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

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| --- | --- | --- |
| Plasmids | Features | Source or notes |
| pDSW204 | IPTG-regulated modified P*trc*, ampicillin | ([Weiss et al. 1999](#_ENREF_62)) |
| pAM238 | IPTG-regulated P*lac*, pSC101-based, spectinomycin | ([Gil and Bouche 1991](#_ENREF_19)) |
| pBAD18 | Arabinose regulation, ampicillin | ([Guzman et al. 1995](#_ENREF_20)) |
| pSup-Mb-DIZPK-RS | PylRS*,*  opt, p15A origin, chloramphenicol | ([Zhang et al. 2011](#_ENREF_65)) |
| pSIM5-tet | pSC101-based, *repAts*, tetracycline | ([Koskiniemi et al. 2011](#_ENREF_31)) |
| pCP20 | *FLP*+, λ *c*I857+, λ *P*R Repts, ampicillin, chloramphenicol | ([Cherepanov and Wackernagel 1995](#_ENREF_6)) |
| pSC202 | pAM238 with RcsF | ([Cho et al. 2014](#_ENREF_8)) |
| pSC253 | pBAD18 with RcsF | this study |
| pPR11 | pDSW204 with OmpA-6×His | this study |
| pPR11189thrombin | pDSW204 with OmpA(189-Val-*Val-Pro-Arg-Gly-Ser*-Gln-190)-6×His | this study |
| pPR11243thrombin | pDSW204 with OmpA(243-Ile-*Leu-Val-Pro-Arg*-Gly-244)-6×His | this study |
| pJLE17-OmpX-OmpA171-325 | pDSW204 with OmpAX | this study |
| pKiD5 | pET21a with strep-OmpA186-325 | this study |
| pMER77 | pDSW204 with Flag3 | ([Hemmis et al. 2011](#_ENREF_22)) |
| pSC231 | pAM238 with LacIq, the modified P*trc*, and Flag3 | this study |
| pPR4 | pSC231 with OmpA | this study |
| pSC237 | pSC231 with IgaA | this study |
| pPR21 | pDSW204 with OmpA | this study |
| pKiD22 | pDSW204 with OmpAPal | this study |