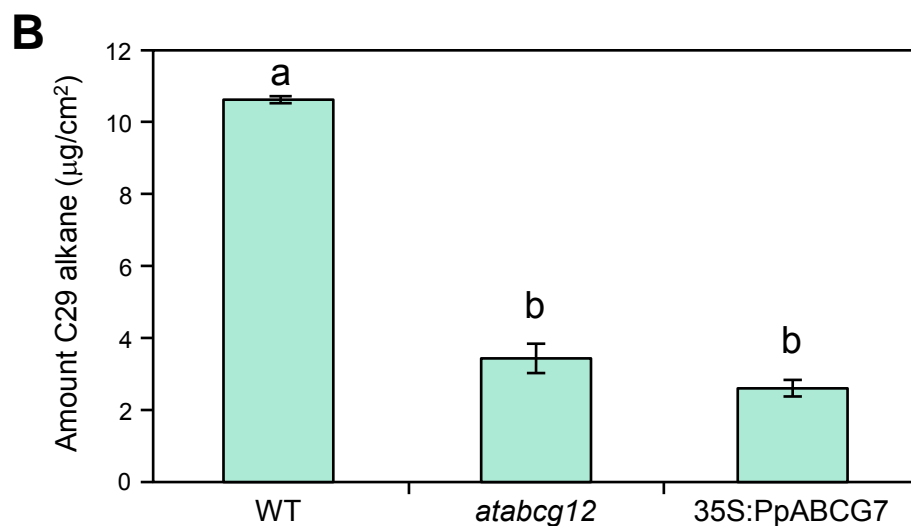
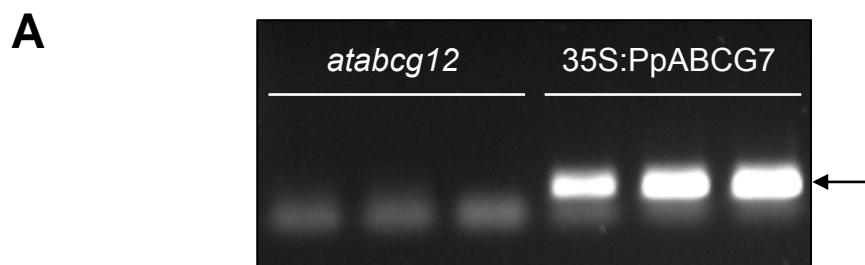


Supplemental Figure 1. Localization of Pp-ABCG7 fused to an RFP marker protein using confocal scanning laser microscopy, following transient expression in onion epidermal cells. (A) Plasma membrane marker AtPIP2A-GFP. (B) PpABCG7-RFP. (C) Merged fluorescence signal. (D) Merged signal overlaid onto a brightfield image. Scale bars = 75 μm.



Supplemental Figure 2. Abnormal sporophyte phenotype of *Δppabcg7*. Stunted and/or shriveled sporophytes (S) are indicated by arrows. Scale bar = 1 mm.



Supplemental Figure 3. Over-expression of *Pp-ABCG7* in the *Arabidopsis atabcg12* mutant. (A) RT-PCR analysis of cDNA from non-transformed (*atabcg12*) and transformed (35S:PpABCG7) plants, evaluating the expression of *PpABCG7* (the diagnostic 198 bp fragment is indicated with an arrow). Three separate lines are shown for each genotype. (B) Levels of the C₂₉ alkane wax component on the stem surface of wild type (WT) plants and those of the *atabcg12* mutant and the mutant expressing *PpABCG7* (35S:PpABCG7). Statistical analysis involved three pairwise Student t-tests, (P < 0.001) with three biological replicates.

Supplemental Table 1. List of PCR primers, referenced in the Methods section.

| Primer Name | Sequence 5' to 3' |
|--------------------------------|--------------------------------|
| A_F | CAGGACAAGTTCTGCTCAACG |
| A_R | GCAAGAAGTGATCCGAGGG |
| B_F | CTGGACGCATCGTTAGTCGAG |
| B_R | GTCGACCCATGTCAGGCG |
| C_F | CAAGCTGAGGGAGAATCTGGG |
| C_R | CGTATTTGTAAATTCCCCTATGTTT |
| D_R | TACCCTTTGTTGAAAAGTGTCAA |
| E_F | AGGAGGAAGACAAGGAAGGATAAGGTTGCA |
| PpABCG7-5FR_F | GTGTTAAGCTTCATCAGGCTGGTG |
| PpABCG7-5FR_R | GCTCCGAATTCACCTCTACAGC |
| PpABCG7-3FR_F | GACCTGGATCCACAATCTACCATTCTG |
| PpABCG7-3FR_R | CAAACGAGCTCTATGCAGCAATGACC |
| PpABCG7-3_F | CGCAACACGACTCCGTC |
| PpABCG7-3_R | CCAGGCTCAAGATCAGAATTG |
| PpABCG7-S_F | TCCAAGCAAGCCATTCTGCAAGG |
| PpABCG7-S_R | CGCAGCAGTTCCGTACGACAGAG |
| PpACT2_F | GCGAAGAGCGAGTATGACGAG |
| PpACT2_R | AGCCACGAATCTAACTTGTGATG |