**S4 Table. Effect of ω:*yfp* expression on faithful segregation or plasmid incompatibility**

|  |  |  |
| --- | --- | --- |
| *par* genes | IPTG concentration | Stability |
| Chr-bornea | plasmid-borneb | in μM | in % |
| none | δ, ω | - | 100 |
| none | δ, ω | 10 | 100 |
| *Phsp* ω:*yfp* | δ, ω | - |  98 ± 2 |
| *Phsp* ω:*yfp* | δ, ω | 10 | 47 ± 4 |
| *Phsp* ω:*yfp* | δ, ω | 50 | <1 |
| *Phsp* ωΔN19:*yfp* | δ, ω | 10 | 52 ± 3 |
| *Phsp* ωΔN19:*yfp* | δ, ω | 50 | <1 |
| *Phsp* δ:*gfp* | ω | 10 | 100 |
| *Phsp* δ:*gfp* | δ, ω | 10 | 68 ± 5 |
| *Phsp* δ:*gfp* | δ, ω | 50 | 11 ± 3 |

aThe *B. subtilis* chromosomal (Chr) encoded *par* gene (BG214 [none], BG1469 [ω:*yfp*], BG1447 [ωΔN19:*yfp*] or BG947 [δ:*gfp*]) was transcribed from an IPTG-inducible promoter (*Phsp*) at the indicated IPTG concentration.

bpCB706-borne *P*δ δ and *P*ω ω genes or pCB586-borne *P*ω ω gene were transcribed from their native promoters. Cells bearing plasmid were grown in antibiotic-free LB medium at 30º C, and the frequency of plasmid loss during exponential growth was measured after 100 generations.

References

1. de la Hoz AB, Ayora S, Sitkiewicz I, Fernandez S, Pankiewicz R, et al. (2000) Plasmid copy-number control and better-than-random segregation genes of pSM19035 share a common regulator. Proc Natl Acad Sci U S A 97: 728-733.

2. Welfle K, Pratto F, Misselwitz R, Behlke J, Alonso JC, et al. (2005) Role of the N-terminal region and of β-sheet residue Thr29 on the activity of the ω2 global regulator from the broad-host range *Streptococcus pyogenes* plasmid pSM19035. Biol Chem 386: 881-894.

3. Pratto F, Cicek A, Weihofen WA, Lurz R, Saenger W, et al. (2008) *Streptococcus pyogenes* pSM19035 requires dynamic assembly of ATP-bound ParA and ParB on *parS* DNA during plasmid segregation. Nucleic Acids Res 36: 3676-3689.

4. Soberón NE, Lioy VS, Pratto F, Volante A, Alonso JC (2011) Molecular anatomy of the *Streptococcus pyogenes* pSM19035 partition and segrosome complexes. Nucleic Acids Res 39: 2624-2637.

5. Graham TG, Wang X, Song D, Etson CM, van Oijen AM, et al. (2014) ParB spreading requires DNA bridging. Genes Dev 28: 1228-1238.

6. Ceglowski P, Alonso JC (1994) Gene organization of the *Streptococcus pyogenes* plasmid pDB101: sequence analysis of the orf η-*copS* region. Gene 145: 33-39.