**Supplementary File 3.** Plasmids used in this study.

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| --- | --- | --- | --- | --- |
| **Name** | **Relevant fragment** | **Comment** | **Origin / marker** | **Reference** |
| pJV300 | control plasmid | Constitutive expression plasmid | ColE1/ AmpR | (Urban and Vogel, 2007) |
| pPL*-*GlnZ1 | PLlacO*-glnZ1* | *Salmonella glnZ1* expression plasmid | ColE1/ AmpR | this study |
| pPL*-*GlnZ1 G149C | PLlacO *-glnZ1* G149C | *Salmonella glnZ1* G149C mutant | ColE1/ AmpR | this study |
| pPL*-*GlnZ1 G146C | PLlacO*-glnZ1* G146C | *Salmonella glnZ1* G146C mutant | ColE1/ AmpR | this study |
| pPL*-*GlnZ1 G141U | PLlacO*-glnZ1* G141U | *Salmonella glnZ1* G141U mutant | ColE1/ AmpR | this study |
| pPL*-*GlnZ1 G141U/G146C | PLlacO*-glnZ1* G141U/G146C | *Salmonella glnZ1* G141U/G146C mutant | ColE1/ AmpR | this study |
| pPL*-*GlnZ2 | PLlacO*-glnZ2* | *Salmonella glnZ2* expression plasmid | ColE1/ AmpR | this study |
| pPL*-*GlnZK12 | PLlacO*- glnZ* K12 | *E. coli glnZ* K12 expression plasmid | ColE1/ AmpR | this study |
| pPL*-*GlnZK12 G15C | PLlacO*- glnZ* K12 G15C | *E. coli glnZ* K12 G15C mutant | ColE1/ AmpR | this study |
| pPL*-*GlnZK12 G12C | PLlacO*- glnZ* K12 G12C | *E. coli glnZ* K12 G12C mutant | ColE1/ AmpR | this study |
| pPL*-*GlnZO157 | PLlacO*-glnZ* O157 | *E. coli glnZ* O157 expression plasmid | ColE1/ AmpR | this study |
| pPL*-*GlnZO157 G49C | PLlacO*-glnZ* O157 G49C | *E. coli glnZ* O157 G49C mutant | ColE1/ AmpR | this study |
| pPL*-*GlnZO157 G46C | PLlacO*- glnZ* O157 G46C | *E. coli glnZ* O157 G46C mutant | ColE1/ AmpR | this study |
| pPL*-*GlnZO157 U41G | PLlacO*- glnZ* O157 U41G | *E. coli glnZ* O157 U41G mutant | ColE1/ AmpR | this study |
| pPL*-*GlnZO111 | PLlacO*-glnZ* O111 | *E. coli glnZ* O111 expression plasmid | ColE1/ AmpR | this study |
| pKP8-35 | control plasmid | Arabinose-inducible pBAD plasmid | pBR322/ AmpR | (Papenfort *et al.*, 2006) |
| pBAD-GlnZ1 | ParaBAD*-glnZ1* | *Salmonella glnZ1* expression plasmid | pBR322/ AmpR | this study |
| pBAD-*glnA* *sal* | ParaBAD*-glnA* *sal* | *Salmonella glnA* expression plasmid | pBR322/ AmpR | this study |
| pBAD-GlnZ+90 *sal* | ParaBAD*-* preGlnZ *sal* | *Salmonella* premature *glnZ* expression plasmid | pBR322/ AmpR | this study |
| pBAD-*glnA* *eco* | ParaBAD*-glnA* *eco* | *E. coli glnA* K12 expression plasmid | pBR322/ AmpR | this study |
| pBAD-*glnA* mut1 | ParaBAD*-glnA* *eco* mut1 | *E. coli glnA* K12 mutant in site 1 | pBR322/ AmpR | this study |
| pBAD-*glnA* mut2 | ParaBAD*-glnA* *eco* mut2 | *E. coli glnA* K12 mutant in site 2 | pBR322/ AmpR | this study |
| pBAD-*glnA* mut3 | ParaBAD*-glnA* *eco* mut3 | *E. coli glnA* K12 mutant in site 1 and 2 | pBR322/ AmpR | this study |
| pBAD-GlnZ+90 *eco* | ParaBAD*-* preGlnZ *eco* | *E. coli* premature *glnZ* (90-nt extension) expression plasmid | pBR322/ AmpR | this study |
| pBAD-GlnZ+30 *eco* | ParaBAD*-* GlnZ227 *eco* | *E. coli* premature *glnZ* (30-nt extension) expression plasmid | pBR322/ AmpR | this study |
| pBAD-GlnZ+30 *eco* mut1 | ParaBAD*-* GlnZ227 *eco* mut1 | *E. coli* premature *glnZ* (30-nt extension) mutant in site 1 | pBR322/ AmpR | this study |
| pXG-30sf | PLtetO-FLAG::*glmU*-*glmS::gfp* | Translational sfGFP fusion plasmid for dicistronic targets | pSC101\* / CmR | (Corcoran *et al.*, 2012) |
| pXG-30sf-*sucA sal* | PLtetO-FLAG::*sdhB*-*sucA::gfp* | *S. enterica* *sdhB*-*sucA* translational fusion plasmid | pSC101\*/ CmR | this study |
| pXG-30sf-*sucA eco* | PLtetO-FLAG::*sdhB*-*sucA::gfp* | *E. coli* *sdhB*-*sucA* translational fusion plasmid | pSC101\*/ CmR | this study |
| pXG-30sf-*deoD sal* | PLtetO-FLAG::*deoB*-*deoD::gfp* | *S. enterica deoBD* translational GFP fusion plasmid | pSC101\*/ CmR | this study |
| pXG-30sf-*glnP sal* | PLtetO-FLAG::*glnH*-*glnP::gfp* | *S. enterica glnHP* translational GFP fusion plasmid | pSC101\*/ CmR | this study |
| pXG-30sf-*aceE sal* | PLtetO-FLAG::*pdhR*-*aceE::gfp* | *S. enterica* *pdhR*-*aceE* translational fusion plasmid | pSC101\*/ CmR | this study |
| pXG-30sf-*aceE eco* | PLtetO-FLAG::*pdhR*-*aceE::gfp* | *E. coli* *pdhR*-*aceE* translational fusion plasmid | pSC101\*/ CmR | this study |