**S1 Table**. Strains used in this study

|  |  |  |
| --- | --- | --- |
| Name | Genotype  | Reference |
| BTH101 | F- *cya-99* *araD139 galE15 galK16 rpsL1* (StrR) *hsdR2 mcrA1 mcrB1* | [[1](#_ENREF_1)] |
| JW1772 | F-*,* *(araD-araB)567,* *lacZ4787(::rrnB-3), λ-,* *yeaG::kan, rph-1,* *(rhaD-rhaB)568, hsdR51*4 | [[2](#_ENREF_2)] |
| JW2993 | F-*,* *(araD-araB)567,* *lacZ4787(::rrnB-3), λ-,* *qseB723::kan, rph-1,* *(rhaD-rhaB)568, hsdR51*4 | [[2](#_ENREF_2)] |
| JW2994 | F-*,* *(araD-araB)567,* *lacZ4787(::rrnB-3), λ-,* *qseC724::kan, rph-1,* *(rhaD-rhaB)568, hsdR51*4 | [[2](#_ENREF_2)] |
| JW3350 | F-*,* *(araD-araB)567,* *lacZ4787(::rrnB-3), λ-,* *dam-722::kan, rph-1,* *(rhaD-rhaB)568, hsdR51*4 | [[2](#_ENREF_2)] |
| JW3831 | F-*,* *(araD-araB)567,* *lacZ4787(::rrnB-3), λ-,* *srkA::kan, rph-1,* *(rhaD-rhaB)568, hsdR51*4 | [[2](#_ENREF_2)] |
| R1279 | CSH50 (*pho-bgl*)201 (*lac-pro*) *ara thi* | [[3](#_ENREF_3)] |
| S4197 | MG1655 *rph+ ilvG+ lacZ* | [[4](#_ENREF_4)] |
| Z179 | as R1279, but *qseE* | [[5](#_ENREF_5)] |
| Z190 | as R1279, but *attB::*[*glmY*′(−238 to +22)-*lacZ,* −10 mutated] | [[5](#_ENREF_5)] |
| Z196 | as R1279, but *qseF*, *attB::*[*glmY*′(−238 to +22)-*lacZ,* −10 mutated] | [[5](#_ENREF_5)] |
| Z197 | as R1279, but *attB::*[*glmY*′(−238 to +22)-*lacZ*] | [[5](#_ENREF_5)] |
| Z201 | as R1279, but *attB::*[*glmY*′(−238 to +22)-*lacZ,* −24 mutated] | [[5](#_ENREF_5)] |
| Z206 | as R1279, but *qseF*, *attB::*[*glmY*′(−238 to +22)-*lacZ*] | [[5](#_ENREF_5)] |
| Z401 | as R1279, but *qseC::kan*, *attB::*[*glmY*′(−238 to +22)-*lacZ,* −10 mutated] | T4GT7 (JW2994)→Z190; this work |
| Z448 | as R1279, but *qseG*::*cat*, *attB::*[*glmY*′(−238 to +22)-*lacZ*] | PCR BG767+BG768→Z197; this work |
| Z449 | as R1279, but *qseG*, *attB::*[*glmY*′(−238 to +22)-*lacZ,* −10 mutated] | Z463 cured from *cat*; this work |
| Z463 | as R1279, but *qseG*::*cat*, *attB::*[*glmY*′(−238 to +22)-*lacZ,* −10 mutated] | T4GT7 (Z448)→Z190; this work |
| Z464 | as R1279, but *qseG*::*cat*, *attB::*[*glmY*′(−238 to +22)-*lacZ,* −24 mutated] | T4GT7 (Z448)→Z201; this work |
| Z477 | as R1279, but *qseG*, *attB::*[*glmY*′(−238 to +22)-*lacZ*] | Z448 cured from *cat*; this work |
| Z492 | as R1279, but *qseG*, *attB::*[*glmY*′(−238 to +22)-*lacZ,* −24 mutated] | Z464 cured from *cat*; this work |
| Z638 | as S4197, but *phoQ-3xFLAG::kan* | PCR BG902+BG903→S4197; this work |
| Z725 | as S4197, but *qseE-3xFLAG*::*kan* | PCR BG968+BG969→S4197; this work |
| Z741 | as S4197, but *attB::*[*glmY*′(−238 to +22)-*lacZ*] | pBGG201/BamHI→S4197; this work |
| Z890 | as R1279, but *qseB::kan*, *attB::*[*glmY*′(−238 to +22)-*lacZ,* −10 mutated] | T4GT7 (JW2993)→Z190; this work |
| Z891 | as R1279, but *qseB*::*kan*, *attB::*[*glmY*′(−238 to +22)-*lacZ*] | T4GT7 (JW2993)→Z197; this work |
| Z918 | as R1279, but *qseE-3xFLAG*::*kan*, *attB::*[*glmY*′(−238 to +22)-*lacZ*] | T4GT7 (Z725)→Z197; this work |
| Z919 | as R1279, but [*qseG*, *qseF*]::*cat* | PCR BG767+BG1301→R1279; this work |
| Z920 | as R1279, but [*qseG*, *qseF*] | Z919 cured from *cat*; this work |
| Z921 | as R1279, but [*qseG*, *qseF*]::*cat*, *attB::*[*glmY*′(−238 to +22)-*lacZ*] | PCR BG767+BG1301→Z197; this work |
| Z922 | as R1279, but [*qseG*, *qseF*], *attB::*[*glmY*′(−238 to +22)-*lacZ*] | Z921 cured from *cat*; this work |
| Z923 | as R1279, but *qseG-3xFLAG*::*kan* | PCR BG1305+BG1306→R1279; this work |
| Z924 | as R1279, but *qseG-3xFLAG* | Z923 cured from *kan*; this work |
| Z951 | as R1279, but *qseG-3xFLAG*, *attB::*[*glmY*′(−238 to +22)-*lacZ*] | pBGG201/BamHI→Z924; this work |
| Z952 | as R1279, but *qseE-3xFLAG*, *attB::*[*glmY*′(−238 to +22)-*lacZ*] | Z918 cured from *kan*; this work |
| Z955 | as R1279, but [*qseG*, *qseF*], *attB::*[*glmY*′(−238 to +22)-*lacZ*, −10 mutated] | pBGG209/BamHI→Z920; this work |
| Z966 | as R1279, but *qseE*::*cat*, *attB::*[*glmY*′(−238 to +22)-*lacZ*] | PCR BG969+BG1390→Z197; this work |
| Z970 | as R1279, but *qseE*, *attB::*[*glmY*′(−238 to +22)-*lacZ*] | Z966 cured from *cat*; this work |
| Z980 | as S4197, but *qseG*::*cat, attB::*[*glmY*′(−238 to +22)-*lacZ*] | T4GT7 (Z448)→Z741; this work |
| Z981 | as S4197, but *qseG, attB::*[*glmY*′(−238 to +22)-*lacZ*] | Z980 cured from *cat*; this work |
| Z984 | as R1279, but *phoQ-3xFLAG::kan* | T4GT7 (Z638*)*→R1279; this work |
| Z986 | as R1279, but *phoQ-3xFLAG* | Z984 cured from *kan*; this work |
| Z1044 | as R1279, but *qseF*, *attB::*[*glmY*′(−238 to +22)-*lacZ,* −10 mutated], *srkA::kan* | T4GT7 (JW3831*)*→Z196; this work |
| Z1045 | as R1279, but *qseF*, *attB::*[*glmY*′(−238 to +22)-*lacZ,* −10 mutated], *yeaG::kan* | T4GT7 (JW1772*)*→Z196; this work |
| Z1116 | as R1279, but *qseG*::*cat* | T4GT7 (Z448*)*→R1279; this work |
| Z1117 | as R1279, but *qseG* | Z1116 cured from *cat*; this work  |

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