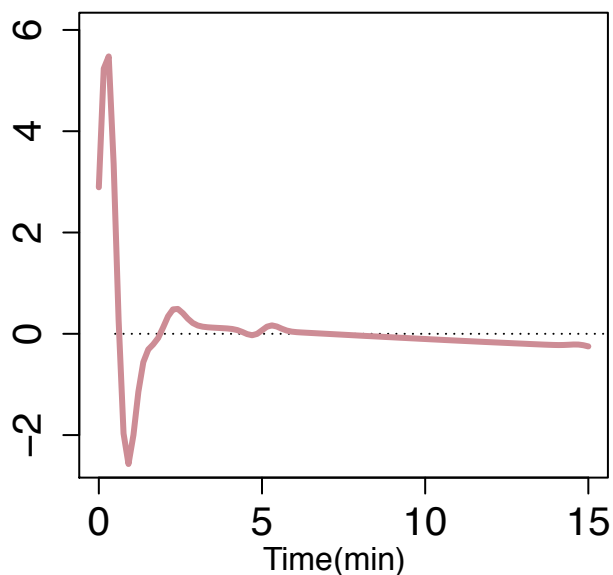
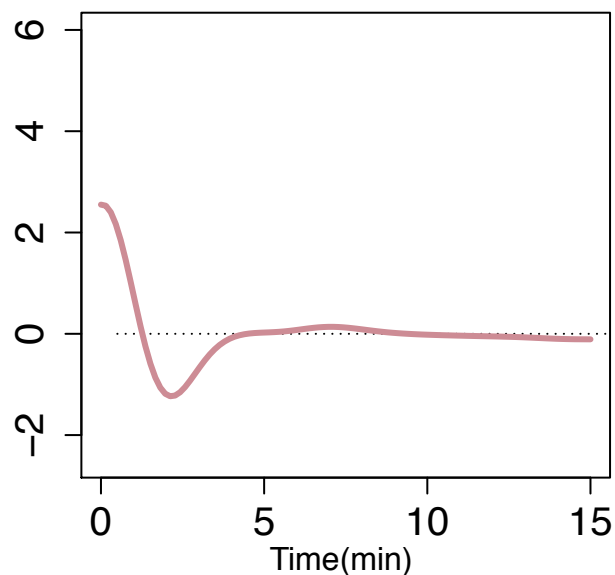


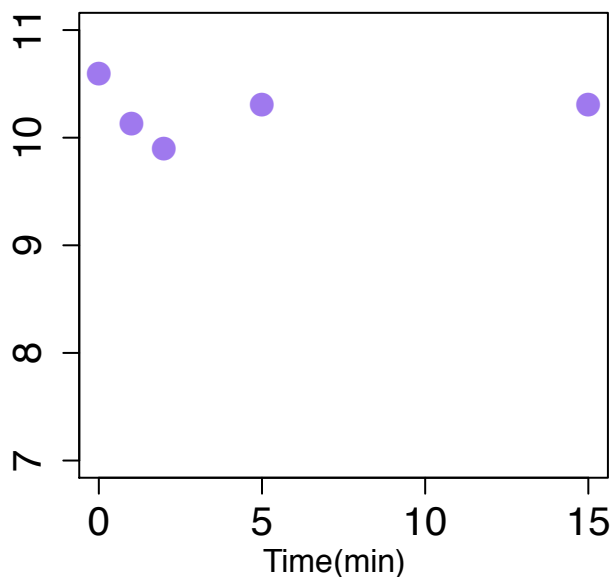
(A) Flux v_3 (WT)



(B) Flux v_3 (Δ glnG)



(C) GS (WT)



(D) GS (Δ glnG)

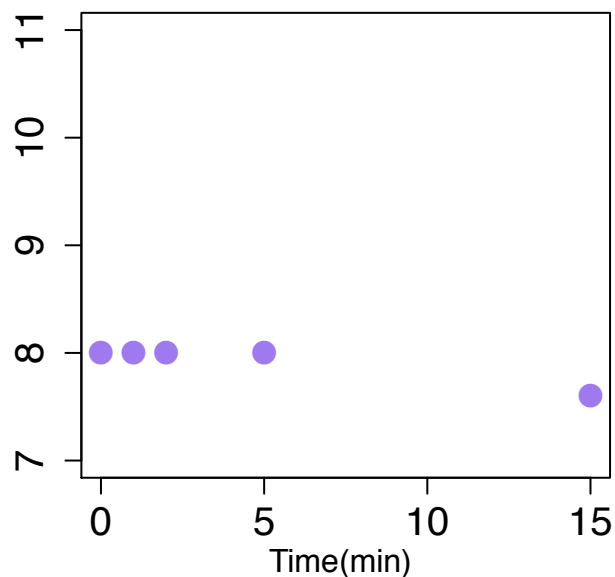


Fig. S1. Flux and glutamine synthetase (GS) comparison.

(A) Predicted flux v_3 in wild type *E. Coli*; dotted line illustrates the horizontal 0-axis.

(B) Predicted flux v_3 in Δ glnG *E. Coli*; dotted line illustrates the horizontal 0-axis.

(C) Measurements of active form (un-adenylylated form) GS protein in wild type *E. Coli*.

(D) Measurements of active form (un-adenylylated form) GS protein in Δ glnG *E. Coli*.