**Table S1. Primers used for strain construction.**

|  |  |  |
| --- | --- | --- |
| **Primers** | **Sequence (5’ to 3’)** | **Purpose** |
| **GFP transcriptional fusion** | | |
| EcoRI-PlrhA-F | GAATTCTGCACAATGTACTCTCCTCACG | GFP transcriptional fusion construction |
| KpnI- PlrhA-R | GGTACCGAGTTTTAAGAACTACTATCCTGG |
| **LrhA overexpression** | | |
| BamHI-LrhA-F | GGATCCATGACTAATGCAAATCGTCCG | *lrhA* coding sequence cloning for overexpression |
| HindIII-LrhA-R | AAGCTTCTATTACTCTTCATCGTCCAGCAG |
| **Targets of LrhA for EMSA** | | |
| FAM\_PlrhA\_R | /FAM/GAGTTTTAAGAACTACTATCCTGG | Generation of P*lrhA*-FAM probe |
| SpeI-LrhA-F | ACTAGTCATAGCGTAAGTAGGGTGTGAC |
| FAM\_PrcsA\_R | /FAM/GTTAGCGACCCTCACCAATTTGTTATCC | Generation of P*rcsA*-FAM probe |
| TFRcsAFwd  EcoRI (Kernell Burke et al. 2015) | GAATTGGAAATTCACAACTATCCGGGCATTTTTC |
| PflhDC-R-FAM | /FAM/ATCCTGAGAGACGCGACGTAACGG | Generation of P*flhDC*-FAM probe |
| PflhDC-F2 | GACCGGACAGACAGGGTCGC |
| P5211-R-FAM | /FAM/CGTGACTCATATCACTCTCCCCACC | Generation of P*CKS\_5211*-FAM probe |
| P5211-F1 | CGGTGTTTCACGCGATAGTGTCC |
| P5208-R-FAM | /FAM/CGCCAATAATCACTTTCATCTCAGACACC | Generation of P*CKS\_5208*-FAM probe |
| P5208-F | GCTGTGGTAGGCTTTGTTGAATAAATGG |
| P0458-R-FAM | /FAM/TAGCAACACCGGCAGCTAACAG | Generation of P*CKS\_0458*-FAM probe |
| P0458-F | GATTTCCGAATAGCGCCGAACACG |
| BamHI- PlrhA-R | GGATCCGAGTTTTAAGAACTACTATCCTGG | Generation of P*lrhA* competitor |
| SpeI-LrhA-F | ACTAGTCATAGCGTAAGTAGGGTGTGAC |
| **Deletion construction** | | |
| CKS\_0458/CKS\_0459-UPF | GTCGACATCGCGACAATGCCGCAGC | Amplify 1 kb region upstream of *CKS\_0458/CKS\_0459* |
| CKS\_0458/CKS\_0459-UPR | AGTGGAATATAGGCGGCCGCAAGCTTGAATTTCATAACC |
| CKS\_0458/CKS\_0459-DNF | GCGGCCGCCTATATTCCACTGTCACGCTGACCTGGTGA | Amplify 1 kb region downstream of *CKS\_0458/CKS\_0459* |
| CKS\_0458/CKS\_0459-DNR | GGATCCCGTTGTAAGTCGCCTGCCCGC |
| CKS\_0458/CKS\_0459-1kbUPF-attB1 | GGGGACAAGTTTGTACAAAAAAGCAGGCTGTCGACATCGCGACAATGCCGCAGC | Amplify 2 kb deletion fragment of *CKS\_0458/CKS\_0459* with flanking *attB* sites |
| CKS\_0458/CKS\_0459-1kbDNR-attB2 | GGGGACCACTTTGTACAAGAAAGCTGGGTGGATCCCGTTGTAAGTCGCCTGCC |
| UP-CKS\_0458/CKS\_0459-SeqF | GGCGCTGGAGAGAGTGACGG | Screen/sequence mutants for *CKS\_0458/CKS\_0459* deletion |
| IN-CKS\_0458/CKS\_0459-SeqF | GTGCCTGTGTTGGCGTAGATGC |
| DN-CKS\_0458/CKS\_0459-SeqR | CCCTGAGCCTGAGGCAACACC |
| CKS\_5208-UPF | GTCGACGAGAGTGATATGAGTCACGG | Amplify 1 kb region upstream of *CKS\_5208* |
| CKS\_5208-UPR | AGTGGAATATAGGCGGCCGCCACTTTCATCTCAGACACC |
| CKS\_5208-DNF | GCGGCCGCCTATATTCCACTTAAACGCGTCTTCAGGC | Amplify 1 kb region downstream of *CKS\_5208* |
| CKS\_5208-DNR | GGATCCGATTTCCCGCAGTATTTCTCG |
| CKS\_5208-1kbUPF-attB1 | GGGGACAAGTTTGTACAAAAAAGCAGGCTGTCGACGAGAGTGATATGAGTCACGG | Amplify 2 kb deletion fragment of *CKS\_5208* with flanking *attB* sites |
| CKS\_5208-1kbDNR-attB2 | GGGGACCACTTTGTACAAGAAAGCTGGGTGGATCCGATTTCCCGCAGTATTTCTCG |
| UP-CKS\_5208-SeqF | ATCTTGAGCAGATTGCCACGC | Screen/sequence of mutants for *CKS\_5208* deletion |
| IN-CKS\_5208-SeqF | CTGTGCAACTGGCTAATCAAACCC |
| DN-CKS\_5208-SeqR | GCGTCACTGGCACAGTATATGG |
| CKS\_5211-UPF | GTCGACCCAGTTGAACAGGAGATTATCG | Amplify 1 kb region upstream of *CKS\_5211* |
| CKS\_5211-UPR | AGTGGAATATAGGCGGCCGCGTTTACTACAGAATAACCGTG |
| CKS\_5211-DNF | GCGGCCGCCTATATTCCACTGATTTTATGCTGTGGTAGGC | Amplify 1 kb region downstream of *CKS\_5211* |
| CKS\_5211-DNR | GGATCCGGGTTCGTATAACACAATCG |
| CKS\_5211-1kbUPF-attB1 | GGGGACAAGTTTGTACAAAAAAGCAGGCTGTCGACCCAGTTGAACAGGAGATTATCG | Amplify 2 kb deletion fragment of *CKS\_5211* with flanking *attB* sites |
| CKS\_5211-1kbDNR-attB2 | GGGGACCACTTTGTACAAGAAAGCTGGGTGGATCCGGGTTCGTATAACACAATCG |
| UP-CKS\_5211-SeqF | ATAAGACCAGCCTCCCTTTCCTCG | Screen/sequence of mutants for *CKS\_5211* deletion |
| IN-CKS\_5211-SeqF | GTGTCCCGACCCGTAACAGG |
| DN-CKS\_5211-SeqR | CCGTCATACGCAAGCATGTAACGC |
| **Chromosomal complementation construction** | | |
| SacI-CKS\_0458/CKS\_0459-F | GAGCTCAGTGATTTCCGAATAGCGCCG | Amplify promoter and coding region of *CKS\_0458/CKS\_0459,* and screen conjugants |
| XhoI- CKS\_0458/CKS\_0459-R | CTCGAGCTATCACCAGGTCAGCGTGAC |
| XhoI- CKS\_0458-R | CTCGAGCTACACTTAATAGTTCACGGCAACG | Work with SacI-CKS\_0458/CKS\_0459-F to amplify promoter and coding region of *CKS\_0458,* and screen conjugants |
| SacI-CKS\_5208-F | GAGCTCAACGGCGACCTGGATATGGC | Amplify promoter and coding region of *CKS\_5208,* and screen conjugants |
| XhoI-CKS\_5208-R | CTCGAGCTATTAACGGGTCAGAAAGCGTTCC |
| SacI-CKS\_5211-F | GAGCTCATCGACTGCTCCACCATGG | Amplify promoter and coding region of *CKS\_5211,* and screen conjugants |
| XhoI-CKS\_5211-R | CTCGAGCTATCAACAAAGCCTACCACAGC |