**Table 3** Biosynthetic gene clusters of Y2(NC\_017912) strain

|  |  |  |  |
| --- | --- | --- | --- |
| **Cluster** | **Type** | **Most similar known cluster** | **MIBiG BGC-ID** |
| Cluster 1 | Nrps | Surfactin\_biosynthetic\_gene\_cluster (43% of genes show similarity) | BGC0000433\_c1 |
| Cluster 2 | Cf\_putative | - | - |
| Cluster 3 | Cf\_putative | - | - |
| Cluster 4 | Cf\_fatty\_acid | - | - |
| Cluster 5 | Phosphonate | Pactamycin\_biosynthetic\_gene\_cluster (3% of genes show similarity) | BGC0000119\_c1 |
| Cluster 6 | Cf\_saccharide | Plantathiazolicin\_/\_plantazolicin\_biosynthetic\_gene\_cluster (33% of genes show similarity) | BGC0000569\_c1 |
| Cluster 7 | Cf\_putative | - | - |
| Cluster 8 | Otherks | - | - |
| Cluster 9 | Cf\_fatty\_acid | - | - |
| Cluster 10 | Cf\_putative | - | - |
| Cluster 11 | Terpene | - | - |
| Cluster 12 | Cf\_fatty\_acid | - | - |
| Cluster 13 | Cf\_putative | - | - |
| Cluster 14 | Cf\_putative | - | - |
| Cluster 15 | Transatpks | Macrolactin\_biosynthetic\_gene\_cluster (90% of genes show similarity) | BGC0000181\_c1 |
| Cluster 16 | Nrps-Transatpks | Bacillaene\_biosynthetic\_gene\_cluster (85% of genes show similarity) | BGC0001089\_c1 |
| Cluster 17 | Nrps-Transatpks | Fengycin\_biosynthetic\_gene\_cluster (93% of genes show similarity) | BGC0001095\_c1 |
| Cluster 18 | Terpene | - | - |
| Cluster 19 | Cf\_saccharide-T3pks | - | - |
| Cluster 20 | Transatpks | Difficidin\_biosynthetic\_gene\_cluster (100% of genes show similarity) | BGC0000176\_c1 |
| Cluster 21 | Cf\_putative | - | - |
| Cluster 22 | Nrps-Bacteriocin | Bacillibactin\_biosynthetic\_gene\_cluster (100% of genes show similarity) | BGC0000309\_c1 |
| Cluster 23 | Cf\_saccharide | - | - |
| Cluster 24 | Nrps | - | - |
| Cluster 25 | Cf\_saccharide | Teichuronic\_acid\_biosynthetic\_gene\_cluster (100% of genes show similarity) | BGC0000868\_c1 |
| Cluster 26 | Cf\_putative | - | - |
| Cluster 27 | Cf\_saccharide | Bacilysin\_biosynthetic\_gene\_cluster (100% of genes show similarity) | BGC0001184\_c1 |
| Cluster 28 | Cf\_putative | - | - |
| Cluster 29 | Lantipeptide | Mersacidin\_biosynthetic\_gene\_cluster (90% of genes show similarity) | BGC0000527\_c1 |
| Cluster 30 | Cf\_saccharide | - | - |
| Cluster 31 | Cf\_putative | - | - |