SUPPLEMENTARY DATA

FIG. S1. Changes in the F-actin cytoskeleton of pollen tubes during the *in vivo* SI response. (A–H) Confocal image stack of phalloidin-stained pollen tubes in compatibly and incompatibly pollinated pistils. The corresponding bright fields are shown. The times after pollination are indicated below the images. Bars = $10 \mu m$.



2.5 days

3 days

FIG. S2. Punctate foci of actin in incompatible pollen tubes. The section of an incompatibly pollinated style collected by day eight after pollination was stained with Alexa 488-phalloidin. A (top panel) Median optical section showing actin accumulation in the cortical region of pollen tube; (central panel) Full projection showing punctate actin; (bottom panel) Bright field. (B) Quantification of the pattern of F-actin alterations. White, organized actin; Dark grey, disorganized actin; Light grey, punctate actin. Seventy five pollen tubes were examined in each experiment. The values are the average \pm s.d. for at least two independent experiments.







FIG. S3. Morphological diversity of pollen tube vacuoles. Sections of compatibly pollinated pistils were immunolabeled with anti-callose (green) and anti-vPPase (red) antibodies. (A), (B) and (C) show different patterns of vacuole in pollen tubes. The corresponding bright fields are shown.

