**Additional file 1 Oligonucleotide primers for the amplification of genes, thermocycler programmes and references.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Primer** | **Sequence (5’-3’)** | **Positive control** | **PCRa** | **Reference** |
| *arcA* arcA-1m arcA-2c | GAGCCAGAAGTACGCGAGCACGTAACTTGCTAGAACGAG | USA300 | 4 | [59] |
| *atlA* atlA-1m atlA-2c | AATGGTTGCATTAACGCTTGTTTATCGTCGAACGATCATTAG | Newman | 4 | [15] |
| *bbp* bbp-1m bbp-2c | AACTACATCTAGTACTCAACAACAGATGTGCTTGAATAACACCATCATCT | RF122 | 2 | [29] |
| *clf*AclfA-1m clfA-2c | GTAGGTACGTTAATCGGTTCTCATCAGGTTGTTCAGG | Newman | 1 | [29] |
| *clf*BclfB-1m clfB-2c | CAGCAGTAAATCCGAAAGACCCCACCTTTAGGATTTGATGGTGC | Newman | 4 | [60] |
| *chp*chp-1m chp-2c | TTTACTTTTGAACCGTTTCCTACCGTCCTGAATTCTTAGTATGCATATTCATTAG | MSSA-476 | 2 | [61] |
| *cna* cna-1m cna-2c | AGTGGTTACTAATACTGCAGGATAGATTGGTTTA | MSSA-476 | 2 | [29] |
| *ebp*S ebpS-1m ebpS-2c | CATCCAGAACCAATCGAAGACCTTAACAGTTACATCATCATGTTTATCTTTG | Newman | 2 | [29] |
| *eno*eno-1m eno-2c | ACGTGCAGCAGCTGACTCAACAGCATYCTTCAGTACCTTC | Newman | 4 | [47] |
| *eta* eta-1m eta-2c | CTAGTGCATTTGTTATTCAATGCATTGACACCATAGTACT | 2020 | 4 | [29] |
| *etb* etb-1m etb-2c |  ACGCGTATATACATTCAATTTCCATCGATAATATACCTAA | 2020 | 4 | [29] |
| *fib* fib-1m fib-2c | GCGAAGGATACGGTCCAAGAGACAATTCGCTCTTGTAAGACCATT | Newman | 4 | [29] |
| *fmtB*fmtB-1m fmtB-2c | AATGAAGATGCGAATCATGTTGCATCCATTTTTGTTTGCGTAGA | COL | 4 | [62] |
| *fnb*A fnbA-1m fnbA-2c | CACAACCAGCAAATATAGCTGTGTGGTAATCAATGTC | 8325 | 2 | [29] |
| *fnb*B fnbB-1m fnbB-2c | GTAACAGCTAATGGTCGAATTGATACTCAAGTTCGATAGGAGTACTATGTTC | 8325 | 4 | [29] |
| *hla*hla-1m hla-2c | CTTCAGGGTTTTCACCAGACTTCGTTTCCAATTTGTTGAAGTCCAATGC | COL | 4 | [48] |
| *hlb* hlb-1m hlb-2c | GTTGGTGCTCTTACTGACAATGTGTACCGATAACGTGAAC | COL | 3 | [44] |
| *hld*hld-1m hld-2c | GAATTTGTTCACTGTGTCGATAATCCAATTAAGGAAGGAGTGATTTCAATGG | USA300 | 6 | [48] |
| *hlg*hlg-1m hlg-2c | GCCAATCCGTTATTAGAAAATGCCCATAGACGTAGCAACGGAT | Newman | 4 | [29] |
| *ica* A icaA-1m icaA-2c | CCAGAAAATTCCTCACCCGTATTAGGTGTCTGACTTCGCTTTAATACAGCC | N315 | 1 | [29] |
| *integrase* Sa1 Sa1-1m Sa1-2c | AAGCTAAGTTCGGGCACAGTAATGTTTGGGAGCCAT | Mu50 | 4 | [43] |
| *integrase* Sa2 Sa2-1m Sa2-2c | TCAAGTAACCCGTCAACTCATGTCTAAATGTGTGCGTG | N315 | 4 | [43] |
| *integrase* Sa3 Sa3-1m Sa3-2c | GAAAAACAAACGGTGCTATTTATTGACTCTACAGGCTGA | USA300 | 4 | [43] |
| *integrase* Sa4 Sa4-1m Sa4-2c | ATTGATATTAACGGAACTC TAAACTTATATGCGTGTGT | MSSA-476 | 4 | [43] |
| *integrase* Sa5 Sa5-1m Sa5-2c | AAAGATGCCAAACTAGCTG CTTGTGGTTTTGTTCTGG | 8325 | 4 | [43] |
| *integrase* Sa6 Sa6-1m Sa6-2c | GCCATCAATTCAAGGATAG TCTGCAGCTGAGGACAAT | Newman | 4 | [43] |
| *integrase* Sa7 Sa7-1m Sa7-2c | GTCCGGTAGCTAGAGGTC GGCGTATGCTTGACTGTGT | Newman | 4 | [43] |
| *lukA,B*lukAB-1m lukAB-2c | GTGTTATTTGATTTCGTTCTATGTTATTTCTTTTCATTATCATTAAGTACTT | Newman | 5 | [63] |
| *lukS,F-*PV pvl-1m pvl-2c | ATCATTAGGTAAAATGTCTGGACATGATCCA GCATCAAGTGTATTGGATAGCAAAAGC | RN6390 | 4 | [29] |
| *lukM,F-*PVlukMF-1m lukMF-2c | TGGATGTTACCTATGCAACCTACGTTCGTTTCCATATAATGAATCACTAC | RF122 | 4 | [12] |
| *lukE,D*lukED-1m lukED-2c | TGAAAAAGGTTCAAAGTTGATACGAGTGTATTCGATAGCAAAAGCAGTGCA | RF122 | 4 | [49] |
| *map/eap*map/eap-1m map/eap-2c | GCGAAATATACAGTTAATTTACTTTTTTAATGTCAGTTGC | Newman | 1 | [29] |
| *psmA*psmA-1m psmA-2c | CTTTCACATGGGTATCATTGCAGGCAATAGCCATCGTTTTGTCCTCCT | RF122 | 6 | [48] |
| *psmB*psmB-1m psmB-2c | TAATAATGACGGCGCAAAATTAGGGCAACGATGTCTACGATACTTGTGC | COL | 6 | [48] |
| *sak*sak-1m sak-2c | AAGGCGATGACGCGAGTTATGCGCTTGGATCTAATTCAAC | MSSA-476 | 2 | [61] |
| *scn*scn-1m scn-2c | AGCACAAGCTTGCCAACATCGTTAATATTTACTTTTTAGTGC | MSSA-476 | 2 | [61] |
| *sdr*CsdrC-1m sdrC-2c | ACGACTATTAAACCAAGAACGTACTTGAAATAAGCGGTTG | Newman | 3 | [29] |
| *sdr*DsdrD-1m sdrD-2c | GGAAATAAAGTTGAAGTTTCACTTTGTCATCAACTGTAAT | Newman | 3 | [29] |
| *sdr*EsdrE-1m sdrE-2c | ATCAAGTACTCAAAAACAGCTGGCTTGTTTCTTTACCTGC | Newman | 3 | [29] |
| *sea*sea-1m sea-2c | AAAGTCCCGATCAATTTATGGCTAGTAATTAACCGAAGGTTCTGTAGA | MSSA-476 | 4 | [29] |
| *seb* seb-1m seb-2c | TCGCATCAAACTGACAAACGGCAGGTACTCTATAAGTGCC | COL | 4 | [29] |
| *sec*sec-1m sec-2c | GACATAAAAGCTAGGAATTTAAATCGGATTAACATTATCC | N315 | 4 | [29] |
| *sed* sed-1m sed-2c | CTAGTTTGGTAATATCTCCTTAATGCTATATCTTATAGGG | FRI1151m | 4 | [29] |
| *see* see-1m see-2c | TAGATAAGGTTAAAACAAGCTAACTTACCGTGGACCCTTC | FRI326 | 4 | [29] |
| *seg* seg-1m seg-2c | AATTATGTGAATGCTCAACCCGATCAAACTTATATGGAACAAAAGGTACTAGTTC | N315 | 4 | [29] |
| *seh* seh-1m seh-2c | CAATCACATCATATGCGAAAGCAGCATCTACCCAAACATTAGCACC | MSSA-476 | 4 | [29] |
| *sei* sei-1m sei-2c | CTCAAGGTGATATTGGTGTAGGAAAAAACTTACAGGCAGTCCATCTC | N315 | 4 | [29] |
| *sej* sej-1m sej-2c | GGTTTTCAATGTTCTGGTGGTAACCAACGGTTCTTTTGAGG | FRI1151m | 4 | [49] |
| *selk* selk-1m selk-2c | ATGGCGGAGTCACAGCTACTTGCCGTTATGTCCATAAATGTT | COL | 4 | [29] |
| *sell* sell-1m sell-2c | CACCAGAATCACACCGCTTATCCCCTTATCAAAACCGCTAT | N315 | 4 | [29] |
| *selm* selm-1m selm-2c | CTATTAATCTTTGGGTTAATGGAGAACTTCAGTTTCGACAGTTTTGTTGTCAT | N315 | 4 | [29] |
| *seln* seln-1m seln-2c | ACGTGGCAATTAGACGAGTCGATTGATCTTGATGATTATGAG | N315 | 4 | [29] |
| *selo* selo-1m selo-2c | GAGAGTTTGTGTAAGAAGTCAAGTGGATTCTTTATGCTCCGAATGAGAA | N315 | 4 | [29] |
| *selp* selp-1m selp-2c | CTGAATTGCAGGGAACTGCTATTGGCGGTGTCTTTTGAAC | N315 | 4 | [29] |
| *selq* selq-1m selq-2c | GAACCTGAAAAGCTTCAAGGAATTCGCCAACGTAATTCCAC | N315 | 4 | [29] |
| *selu* selu-1m selu-2c | TAAAATAAATGGCTCTAAAATTGATGGATCCGCTGAAAAATAGCATTGAT | N315 | 4 | [29] |
| *tst* tsst-1m tsst-2c | CTAATCAAATAATCAAAACTGCTTTCCAATAACCACCCGTTT | N315 | 3 | [29] |

aThermocycler program: **1:** 94 °C for 3 min; 35 cycles of 94 °C for 30 s, 45 °C for 30 s, and 72 °C for 120 s; 72 °C for 5 min. **2:** 94 °C for 3 min; 35 cycles of 94 °C for 30 s, 50 °C for 30 s, and 72 °C for 120 s; 72 °C for 5 min. **3:** 94 °C for 3 min; 35 cycles of 94 °C for 30 s, 50 °C for 30 s, and 72 °C for 60 s; 72 °C for 5 min. **4:** 94 °C for 3 min; 35 cycles of 94 °C for 30 s, 55 °C for 30 s, and 72 °C for 60 s; 72 °C for 5 min. **5:** 94 °C for 3 min; 35 cycles of 94 °C for 30 s, 55 °C for 30 s, and 72 °C for 120 s; 72 °C for 10 min. **6:** 94 ºC for 5 min; 30 cycles of 94 °C for 30 s; 58 °C for 20 s, and 72 °C for 20 s.; and 72 °C for 5 min.