**Table S1. Bacteria strains and plasmids used in this study**

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| **Strains and plasmids** | **Characteristics** | **Source or references** |
| *Xanthomonas axonopodis* pv*. glycine* |
| 8ra | Wild type, Cpr | Seong et al., 2016 |
| *Xag*(EV) | Wild type carrying pBBR1-MCS5, Gmr | This study |
| *Xag*(LcrX) | Wild type carrying pBBR1LcrX, Gmr | This study |
| *XagΔlcrX*(EV) | Insertional mutant in *lcrX* carrying pBBR1-MCS5, Kmr and Gmr | This study |
| *XagΔlcrX*(LcrXP) | *XagΔLcrX* complemented strain with pBBR1LcrXP, Kmr and Gmr | This study |
| *Escherichia coli* |
| DH5α | F–, `80*dlaczZΔM15*, *Δ*(*lacZY*A‐argF), U169, *deoR*, RecA1, *end*A1, *hsd*R17, *gyr*A96, *thit‐*1, *rel*A1, supE44 | Promega |
| BL21(DE3) pLys | F–, *omp*T, *hsd*SB (rB–, mB–), *dcm*, *gal*, λ(DE3), pLysS | Promega |
| BL21(MBP-LcrX) | BL21(DE3) pLys carrying pOPINM-LcrX | This study |
| Plasmids |
| pGEM-T Easy | Vector for TA cloning, Amr | Promega |
| pGEM-lcrX | pGEM-T Easy inserted by 1301-bp *lcrX* fragment by TA ligation, Amr | This study |
| pUC4K | Vector carrying kanamycin cassette, Kmr | Pharmacia |
| pGEM-lcrX::KM | A derivative of pGEM-IcrX. *lcrX* gene disrupted by kanamycine cassette, Amr, Kmr | This study |
| pBBR1MCS-5 | Broad-host-range vector, *lacZ* promoter, Gmr | Kovach et al., 1995 |
| pBBR1MCS-5P | A derivative of pBBR1-MCS5. *lacZ* promoter(76 bp) was deleted, Gmr | This study |
| pGEMLcrX-OE | pGEM-T Easy carrying open reading frame (903 bp) of *lcrX*, containing 6xHis-tag at N-terminus at backward primer by TA ligation, Amr | This study |
| pGEMLcrXP | pGEM-T Easy carrying a putative promoter region (388 bp) and open reading frame (903 bp) of *lcrX*, containing 6xHis-tag at N-terminus at backward primer by TA ligation, Amr | This study |
| pBBR1LcrX | pBBR1-MCS5 carrying a 903-bp with 6xHis-tag at N-terminus from pGEMLcrX-OE, Gmr | This study |
| pBBR1LcrXP | pBBR1-MCS5 carrying a 1291-bp with 6xHis-tag at N-terminus from pGEMLcrXP, Gmr | This study |
| pOPINM | Vector for protein expression, contain 6xHis-tag and MBP at N-terminus, Amr | Berrow et al., 2007 |
| pOPINM-LcrX | pOPINM carrying open reading frame (903 bp) of *lcrX*, Amr | This study |