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

|  |  |  |
| --- | --- | --- |
| Strains/plasmids | Characteristics | References or source |
| ***Escherichia coli*** |  |  |
| DH5a | High efficiency transformation | Lab collection |
| ***Agrobacterium*** |  |  |
| GV3101 | Wild-type, RifR\* | Lab collection |
| EHA105 | Wild-type, RifR | Lab collection |
| **Yeast strain** |  |  |
| YTK12 | Truncated invertase gene | (*Fang et al., 2016*) |
| ***Ustilaginoidea virens*** |  |  |
| P1 | Wild type isolate | (*Han et al., 2015*) |
| **Plasmids** |  |  |
| pGR107 | Potato X virus（PVX）expression vector, KaR\* | (*Jones et al., 1999*) |
| pGR107-*uvhrip1* |  | This study |
| pGR107- *uvhrip1NSP* |  | This study |
| pGR107-*bax* |  | This study |
| pGR107-*gfp* |  | This study |
| pSUC2 | Expression vectors for secretory function verification，KaR | (*Oh et al. 2009*) |
| pSUC2-*uvhrip1sp* |  | This study |
| pSUC2-*UV\_44SP* |  | (*Fang et al., 2016*) |
| pSUC2-*UV\_7823SP* |  | (*Fang et al., 2016*) |
| pCAMBIA1301-35S-*gfp* | Expression vector for subcellular localization，KaR | (*Li et al., 2019*) |
| pCAMBIA1301-35S- *uvhrip1*-*gfp* |  | This study |
| pCAMBIA1301-35S- *uvhrip1NSP*-*gfp* |  | This study |
| pGD-*gfp* | Expression vector for subcellular localization，KaR | (*Goodin et al., 2002; Fang et al., 2019*) |
| pGD-*gfp*-*uvhrip1* |  | This study |
| pGD-*gfp*-*uvhrip1NSP* |  | This study |

\*RifR and KaR mean rifampin and kanamycin resistance, respectively.