

Figure 1. Long-term MeJA treatment increases the expression of *TGG1* and *TGG2* in wild-type rosette leaves.

a) The schemes show the experimental setup of mock and MeJA treatment. MeJA treatment was started 7 d after germination, and plants were sampled 12 d after germination. **b, c)** The relative expression levels of *TGG1* and *TGG2* (b), and the protein amount of *TGG1* and *TGG2* (c) in the shoots of mock or long-term MeJA treated Arabidopsis wild type (Col-0) plants. Error bars denote the standard error of three biological replications. Double asterisks denote $p < 0.01$ based on the student's *t*-test. **d)** Confocal microscopic images of the first leaves of 12-d-old transgenic plants harboring *pTGG2:Venus-2sc*. Myrosin cells (arrows) and stomata guard cells (arrowheads) are recognized with Venus fluorescence but have different shapes. **e, f)** The ratio of myrosin cell areas per leaf area in the first and second (e) or fourth (f) leaves, which is calculated from confocal images. Error bars denote the standard error of seven biological replications. *** denotes $p < 0.001$ and ns denotes no significance based on the student's *t*-test. **g)** Confocal microscopic images of the emerging first leaves of 6-d-old transgenic plants harboring *pTGG2:Venus-2sc*. MeJA treatment was started 2 d after germination. Green shows Venus fluorescence in myrosin cells, and red shows propidium iodide fluorescence in cell walls and nuclei.

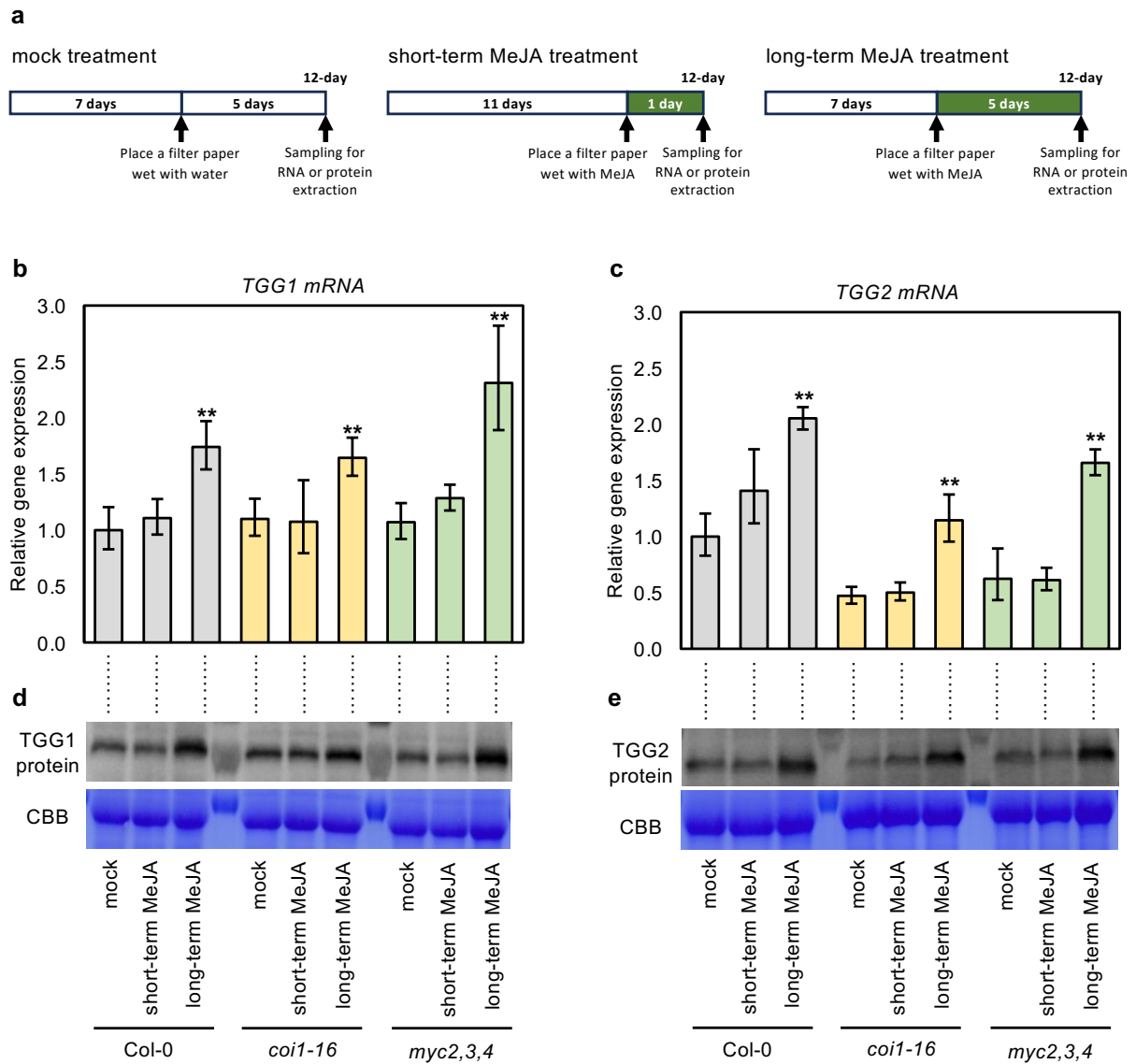


Figure 2. Long-term MeJA treatment increases the expression of TGG1 and TGG2 in *coi1-16* and *myc2,3,4* mutants.

a) The schemes show the experimental setup of mock, short-term and long-term MeJA treatments. MeJA treatment was started 7 (for the long-term MeJA treatment) or 11 d (for the short-term MeJA treatment) after germination, and plants were sampled 12 d after germination. **b-e)** The relative expression levels of *TGG1* (b) and *TGG2* (c), and the protein amount of TGG1 (d) and TGG2 (e) in the shoots of mock, short- and long-term MeJA treated Arabidopsis wild type (Col-0), *coi1-16* and *myc2,3,4* mutants. Error bars denote the standard error of three biological replications. Double asterisks denote $p < 0.01$ based on the student's *t*-test.

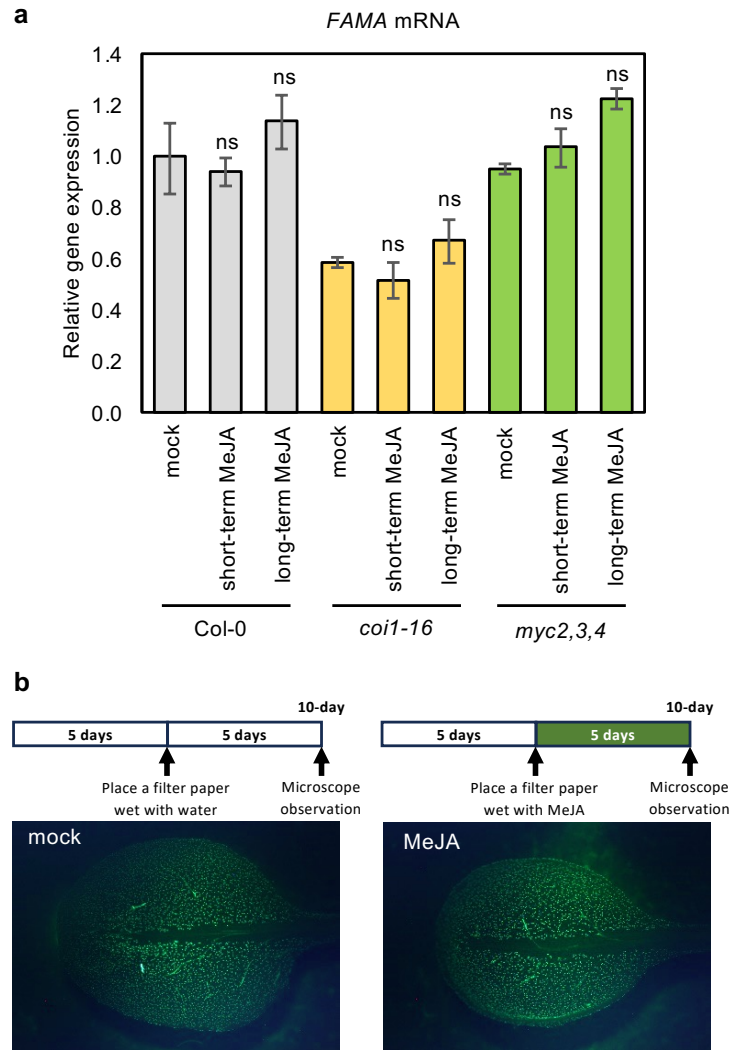


Figure 3. Long-term MeJA treatment does not change the expression of *FAMA*.

a) The relative expression levels of *FAMA* in the rosette leaves of 12-d-old Arabidopsis wild-type (Col-0) plants. Error bars denote the standard error of three biological replications. ns, no significance based on the student's *t*-test. **b)** Epifluorescence microscope images of the first leaves of 10-d-old transgenic plants harboring *pFAMA:GFP*. Long-term MeJA treatment was started 5 d after germination.

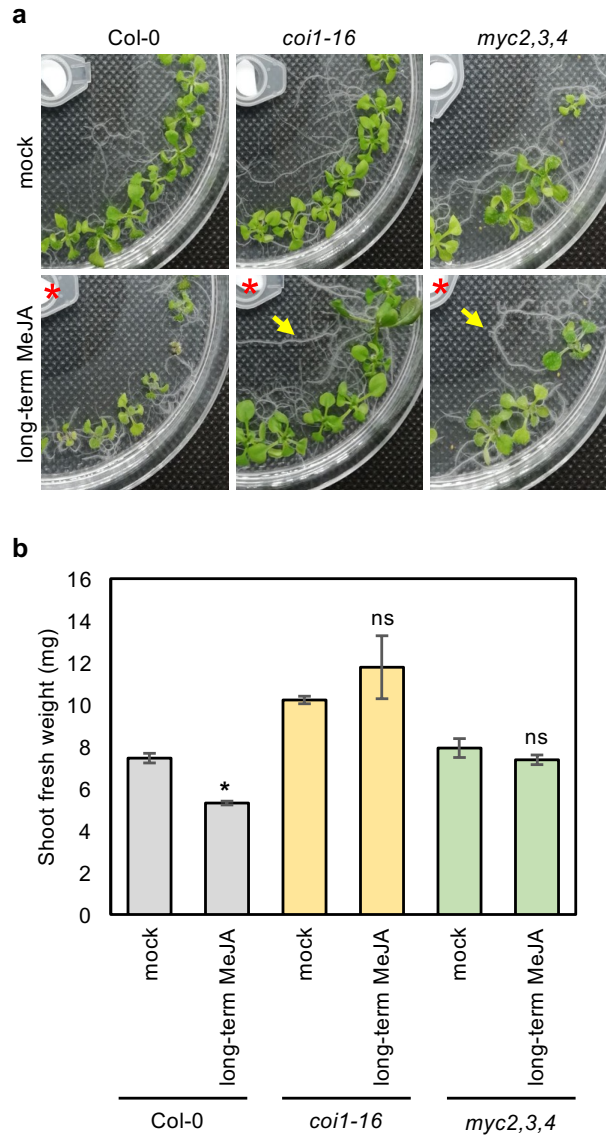


Figure 4. MeJA treatment does not reduce plant growth in *coi1-16* and *myc2,3,4* mutants.

a) Images of mock or long-term MeJA treated 12-d-old-plants. Arrows show root growth toward the MeJA source (asterisks). **b)** Shoot fresh weight of plants used in (a). Error bars denote the standard error of ten plants. Asterisk denotes $p < 0.05$, and ns denotes no significance based on the student's t -test.

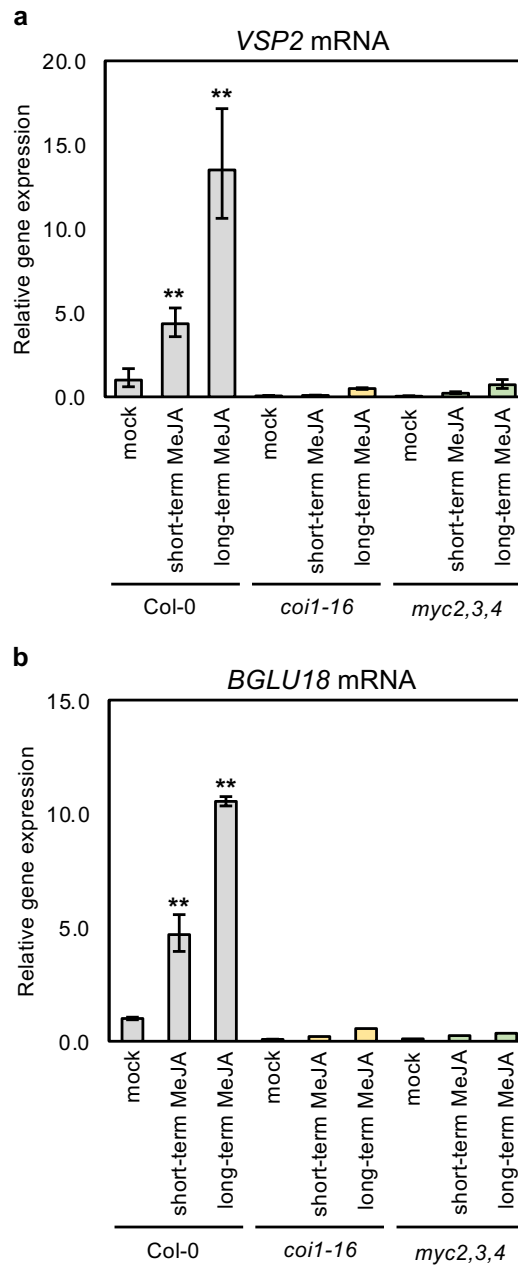


Figure 5. Canonical MeJA-responsive genes do not respond in *coi1-16* and *myc2,3,4* mutants.

a, b) The relative expression levels of *VSP2* (a) and *BGLU18* (b) in the shoots of mock, short- and long-term MeJA-treated Arabidopsis wild type (Col-0), *coi1-16* and *myc2,3,4* mutants. Error bars denote the standard error of three biological replications. Double asterisks denote $p < 0.01$ based on the student's *t*-test.