**Appendix 1: list of primers used in this study**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **name** | **primer** | **Oligonucleotide sequences** | **Amplicon size (bp)** |  | | | | |
|  | *nuc* | F: 5′-AGTTCAGCAAATGCATCACA-3′  R: 5′-TAGCCAAGCCTTGACGAACT-3′ | 400 |  | | | | |
|  | *mec* | F: 5´-GTAGAAATGACTGAACGTCCGATAA-3´  R: 5´-CCAATTCCACATTGTTTCGGTCTAA-3 | 310 |
| **Scc*mec* type** | β | 5´-ATTGCCTTGATAATAGCCYTCT | 937bp | **I** | **II** | **III** | **IV** | **v** |
|  | 🗸 |  | 🗸 |  |
| Α3 | 5´-TAAAGGCATCAATGCACAAACACT |
| ccrCF | F: 5´-CGTCTATTACAAGATGTTAAGGATAAT | 518bp |  |  | 🗸 |  | 🗸 |
| ccrCR | R: 5´-CCTTTATAGACTGGATTATTCAAAATAT |
| 1272F1 | F: 5´-GCCACTCATAACATATGGAA | 415 bp | 🗸 |  |  | 🗸 |  |
| 1272R | R: 5´-CATCCGAGTGAAACCCAAA |
| 5RmecA | 5´-TATACCAAACCCGACAACTAC | 359bp |  |  |  |  | 🗸 |
| 5R431 | 5´-CGGCTACAGTGATAACATCC |
| ccrAB-F | F-ATTGCCTTGATAATAGCCITCT |  |  | | | | |
| ***ccr* type** | ccrA1B1 | R: 5′-AACCTATATCATCAATCAGTACGT | 700 | *ccr* type 1 | | | | |
| ccrA2B2 | R: 5′- TAAAGGCATCAATGCACAAACACT | 1000 | *ccr* type 2 | | | | |
| ccrA3B3 | R: 5′-AGCTCAAAAGCAAGCAATAGAAT | 1600 | *ccr* type 3 | | | | |
| ccrA4B4 | F:5′- GTATCAATGCACCAGAACTT | 1287 | *ccr* type 4 | | | | |
| ccrA4B4 | R: 5′-TTGCGACTCTCTTGGCGTTT |
| ccrC | F: 5-ATGAATTCAAAGAGCATGGC | 336 | *ccr* type 5 | | | | |
| ccrC | R: 5′-GATTTAGAATTGTCGTGATTGC |
| **Prophage type** | SGA | F: 5′-TATCAGGCGAGAATTAAGGG  R:5′-CTTTGACATGACATCCGCTTGAC | 744 |  | | | | |
| SGB | F: 5′-ACTTATCCAGGTGGYGTTATTG  R:5′-TGTATTTAATTTCGCCGTTAGTG | 405 |
| SGF | F: 5′-CGATGGACGGCTACACAGA  R: 5′-TTGTTCAGAAACTTCCCAACCTG | 155 |
| SGFa | F: 5′-TACGGGAAAATATTCGGAAG  R: 5′-ATAATCCGCACCTCATTCCT | 548 |
| SGFb | F 5′-AGACACATTAAGTCGCACGATAG  R 5′-TCTTCTCTGGCACGGTCTCTT | 147 |
| SGD | F: 5′-TGGGCTTCATTCTACGGTGA  R: 5′-GTAATTTAATGAATCCACGAGAT | 331 |
| SGL | F: 5′-GCTTAAAACAGTAACGGTGACAGTG  R: 5′-TGCTACATCATCAAGAACACCTGG | 748 |
| **toxins** | *pvl* | F: 5′-ATCATTAGGTAAAATGTCTGGACATGATCCA  R: 5′--GCATCAAGTGTATTGGATAGCAAAAGC | 433 |
| *sak* | F: 5′- GTGCATCAAGTTCATTCGAC  R: 5′- TAAGTTGAATCCAGGGTTTT | 383 |
| *tst* | F: 5′- ATGGCAGCATCAGCTTGATA  R: 5′- TTTCCAATAACCACCCGTTT | 350 |
| *hlb* | F: 5′- AGCTTCAAACTTAAATGTCA  R: 5′- CCGAGTACAGGTGTTTGGTA | 525 |
| *eta* | F: 5′-CTAGTGCATTTGTTATTCAA  R: TGCATTGACACCATAGTACT | 119 |
| *etb* | F: 5′- ACGGCTATATACATTCAATT  R: 5′- TCCATCGATAATATACCTAA | 200 |

**Appendix 2: correlation between the phage and toxin genes**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | | phage | | | | |
| SGA | SGB | SGF | SGFa | SGFb |
| toxin | *sak* | 7 | 33 | 65 | 60 | 63 |
| *hlb* | 12 | 37 | 69 | 68 | 69 |
| *tst* | 0 | 2 | 5 | 5 | 5 |
| *pvl* | 14 | 8 | 14 | 14 | 14 |
| *eta* | 8 | 56 | 56 | 51 | 53 |
| *etb* | 0 | 0 | 0 | 0 | 0 |
| P value | | 0.000\*\* | | | | |

By using Fisher’s test, it was noticed that the P.-values of Toxin/Prophage was 0.000. This shows that there is a statistically significant relationship between these toxin gene and prophages.