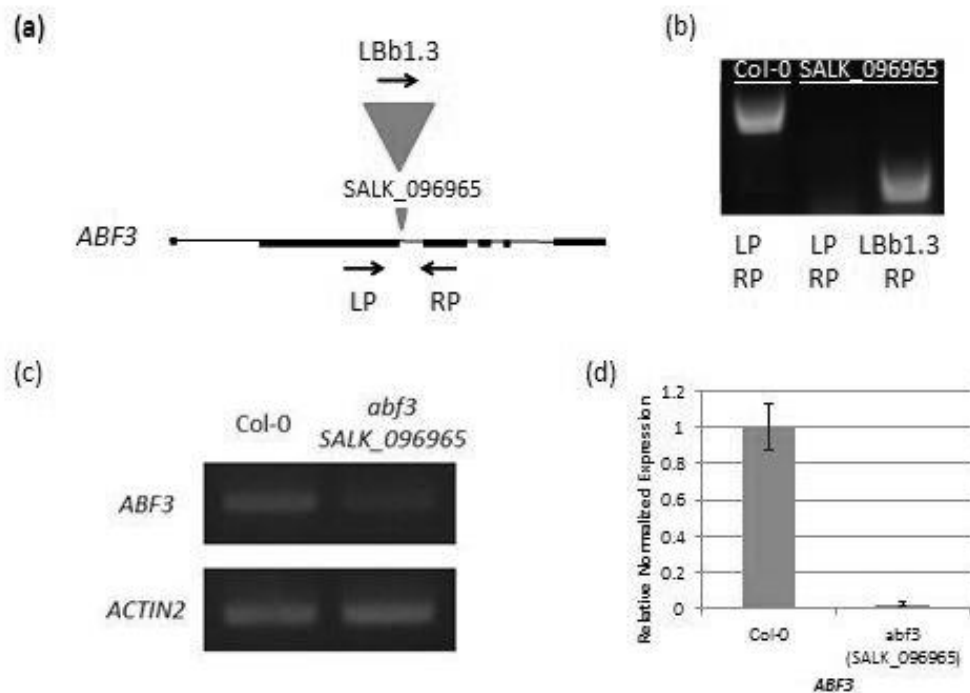


## Additional files



**Additional file 1:** Isolation of *abf3* mutant line.

- (a) Primer design for genotyping, LBb1.3: ATTTTGCCGATTTTCGGAAC, LP: ACACTGTTATTAACGGCGGTG, RP: CTTTCTCCAGAACTGCACCTG
- (b) Genomic DNA of Col-0 and SALK\_096965 was isolated, and specific primer, LP, RP and LBb1.3 were used to confirm the T-DNA insertion line is homozygous or not.
- (c) RT-PCR analysis of *ABF3* transcript in wild-type and *abf3* mutant. The same amount of cDNA was used for PCR analysis using primer for *ABF3* (30 cycles), *ACTIN2* (30 cycles).
- (d) Real-time PCR analysis showed *ABF3* gene expression in wild-type and *abf3* mutant.