**Supplementary file 1. Sequence identity of Msm, Mtb, and Mbo transcription initiation proteins.**

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| --- | --- | --- | --- |
| subunit | Total residues (*Msm*) | Sequence identity (%; *Msm* vs *Mtb*) | Sequence identity (%; *Mbo* vs *Mtb*) |
|  | 700 | 91.6 | 100 |
|  | 1,169 | 91.2 | 99.9 |
| ’ | 1,317 | 91.6 | 99.9 |
|  | 107 | 81.3 | 100 |
| Core RNAP | 3,293 | 91.1 | 99.9 |
| A | 466 | 86.1 | 100 |
| RNAP holoenzyme | 3,759 | 90.5 | 99.9 |
| CarD | 162 | 98.1 | 100 |
| RbpA | 114 | 91.9 | 100 |
| Transcription factors | 276 | 95.5 | 100 |
| total | 4,035 | 98.9 | 99.9 |