



**Fig S4. *ADF10* loss-of-function alleles generated by CRISPR/Cas9 show similar phenotype to that of the *adf10* TALEN line.**

(a) CRISPR-mediated genome editing of *ADF10*. The sequences of three *ADF10* CRISPR lines are presented. The red letters indicate the positions where mutations occurred.

(b) Micrographs of pollen in the presence of 1.5 nM of LatB. Three *ADF10* CRISPR lines exhibited resistance to LatB treatment. Scale bar, 100 μm.

(c) Quantification of the pollen germination rate shown in (b). Data are presented as mean ± SE, \*\**P* < 0.01 (one-way anova).

(d) Semi-*in vitro* pollen tubes growth on the solid germination medium containing 1 μM AtLURE1.2 peptide. Scale bars, 50 μm (top) and 20 μm (bottom).

(e) Quantification of the morphological characteristics of pollen tubes shown in (d). Data are presented as mean ± SE. \*\**P* < 0.01 (Student's *t*-test).

The micrographs in (b) and (d) are representative of three biological replicates.