Supporting Information

Yu et al. 10.1073/pnas.1212547109

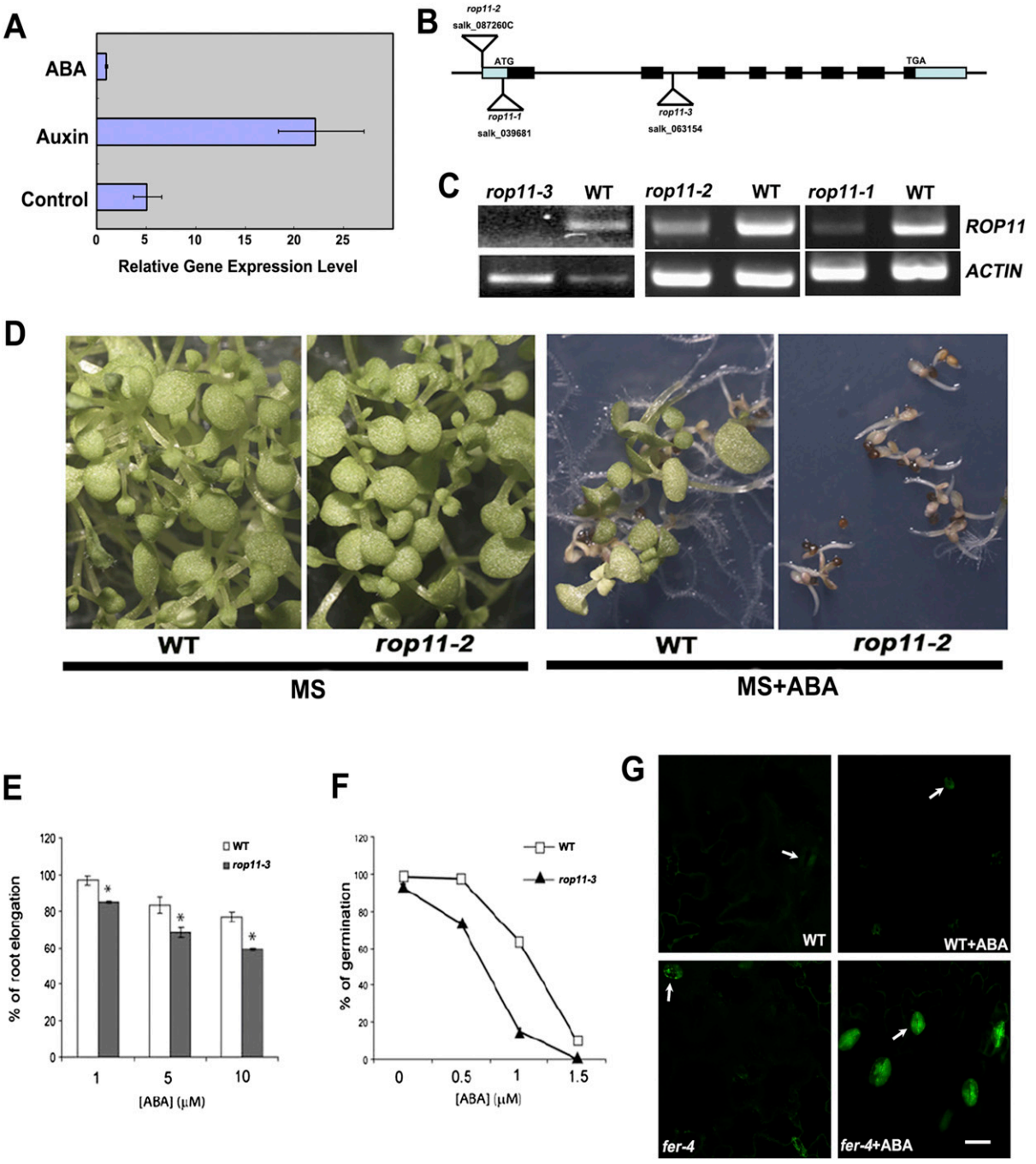

Fig. S1. Hormone-regulated *FER* expression and phenotypic analyses of *rop11/arac10*. (*A*) Quantitative RT-PCR analysis of *FER* transcripts under auxin and ABA treatments (*Materials and Methods*). Three independent experiments yielded similar results. (*B*) Scheme of *ROP11/ARAC10* gene organization and position of T-DNA insertions. The ATG start codon and TGA stop codon are indicated; boxes are exons, and lines are introns. The exact site for T-DNA insertions (indicated by triangles) was mapped by PCR and DNA sequencing of the PCR products. (*C*) RT-PCR analysis showing levels of *ROP11/ARAC10* transcripts in *rop11/arac10-1*, *rop11/arac10-2*, and *rop11/arac10-3* mutant lines. *ACTIN2* were used as loading control. (*D*) ABA sensitivity of WT and mutant seedlings. Physiologically comparable seeds of WT and *rop11/arac10-2* mutant were sterilized and plated on MS medium supplemented with 0 or 2 μM ABA at 23 °C for 12 d. (*E*) ABA inhibition of root elongation. *rop11/arac10-3* seedlings are more sensitive to inhibition of root elongation by ABA compared with WT. Data represent average ± SE of three independent experiments with 10 seedlings each. (*F*) *rop11/arac10-3* seeds are more responsive to ABA inhibition during germination. Data represent average ± SE of three independent experiments with ~100 seeds each. (*G*) ROS production in guard cells of WT and *fer-4* mutant with or without ABA, indicated by fluorescent dye 2′, 7′-dichlorodihydro-fluorescein diacetate.

Table S1. List of primers

Name	Primer sequence
ABI2Y2HF	5-GCGAATTCATGGACGAAGTTTCTCCTGC-3
ABI2Y2HR	5-GCCGAGCTCTCAATTCAAGGATTTGCTCT-3
ABI2-PDF	5-CGAATTCGACGAAGTTTCTCCTGCAGTC-3
ABI2-PDR	5-CGCTCGAGTCAATTCAAGGATTTGCTCTTG-3
ROP11F	5-GCGAATTCTTCATCAAGTGTGTGACTGTTGGTG-3
ROP11R	5-ACCTGCAGTCAATGCCGAGTCACTATCCTCC-3
ROP11CDF	5-ATGGCTTCAAGTGCTTCA-3
ROP11-CDR	5-TCAATGCCGAGTCACTATCC-3
ROP11CA-TR	5-TAGTCTTCTAGCCCAGCAGTG-3
ROP11CA-TF	5-CACTGCTGGGCTAGAAGAC-3
ROP11DN-TR	5-TCACGAAGAGCTAATTTGGTAC-3
ROP11DN-TF	5-TGGTACCAAATTAGCTCTTCGT-3
ROP11-3228F	5-GATCGAATTCGGCTTCAAGTGCTTCAAAGT-3
ROP11-3228R	5-GACGTCGACTCAATGCCGAGTCACTATCC-3
ROP11PDF	5-GATCGAATTCATGGCTTCAAGTGCTTCA-3
ROP11PDR	5-GATCGTCGACGTCACTATCCTCCCACACAG-3
Pro-ROP11F	5-GAGTCGACCCGTTAAAGCCGAGTAAAGAG-3
Pro-ROP11R	5-ATGGATCCTTACCAACAGCACCATCACCA-3
Pro-GEF1F	5-AGTCGACGTCAATGGCTGATTTAGGG-3
Pro-GEF1R	5-AGGATCCGAAGAGACTTCGTCGTCTTC-3
FER-QPCRF	5-ACGTTTACACCGGAATCAGC-3
FER-QPCRR	5-GCGAGATATCATTCCCTCCA-3