**Table S4.** Oligonucleotides used for the construction of deletion cassettes.

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| --- | --- | --- |
| Gene ID | Oligonucleotide | Sequence |
| 105260 | 5F\_ht  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGCCTGGATATCCCATGGATGT-3‘ |
|  | 5R\_ht  | 5‘-CGACGATATCAGCTTCCATATTCCGACTATGTATGACCAAGAATTTGCC-3‘ |
|  | 3F\_ht  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTATGGAGCATCAGGGTGAGTAT-3‘ |
|  | 3R\_ht  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCTTGCCGTATCCTTGTCAT-3‘ |
| 3405 | ch\_ht  | 5‘-GGAAGTGGGCAGATGTTT-3‘ |
|  | 5F\_st  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGTTCTTCACACCTAGGTTCG -3‘ |
|  | 5R\_st | 5‘-CGACGATATCAGCTTCCATATTCCGACTAGATCTCTCCCTACTCAGGCA-3‘ |
|  | 3F\_st  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTAATATCTGGGCAGTTGTGCG-3‘ |
|  | 3R\_st  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCTAGACGGACAGGGAACAGAG-3‘ |
| 79202 | ch\_st  | 5‘-ATCCGATCATACCTGCCA-3‘ |
|  | 5F\_tp  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGGGCTTGCCAATCATAACTAA-3‘ |
|  | 5R\_tp  | 5‘-CGACGATATCAGCTTCCATATTCCGACTACCGTCCTTTGACCGAGAT-3‘ |
|  | 3F\_tp  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTAAGTTGGGAGTGCATATTGAA-3‘ |
|  | 3R\_tp  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCATGAGGCTGGACGAATCTAG-3‘ |
| 56289 | ch\_tp | 5‘-GGAGATTCCTACGGCTGA-3‘ |
|  | 5F\_pmfs1  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGACTGTTGATCGTTCTCCTCC-3‘ |
|  | 5R\_pmfs1  | 5‘-CGACGATATCAGCTTCCATATTCCGACTAGGTCAGAGACTGCAAGGCT-3‘ |
|  | 3F\_pmfs1  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTAGTATTGCGATCTGTCATTGG-3‘ |
|  | 3R\_pmfs1  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCCAGGAGTGGAATACGTATGC-3‘ |
| 123473 | ch\_pmfs1  | 5‘-AATCTCTGGAATCACGATGG-3‘ |
|  | 5F\_mfs3  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGATAGTCTGGCCATGGGATC-3‘ |
|  | 5R\_mfs3  | 5‘-CGACGATATCAGCTTCCATATTCCGACTAAGCAGAACTGAGGGAAACAT-3‘ |
|  | 3F\_mfs3  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTACAGCAGCCAATTGTCACG-3‘ |
|  | 3R\_mfs3  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCCACTCTCACTCGTCGACACC-3‘ |
| 104072 | ch\_pmfs3  | 5‘-GTACGAGTATGGAGCAATGC-3‘ |
|  | 5F\_pt  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGGGCTTCCCTTGCACTAATG-3‘ |
|  | 5R\_pt  | 5‘-CGACGATATCAGCTTCCATATTCCGACTAAAATCCGATACATCTTGGC-3‘ |
|  | 3F\_pt  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTACAGGATCAGCGTGGAATATT-3‘ |
|  | 3R\_pt  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCAAAGAATCGATCCACTACGG-3‘ |
| 50894 | ch\_pt  | 5‘-AAATCCAGATACTCCAGTCG-3‘ |
|  | 5F\_pmfs4  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGCACTGACGCTAAAGCATACG-3‘ |
|  | 5R\_pmfs4  | 5‘-CGACGATATCAGCTTCCATATTCCGACTACCTTGTCTTCATGTCGCCT-3‘ |
|  | 3F\_pmfs4  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTACGAGTCACGGATCTTCTGG-3‘ |
|  | 3R\_pmfs4  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCATACTTGCCAGCAGCTTCA-3‘ |
| 56684 | ch\_pmfs4  | 5‘-GGAGACGGTGTTACATGCT-3‘ |
|  | 5F\_pt2  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGCGATTCGACGAGCTACTGAG-3‘ |
|  | 5R\_pt2  | 5‘-CGACGATATCAGCTTCCATATTCCGACTAAAATGAAGGGTAAGCAAAGC-3‘ |
|  | 3F\_pt2  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTAGTCGTGAAATCGCTAATGAA-3‘ |
|  | 3R\_pt2  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCAATTGCCGCTGTGAGTCAT-3‘ |
| 62380 | ch\_pt2 | 5‘-TTCGTTTCATCTCAGGCC-3‘ |
|  | 5F\_msf2  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGGCTGAATCATACGCATGTTT-3‘ |
|  | 5R\_msf2  | 5‘-CGACGATATCAGCTTCCATATTCCGACTATGTGTGAGACCGTGGAGG-3‘ |
|  | 3F\_msf2  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTATGGCTGTGGTGAATATCCTA-3‘ |
|  | 3R\_msf2  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCGAGTGCTGCTATAGTGCGAA-3‘ |
|  | ch\_msf2  | 5‘-CAGTCAGAAGGAGCGGTT-3‘ |
| 44956 | 5F\_pmfs2  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGAGCACCAGAGCATCACCAT-3‘ |
|  | 5R\_pmfs2  | 5‘-CGACGATATCAGCTTCCATATTCCGACTAGGCGTGCACAGTAGATTCA-3‘ |
|  | 3F\_pmfs2  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTACAGGCGACAGACACAATCAT-3‘ |
|  | 3R\_pmfs2  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCCTTCGCGTCCTCCATCTC-3‘ |
|  | ch\_pmfs2  | 5‘-GGGTTGTCGCAGTTCTCA-3‘ |
| 21595 | 5F\_pmfs3  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGGCTGCCAGGGGTGTATATG-3‘ |
|  | 5R\_pmfs3  | 5‘-CGACGATATCAGCTTCCATATTCCGACTAGGACCGGGAGAGATGATGT-3‘ |
|  | 3F\_pmfs3  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTACGGCAGCTATAACAGACCAC-3‘ |
|  | 3R\_pmfs3  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCACATCTTGGCAATCTTGAGG-3‘ |
|  | ch\_pmfs3  | 5‘-GTACGAGTATGGAGCAATGC-3‘ |
| 70349 | 5F\_pmfs5  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGCTCGTTGCAGTGCTCGTTAT-3‘ |
|  | 5R\_pmfs5  | 5‘-CGACGATATCAGCTTCCATATTCCGACTAAATGAGGGCTATGGAACAAA-3‘ |
|  | 3F\_pmfs5  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTATCCATATCTTCGAGCTGTGC-3‘ |
|  | 3R\_pmfs5  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCGCAGTAGCATCGATAAGCAT-3‘ |
|  | ch\_pmfs5  | 5‘-GGGAAAGATAGGTGGCAA-3‘ |
| 69957 | 5F\_pt4  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGCAGGTATAATTGTCTCCGCC-3‘ |
|  | 5R\_pt4  | 5‘-CGACGATATCAGCTTCCATATTCCGACTACCCTTATACTCGCATGCAGA-3‘ |
|  | 3F\_pt4  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTAGCTACTGGAGACAACGACGA-3‘ |
|  | 3R\_pt4  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCTGTGGCAGAAGGTCTCGATA-3‘ |
|  | ch\_pt4  | 5‘-GCAAAGTAGGCATGATCAAC-3‘ |
| 121608 | 5F\_pmfs6  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGCTAGCAGGCATCCGTCTCT-3‘ |
|  | 5R\_pmfs6  | 5‘-CGACGATATCAGCTTCCATATTCCGACTAATCTCACGAGCGAAGGAACT-3‘ |
|  | 3F\_pmfs6  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTAGTAGCGAGCCAGACACATTC-3‘ |
|  | 3R\_pmfs6  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCGACGATGAGGACCACCAGAT-3‘ |
|  | ch\_pmfs6  | 5‘-ATCATATGCCTTGTCTCACC-3‘ |
| 65915 | 5F\_pmfs7  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGACGATATGGTGCTCTTGACA-3‘ |
|  | 5R\_pmfs7  | 5‘-CGACGATATCAGCTTCCATATTCCGACTACAACCGTCTTGAGATCCTTC-3‘ |
|  | 3F\_pmfs7  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTACCAGCATAAGCACACTACCC-3‘ |
|  | 3R\_pmfs7  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCTCAACAACCTGCAAGAGTCC-3‘ |
|  | ch\_pmfs7  | 5‘-GACCTACAGCTTCTAAACGG-3‘ |
| 82309 | 5F\_pt5  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGTCAGTTCTATGGCGTATGGG-3‘ |
|  | 5R\_pt5  | 5‘-CGACGATATCAGCTTCCATATTCCGACTACTCCCCAGGATTGAGATGC-3‘ |
|  | 3F\_pt5  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTAACCAACCTCGATTACCTCAC-3‘ |
|  | 3R\_pt5  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCGATGAGATATTCGCCAGCAC-3‘ |
|  | ch\_pt5  | 5‘-ATTCACCCGTACGTCGTC-3‘ |
| 78833 | 5F\_pfp  | 5‘-GTAACGCCAGGGTTTTCCCAGTCACGACGAACAAACTGCAGAGATCCGA-3‘ |
|  | 5R\_pfp  | 5‘-CGACGATATCAGCTTCCATATTCCGACTATTTGACTGACTTGGGACGAC-3‘ |
|  | 3F\_pfp  | 5‘-AGAAAAGCACAAAGAAGAGGCTCCAACTAGCCAAACACACATAGACCTG-3‘ |
|  | 3R\_pfp  | 5‘-GCGGATAACAATTTCACACAGGAAACAGCTAGTCCAGTACCGCAAGAGC-3‘ |
|  | ch\_pfp  | 5‘-AAGGGAGGAGGTTCACGT-3‘ |
| 74020/pyr4 | Pyr4 fw: | 5‘-ATTCCAACGCCTCTTCTTTGTGCTTTTCT-3‘ |
|  | Pyr4 rev | 5‘-ATTCCGACATATGGAAGCTGATATCGTCG-3‘ |
|  | ch\_pyr4 neu | 5‘-ACAAGCCCATCTACTCGAA-3‘ |
| 3405 | st\_infusion\_1 | 5‘-CGTCATCGATGTCGACAGGGAGAGATCAGGACCAA-3‘ |
|  | st\_infusion\_2 | 5‘-TGATTACGCCAAGCTTGAGGTAGGCATGGGTGTAT-3‘ |
|  | Ptef F ch | 5‘-CACCATCTGCTTTCGAAA-3‘ |
|  | St R ch | 5‘-CGACGACACCACCAATCT-3‘ |