**Table S3: Chromosome variation of sequenced Zt09-derived strains grown at 28°C.** Absent sequences at the ends of each chromosome (left (L) or right (R) arm) are indicated, as well as the complete absence or a duplication of a chromosome.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Chromosome (kb) | Zt09 28-1 | Zt09 28-2 | Zt09 28-3 | Zt09 28-4 | Zt09 28-5 |
| 1(6,089)  |  |  | 2) internal tel183,500 |  |  |
| 2(3,860) |  |  | L (5 kb) new tel 2 breakpointsR (4 kb) new tel, 2 breakpoints |  |  |
| 3(3,505) |  | R (10 kb)attached to chr 13 |  |  |  |
| 4(2,880) |  |  |  |  | L (10 kb) new tel |
| 5(2,862) | R (35 kb)1)new tel | R (35 kb)1)new tel | R (35 kb)1)new tel | R (35 kb)1)new tel | R (35 kb)1)new tel |
| 6(2,675) |  |  | R (2 kb) new tel |  |  |
| 7(2,665) |  |  |  |  |  |
| 8(2,444) | R (200 bp) |  |  |  |  |
| 9(2,142) | R (16 kb)new tel | R (3 kb)new tel |  |  |  |
| 10(1,683) |  |  | L (27 kb) new tel |  | L (7 kb) |
| 11(1,624) |  |  | R (2.5 kb) new tel |  |  |
| 12(1,463) |  |  |  |  |  |
| 13(1,186) |  | Rattached to chr 3 |  | R (1.5 kb)new tel |  |
| 14(773) | absent | absent | absent | absent | absent |
| 15(640) | R (350 bp) new tel | absent |  | absent | absent |
| 16(607) |  | absent | absent |  |  |
| 17(584) |  | **duplicated** | L (60 kb) new telR (1kb) | **duplicated**2) internal tel 54,000 |  |
| 18(574) | absent | absent | absent | absent | absent |
| 19(550) |  | absent | L (22 kb) new tel |  |  |
| 20(472) | absent | absent |  | absent | **duplicated** |
| 21(409) | absent | L (3 kb)2) internal tel 32,000 |  | absent |  |

1) The 35 kb sequence missing on the right arm of chromosome five is already absent in the progenitor strain Zt09. Discordant reads suggest a new telomere formation indicated as ‘new tel’.

2) Coordinates of cases where new telomeres were not located at chromosome breakpoints.