

Fig. S1. Visualization of bacterial localization relative to the epithelial surface by FISH. Closer association of bacteria with the epithelial surface was observed in the ileum of E. coli-monocolonized mice compared to B. breve-monocolonized mice. Intestinal sections were fixed in Carnoy for 24 hours then paraffin embedded. Sections were hybridized to a probe (EUB 338, GCT GCC TCC CGT AGG AGT) that recognizes the 16S rRNA genes of all bacteria (red), and counterstained with DAPI to visualize nuclei (blue). Arrows indicate the bacteria.

Colon



B

Caco-2 Cells



Fig. S2. *B. breve* induced REGIII- α in (A) HT29 and (B) Caco-2 cells in a dose- and time-dependent manner. Caco-2 and HT-29 cells were stimulated with IL-22 or B. breve.

REGIII- α expression was measured at different time points by RT-qPCR. Data shown represent one independent experiment. RNA expression was normalized to GAPDH and shown relative to the mean of PBS-glycerol stimulated cells (all time-points), which is set to 1.