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| name | Sequence (5’ 🡪 3’)) | purpose |
| *gdhA*-KO-fwd | TAAACAACATAAGCACAATCGTATTAATATATAAGGGTTTTATATCTATGGTGTAGGCTGGAGCTGCTTC | Cassette amplification |
| *gdhA*-KO-rvs | TAAGCGTAGCGCCATCAGGCATTTACAACTTAAATCACACCCTGCGCCAGCATATGAATATCCTCCTTAG | Cassette amplification |
| *gdhA*-KO-Ver-fwd | CTGAGTTATCGCATTTGGTTATGAGATTACTCTCG | Gene removal verification |
| *gdhA*-KO-Ver-fwd | GGAGCATCATCCGTTAAATACTCATAAACGCCTG | Gene removal verification |
| *gdhA-*int-fwd | ATGCATgatcagacatattctctggag | Gene removal verification |
| *gdhA-*int-rvs | TCTAGAGCTAGCttaaatcacaccctgcgcc | Gene removal verification |
| *gltBD*-KO-fwd | GCGGTTCGGAAGTGGGGTTCCCGCAGAGCCTGGGGGAGGTTCACGATATGGTGTAGGCTGGAGCTGCTTC | Cassette amplification |
| *gltBD*-KO-rvs | ACAGTCTGGCGAATTCATTGTTACCTCGCTTAAACTTCCAGCCAGTTCATCATATGAATATCCTCCTTAG | Cassette amplification |
| *glttBD*-KO-Ver-fwd | GAGGCGCGCGTATGACACGCAAACC | Gene removal verification |
| *gltBD*-KO-Ver-rvs | GCACAATTTATTGAAAATTATCCCTATTATAGGAAAGGTCAAACG | Gene removal verification |
| *gltBD*-int-fwd | CTGTGCGACAAAGCCGAAAA | Gene removal verification |
| *gltBD*-int-rvs | TCGTTCAGAGTGCAGGAACC | Gene removal verification |
| *putA*-KO-Ver-fwd | GCTGGCGGCGATCAAAGA | Gene removal verification |
| *putA*-KO-Ver-rvs | GCGGTTGCACCTTTCAAAAATGTTAACTG | Gene removal verification |
| *putA*-int-fwd | gcagcggtattcacactcag | Gene removal verification |
| *putA*-int-rvs | cacaccagccattcctcgac | Gene removal verification |
| *ybdL*-KO-fwd | TCGTGTTATAGTGCCTTCAACACGCAACTTCGTCAGGTACAATAAAAATGGTGTAGGCTGGAGCTGCTTC | Cassette amplification |
| *ybdL*-KO-rvs | AATATTCCCGCGCCTGGACGGTTAAATAGCTAAAGCTGGCGCAGGCGTTCCATATGAATATCCTCCTTAG | Cassette amplification |
| *ybdL*-KO-Ver-fwd | CTGCAATGACCGCGAAACAA | Gene removal verification |
| *ybdL*-KO-Ver-rvs | TCGTGGACGCCATCAAATCA | Gene removal verification |
| *ybdL*-int-fwd | TTCCACAACTTGGCACCACT | Gene removal verification |
| *ybdL*-int-rvs | ATAACCCACTTTCCAGCCGG | Gene removal verification |
| *aspC*-KO-fwd | TTTTCAGCGGGCTTCATTGTTTTTAATGCTTACAGCACTGCCACAATCGCGTGTAGGCTGGAGCTGCTTC | Cassette amplification |
| *aspC*-KO- rvs | TACCCTGATAGCGGACTTCCCTTCTGTAACCATAATGGAACCTCGTCATGCATATGAATATCCTCCTTAG | Cassette amplification |
| *aspC*-KO-Ver-fwd | GCCTGCATAATCCCTTCCTGCA | Gene removal verification |
| *aspC*-KO-Ver-rvs | GTCTTGCAAAAACAGCCTGCGT | Gene removal verification |
| *aspC*-int-fwd | ATGCATtttgagaacattaccgccgc | Gene removal verification |
| *aspC*-int-rvs | GCTAGCTCTAGAttacagcactgccacaatcg | Gene removal verification |
| *dadX*-KO-Ver-fwd | ACTTTCTGGACTGGTCTGCG | Gene removal verification |
| *dadX*-KO-Ver-rvs | GGTTGCGATGCTTTGCTGAA | Gene removal verification |
| *dadX*-int-fwd | GATACAGGCCAGCCTCGATC | Gene removal verification |
| *dadX*-int-rvs | GGCAAGGCGTTAAATCGACC | Gene removal verification |
| *dadA*-KO-fwd | GATTAGATTATTATTCTTTTACTGTATCTACCGTTATCGGAGTGGCTATGGTGTAGGCTGGAGCTGCTTC | Cassette amplification |
| *dadA*-KO-rvs | GCCTGTATCGGACGGGTCATCTCGTTTCCTTAGCTGTGTGCGCCATGTAACATATGAATATCCTCCTTAG | Cassette amplification |
| *dadA*-KO-Ver-fwd | GACGCCATATTGCCGCAGAGTCAGG | Gene removal verification |
| *dadA*-KO-Ver-rvs | GTCGCGGCCTGGCGGACAATG | Gene removal verification |
| *dadA*-int-fwd | cgagttgtcatactgggaagtggtg | Gene removal verification |
| *dadA*-int-rvs | cattgggtaactgcaggccgc | Gene removal verification |
| *gcvTHP*-KO-fwd | CGCCTTTAGAAAATAGTCGAATCAGTGAATTACTGGTATTCGCTAATCGGAATTAACCCTCACTAAAGGGCG | Cassette amplification |
| *gcvTHP*-KO-rvs | AAGGAGAGAGGTTCACAATTCACTGCACGTTTCAGGAACCATCGCTCATGTAATACGACTCACTATAGGGCTC | Cassette amplification |
| *gcvTHP*-KO-Ver-fwd | TCTTCTGCGGGAGAGGATCA | Gene removal verification |
| *gcvTHP*-KO-Ver-rvs | ACCCTAACCCTCTCCCCAAA | Gene removal verification |
| *gcvTHP*-int-fwd | CAGCAGCACGTTGAAAAGCT | Gene removal verification |
| *gcvTHP*-int-rvs | TGGAAGCGGGCATGAATCTT | Gene removal verification |
| pZ-ASS-seq-fwd | GCATTTATCAGGGTTATTGTCTCATG | Amplification of pZ-ASS-insert |
| pZ-ASS-seq-rvs | CTAGGGCGGCGGATTTGTCCTAC | Amplification of pZ-ASS-insert |
| Cap-seq-rvs | CTGAACGGTCTGGTTATAGG | Amplification of pZ-ASS-insert |
| *alaA*-amp\_fwd | CAATGCATCATCACCATCACCACTCCCCCATTGAAAAATCCAGCAAATTAGAGAATGTCTG | Amplification of *alaA* from genome |
| *alaA*-amp\_rvs | GTGCTAGCTCTAGATTACAGCTGATGATAACCAGAAAGGAAACGCGC | Amplification of *alaA* from genome |
| *alaC*-amp\_fwd | CAATGCATCATCACCATCACCACGCTGACACTCGCCCTGAACGTCG | Amplification of *alaC* from genome |
| *alaC*-amp\_rvs | GTGCTAGCTCTAGATTATTCCGCGTTTTCGTGAATATGTTTGCTGCTG | Amplification of *alaC* from genome |