**Table S2** List of plasmids used in this study

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Derived from** | **Properties** | **Source** |
| pCM54 | pUC18 | Vector of natural transformation carrying *SmR* (SpecR), *lacI*, *araC*, and PBAD **v.chol**XerCD, flanking by UP and DWN regions of homologies around | [1] |
| pCM55 | pUC18 | Vector of natural transformation carrying *SmR* (SpecR), *lacI*, *araC*, and PBAD **e.coli**XerCD, flanking by UP and DWN regions of homologies around | This study |
| pGD186 | pSW23T | Ori R6K, *cat*, *sacB*, partial *tetC* homologies to replace *dif1-*prophages*::dif1−lacZα−dif1-lacZβ*−*cat* (CmR)(1kb) in *V. cholerae* | Lab collection |
| pEP95 |  | Ori R6K, *cat*, *sacB*, partial *tetC* homologies to replace *dif1-*prophages*::dife.coli−lacZα−dife.coli-lacZβ*−*cat* (CmR) (1kb) in *V. cholerae* | This study |
| pEG292 | pUC18 | Vector of natural transformation carrying *bla* (AmpR), FRT-*she ble* (ZeoR)-FRT flanking by UP and DWN regions of homologies of *xerD* gene. To inactivate XerD in *V. cholerae* | This study |
| pMEV97 | pSW23T | Ori R6K, *cat* (CmR), *sacB*, *aph* (KnR) flanking with UP and DWN region of *recA* gene. To inactivate *recA* in *V. cholerae* | [2] |
| pAD23 | pUC18 | Vector of natural transformation carrying *bla* (AmpR),  Tet-*Sh ble* (ZeoR)-Tet cassette between UP and DW homologies in the regions of *dif1* and **without *dif1***. To delete *dif1* and put *tetC* homologies | [3] |
| pEG378 | pUC18 | Vector of natural transformation, *bla*, with cassette **v.chol**FtsK(NL)- **e.coli**FtsK(C)-*arr2* (RifR)-DWN **v.chol**FtsK. To have hybrids of FtsK in *V. cholerae* | This study |
| pFHC2973 | pUC18 | *bla*, *lacIq*, *lacO*-“cfp-parBP1”-“ygfp-parBpMT1”. Used for microscopy in *E. coli* to follow *ydeV* locus | [4] |
| pFX303 | pSC101 | *cat* (CmR),UPandDWNhomologies around *ftsK.* Carrying ftsK100 K997A mutation. To have ATP- mutant of FtsK in *E. coli* | Lab collection |
| pFLP2 | pUC18 | *bla*, *sacB*, *flp* (Flippase). For FRT recombination to remove antibiotics resistance | Lab collection |
| pEG375 | pBR322 | *bla*, cassette parST1-FRT-*cat*-FRT flanking by VC1488 and *zapB* homologies. To delete *parS2* of chr1 | Lab collection |
| pCM165 | pSC101 | *bla, araC, lacIq*, PBAD **e.coli**XerCD repressed by P*lac*. Expression of XerC in *E. coli* excision cassette assay | This study |
| pCM166 | pSC101 | *bla, araC, lacIq*, PBAD **v.chol**XerCD repressed by P*lac*. Expression of XerCD in *E. coli* excision cassette assay | This study |
| pYB592 | pBAD33 | pACYC, *cat* (CmR), PBAD*::dsbAss-mcherry-ftsN*[243-319] (*E. coli* SPOR domain, signal sequence from DsbA) | Yamaichi lab |
| pAD16 | pSC101 | pSC101, *bla* (AmpR), P*lac::lacI-mCherry-ygfp-parBpMT1* | Lab collection |

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