**Table S5. List of primers used**

|  |  |  |
| --- | --- | --- |
| **N°** | **Name** | **Sequence** |
| 1 | FLO1\_KO\_Fw | TTCCGGGTTCTTATTTTTAATTCTTGTCACCAGTAAACAGAACATCCAAACAGCTGAAGCTTCGTACGC |
| 2 | FLO1\_KO\_Rv | TAAGAAGCGCAAGAATTATCATTTAGTCAATTTGAATATTTGAAAGTATGGAGGGCATAGGCCACTAGTGGATCTG |
| 3 | FLO10\_KO\_Fw | TTACGTTGAAGATTTGTTTTAGGGTGCTTAATCAAAGAACAACAAATAAAAACAGCTGAAGTTCGTACGC |
| 4 | FLO10\_KO\_Rv | GACGAATCGTAGACGCAGAAGTATCAATCCAAAGGATATTTCTGCACCTAGCATAGGCCACTAGTGGATCTG |
| 5 | FLO11\_KO\_Fw | TTCTAATTAAAATATACTTTTGTAGGCCTCAAAAATCCATATACGCACACTCAGCTGAAGCTTCGTACGC |
| 6 | FLO11\_KO\_Rv | ATTTAAGAATGAAAACATCGTAATGAAGAAACGAACATGTTGGAATTGTATCAGCATAGGCCACTAGTGGATCTG |
| 7 | FLO1\_UPSTR\_Fw | ATAGGGAGGCATCATGGT |
| 8 | FLO10\_UPSTR\_Fw | GTTGTTGTGATCCGTCAC |
| 9 | FLO11\_UPSTR\_Fw | GATTCAAGGCATCATCGC |
| 3550 | FLO1\_ck\_Fw | ATAGGGAGGCATCATGGT |
| 3551 | FLO1\_ck\_Rv | TTTTGGTGCACTTTTACACC |
| 3554 | FLO10\_ck\_Fw | GTTGTTGTGATCCGTCAC |
| 3555 | FLO10\_ck\_Rv | CAGCTGTTGGTTGACTTTATG |
| 3558 | FLO11\_ck\_Fw | GATTCAAGGCATCATCGC |
| 3559 | FLO11\_ck\_Rv | TGTCGTTCTATCTCGCGAAT |
| 2821 | URA3\_WT-ko(f) | GTGAAGGATAAGTTTTGACCATCAAAGAAGGTTAATGTGGCTGTGGTTTCAGGGTCCATA-CAGCTGAAGCTTCGTACGCTGCAGG |
| 2822 | URA3\_WT-ko(r) | AAGCTTTTTCTTTCCAATTTTTTTTTTTTCGTCATTATAGAAATCATTACGACCGAGATT-CGCATAGGCCACTAGTGGATCTG |
| 3143 | CHK-URA3-F | CTAGGGAAGACAAGCAACG |
| 3340 | CHK-insURA-R | GGTTAATGTCGCTTTTGGCA |
| 69 | KanMx\_Rv | GCACGTCAAGACTGTCAAGG |
| 86 | Mata\_Fw | ACTCCACTTCAAGTAAGAGTTTG |
| 87 | Matalpha\_Fw | GCACGGAATATGGGACTACTTCG |
| 88 | Matloc\_Rv | AGTCACATCAAGATCGTTTATGG |
| 147 | HYG\_Rv | TCGACAGACGTCGCGGTGAGTT |
| 1920 | YRO-CONT-FW | CCTACCCGGTTGCCTCCAAAGCCCTTCTTT |
| 1923 | YRO-CONT-RV | AACTAGGTTACATAACTGCCTATTGGCAAG |
| 3041 | check-YRO2-f | GGCAACCATTCTCCAACATT |
| 4597 | Yro2\_fl\_KanMx\_Fw | TATTGACCACACCTCTACCGGCAGATCCGCTAGGGATAACAGGGTAATATAGATCTGTTTCAGCTGAAGCTTCGTACGC |
|  |  |  |
| 4598 | Yro2\_fl\_KanMx\_Rv | GAGGCCGATGGCAGCAACCCTAGTCGACACTGGATGGCGGCGTTAGTATCGAATCGACAGGCATAGGCCACTAGTGGATCTG |
|  |  |  |
| JC9 | pCB1\_downstrHYG\_Fw | TGGTCGCTATACTGCTGTCG |
| JC26 | HYG\_YRO2\_RV | TTTGAAGACGACAAGGAAAGC |
| JC93 | pCB1\_upstreamloxP\_Fw | CAGCTGAAGCTTCGTACGC |
| JC101 | TDH3\_Fw | CTTTTTAAGCTGGCATCCAG |
| JC110 | pCB1\_loxP\_Fw | ATCTGTTTAGCTTGCCTCGT |
| 4599 | PCA1insertmarker\_Fw | GACGACTCTGTAATACTCTATTTATTATTTAGTTTAGTTTTCTATTTAATATGATGGAATCAGCTGAAGCTTCGTACGC |
| 4600 | PCA1insertmarker\_Rv | TAATTTATCAGTTGATCTGCAATTACCTGGCATGGCTATGTGTATTTTTTTTTTTTATGAGCATAGGCCACTAGTGGATCTG |
| 4601 | ckinsertmarkerPCA1\_Fw | GCCAAGCTAGCTGCTGATGT |
| 4602 | ckinsertmarkerPCA1\_Rv | CAACATTAGGTAGAACTTTTATTGCTCAG |
|  | PCA1insertSNP\_Fw | AATATCATTCGTATTTACTTTGACCCAAAGGTTATAGGTgtcAGAGATCTTGTCAATGAAGGATGGAGCGTGCCTGTTAGT |
|  | PCA1checkrecombSNP\_Fw | GCTCAGGGATCTGTCAAGG |
| 4644 | IV1489310insertmarker\_Fw | TCGTCAAGTACTATTATAACGACAGCGATAGGAAAAAAAACCAACATCGGACGAGAATAACAGCTGAAGCTTCGTACGC |
| 4645 | IV1489310insertmarker\_Rv | ATCGCGGAAAATTTCATATCGAATTTTAAAGGAATGTCATTTTGAACGCTAAAGTATTATGCATAGGCCACTAGTGGATCTG |
| 4646 | IV1489310checkmarker\_Fw | GCTACCTTAACCACTCTGC |
| 4647 | IV1489310checkmarker\_Rv | GTCGTATTCTCGGCGAATTA |
| 4648 | IV1489310insertSNP\_Rv | TTTATTTTTATTTCCTCTCTATAATTATTACCTGTATTAAaTCATTATCTAATATAAAATCTAATCTAATAATAGAATTTT |
| 4697 | IV1489310checkrecombSNP\_Rv | CCGGTGTCGCTTTCTTATTC |
| 4649 | XII747403insertmarker\_Fw | TACTTTTCTATTGCAACGGCCTAAAGGAATTCGATAAAAGAAAGAGTAGGCAAGATAAGCCAGCTGAAGCTTCGTACGC |
| 4650 | XII747403insertmarker\_Rv | CAATGGAAGAACAAAGAAAATTTAGCGGAAGTAAAAATAACAGCCGAAAGCCAAATTCAGGCATAGGCCACTAGTGGATCTG |
| 4651 | XII747403checkmarker\_Fw | GCACCTGATGCGCATAATAG |
| 4652 | XII747403checkmarker\_Rv | CCCTGACGCATGTTTCTCAT |
| 4653 | XII747403insertSNP\_Fw | AACTGAATAATTTTCTTGTCTGCGTTCCTTTTTTTGTGCAtCAATGGATGTAGTATGCGCACCTGATGCGCATAATAGATT |
| 4746 | XII747403checkrecombSNP\_Fw | GTAGTGGAAAAGCAGGTGTG |
| 4654 | HEM13insertmarker\_Fw | TCGACCACTTATTTATACATTTTTTTATCTATTTATTATACCTCCTTTACATAATTCTTCCAGCTGAAGCTTCGTACGC |
| 4655 | HEM13insertmarker\_Rv | CATAAATAGGACGCAATAATTAATATTTTTAAGAATAGAGATCCTGTATCAATTGAATTTGCATAGGCCACTAGTGGATCTG |
| 4656 | HEM13checkmarker\_Fw | CCAGGCTCTAGAGTTGAGTC |
| 4657 | HEM13checkmarker\_Rv | GAGAATGAAGGCTGCTGCC |
| 4658 | MVP-HEM13insertSNP\_Fw | CCCACAAGAAATATTGAAGATGGTTGAAGACTGTTTCGATcctTTCTTGCCATCCTACTTGACTATCGTCAAGAGAAGAAA |
| 4747 | HEM13checkrecombSNP\_Fw | GGACAAGCACGACACTGC |
| 4659 | HST4insertmarker\_Fw | GTTTTGCCATATTCTTCCTTGAACAAAATTGAAAAATTTTAAAAAACCTCTCCATTACCCCAGCTGAAGCTTCGTACGC |
| 4660 | HST4insertmarker\_Rv | CTAAAGTTGCTGTTTTCCCCTTTTAGGAAACGTAATTGATTTTTTGCTCACGTGCTCTGCGCATAGGCCACTAGTGGATCTG |
| 4661 | HST4checkmarker\_Fw | GGCCCAGAACTTAACAGCC |
| 4662 | MVP-HST4checkmarker\_Rv | CCGTACTTGGTGGGGTGA |
| 4663 | HST4insertSNP\_Rv | GCCCCGCTGACTACAACCATTCTTTTGCTATAATTCAGaggATAGCTAATAAAACCGGCGTCGCGGTCCATATGATGGCGT |
| 4748 | HST4checkrecombSNP\_Fw | CCTAGAAGATTGCTACCGCA |
| 4679 | MEX67insertmarker\_Fw | GCTACTGTTTTCGTCACGTTCCGAACAGCAGCATGCTTTGTATATTTTGTACTAATTCATCAGCTGAAGCTTCGTACGC |
| 4680 | MEX67insertmarker\_Rv | CATATCTATATTTTGAAAAAATCTTCTATATAACGGTTGTATAGAAATAATTACTTATTTGCATAGGCCACTAGTGGATCTG |
| 4681 | MEX67checkmarker\_Fw | GCATGAATGGCATCCCTAGA |
| 4682 | MEX67checkmarker\_Rv | CCCATGCATTGGTACTCTGA |
| 4683 | MEX67insertSNP\_Fw | TTAGTTCCATCTCCACCCAGTCTAAGATGTTTCCAGCAataATGAAACTGGCTTCTACAGAAAAAAGTTTGATAGTGGAAA |
| 4696 | MEX67checkrecombSNP\_Fw | GGAACGGTGTCCGGTTTG |
| 4664 | PRT1insertmarker\_Fw | CTTACGGGCTTGTATGTAAACTAACAACAATATCTAGTATAAGTATGAGAATTAGTCTAATCAGCTGAAGCTTCGTACGC |
| 4665 | PRT1insertmarker\_Rv | CGAGGAGAGCGACCCCTGCAGATTACAAAGATAATAGAGCCTATTGTAGTATTTATGAATGCATAGGCCACTAGTGGATCTG |
| 4666 | PRT1checkmarker\_Fw | CCAGAAGATGCCAGCGAT |
| 4667 | PRT1checkmarker\_Rv | GTCCAATCTCTCACAGTGACT |
| 4668 | PRT1insertSNP\_Fw | GTTCCTGTGCTTCAATGTCGAACGTCACACAAAGTCTGGTgagACTCAATTCAGTAATCTACAAATTTGTAGGTTGACTGA |
| 4694 | PRT1checkrecombSNP\_Fw | CCATTCAGAAACGGTGACGA |
| 4669 | VPS70insertmarker\_Fw | TATTTACAGAATTAAAGCTTAGAACTATCATAACTTTCATAATATACCACCAGGCTTCAACAGCTGAAGCTTCGTACGC |
| 4670 | VPS70insertmarker\_Rv | GTCAAACCTTTTTACCCGGGCCATCAAACTCAAGCAAACTCCGAATGGAACAATGCCTTTGCATAGGCCACTAGTGGATCTG |
| 4671 | VPS70checkmarker\_Fw | GGCGGCCGTCTCTATACT |
| 4672 | VPS70checkmarker\_Rv | CGAGTGGTCTCGCCACTA |
| 4673 | VPS70insertSNP\_Rv | ATCATGCTTGCTTCGTAGACCACTTTACCATTTTCTAAagtAGCTACGTTAGTGTCTACTGGTTCACCTATCCATGGGTAA |
| 4695 | VPS70checkrecombSNP\_Rv | CCGATCGTACGATGTGGATT |
| 4674 | YBL059Winsertmarker\_Fw | TAGTAGTAGTTTCAATAATATATTCCACTACTTATATGTGTTACCCGCATTAGAACTCTTCAGCTGAAGCTTCGTACGC |
| 4675 | YBL059Winsertmarker\_Rv | ATTGGTGGCGAAAATCGATGGCAATAAAGAACGGAAGGGGTTTAATAGTTGTATGCTTAAGCATAGGCCACTAGTGGATCTG |
| 4676 | YBL059Wcheckprimer\_Fw | GGATAAAAGAAGCCAGCAAGT |
| 4677 | YBL059Wcheckprimer\_Rv | TATAAGAAACGTCGGTAGCAC |
| 4678 | YBL059WinsertSNP\_Fw | TTAGCGGCAACGGGCATGACACTAGGTATATTTGGTATGGtCATCACAGGGACATGTTGGAGCTGGGATGTTTCATCATTT |
| 4698 | YBL059WcheckrecombSNP\_Fw | CGGCCTCATACTCAAAGAAC |
| 4504 | Msh2plusHYG-Fw2 | TTAATATTACAACGACATCTTAAGTGAGAATCGATAGATAATATATAGATACAAATAGTACAGCTGAAGCTTCGTACGC |
| 4505 | Msh2plusHYG-Rv2 | CTGTACCTTGTCTACAAAGATTGTAAAAAATAAAAATTCTTTCCCAATGCATATTATATGGCATAGGCCACTAGTGGATCTG |
| 4524 | MSH2DEL\_Fw | ATCAACTGTAAAAAATCTCTTTATCTGCTGACCTAACATCAAAATCCTCAGATTAAAAGTCAGCTGAAGCTTCGTACGC |
| 4525 | MSH2DEL\_Rv | TACTATTTGTATCTATATATTATCTATCGATTCTCACTTAAGATGTCGTTGTAATATTAAGCATAGGCCACTAGTGGATCTG |
| 4552 | MSH2insertevolved\_Fw | AAGTTGGAGAACCATCATCTGCATGGTTGGTGTATGAGGTTGACACGTAATGACGCCAAG**GAGTTACGTAATGACGCCAAG**GAGTTACGTAAACATAAGAAGTACATTGAG |
| 4489 | seqMsh2-p1 | GAAGAAATGGTTGAAACAACG |
| 4490 | seqMsh2-p2 | ATGAGCAAAAGAGGCAATCA |