Table S2- Oligonucleotides and plasmids used in this study.

|  |  |  |
| --- | --- | --- |
| **Primer** | **Sequence** | **Reference** |
| CaCas9/for | ATCTCATTAGATTTGGAACTTGTGGGTT | Min *et al.* 2016 |
| CaCas9/rev | TTCGAGCGTCCCAAAACCTTCT | Min *et al.* 2016 |
| SNR52/F | AAGAAAGAAAGAAAACCAGGAGTGAA | Min *et al.* 2016 |
| sgRNA/R | ACAAATATTTAAACTCGGGACCTGG | Min *et al.* 2016 |
| SNR52/N | GCGGCCGCAAGTGATTAGACT | Min *et al.* 2016 |
| sgRNA/N | GCAGCTCAGTGATTAAGAGTAAAGATGG | Min *et al.* 2016 |
| P3\_CAG1 | TGTTAGATGCTGGTGGACAAGTTTTAGAGCTAGAAATAGCAAGTTAAA | This study |
| P2\_CAG1 | TTGTCCACCAGCATCTAACACAAATTAAAAATAGTTTACGCAAGTC | This study |
| CAG1-FG | AGATATTTTGGGTTTTTTTCTTAATGTACATTAAAATCTGTCTTTTAGTTTACCTTTTTTTAATACCAGTATTCAATCgaagcttcgtacgctgcaggtc | This study |
| CAG1-RG | AAATAGATATAAACACAAAAAATTTAAACTGAACATTAATTGTAAAGTAAAAAAAGATATCGCCTACTTCTTGCAAtctgatatcatcgatgaattcgag | This study |
| Con\_CAG1-F1 | CAAAGAACAGGATGACGAGCATATGG | This study |
| Con\_CAG1-R1 | ACTCCAAATCATTCTCCGACACTG | This study |
| ARG4-R1 | aatggatcagtggcaccggtg | Martin *et al.* 2007 |
| ARG-F3 | gtgggaaaagtggtagagtatttggtc | This study |
| LEU2-F | cagaatcacccgtatggctgc | This study |
| LEU2-R | ggcaaagttacatggtctgatgttagc | This study |
| P3\_STE2 | AGCTAAAATAGCTTTAGTCAGTTTTAGAGCTAGAAATAGCAAGTTAAA | This study |
| P2\_STE2 | TGACTAAAGCTATTTTAGCTCAAATTAAAAATAGTTTACGCAAGTC | This study |
| STE2-FG | ACAAACCAAATTATTTTTAAATCACCATTGATTTATTCGATCAACAACCAGTATTCCTCTTTCATTTATCTTTCTTCAgaagcttcgtacgctgcaggtc | This study |
| STE2-RG | TTATTATAAAACTATGTTAAAAGAAGAAAAGACGAGGAATTGTATTCCAAAAAAATAAAGTGTACCACCATATTTAtctgatatcatcgatgaattcgag | This study |
| Con\_STE2-F1 | GAAGAGAGGCCAAAAGGGAATAAAGC | This study |
| Con\_STE2-R1 | GTTGCGTTATTTGTTCCAAGTGC | This study |
| P3\_STE4 | AATGGAACCTATCAAATGCAGTTTTAGAGCTAGAAATAGCAAGTTAAA | This study |
| P2\_STE4 | TGCATTTGATAGGTTCCATTCAAATTAAAAATAGTTTACGCAAGTC | This study |
| STE4-FG | TGAAAAAAAAAAGAAAAACTTTAACATCCACTAAGTAGTACCCTGTGAGTTCATTCGTGGGATCTGTTTTACAAAAATgaagcttcgtacgctgcaggtc | This study |
| STE4-RG | ATTAAGGTGTGTGGTTAATGTACTCTTGTGCTTGAGTTTTTTTTTTCTCTACCCTCAGTCTCGCTCTTTTTACTTCtctgatatcatcgatgaattcgag | This study |
| Con\_STE4-F1 | GCACGTGGCTAAAGTTGAACACTAG | This study |
| Con\_STE4-R1 | GGTAACCGACAACAGAACCAACG | This study |
| P3\_STE11 | TATGTCCATTCAGTTCCACAGTTTTAGAGCTAGAAATAGCAAGTTAAA | This study |
| P2\_STE11 | TGTGGAACTGAATGGACATACAAATTAAAAATAGTTTACGCAAGTC | This study |
| STE11-FG | AAATTAAGTTTAAAGATCATATAGAAAACCTAATACATTAGTTCGTGTGTATATGGTACTCAAATCTAACAAACAGTCgaagcttcgtacgctgcaggtc | This study |
| STE11-RG | TTATCATTGTTTCGACATAATTAATGGATTTAAAAATTGTTCTGCTAATAATTCAATTGCATCTGGTCTCATTTCAtctgatatcatcgatgaattcgag | This study |
| Con\_STE11-F1 | CAAACGGTGACGTGGTTAATTGGTAG | This study |
| Con\_STE11-R1 | TCAAATTTGGAATCTGCAAGTAGGTTC | This study |
| Con\_STE11-Int | CACCGTGTGGAACTGAATGGAC | This study |
| P3\_HST7 | AATTTGCACAGAAATCCCCTGTTTTAGAGCTAGAAATAGCAAGTTAAA | This study |
| P2\_HST7 | AGGGGATTTCTGTGCAAATTCAAATTAAAAATAGTTTACGCAAGTC | This study |
| HST7-FG | TTGAATATATTAATAATAAAATTATAATAACAGGTTTGCTTGTTCATTGTTTTTGCTCATTCATACTCCACCTCAACAgaagcttcgtacgctgcaggtc | This study |
| HST7-RG | GTATATGTATATGAGTTGTGTTTACACTTTGCATTTTCTGATCTTTTTCGCCCAGCTCTTGTGTTCTTTGTCATAAtctgatatcatcgatgaattcgag | This study |
| Con\_HST7-F1 | ATCAGGCCAGAAAGAATGAGAGACAG | This study |
| Con\_HST7-R1 | AGACCAGTATTGATGGGAATGTGGAG | This study |
| P3\_CST5del | TGTCGTGGTTTAAATTGCAGGTTTTAGAGCTAGAAATAGCAAGTTAAA | This study |
| P2\_CST5del | CTGCAATTTAAACCACGACACAAATTAAAAATAGTTTACGCAAGTC | This study |
| CST5del-FG | ATAAATCTGAAACATCGACTATAAAACCACCAAAAAAATCCCATCCATCGTCAATCTGTTAATATTACCCACCAGGCAgaagcttcgtacgctgcaggtc | This study |
| CST5del-RG | TAATAGTCGACAAGAAAGAGATCGATGGACAATGTGTATATTAAGTGAGATGGATCGGCttaCGGGTCAGATGtaatctgatatcatcgatgaattcgag | This study |
| Con\_CST5del-F1 | CCAGCTGTCTTGAGCAAATTCTGC | This study |
| Con\_CST5-R2 | TCCGAAACTGACAGCATTTTATGAGC | This study |
| P3\_CST5 | TTCCAAAACTGTTGGAAGTGGTTTTAGAGCTAGAAATAGCAAGTTAAA | This study |
| P2\_CST5 | CACTTCCAACAGTTTTGGAACAAATTAAAAATAGTTTACGCAAGTC | This study |
| P1\_pFA-GFP-HIS1 | ggaataagggcgacacggaaatg | This study |
| P2\_pFA-GFP-HIS1 | GATCGGCttaCGGGTCAGATGTAAccgcataggccactagtgga | This study |
| P1\_PAM19.2129 | ACAACTGGCACTTGGTTTCTG | This study |
| P2\_PAM19.2129 | GTTGGAAGTGGAGGTACAGAATG | This study |
| P3\_PAM19.2129 | CATTCTGTACCTCCACTTCCAAC | This study |
| P4\_PAM19.2129 | GCTATTTCTGCAGAATCACCAGC | This study |
| P3\_orf19.2129-Fw | TTACATCTGACCCGtaaGCCGATC | This study |
| P6\_PAM19.2129 | TGGGGTGCCCTAATCAAGTTGC | This study |
| P5-GFP-HIS1 | cttcgtacgctgcagggtgc | This study |
| S2- orf19.2129 | GGTCGATACCCATTCAGTCCCACG | This study |
| GFP-sequencing-Fw | ggtccttcttgagtttgtaacagc | This study |
| HIS1-sequencing-Fw | tccgttgaggcttcttgtgc | This study |
| CST5-F1 | TTATTCAGCAAGCACTAACTAAAAACAATTGGGCCGATTTAATGATTGAGATTGATAATGCGTTACTTACATCTGACCCGggtgctggcgcaggtgcttc | This study |
| CST5-R1 | CATTGTCACAATGCTATGTATACACTGGTAAATTAACAGAACTAGACTTGTTGAATTGTGAAACTCGAACAACACAGGTCGATACCCATTCAGTCCCACG | This study |
| Con\_CST5-F2 | AGTGGACGCATATGAGGTTGAAACG | This study |
| Con\_CST5-R2 | TCCGAAACTGACAGCATTTTATGAGC | This study |
| D2\_Reverse | tctttcgaaagggcagattgtgtgg | This study |
| HIS1-Fw | gcagatggcgagtacgaaaagc | This study |
| CST5-CAAX-F1b | AACAATTGGGCCGATTTAATGATTGAGATTGATAATGCGTTACTTACATCTGACCCGTGTTGTACAATTGTTTAAtaacccgggaatctcggtcgtaatg | This study |
| HIS1-R3 | TATCGGCACCACTCAATAAGTTACAGC | This study |
| P3\_STE11-CAAX | ATTTGGTGTGTGTGTGAGTGGTTTTAGAGCTAGAAATAGCAAGTTAAA | This study |
| P2\_STE11-CAAX | CACTCACACACACACCAAATCAAATTAAAAATAGTTTACGCAAGTC | This study |
| STE11-CAAX-FG | CCAGATGCAATTGAATTATTAGCAGAACAATTTTTAAATCCATTAATTATGTCGAAACAATGTTGTGTTATTGTTTGAgaagcttcgtacgctgcaggtc | This study |
| STE11-CAAX-RG | GTGGGAAGAGGAACAAAAAAAAAATAACAATGTGTGTGTGTGTGTGTCCGTGATGAATAAATGAAGATTCAAAAAGtctgatatcatcgatgaattcgag | This study |
| Ste11-int-F | AGAATATGTGCCCGGAGGTTCAG | This study |
| P3\_CEK1-GFP | TAAACTAAACTAAAAACTATGTTTTAGAGCTAGAAATAGCAAGTTAAA | This study |
| P2\_CEK1-GFP | ATAGTTTTTAGTTTAGTTTACAAATTAAAAATAGTTTACGCAAGTC | This study |
| CEK1-GFP-FG | TCGATTTTGATAAAATGAAAGATCAATTAACAATTGAAGATTTGAAAAAATTGTTATATGAAGAGATTATGAAACCATTAggtgctggcgcaggtgcttc | This study |
| CEK1-GFP-RG | ATTCTACTTCTTTTTCTTTTCAAATATCAACAAAATCTATTCTTCACACATGTTTACTTAACTTCAACTTTAACTTTAAC ccgcataggccactagtgga | This study |
| Con\_CEK1-F1 | TATTGGCAGAAATGTTGAGTGGTAGACC | This study |
| Con\_CEK1-R1 | AGGTCTGATATTAATTTGGCTTGCTGTG | This study |
| Cek2-GFP- SgRNA Forward | atttgattatactttataaagatatg | Rastghalam *et al.* 2019 |
| Cek2-GFP- SgRNA Reverse | aaaacatatctttataaagtataatc | Rastghalam *et al.* 2019 |
| Cek2-GFP- Repair DNA Forward | aagagtttgattttgatatagataagaagaatttggacaccaatgacttgaaaaaacaaattttcgaaatagtCATGTCG GGTGCTGGCGCAGGTGCTTC | Rastghalam *et al.* 2019 |
| Cek2-GFP- Repair DNA Reverse | acagggttgaacagtgaacccaataaaagttttaacagatattattgaaagacaaagaaaacatcactaaacaaattaaaTTATTTGTATAGTTCATCCA | Rastghalam *et al.* 2019 |
| Cek2-GFP- Checking primers Foward | cttgatgagcctgttacact | Rastghalam *et al.* 2019 |
| Cek2-GFP- Checking primers Reverse | gagaaaagatgatcgctatc | Rastghalam *et al.* 2019 |

|  |  |
| --- | --- |
| **Plasmid** | **Reference** |
| pV1093 | Vyas *et al.* 2015 |
| pFA-CaARG4 | Gola *et al.* 2003 |
| pFA-GFP-CaHIS1 | Gola *et al.* 2003 |
| pFA-CaHIS1 | Gola *et al.* 2003 |
| pFA-CmLEU2 | Schaub *et al.* 2006 |

**Literature cited**

Gola, S., R. Martin, A. Walther, A. Dunkler, and J. Wendland, 2003 New modules for PCR-based gene targeting in *Candida albicans*: rapid and efficient gene targeting using 100 bp of flanking homology region. Yeast 20: 1339–1347.

Martin, R., D. Hellwig, Y. Schaub, J. Bauer, A. Walther *et al.*, 2007 Functional analysis of *Candida albicans* genes whose *Saccharomyces cerevisiae* homologues are involved in endocytosis. Yeast 24: 511–522.

Min, K., Y. Ichikawa, C. A. Woolford, and A. P. Mitchell, 2016 *Candida albicans* Gene Deletion with a Transient CRISPR-Cas9 System. mSphere 1: e00130-16.

Rastghalam, G., R. P. Omran, M. Alizadeh, D. Fulton, J. Mallick *et al.*, 2019 MAP Kinase Regulation of the Candida albicans Pheromone Pathway. mSphere 4: e--598-18.

Schaub, Y., A. Dünkler, A. Walther, and J. Wendland, 2006 New pFA-cassettes for PCR-based gene manipulation in *Candida albicans*. J. Basic Microbiol. 46: 416–429.

Vyas, V. K., M. I. Barrasa, and G. R. Fink, 2015 A *Candida albicans* CRISPR system permits genetic engineering of essential genes and gene families. Sci.Adv. 1: e1500248.