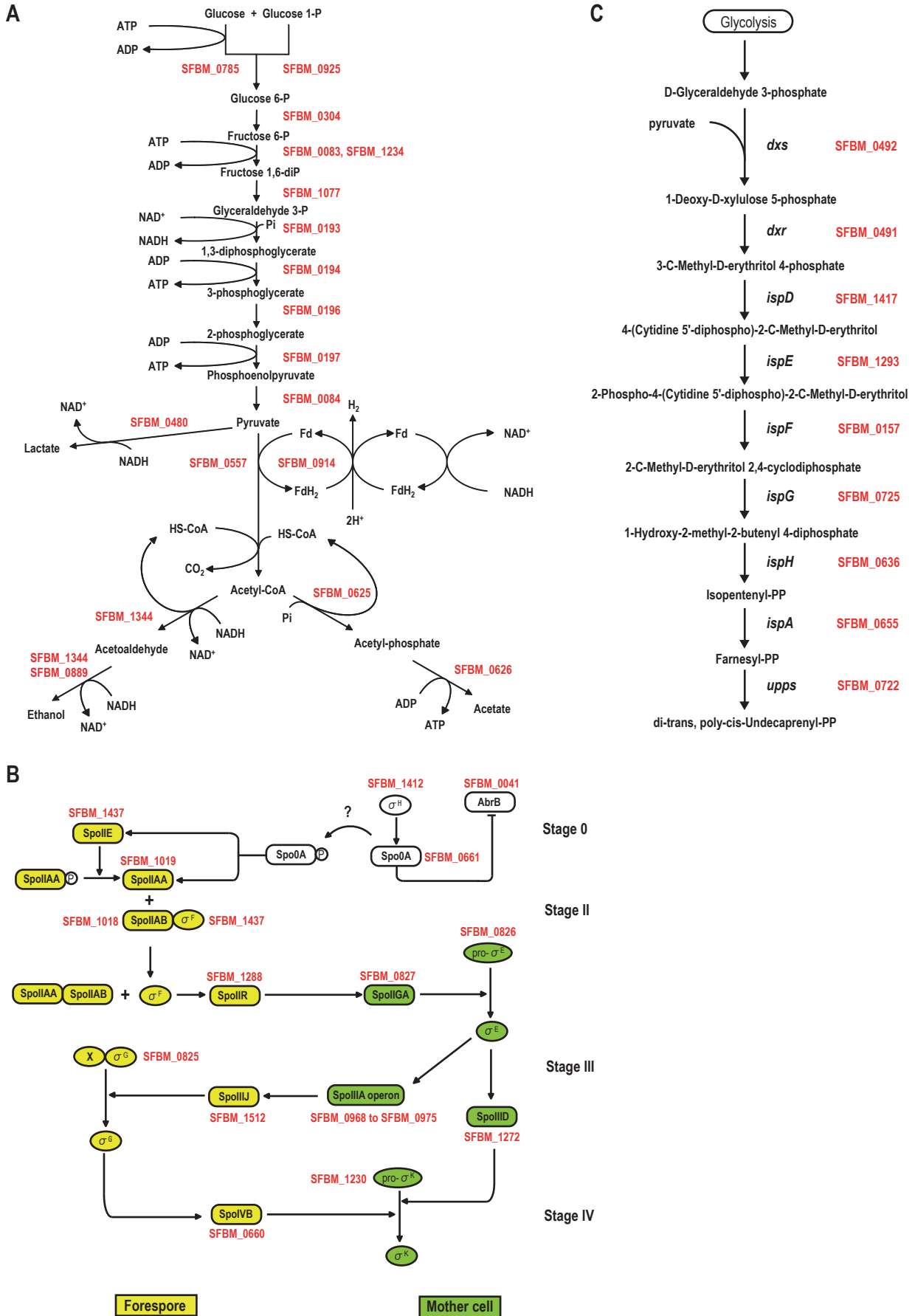


**Fig. S1. Prophages and CRISPR loci in SFB**

(A) Genetic structures of four prophages (SFBMP01 to SFBMP04) found in SFB are shown. (B) Sequence homologies between the four prophages. The results of Harr plot analysis of the four prophage sequences are shown. (C) Three CRISPR loci in SFB. CRISPR1 and CRISPR2 are located in the SFBMP01 prophage. Two pairs of palindromic sequences found in the 32-bp repeat, which are probably involved in secondary structure formation, are indicated by arrows and dashed arrows. Only the CRISPR3 locus is preceded by a gene cluster encoding CRISPR-associated proteins. Nucleotide sequences of each spacer are listed in the table.



**Fig. S2. The glucose catabolic pathway, sporulation cascade, and MEP/DOXP pathway in SFB**

(A) The catabolic pathway of glucose in SFB is shown. Metabolic enzymes in the EMP pathway and those for fermentation found in SFB are indicated. (B) The predicted sporulation cascade in SFB is shown. Sporulation-related proteins found in SFB were mapped to the sporulation cascade in *Bacillus subtilis*, which was adapted from Refs. 32 and 33 in the main text. Forespore proteins are yellow, whereas those working in mother cells are green. (C) The 2-C-methyl-D-erythritol 4-phosphate/1-deoxy-D-xylulose 5-phosphate (MEP/DOXP) pathway found in SFB is shown.