



Fig S1. Dynamic changes of ProMdSAT1::GUS activity under different phosphate concentrations

ProMdSAT1::GUS seedlings [10 days old after growing on 1/2 MS medium (containing 1.5% sucrose and 0.8% agar powder, pH 5.9)] solid culture plates) were watered with ddH₂O for 3 days, then treated for 1 h with 0, 1.25, 25, 625, and 1,250 μM K₂HPO₄, supplemented K⁺ to 2.5 mM with the corresponding concentration of K₂SO₄ and pH adjust to 5.9. Plants grow at 23 °C/21 °C for day/night with 16L/8D, with an irradiance of 150 μmol m⁻²s⁻¹ and relative humidity of 60-70%. The GUS staining in *ProMdSAT1::GUS* transgenic *Arabidopsis* under different Pi concentrations. The seedlings treated with 1.25 mM K₂SO₄ as negative control.