**Table S2:** List of strains used to set up the meta-barcoding experiment.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Species** | **Strain ID** | **Strains mixed in the synthetic sourdough** | **ITS sequences used for** *in silico* **selection of fungal specific primers**  | **DNA used to test fungal specific primer pairs** | **Sanger sequences added to the Unite database** |
| *Zea mays*  | B73 line |  |  | x |  |
| *Triticum aestivum*  | Courtot variety |  |  | x |  |
| *Nigella damascena* |  |  |  | x |  |
| *Candida carpophila*  | B1\_TP\_21 | x | x | x | x |
| *Kazachstania humilis*  | B5r\_TP1\_1 | x | x | x | x |
| *Kazachstania humilis*  | B5r\_TP1\_13 |  | x | x |  |
| *Hyphopicchia pseudoburtonii*  | B1\_TP\_40 | x | x | x | x |
| *Hyphopicchia pseudoburtonii*  | CBS\_2455a |  |  | x |  |
| *Kazachstania bulderi*  | B3\_LC1\_1 |  | x | x |  |
| *Kazachstania bulderi*  | B3\_TP1\_1 | x | x | x |  |
| *Kazachstania saulgeensis*  | B1r\_TP1\_1 | x | x | x | x |
| *Kazachstania unispora*  | B2\_AC\_10 | x | x | x |  |
| *Kazachstania unispora*  | B2r\_TP1\_1 |  | x | x | x |
| *Kazachstania unispora* | B2r\_TP1\_13 |  | x | x |  |
| *Rhodotorula mucilaginosa*  | B2\_AC\_31 |  | x | x |  |
| *Rhodotorula mucilaginosa*  | B2\_AC\_37 |  | x | x |  |
| *Rhodotorula mucilaginosa* | B2\_AC\_33 | x |  |  |  |
| *Saccharomyces cerevisiae*  | B1r\_TP1\_33 | x | x | x |  |
| *Saccharomyces cerevisiae*  | B5r\_TP2\_12 |  | x | x |  |
| *Torulaspora delbrueckii*  | B1\_LC\_1 | x | x | x |  |
| *Torulaspora delbrueckii*  | B1\_AC\_26 |  | x | x |  |
| *Candida carpophila*  | CLIB1330T |  | x |  | x |
| *Candida glabrata*  | CLIB298T |  | x |  | x |
| *Candida parapsilosis*  | CLIB214 T |  | x |  |  |
| *Hyphopichia burtonii*  | CBS2352 T |  | x |  | x |
| *Kazachstania humilis*  | CLIB1323T |  | x |  | x |
| *Kazachstania barnettii*  | CLIB433 |  | x |  |  |
| *Kazachstania bulderi*  | CLIB596 T |  | x |  |  |
| *Kazachstania exigua*  | CLIB179 NT |  | x |  |  |
| *Kazachstania unispora*  | CLIB234 T |  | x |  |  |
| *Meyerozyma guilliermondii*  | CLIB515 T |  | x |  | x |
| *Millerozyma farinosa*  | CLIB517 T |  | x |  | x |
| *Pichia kudriavzevii*  | CLIB884 T |  | x |  | x |
| *Pichia occidentalis*  | CBS5459 |  | x |  |  |
| *Saccharomyces cerevisiae*  | CLIB227 T |  | x |  |  |
| *Scheffersomyces stipitis*  | CLIB187 T |  | x |  | x |
| *Torulaspora delbrueckii*  | CLIB230 T |  | x |  |  |
| *Wickerhamomyces anomalus*  | CLIB284 T |  | x |  |  |