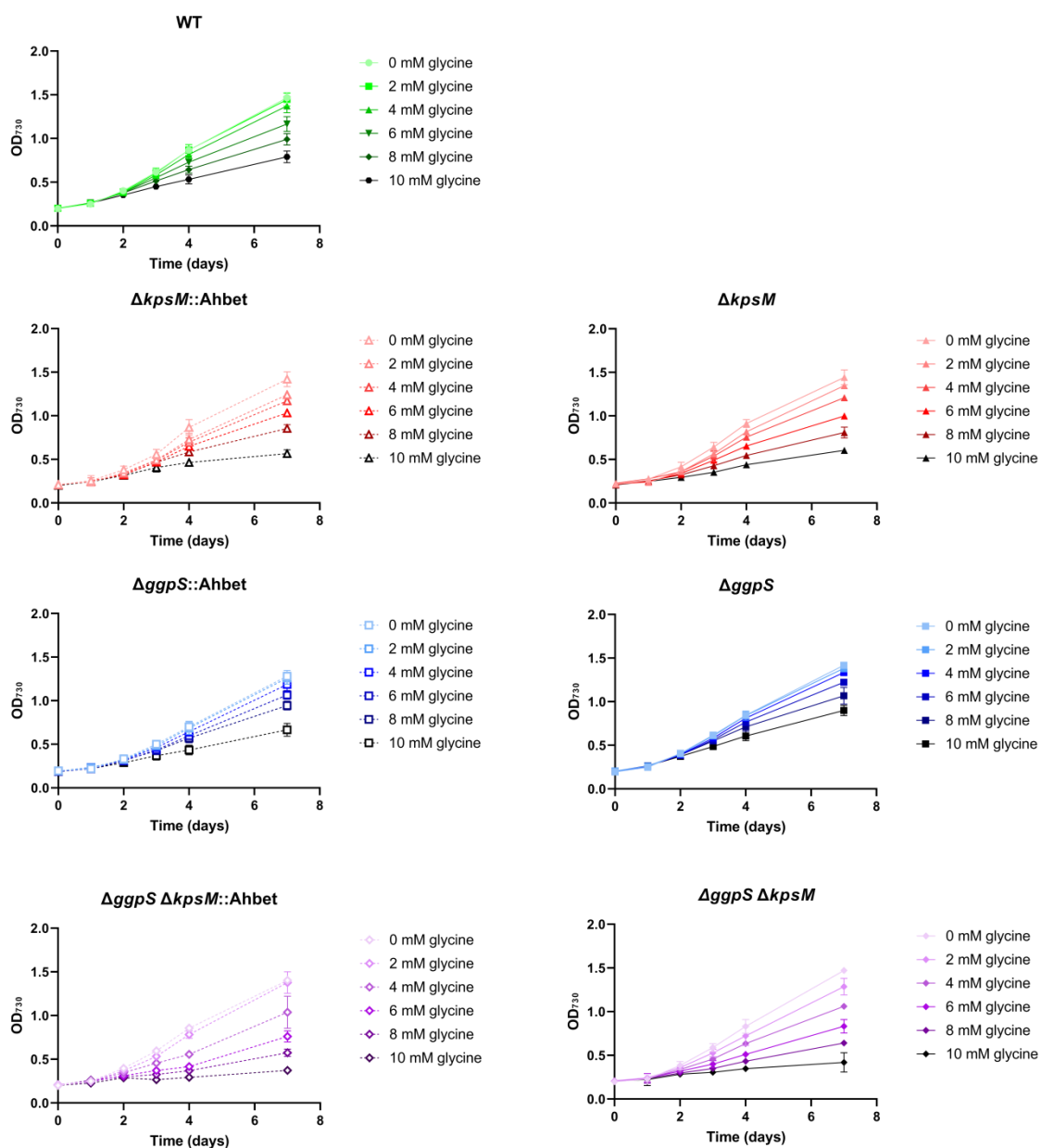
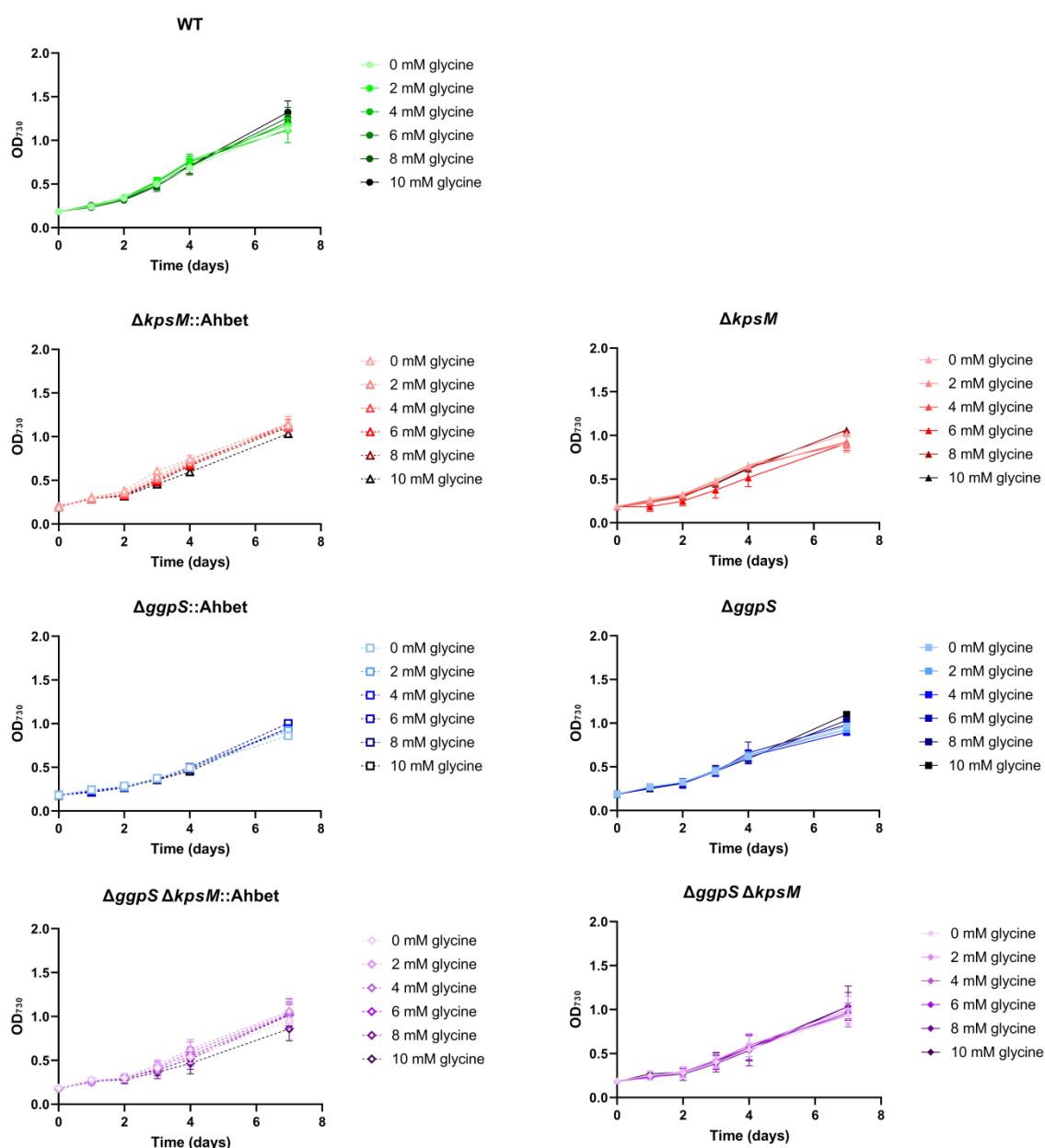


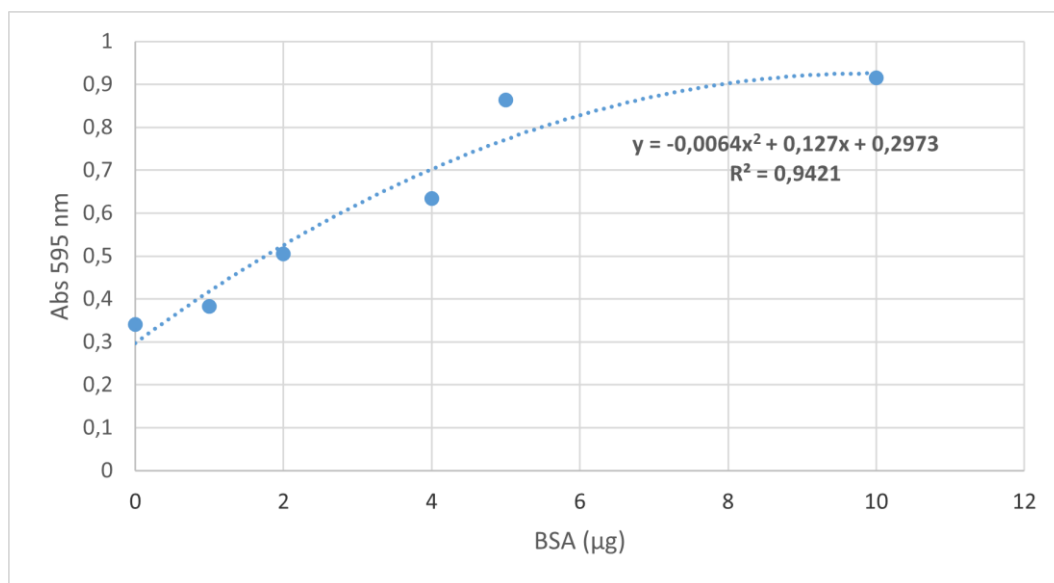
Supplementary material



Supplementary Figure 1. Growth curves of *Synechocystis* wild-type (WT), $\Delta ggpS$, $\Delta ggpS::Ahbet$, $\Delta kpsM$, $\Delta kpsM::Ahbet$, $\Delta ggpS\Delta kpsM$ and $\Delta ggpS\Delta kpsM::Ahbet$ mutants in BG11 or BG11 supplemented with different concentrations of glycine (2 mM, 4 mM, 6 mM, 8 mM and 10 mM). Cells were grown in 24-well plates at 30 °C with shaking (300 rpm), under a 12 h light (25 $\mu E/m^2/s$)/12 h dark regimen. Growth was assessed by measuring the OD₇₃₀ for 7 days. Error bars correspond to standard deviations from at least two biological replicates.



Supplementary Figure 2. Growth curves of *Synechocystis* wild-type (WT), $\Delta ggpS$, $\Delta ggpS::Ahbet$, $\Delta kpsM$, $\Delta kpsM::Ahbet$, $\Delta ggpS \Delta kpsM$ and $\Delta ggpS \Delta kpsM::Ahbet$ mutants in BG11 3% (w/v) NaCl or BG11 3% NaCl (w/v) supplemented with different concentrations of glycine (2 mM, 4 mM, 6 mM, 8 mM and 10 mM). Cells were grown in 24-well plates at 30 °C with shaking (300 rpm), under a 12 h light (25 $\mu E/m^2/s$)/12 h dark regimen. Growth was assessed by measuring the OD₇₃₀ for 7 days. Error bars correspond to standard deviations from at least two biological replicates.



Supplementary Figure 3. Bovine serum albumin (BSA) calibration curve used for the calculation of protein concentration.