

Figure S1: Susceptibility of plants to *P. syringae*.

A - Adult four-week-old plants were spray-infected with *Pseudomonas syringae* pv. *tomato* (*Pto*) DC3000 and bacterial count measured 4 d.p.i. 644: complemented line *ap2c1/AP2C1p::AP2C1-GFP*. One-way ANOVA/Holm-Sidak $a \neq b$ $P < 0.002$, $a \neq c$ $P < 0.001$.

B - Five-week-old plants were spray inoculated with *Pto* DC3000 COR⁻ (OD₆₀₀ = 0.02) and analyzed for bacterial growth at 3 d.p.i. Results are average \pm SE ($n = 6$), performed with similar results two times.

Asterisks indicate: $p < 0.05$ (*); $p < 0.005$ (***) by *t*-test.

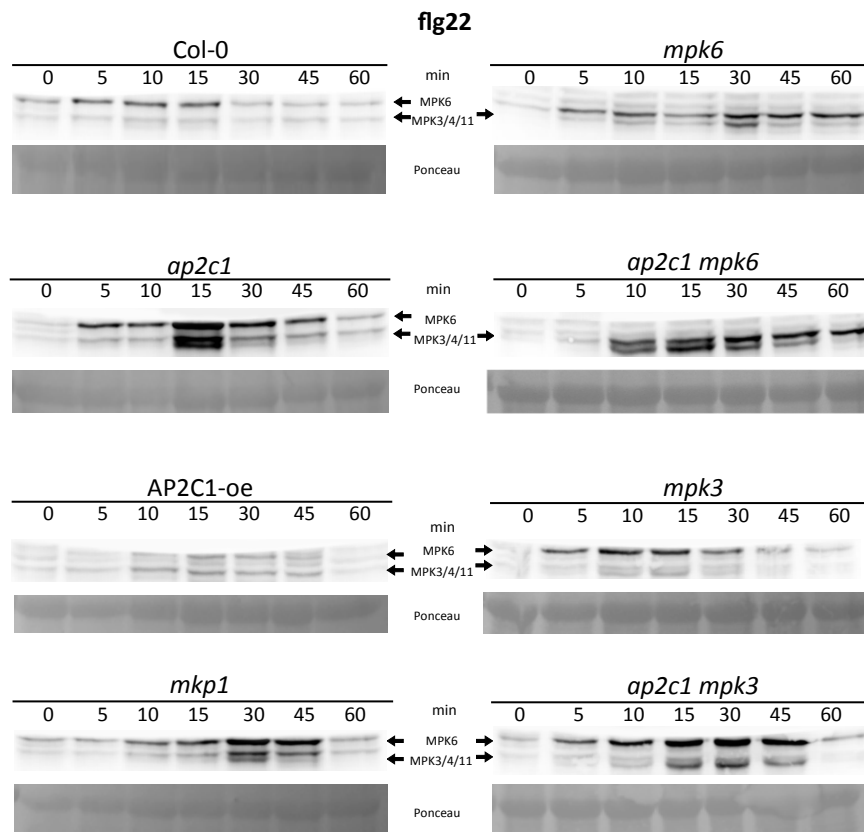


Figure S2. Analysis of MAPK activation in plants by flg22.

Western blotting with anti-p44/42 antibodies. PAMP activation of MAPKs in Arabidopsis seedlings of WT and modified lines after treatment with 1 μM flg22. The immunoreactive protein bands corresponding to respective MAPKs are indicated in the top panels, Ponceau staining was used to estimate equal loading (bottom panels).

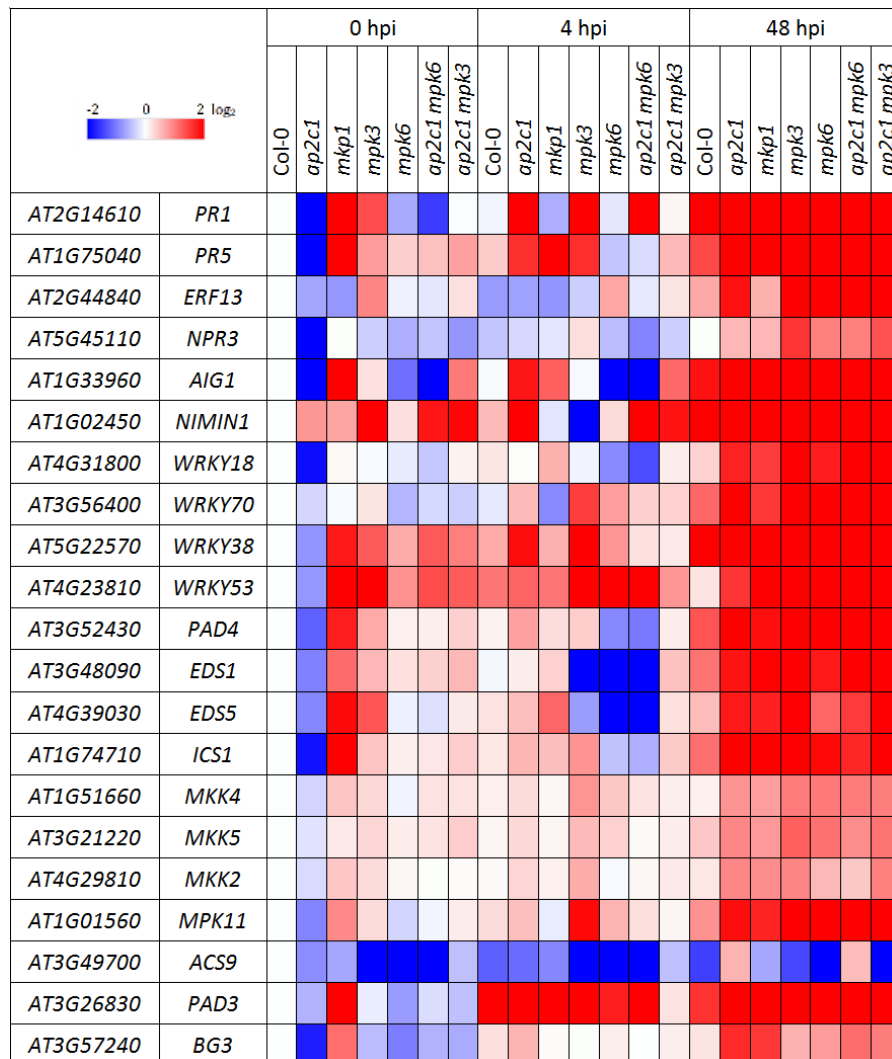


Figure S3. Heat map of pathogen-related gene expression during the immune response to *Pto* DC3000 infection. Expression levels were determined in leaves of treated plants by multi-parallel qRT-PCR analysis. Adult four-week-old plants were sprayed with *Pto* DC3000 or water as a mock control and harvested at 0, 4 and 48 hours post infection (hpi). The relative gene expression was normalized to the reference gene, *ACTIN2*. Blue and red indicate lower and higher expression values, respectively. Intensity of the colors is proportional to the absolute value of \log_2 of the gene expression difference compared to WT at 0 hpi. White indicates no change in gene expression compared to WT at 0 hpi. Results are mean of three biological and two technical replicates for each experiment.

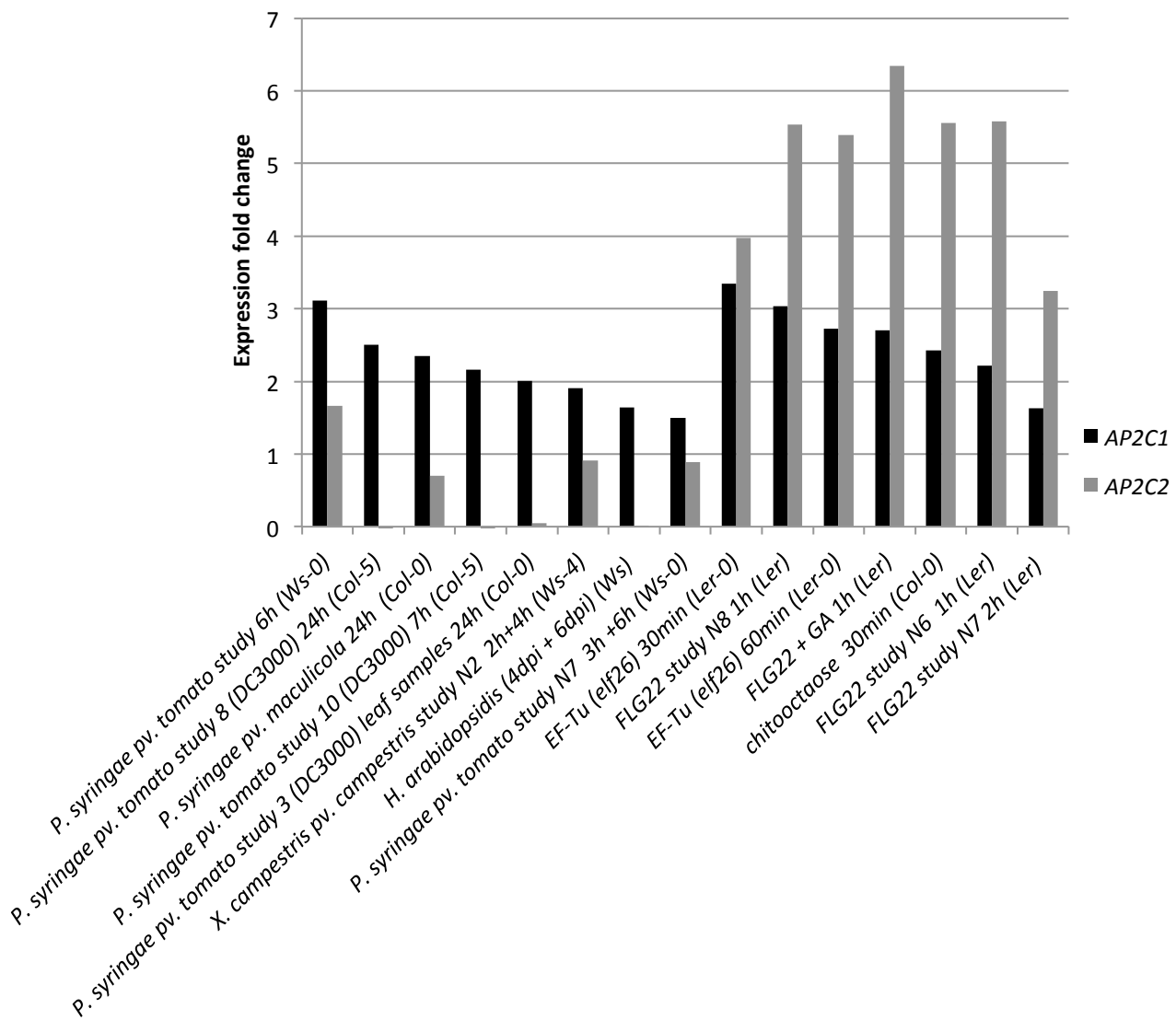


Figure S4. Expression analysis of *AP2C1* and *AP2C2* in response to pathogens and PAMPs using Genevestigator.

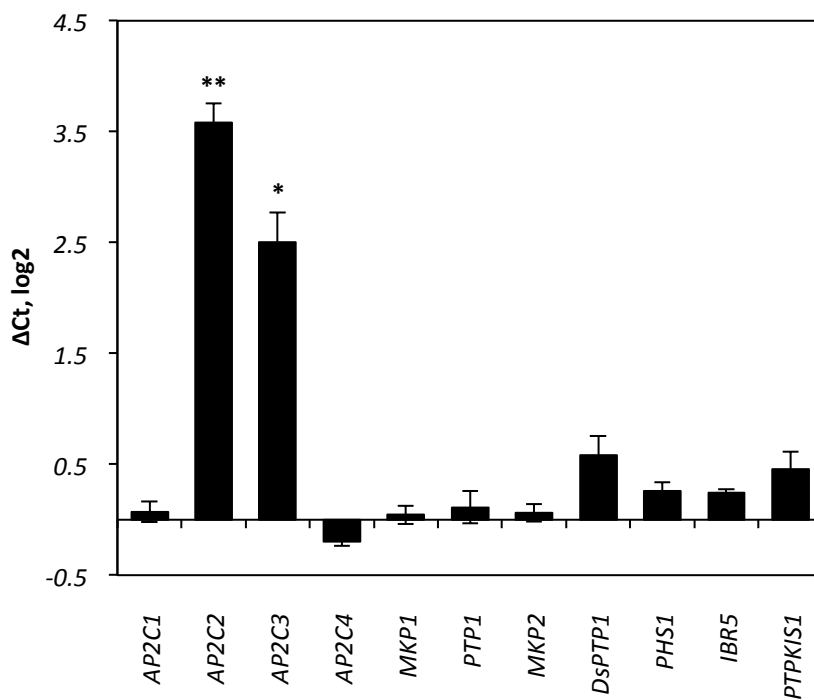


Figure S5. Induction of MAPK-phosphatases upon elf18 treatment.

qRT-PCR analysis of expression of MAPK-phosphatase genes in Col-0 14-day-old seedlings treated for 180 min with 100 nM elf18. Gene expression was normalized to expression of *ACTIN2* and plotted relative to non-treated expression levels in Col-0. Results are average of \pm SE ($n = 3$), performed in two biological replicates. Asterisks indicate: $p < 0.1$ (*), $p < 0.05$ (**) by *t*-test.

Table S1. Expression of transcription factors (TFs) in plants in response to *Pto* DC3000 treatment. Selected members that are altered in *ap2c1* mutant compared to wild-type plants from analysis of 1880 TFs. Expression levels were determined by multi-parallel qRT-PCR and are shown as log₂ changes of treated and untreated *ap2c1* mutant plant leaves compared to WT control. Two biological replicates with two technical replicates in each repetition were performed. The data are means of the two biological replicates, SE – standard error.

AGI	Gene family	ap2c1 / WT (4 hpi)	SE	ap2c1 / WT (0 hpi)	SE
AT1G49120	AP2/EREBP	-4,25	0,69	1,20	0,58
AT5G19790	AP2/EREBP	5,37	0,87	2,39	0,63
AT5G21960	AP2/EREBP	7,96	0,28	-0,61	0,81
AT5G51990	AP2/EREBP	5,58	0,49	-0,08	0,73
AT5G65130	AP2/EREBP	6,78	0,13	-1,19	0,15
AT2G20350	AP2/EREBP	-7,36	0,05	-3,13	0,78
AT1G36000	AS2 (LOB) I	5,67	0,37	-2,95	0,55
AT1G72980	AS2 (LOB) I	-5,86	0,31	2,78	0,48
AT2G19820	AS2 (LOB) I	-5,32	0,95	0,42	0,91
AT2G42430	AS2 (LOB) I	-5,76	0,94	1,70	0,19
AT5G66870	AS2 (LOB) I	-8,26	0,44	1,47	0,57
AT3G46770	B3	4,79	0,71	0,75	0,17
AT5G09780	B3	-5,97	0,45	0,00	0,38
AT5G18000	B3	4,29	0,92	0,99	0,87
AT5G57720	B3	-6,03	0,68	-2,94	0,78
AT1G63650	bHLH	6,54	0,60	0,44	0,23
AT2G31220	bHLH	5,13	0,48	-0,43	0,22
AT4G28790	bHLH	5,70	0,28	-1,91	0,13
AT5G41315	bHLH	7,66	0,01	-1,16	0,23
AT5G43650	bHLH	5,36	0,27	-0,94	0,21
AT1G14685	BPC/BRR	16,33	0,75	-0,03	0,66
AT2G17770	bZIP	5,85	0,14	1,02	0,80
AT4G10240	C2C2(Zn) CO-like	5,57	0,92	1,97	0,96
AT4G15250	C2C2(Zn) CO-like	-6,29	0,65	0,00	0,86
AT1G75540	C2C2(Zn) CO-like	-4,94	0,14	0,63	0,83
AT3G52440	C2C2(Zn) DOF	-5,27	0,49	1,48	0,08
AT4G21080	C2C2(Zn) DOF	5,54	0,66	-1,48	0,74
AT3G45170	C2C2(Zn) GATA	-5,92	0,97	0,28	0,02
AT3G62850	C2H2	-4,74	0,37	-0,31	0,33
AT1G34790	C2H2	4,15	0,54	0,00	0,09
AT2G27630	C2H2	5,44	0,02	1,36	0,73
AT3G01030	C2H2	-7,65	0,43	-0,63	0,84
AT5G15480	C2H2	-5,11	0,31	-0,45	0,79
AT5G40310	C2H2	6,65	0,07	-0,01	0,87
AT5G56200	C2H2	-4,93	0,73	-0,25	0,97
AT5G61470	C2H2	4,54	0,63	0,00	0,93
AT2G47810	CCAAT-HAP3	-5,29	0,94	0,63	0,62
AT3G13960	GRF	-5,51	0,27	0,98	0,11
AT2G36610	HB	-4,20	0,83	0,20	0,16
AT3G03660	HB	-4,82	0,01	0,00	0,49
AT3G11260	HB	7,42	0,04	-1,98	0,23
AT3G27970	HB	7,94	0,88	0,00	0,89
AT3G55210	HB	4,55	0,69	-2,20	0,41
AT4G08150	HB	-6,70	0,45	1,12	0,67
AT5G19520	HB	-6,55	0,71	1,82	0,01
AT5G46010	HB	7,02	0,05	0,00	0,15
AT5G53980	HB	6,74	0,66	-0,19	0,43
AT1G34650	HB	7,20	0,52	-2,62	0,93
AT3G51910	HSF	-4,81	1,00	-0,01	0,96
AT2G38950	JUMONJI	-7,20	0,73	-1,03	0,78
AT3G04100	MADS	-6,20	0,28	0,00	0,81
AT4G09960	MADS	-5,15	0,82	-1,05	0,44
AT4G36590	MADS	-4,03	0,72	0,53	0,74
AT5G27090	MADS	-7,33	0,87	-0,43	0,35
AT5G27810	MADS	-5,99	0,12	0,00	0,00
AT5G37415	MADS	-5,52	0,99	0,00	0,47
AT5G40120	MADS	-4,35	0,97	0,00	0,12
AT5G40220	MADS	6,68	0,41	0,23	0,82
AT1G28450	MADS	-4,08	0,25	-0,92	0,42
AT1G59810	MADS	-5,65	0,20	-0,38	0,61
AT1G60920	MADS	-4,54	0,59	-0,07	0,15
AT2G03060	MADS	-5,70	0,53	1,35	0,80
AT2G42830	MADS	-6,92	0,48	0,95	0,54
AT1G68320	MYB	-5,81	0,31	1,94	0,02
AT5G10280	MYB	-4,00	0,40	0,00	0,07
AT5G11050	MYB	-5,40	0,54	0,86	0,90
AT5G14750	MYB	6,90	0,84	0,00	0,67
AT2G26950	MYB	6,60	0,78	0,67	0,74
AT5G17800	MYB	-4,36	0,86	0,00	0,62
AT5G39700	MYB	-7,60	0,04	0,62	0,64
AT1G17950	MYB	-7,17	0,75	0,58	0,15
AT3G61250	MYB	-4,71	0,15	0,27	0,32
AT1G18960	MYB	-5,00	0,65	1,54	0,21
AT1G55160	MYB	-4,50	0,94	-0,69	0,66
AT1G66380	MYB	7,12	0,19	1,85	0,19
AT2G46770	NAC	5,35	0,20	-0,55	0,01
AT3G18400	NAC	5,32	0,71	0,01	0,24
AT4G17980	NAC	-5,55	0,32	0,72	0,75
AT5G41090	NAC	-4,52	0,14	0,31	0,82
AT1G18790	NIN-like	6,91	0,01	0,00	0,70
AT4G38340	NIN-like	6,94	0,82	0,36	0,17
AT2G21400	SRS	6,51	0,26	-0,74	0,17
AT1G05690	TAZ	-11,89	0,38	-0,28	0,69
AT2G20825	ULT	-4,36	0,25	-2,63	0,53
AT5G01900	WRKY	7,21	0,86	0,92	0,96
AT5G22570	WRKY	11,30	0,66	0,73	0,55
AT5G43290	WRKY	7,21	0,21	0,97	0,97
AT1G30650	WRKY	-7,07	0,63	0,83	0,69

Transcription Factor / Motif Name	prom's bound in subset		prom's bound in genome		p-value in genome
TATA-boxMotif	88%	77	82%	24789	0,001
MYB1AT	79%	69	85%	25733	0,145
MYB4bindingsitemotif	75%	66	75%	22642	0,012
CARGCW8GAT	67%	59	59%	18011	0,005
T-boxpromotermotif	54%	47	55%	16720	0,08
W-boxpromotermotif	54%	47	67%	20292	0,807
GAREAT	50%	44	55%	16578	0,327
ARFbindingsitemotif	48%	42	40%	12192	<10e-3
AtMYC2BSinRD22	41%	36	35%	10746	0,011
MYCATERD1	41%	36	35%	10746	0,011
Iboxpromotermotif	40%	35	40%	12259	0,084
BoxIIpromotermotif	34%	30	42%	12901	0,684
MYBbindingsitepromoter	24%	21	30%	9215	0,585
MYB2AT	22%	20	29%	8742	0,595
CCA1bindingsitemotif	20%	18	27%	8251	0,771
DREcoremotif	20%	18	23%	6989	0,336
L1-boxpromotermotif	20%	18	14%	4471	0,033
ATHB2bindingsitemotif	19%	17	10%	3181	0,005
ABRE-likebindingsitemotif	17%	15	20%	6258	0,641
CACGTGMOTIF	16%	14	15%	4546	0,277
MYB1LEPR	13%	12	17%	5127	0,619
AtMYB2BSinRD22	12%	11	12%	3757	0,248
Gap-boxMotif	12%	11	10%	3174	0,131
LEAFYATAG	11%	10	10%	3293	0,181
SV40corepromotermotif	11%	10	20%	6246	0,875
ACGTABREMOTIFA2OSEM	10%	9	14%	4398	0,809
GADOWNAT	10%	9	8%	2579	0,226

Table S2. Promoter region analysis of 88 selected TFs, which are significantly altered in *ap2c1* plants treated with *Pto* DC3000 in comparison to WT. Promoter motives identified according to Athena web-based research tool. TF binding frequency and enrichment for subselected promoters and TFs were calculated. Database crossreference for these transcription factors is provided as well as a statistical test for enrichment of binding activity within the set of selected promoters.

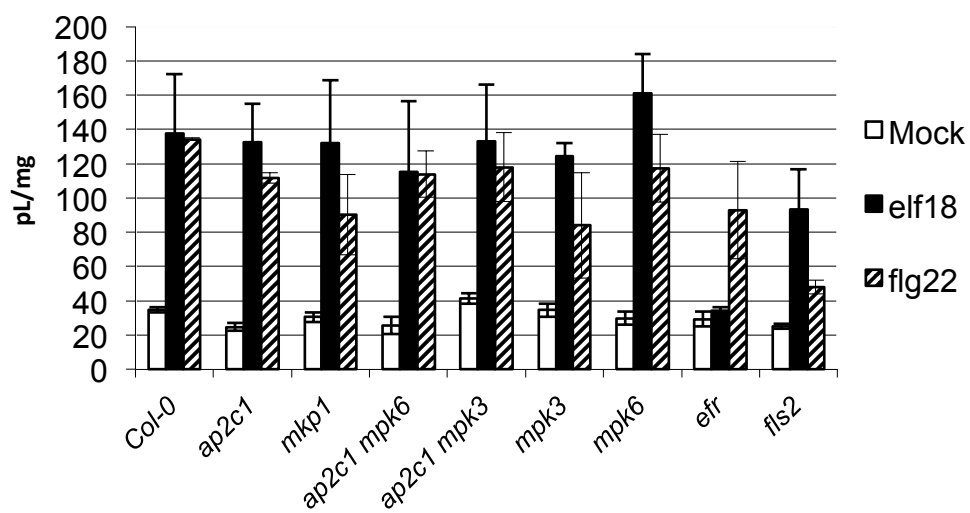


Figure S6. PAMP-induced ethylene production in seedlings.

Two-week-old seedlings of Col-0 and corresponding mutant lines were treated with 100 nM elf18 or flg22 and ethylene measurements were performed 24 hours after treatment. Results shown are average \pm SE (n=6).

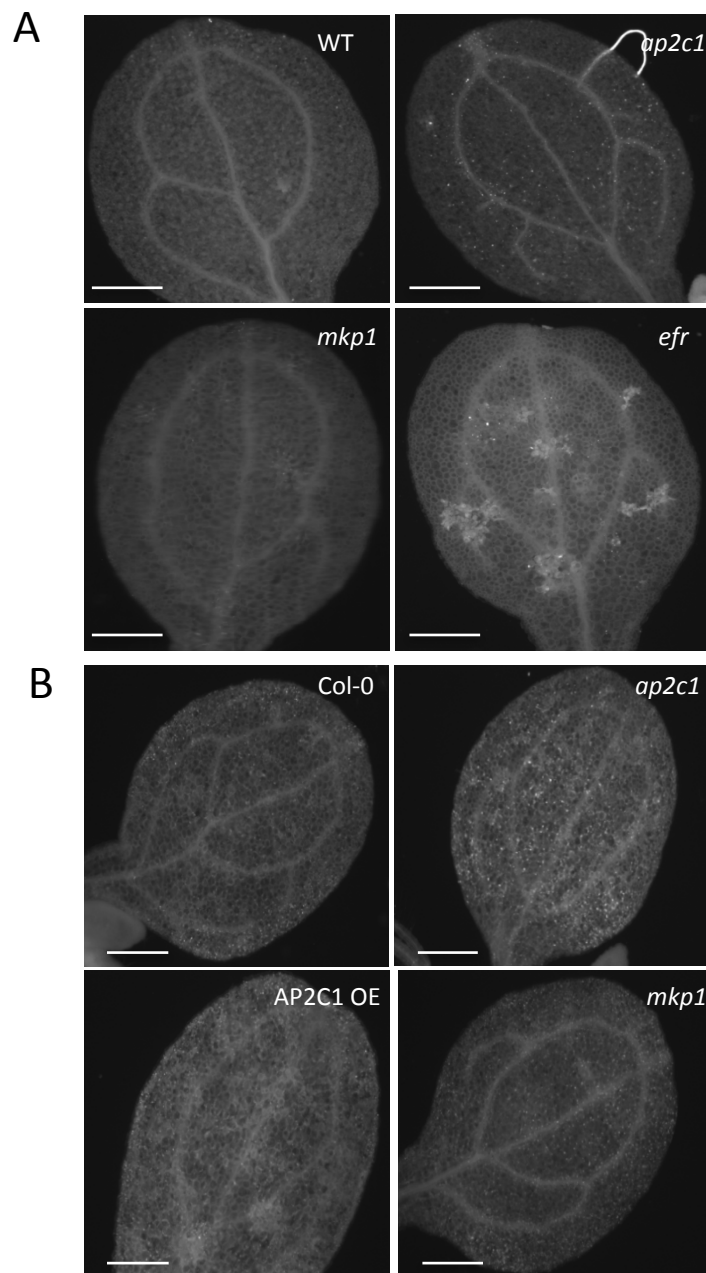


Figure S7. Callose deposition in cotyledons in response to the elf18 or to *Pto* DC3000.

Ten-day-old seedlings were treated for 24 h with 1 μM elf18 or with *Pto* DC3000 (OD₆₀₀ = 0.02). Photographs of aniline blue–stained cotyledons under UV epifluorescence show morphological differences between the lines.

A – Callose deposition in response to 1 μM elf18; **B** - Callose deposition in response to *Pto* DC3000. Bar = 1 mm