**Table S6. Primers of genes knocked out.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Target gene | Primer sequence | Primer length (bases) | GC content (%) | Melt temp (°C) |
| *mfs* | ATGGCACGTCGACGATATAGACCACCTTATGGCTGAATTCGCACCTAAAGGGCG | 2727 | 51.951.9 | 70.073.7 |
| *pnao* | GAGTCGACATCCCATATCCACTTTAGCGCGAATTCTGCCTGTAACGAATACTAC | 2727 | 48.144.4 | 65.864.4 |
| *nicA2* | CGGAATTCTGTAGTGAGTTTCAGTGTCTAGTCGACGTGTAGTGGAAGATCCACT | 2727 | 44.448.1 | 62.964.8 |
| *nicA1* | GTCAGAATTCACTCCGCCTGCGTATCAAG | 25 | 52.0 | 67.8 |
|  | CAATGTCGACACTCACCCACTACGCTTCTG | 25 | 56.0 | 67.6 |