



**Supplementary Figure S4.** Germination rate of the mature seeds of WT and OE lines under ABA treatment. Germination rate of the mature seeds harvested from the *GmPAL1.1* overexpressing *Arabidopsis* (OE) lines and WT grown under normal condition. (A) Germination performance of the WT and OE lines under ABA treatment. The seeds of the WT and OE lines were grown for 7 d under 1.0  $\mu$ M ABA condition. (B) Germination rate of WT and OE lines under 1.0  $\mu$ M ABA condition. The germination rates were recorded on the 7<sup>th</sup> d. Each experiment was repeated three times, with each replicate containing 50 seeds. Values are mean  $\pm$  SD of three biological replicates. \*\* indicated significant differences at 1% probability level between WT and transgenic *Arabidopsis* lines.