**Supplementary table 1.** MinHash similarity matrix representing the proportion of kmers shared by the different *Enterobacter cloacae* isolates characterised in this study.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | A | B | C | D | E | F | G | H | I |
| A | 100.0 | 99.0 | 99.2 | 99.1 | 99.1 | 98.6 | 15.9 | 15.8 | 15.8 |
| B | 99.0 | 100.0 | 99.4 | 99.3 | 99.4 | 99.0 | 15.9 | 15.9 | 15.9 |
| C | 99.2 | 99.4 | 100.0 | 99.5 | 99.6 | 99.0 | 15.9 | 15.9 | 15.9 |
| D | 99.1 | 99.3 | 99.5 | 100.0 | 99.5 | 99.0 | 15.9 | 15.9 | 15.9 |
| E | 99.1 | 99.4 | 99.6 | 99.5 | 100.0 | 99.2 | 15.9 | 15.9 | 15.9 |
| F | 98.6 | 99.0 | 99.0 | 99.0 | 99.2 | 100.0 | 15.8 | 15.8 | 15.8 |
| G | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.8 | 100.0 | 99.2 | 99.3 |
| H | 15.8 | 15.9 | 15.9 | 15.9 | 15.9 | 15.8 | 99.2 | 100.0 | 99.7 |
| I | 15.8 | 15.9 | 15.9 | 15.9 | 15.9 | 15.8 | 99.3 | 99.7 | 100.0 |

**Supplementary table 2.** MinHash similarity matrix representing the proportion of kmers shared by the different *Escherichia coli* isolates characterised in this study.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | J | K | L | M | N | O | P | Q |
| J | 100.0 | 99.9 | 99.9 | 99.7 | 99.9 | 99.8 | 99.7 | 99.5 |
| K | 99.9 | 100.0 | 99.9 | 99.8 | 99.9 | 99.8 | 99.7 | 99.6 |
| L | 99.9 | 99.9 | 100.0 | 99.7 | 99.8 | 99.7 | 99.7 | 99.5 |
| M | 99.7 | 99.8 | 99.7 | 100.0 | 99.8 | 99.7 | 99.6 | 99.4 |
| N | 99.9 | 99.9 | 99.8 | 99.8 | 100.0 | 99.8 | 99.7 | 99.6 |
| O | 99.8 | 99.8 | 99.7 | 99.7 | 99.8 | 100.0 | 99.6 | 99.5 |
| P | 99.7 | 99.7 | 99.7 | 99.6 | 99.7 | 99.6 | 100.0 | 99.4 |
| Q | 99.5 | 99.6 | 99.5 | 99.4 | 99.6 | 99.5 | 99.4 | 100.0 |