



S3 Fig. Pollen appearance and germination.

A, B, Analysis of the morphology of mature pollen grains of WT and *psy2l* mutant plants (SALK_048064). In WT most of the pollen have prolate (ovoid) morphology with tricolpate aperture (three furrows), while in *psy2l* most of the pollen did not develop mature pollen morphology.

C, D, Germination of WT and *psy2l* pollen grains in the optimum solid medium. Generally, anthers of *psy2l* mutant produced less pollen grain and they were less dehiscent compared with WT. In conclusion, much less pollen germinated from *psy2l* in comparison with WT. Scale bars = 1 mm.

Pollen was germinated on agar medium containing 18% sucrose, 0.01% boric acid, 1 mM MgSO₄, 1 mM CaCl₂, 1 mM Ca(NO₃)₂, and 0.5% agar, pH 7. Open flowers were dehydrated at room temperature for at least 2 h. Pollen grains were shed to solid agar medium by touching the flowers against agar medium. Pollen was germinated at room temperature overnight, examined under a light microscope, and photographed with Leica M80 stereomicroscope (Method after: Li H, Lin Y, Heath RM, Zhu MX, Yang Z. Control of pollen tube tip growth by a Rop GTPase-dependent pathway that leads to tip-localized calcium influx. *Plant Cell*. 1999;11(9):1731-42).

