**Supplementary file 1a. Carbon sources used in this study**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Carbon source** | **Supplier** | **Reference** | **pH (in M9)** | **Final concentration (mM)** |
| D-Glucose | VWR | 0188-500 | 6.83 | 11.67 |
| D-Cellobiose | Sigma | 22150-10G | 6.84 | 5.83 |
| D-Fructose | Acros Organics | 161355000 | 6.79 | 11.67 |
| D-Ribose | Acros Organics | AC132361000 | 6.81 | 13.99 |
| Glycerol (80%, w/v) | Teknova | G8797 | 6.81 | 23.33 |
| Sodium Succinate hexahydrate | Alfa Aesar | 419A3 | 6.84 | 17.50 |
| Sodium hydrogen fumarate | Alfa Aesar | B24683 | 6.11 | 17.50 |
| Sodium benzoate | Alfa Aesar | A15946 | 6.80 | 10.0 |
| L-Glutamine 200mM (29.23 mg/mL) | Sigma | G7513-100ML | 6.80 | 14.0 |
| Glycine | Sigma | G7126-100G | 6.82 | 35.0 |

**Supplementary file 1b. Taxonomy of strains used in the growth rate assay and community they were isolated from.**

|  |  |  |
| --- | --- | --- |
| **Family** | **Genus** | **Transfer\_CarbonSource\_Inoculum\_Replicate** |
| Enterobacteriaceae | Raoultella | T10\_glucose\_I1\_R2 |
| Enterobacteriaceae | Citrobacter | T10\_glucose-cellobiose\_I1\_R1 |
| Enterobacteriaceae | Klebsiella | T10\_glucose-cellobiose\_I1\_R1 |
| Enterobacteriaceae | Citrobacter | T10\_succinate\_I2\_R1 |
| Enterobacteriaceae | Enterobacter | T10\_succinate\_I2\_R1 |
| Enterobacteriaceae | Klebsiella | T10\_succinate\_I2\_R4 |
| Enterobacteriaceae | Raoultella | T10\_glutamine\_I2\_R2 |
| Moraxellaceae | Acinetobacter | T10\_succinate\_I2\_R1 |
| Moraxellaceae | Acinetobacter | T10\_succinate\_I2\_R1 |
| Moraxellaceae | Acinetobacter | T10\_succinate\_I2\_R4 |
| Moraxellaceae | Acinetobacter | T10\_succinate\_I2\_R4 |
| Moraxellaceae | Acinetobacter | T10\_glutamine\_I2\_R2 |
| Moraxellaceae | Acinetobacter | T10\_glutamine\_I2\_R2 |
| Pseudomonadaceae | Pseudomonas | T10\_glutamine\_I2\_R3 |
| Pseudomonadaceae | Pseudomonas | T10\_ribose\_I1\_R1 |
| Pseudomonadaceae | Pseudomonas | T10\_benzoate\_I1\_R3 |
| Pseudomonadaceae | Pseudomonas | T10\_fumarate\_I2\_R2 |
| Pseudomonadaceae | Pseudomonas | T10\_benzoate\_I2\_R3 |
| Rhizobiaceae | Rhizobium | T10\_succinate\_I2\_R1 |
| Rhizobiaceae | Rhizobium | T10\_succinate\_I2\_R1 |
| Rhizobiaceae | Rhizobium | T10\_succinate\_I2\_R4 |
| Rhizobiaceae | Rhizobium | T10\_glutamine\_I2\_R2 |