**Supplementary Table1:** Limonene production with recombinant *R. toruloides* strains.

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| --- | --- | --- | --- |
| **Strains** | **Limonene (mg/L) R1** | **Limonene (mg/L) R2** | **Limonene (mg/L) R3** |
| 1# | 48.2 ± 6.1 | 48.5 ± 9.5 | 46.3 ± 4.5 |
| 3# | 49.7 ± 3.8 | 54.5 ± 4.2 | 54.2 ± 2.7 |
| 4# | 46.0 ± 7.9 | 42.9 ± 6.8 | 37.9 ± 1.3 |
| 8# | 48.9 ± 11.0 | 47.3 ± 2.0 | 43.3 ± 3.5 |
| 10# | 22.3 ± 6.0 | 22.8 ± 10.5 | 15.1 ± 6.1 |
| 13# | 48.0 ± 15.7 a | 55.4 ± 1.4 a | 23.5 ± 4.0 b |
| 15# | 20.1 ± 6.0 b | 30.1 ± 2.1a | 12.2 ± 7.5 b |
| 16# | 33.2 ± 3.6 b | 32.2 ± 3.0 a | 25.8 ± 2.2 b |

Note: The superscripts indicate low stability of the candidate strains, and that significant difference existed in three rounds of experiments (p < 0.05).