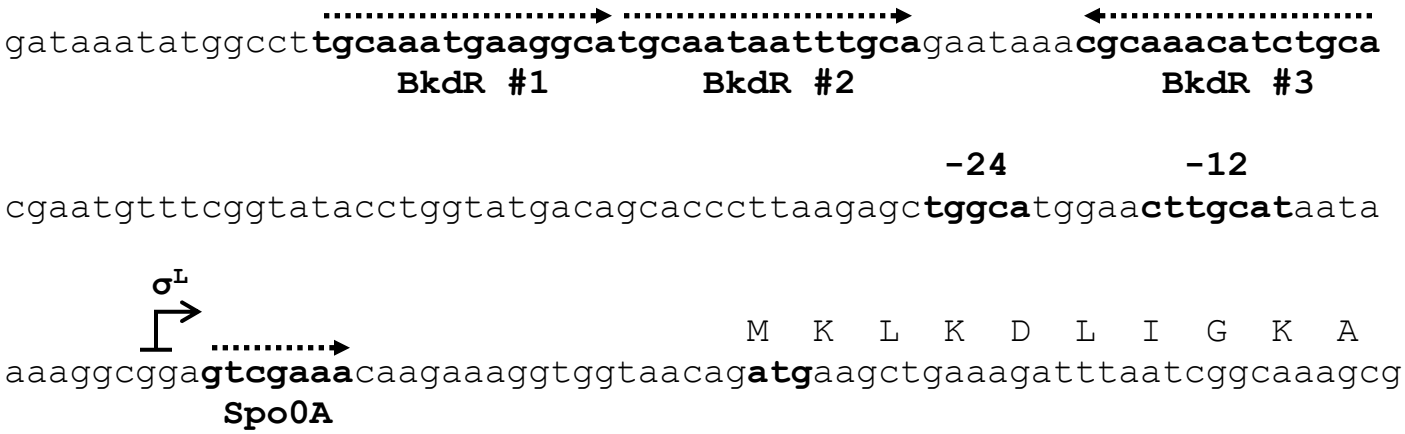

Figure S2. BkdR and Spo0A recognition sequences around the σ^L-dependent promoter of the *bkd* operon. The σ^L-recognition sequences (-12 and -24) and mapped transcriptional start site (one of two guanine residues) (1) are indicated. Arrows above the sequence indicate inferred binding sites for BkdR, upstream of the promoter, and Spo0A, downstream of the promoter. Translational start codon (atg codon in bold) and the N-terminal residues (above the sequence) corresponding to the *ptb* gene are indicated.

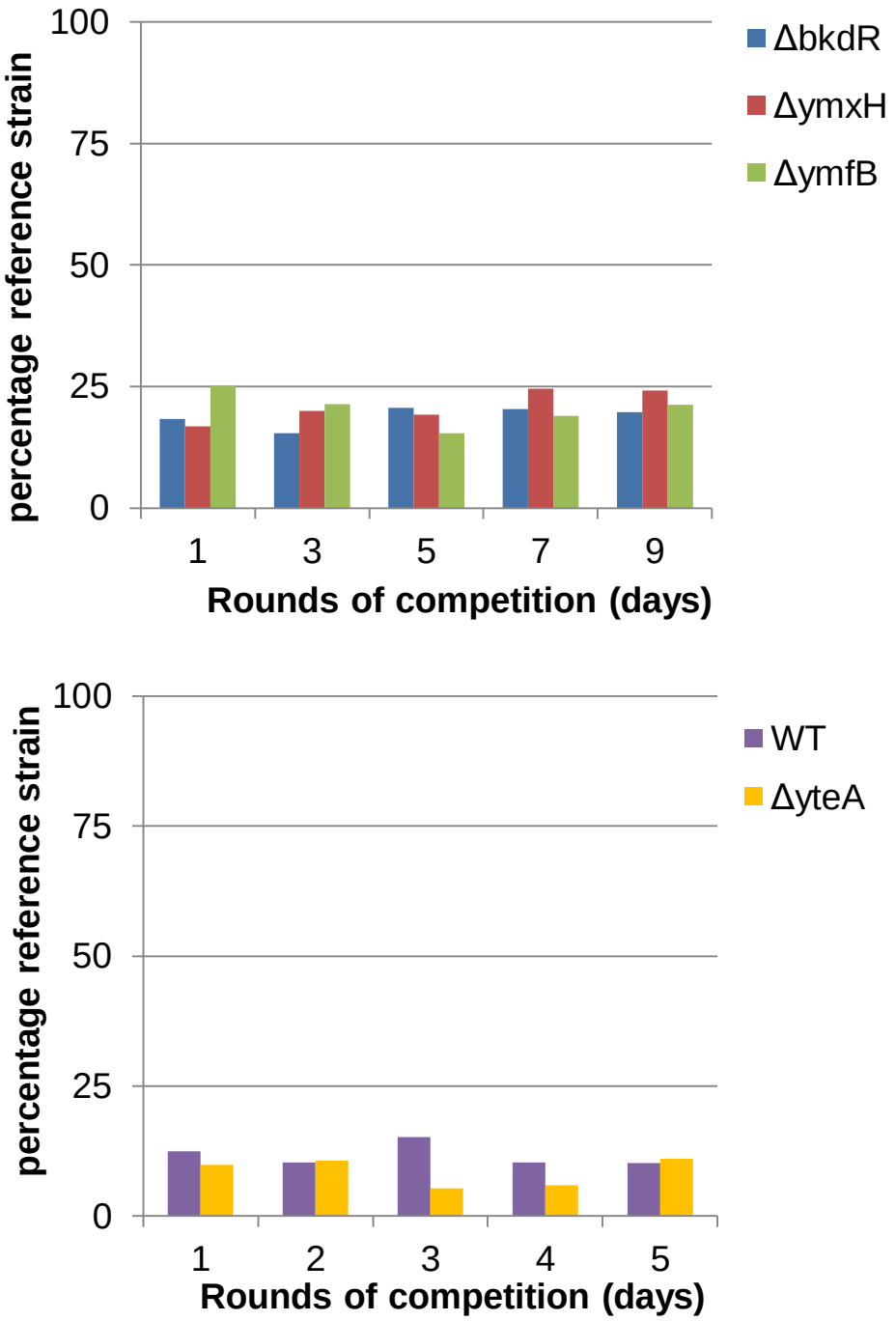

Figure S3. *bkdR, ymxH, ymfB, yteA* mutants do not exhibit a competitive deficit under sporulation-inducing conditions. A wild type reference strain carrying an IPTG-inducible *lacZ* gene (RL5360) was competed in DS medium against an unmarked wild type strain (purple) and strains mutant for *bkdR* (blue), *ymxH* (red), *ymfB* (green), and *yteA* (yellow), starting with approximately 20% wild type strain. Cultures were incubated at 37˚C for 24 hours, heat-treated at 80˚C, and diluted in fresh DS medium. After indicated rounds of competition, dilutions of the culture were plated on agar plates containing IPTG and X-gal, and blue (wild type) and white (mutant) colonies were counted. Bar graphs indicate the percentage of the wild type reference strain.

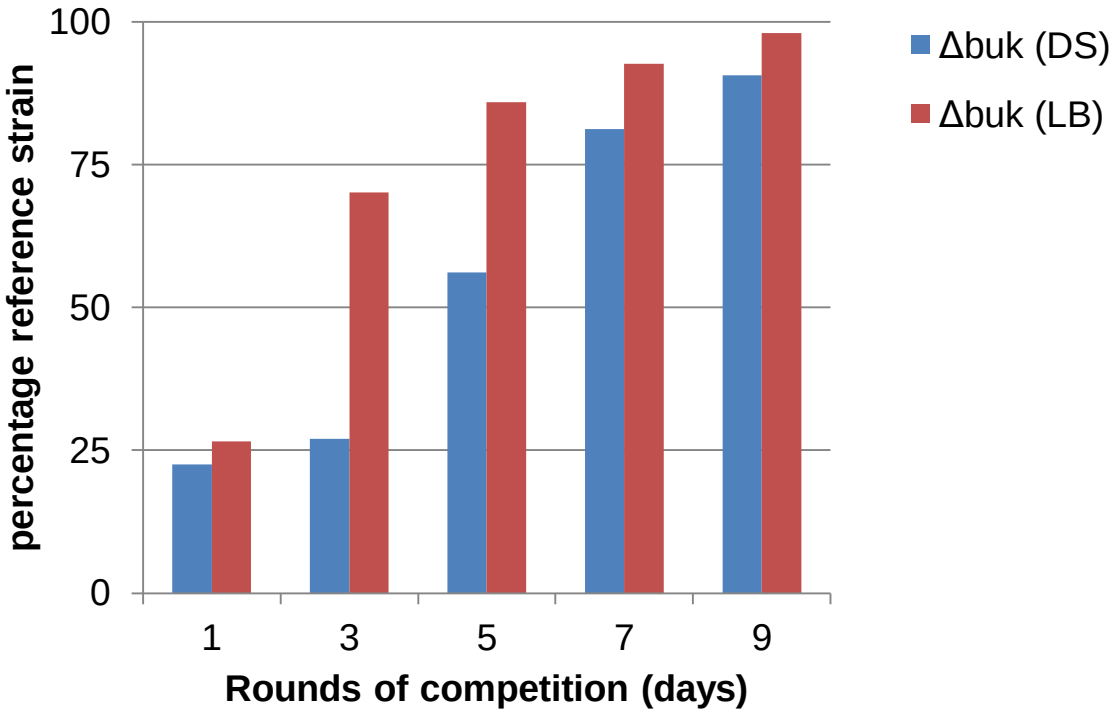

Figure S4. A *buk* mutant exhibits a competition deficit during growth and under sporulation-inducing conditions. A wild type reference strain carrying an IPTG-inducible *lacZ* gene (RL5360) was competed in DS (blue) and LB (red) medium against a *buk* mutant, starting with approximately 20% wild type strain. For sporulation, DS cultures were incubated at 37˚C for 24 hours, heat-treated at 80˚C, and diluted in fresh DS medium. For growth, LB cultures were incubated at 25˚C for 24 hours, and diluted in fresh LB. After indicated rounds of competition, dilutions of the culture were plated on agar plates containing IPTG and X-gal, and blue (wild type) and white (mutant) colonies were counted. Bar graphs indicate the percentage of the wild type reference strain.

Supplemental references

1. **Debarbouille, M., R. Gardan, M. Arnaud, and G. Rapoport.** 1999. Role of bkdR, a transcriptional activator of the sigL-dependent isoleucine and valine degradation pathway in Bacillus subtilis. J Bacteriol **181:**2059-2066.