SUPPLEMENTAL MATERIAL



FIG. S1 Carrying capacity of $\Delta degP \ E. \ coli$ is attenuated. (A) Growth curves of each WT BW25113 *E.* coli and chaperone knockout strains, both untransformed and transformed with pPALMC1. Points represent the mean of technical replicates, n=4. (B) Isolation of growth curve data for WT BW25113 and $\Delta degP$ (JW0157) strains. (C) Growth curves of untransformed strains were fit to the logistic growth equation, estimating carrying capacity *k*. Statistical comparison was performed in R using one-way ANOVA, letters represent statistically distinct groups (p<0.05).



FIG. S2 Full Western Blots. (A) Western blot with anti-6xHis-tag performed against BW5113 *E. coli* transformed with pENS or pPALMC1, alongside an untransformed control. IPTG induction (1 μ M, 4h) is indicated with (+/-). (B) Western blot for chaperone knockout strains transformed with pPALMC1. (C) Western blot of pPALMC1-transformed *E. coli* BW25113 and chaperone knockout Keio strains treated with (+) and without (-) trypsin (240 μ g/mL). (D) Western blot of pPALMC1-transformed *E. coli* BW25113 and chaperone knockout Keio strains treated with (+) and without (-) trypsin (240 μ g/mL). (D) Western blot of pPALMC1-transformed *E. coli* BW25113 and chaperone knockout Keio strains treated with formaldehyde and heated at 95°C or 37°C. "Heavy" and "Light" bands correspond to protein complexes of higher and lower molecular weight.

Genotype	Strain Name
WT	BW25113
∆fkpA	JW3309
∆dsbA	JW3832
∆degP	JW0157
∆surA	JW0052
∆skp	JW0173
$\Delta bam B$	JW2496

TABLE. S1 Naming convention of Keio strain mutants.