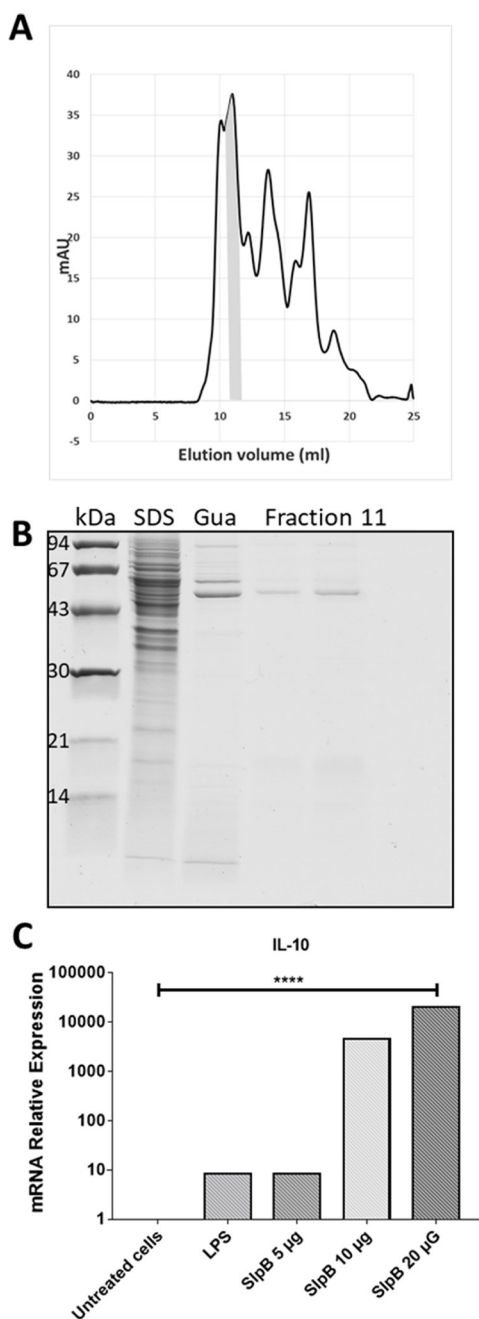


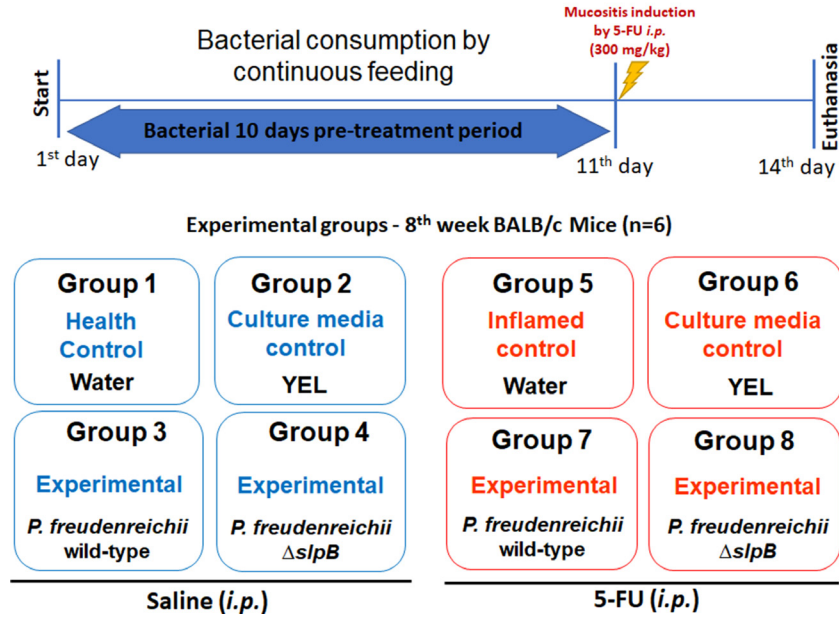
Probiotic *Propionibacterium freudenreichii* requires SlpB protein to mitigate mucositis induced by chemotherapy

SUPPLEMENTARY MATERIALS

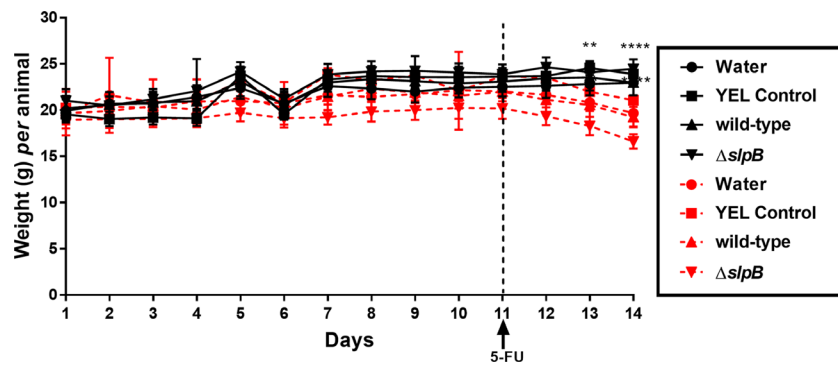


Supplementary Figure 1: Purified SlpB protein induces expression of IL-10 in HT-29 cells. A surface protein Guanidine extract was subjected to size-exclusion chromatography and the chromatogram is shown (A). SDS-PAGE was used to analyze the protein content of a whole-cell protein SDS extract, of the Guanidine extract, and of purified SlpB in fraction 11 (B). SlpB was used to treat HT-29 cells and expression of *il10* was monitored after 7 h of treatment with different doses (C). ****: $p < 0.001$.

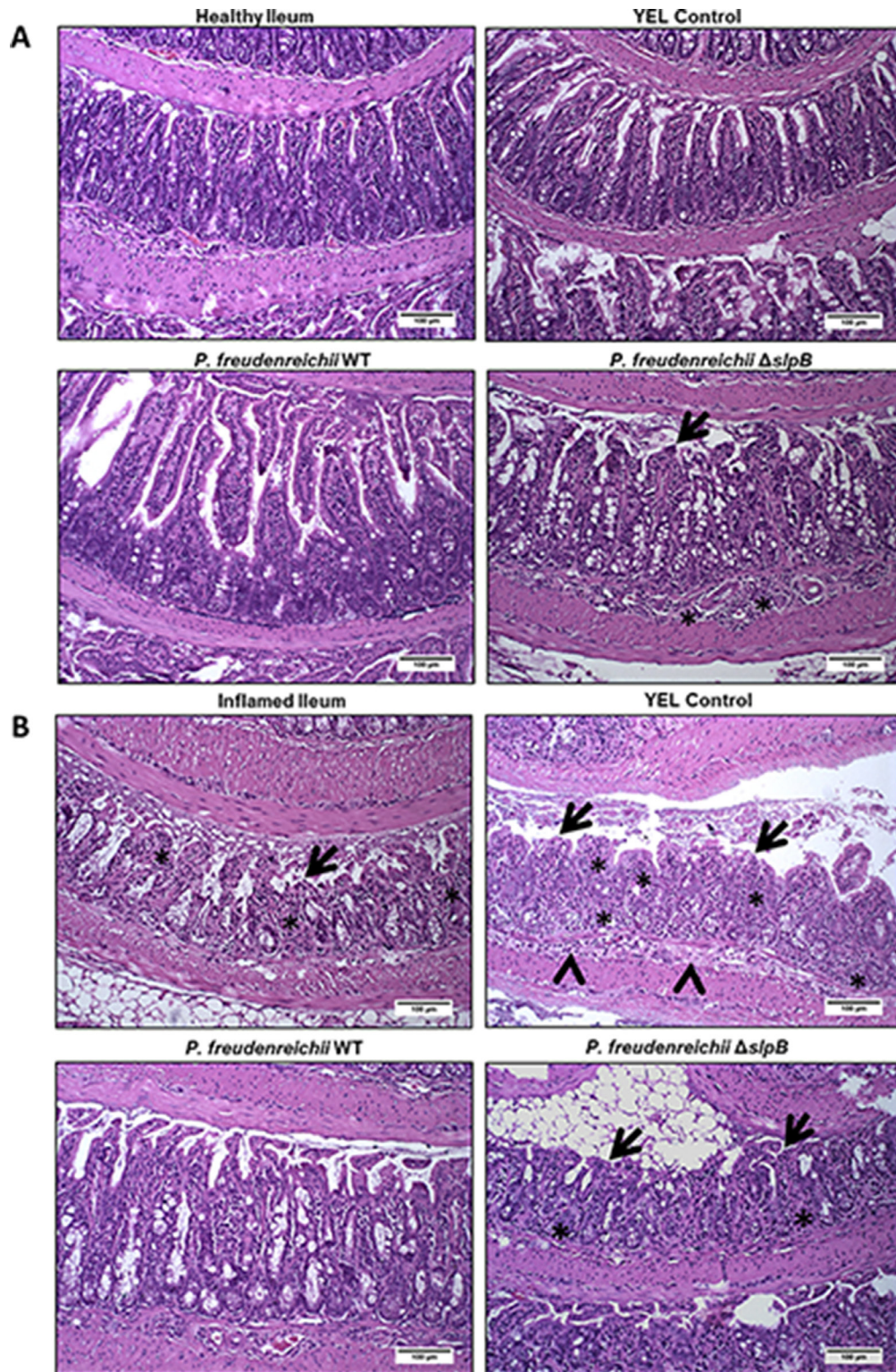
Experimental set-up



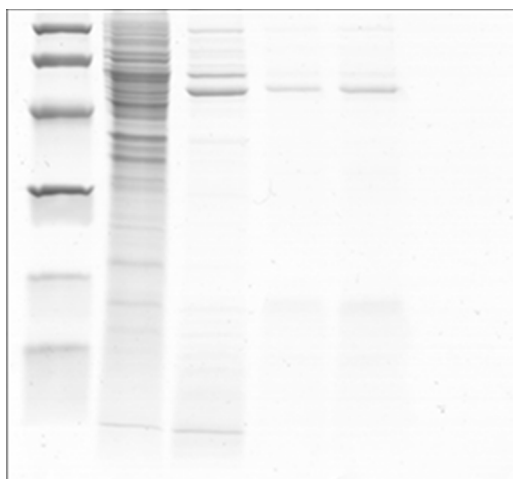
Supplementary Figure 2: Experimental set-up of the animal study. Mice were divided into 8 groups of 6 mice. They were given different treatments, as indicated, during 10 days, prior to mucositis induction. Then groups 1 to 4 were injected with a saline solution, while groups 5 to 8 were injected with a solution of 5-FU.



Supplementary Figure 3: Time-course of body weight in grams. Mice receiving YEL culture medium YEL (YEL control), the probiotic strain *P. freudenreichii* 129 WT (wild-type), or the mutant strain *P. freudenreichii* ($\Delta slpB$). Black lines correspond to the groups injected with saline *i.p.* and red lines to the groups injected with 5-FU *i.p.*



Supplementary Figure 4: Representative images of H&E-stained sections of mice ileal mucosa, demonstrating histopathology. (A) Non inflamed groups and (B) 5-FU inflamed groups. The image acquisition was done with objective magnification at 20x. Scale bar=100 μ m. Cellular infiltration was indicated by asterisks (*), Epithelial erosion was indicated by arrows (→), Edema was indicated by arrowheads (>).



Supplementary Figure 5: Uncropped gel from Supplementary Figure 2.