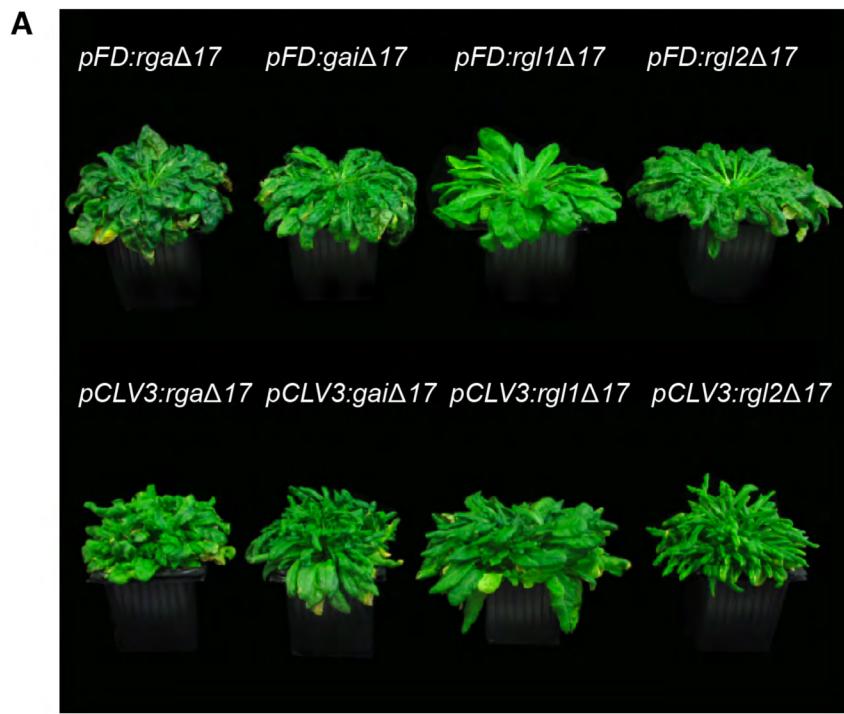


Fig. S7. Expression of GA-insensitive DELLA proteins at the shoot meristem delays flowering. (A) Phenotypes of transgenic plants expressing GA-insensitive (*dellaΔ17*) versions of the *A. thaliana* GAI, RGA, RGL1 and RGL2 proteins from the meristem-specific (*pFD*) and the shoot stem cell niche-specific (*pCLV3*) promoters grown in SD at 23°C. (B) Plants failed to flower after 6 months of vegetative growth. Transgenic plants expressing the wild-type or GA-insensitive (*dellaΔ17*) versions of DELLA proteins from the phloem companion cell specific (*pSUC2*) did not result in late flowering (see also Fig. S6).

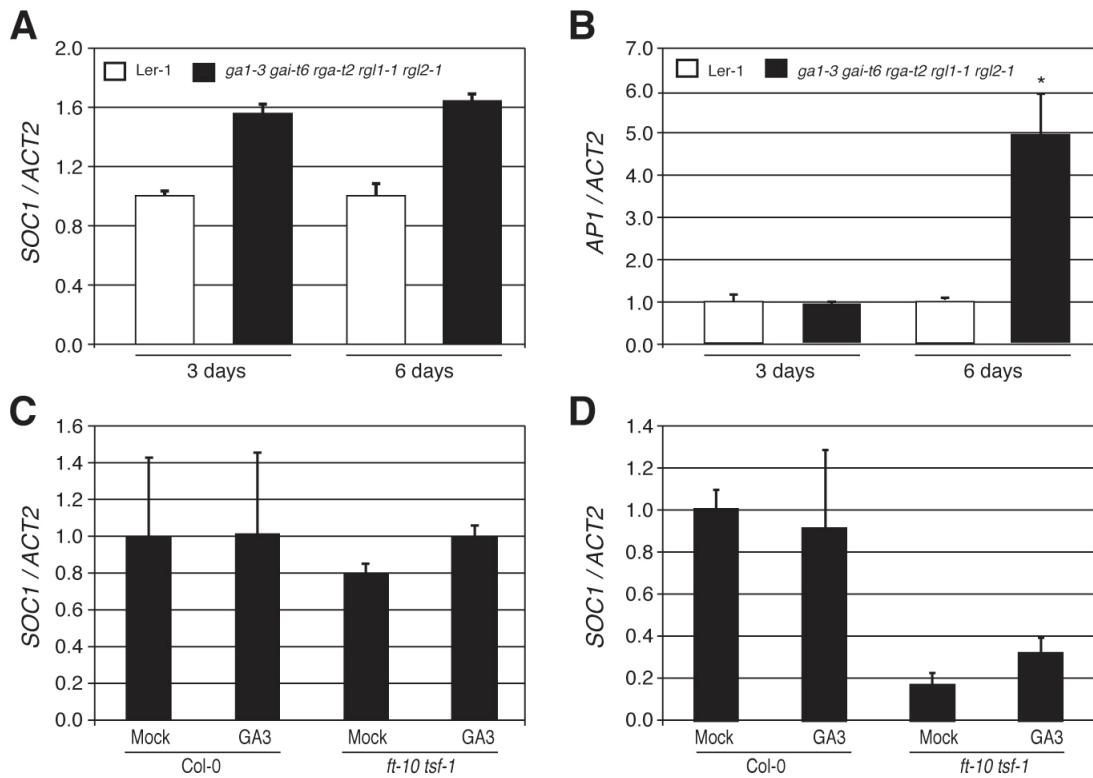


Fig. S8. Effect of GA on meristematic *SOC1* expression under LD. (A,B) *SOC1* and *API* expression in 3 and 6 day old *ga1-3 gai-t6 rga-t2 rgl1-1 rgl2-1* pentuple mutants grown under LD at 23°C. (C,D) *SOC1* expression in Col-0 and *ft-10 tsf-1* in response to GA₃ treatment 3 (C) and 6 (D) days after germination. Apices were dissected at ZT 12-16 from plants grown under LD at 23°C. Error bars indicate s.d. Significance was calculated using the unpaired Student's *t*-test: *P<0.05, **P<0.01, ***P<0.001.

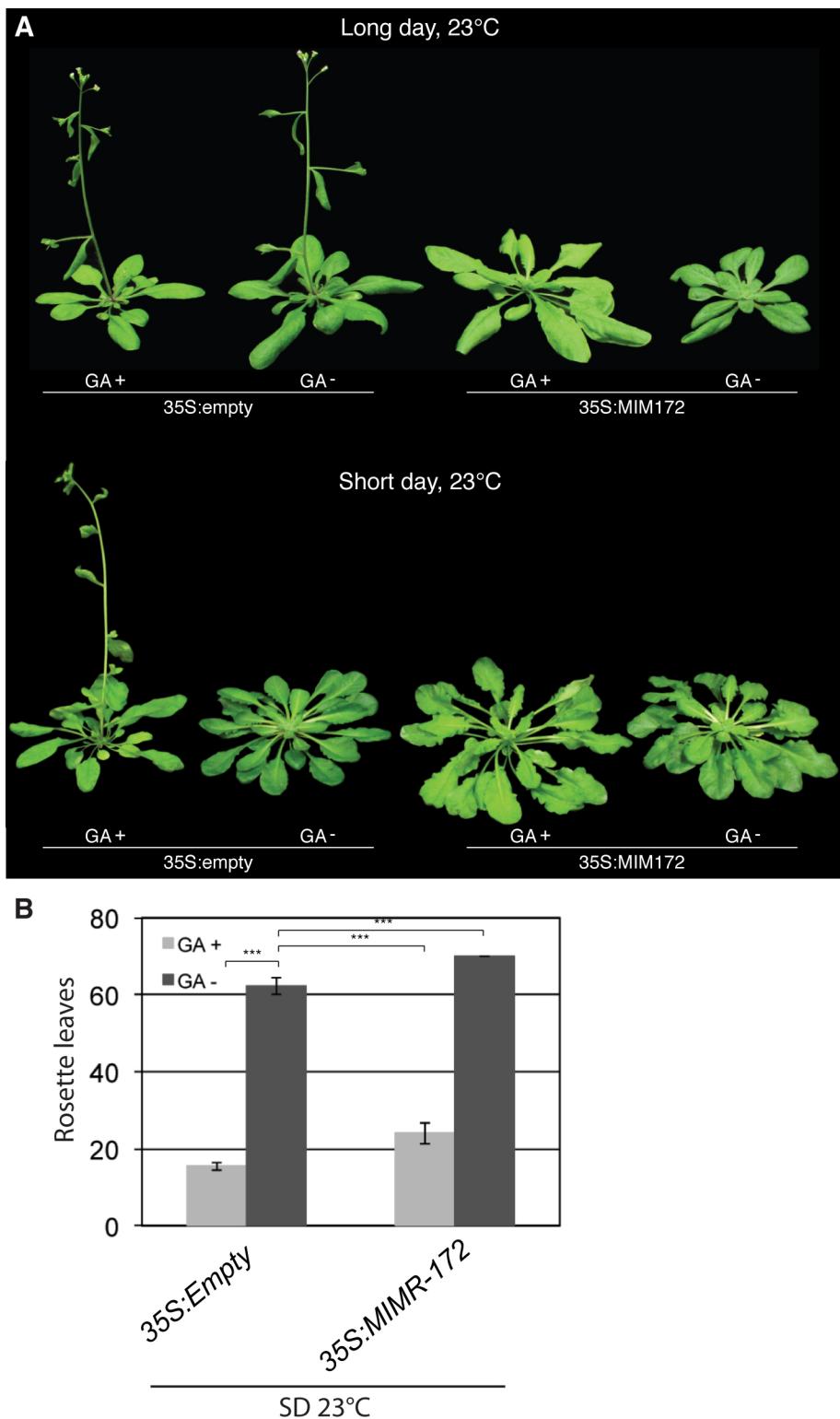


Fig. S9. Effect of exogenous GA₃ on flowering time in *p35S:MIM172* plants. (A) Phenotypes of Col-0 control and *p35S:MIM172* plants in response to GA₃ application under LD and SD at 23°C. (B) Flowering time of *p35S:empty* and *p35S:MIM172* grown under SD at 23°C. Flowering time is represented as the number of rosette leaves after bolting. Error bars indicate the s.d. and n indicates the number of plants analyzed. Significance was calculated using the unpaired Student's *t*-test: *P<0.05, **P<0.01, ***P<0.001.

Table S1. Oligonucleotides used in this work

Target	Oligo	Sequence
Oligonucleotides used for qRT-PCR		
<i>β-tubulin</i>	N-0078	GAG CCT TAC AAC GCT ACT CTG TCT GTC
	N-0079	ACA CCA GAC ATA GTA GCA GAA ATC AAG
<i>Actin-2</i>	G-27290	GCC ATC CAA GCT GTT CTC TC
	G-27291	GCT CGT AGT CAA CAG CAA CAA
<i>API</i>	G-30960	CAC CAA ATC CAG CAT CCT TAC
	G-30961	AGT TCG AGA TCA TTC CTC CTC
<i>GUS</i>	G-1563	CTG CAT CAG CCG ATT ATC ATC ACC
	G-1564	ACC GAA GTT CAT GCC AGT CCA GCG
<i>FT</i>	G-30966	CCC TGC TAC AAC TGG AAC AAC
	G-30967	CAC CCT GGT GCA TAC ACT G
<i>TSF</i>	G-9911	GAG TCC AAG CAA CCC TCA CCA A
	G-9912	CAC AAT ACG ATG AAT TCC CGA G
<i>CO</i>	G-30962	CAC TAC AAC GAC AAT GGT TCC
	G-30963	GGT CAG GTT GTT GCT CTA CTG
<i>GI</i>	G-30970	AGC AGT GGT CGA CGG TTT ATC
	G-30971	ATG GGT ATG GAG CTT TGG TTC
<i>SPL3</i>	G-30976	CTC ATG TTC GGA TCT CTG GTC
	G-30977	TTT CCG CCT TCT CTC GTT GTG
<i>SPL4</i>	G-30978	CTC TCA GGA CTT AAC CAA CGC
	G-30979	CAG AGC TCT TCC TTC TTC GC
<i>SPL5</i>	G-31000	AAG GCA TCT GCT GCG ACT GTT G
	G-31001	TCC TCC TCC TCT CAT TGT GTC C
<i>SOCI</i>	G-30974	ACG AGA AGC TCT CTG AAA AG
	G-30975	GAA CAA GGT AAC CCA ATG AAC
Oligonucleotides used for sRNA qRT-PCR		
miR156	G-30607	GTC GTA TCC AGT GCA GGG TCC GAG GTA TTC GCA CTG GAT ACG ACG
		TGC TC
	G-30606	GTG CAG GGT CCG AGG T
	G-30608	GCG GCG GTG ACA GAA GAG AGT
miR172	G-31881	GTC GTA TCC AGT GCA GGG TCC GAG GTA TTC GCA CTG GAT ACG ACA
		TGC AG
	G-30606	GTG CAG GGT CCG AGG T
	G-31880	GCG GCG GAG AAT CTT GAT GAT
Oligonucleotides used for cloning		
pVG-104	G-17164	ATG AAG AGA GAT CAT CAC CAA TTC CAA GGT CG
	G-17165	TCA GTA CGC CGC CGT CGA GAG TTT CCA AGC
pVG-105	G-23312	ATG AAG AGA GAT CAT CAT CAT C
	G-23313	CTA ATT GGT GGA GAG TTT CCA AG
pVG-118	G-25735	TTA TTC CAC ACG ATT GAT TC
	G-25736	ATG AAG AGA GAG CAC AAC CAC
	G-25731	AAC TCC GGC AGC TTC TTC TTT AAT C
	G-25732	GAC GTG GCA CAC AAG CTT GAA C
	G-25733	GTG ATT AAA GAA GAA GCT GCC GGA GTT GAC GTG GCA CAC AAG CTT
	G-25734	GAA C
		TTC AAG CTT GTG TGC CAC GTC AAC TCC GGC AGC TTC TTC TTT AAT CAC
pVG-119	G-25739	ATG AAG AGA GGA TAC GGA G
	G-25740	TCA GGC GAG TTT CCA CGC CGA G
	G-25737	ATC CAT GTT GCT GTT GTT GTT G
	G-25738	GAA GTA GCA CAG AAG CTT GAA C
	G-25741	GAC AAC AAC AAC AGC AAC ATG GAT GAA GTA GCA CAG AAG CTT GAA C
	G-25742	GTT CAA GCT TCT GTG CTA CTT CAT CCA TGT TGC TGT TGT TGT C
pVG-120	G-25743	ATG AAA CGA AGC CAT CAA G
	G-25744	CTA CCG CCG CAA CTC CGC CGC
	G-25745	GAT GTT GCA CAG AAG CTT GAA C
	G-25746	CAT GTT ATC GTC TCC ACC ACC AC
	G-25747	GTG GTG GTG GAG ACG ATA ACA TGG ATG TTG CAC AGA AGC TTG AAC
	G-25748	GTT CAA GCT TCT GTG CAA CAT CCA TGT TAT CGT CTC CAC CAC CAC
pVG-156	G-17164	ATG AAG AGA GAT CAT CAC CAA TTC CAA GGT CG
	G-17165	TCA GTA CGC CGC CGT CGA GAG TTT CCA AGC
pVG-157	G-23312	ATG AAG AGA GAT CAT CAT CAT C
	G-23313	CTA ATT GGT GGA GAG TTT CCA AG
pVG-158	G-25735	TTA TTC CAC ACG ATT GAT TC
	G-25736	ATG AAG AGA GAG CAC AAC CAC
pVG-159	G-25739	ATG AAG AGA GGA TAC GGA G

	G-25740	TCA GGC GAG TTT CCA CGC CGA G
pVG-160	G-25743	ATG AAA CGA AGC CAT CAA G
	G-25744	CTA CCG CCG CAA CTC CGC CGC
pVG-412	G-31688	ATG GAT CCA CCA TTC AAC GA
	G-31689	TTA GTA GAC GTG ATT AAG GAA C

Oligonucleotides used as probes for sRNA Northern blot

G-20557	miR156	GTG CTC ACT CTC TTC TGT CA
G-28301	miR172	ATG CAG CAT CAT CAA GAT TCT
G-20557	U6	GCT AAT CTT CTC TGT ATC GTT CC

References for published oligonucleotides used for genotyping

Mutant	Reference
<i>gal-3</i>	(Silverstone et al., 1997)
<i>ft-10</i>	(Yoo et al., 2005)
<i>tsf-1</i>	(Michaels et al., 2005)
<i>rga-24</i>	(Dill and Sun, 2001)
<i>gai-t6</i>	(Dill and Sun, 2001)
<i>gai-1</i>	(Peng et al., 1997)
<i>rga-t2</i>	(Lee et al., 2002)
<i>rgl1-1</i>	(Lee et al., 2002)
<i>rgl2-1</i>	(Lee et al., 2002)
<i>gid1a-1</i>	(Willige et al., 2007)
<i>gid1b-1</i>	(Willige et al., 2007)
<i>gid1c-2</i>	(Willige et al., 2007)
<i>sly1-10</i>	(McGinnis et al., 2003)

Table S2. Constructs used in this work

ID	Backbone/Insert	Purpose
pVG-104	pJLSmart/ <i>rga_17</i>	ENTRY vector
pVG-105	pJLSmart/ <i>gai_17</i>	ENTRY vector
pVG-107	pHW-059/ <i>pSUC2:rga_17</i>	Misexpression
pVG-108	pFK-101/ <i>pFD:rga_17</i>	Misexpression
pVG-110	pFK-317/ <i>pCLV3:rga_17</i>	Misexpression
pVG-113	pHW-059/ <i>pSUC2:gai_17</i>	Misexpression
pVG-114	pFK-101/ <i>pFD:gai_17</i>	Misexpression
pVG-116	pFK-317/ <i>pCLV3:gai_17</i>	Misexpression
pVG-118	pJLSmart/ <i>rgl1_17</i>	ENTRY vector
pVG-119	pJLSmart/ <i>rgl2_17</i>	ENTRY vector
pVG-120	pJLSmart/ <i>rgl3_17</i>	ENTRY vector
pVG-122	pHW-059/ <i>pSUC2:rgl1_17</i>	Misexpression
pVG-123	pFK-101/ <i>pFD:rgl1_17</i>	Misexpression
pVG-125	pFK-317/ <i>pCLV3:rgl1_17</i>	Misexpression
pVG-128	pHW-059/ <i>pSUC2:rgl2_17</i>	Misexpression
pVG-129	pFK-101/ <i>pFD:rgl2_17</i>	Misexpression
pVG-131	pFK-317/ <i>pCLV3:rgl2_17</i>	Misexpression
pVG-134	pHW-059/ <i>pSUC2:rgl3_17</i>	Misexpression
pVG-135	pFK-101/ <i>pFD:rgl3_17</i>	Misexpression
pVG-137	pFK-317/ <i>pCLV3:rgl3_17</i>	Misexpression
pVG-156	pJLSmart/ <i>RGA</i>	ENTRY vector
pVG-157	pJLSmart/ <i>GAI</i>	ENTRY vector
pVG-158	pJLSmart/ <i>RGL1</i>	ENTRY vector
pVG-159	pJLSmart/ <i>RGL2</i>	ENTRY vector
pVG-160	pJLSmart/ <i>RGL3</i>	ENTRY vector
pVG-162	pHW-059/ <i>pSUC2:RGA</i>	Misexpression
pVG-163	pFK-101/ <i>pFD:RGA</i>	Misexpression
pVG-165	pFK-317/ <i>pCLV3:RGA</i>	Misexpression
pVG-168	pHW-059/ <i>pSUC2:GAI</i>	Misexpression
pVG-169	pFK-101/ <i>pFD:GAI</i>	Misexpression
pVG-171	pFK-317/ <i>pCLV3:GAI</i>	Misexpression
pVG-174	pHW-059/ <i>pSUC2:RGL1</i>	Misexpression
pVG-175	pFK-101/ <i>pFD:RGL1</i>	Misexpression
pVG-177	pFK-317/ <i>pCLV3:RGL1</i>	Misexpression
pVG-180	pHW-059/ <i>pSUC2:RGL2</i>	Misexpression
pVG-181	pFK-101/ <i>pFD:RGL2</i>	Misexpression
pVG-183	pFK-317/ <i>pCLV3:RGL2</i>	Misexpression
pVG-186	pHW-059/ <i>pSUC2:RGL3</i>	Misexpression
pVG-187	pFK-101/ <i>pFD:RGL3</i>	Misexpression
pVG-189	pFK-317/ <i>pCLV3:RGL3</i>	Misexpression
pVG-412	pJLSmart/ <i>GA2ox8</i>	ENTRY vector
pVG-417	pHW-059/ <i>pSUC2:GA2ox8</i>	Misexpression