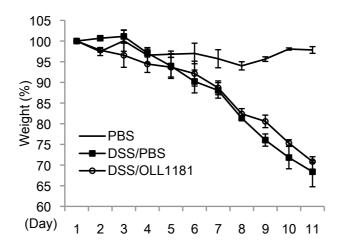


Supplementary Figure 1 Screening of the lactic acid bacterial strain library for activation of the AhR.

HeXS34 cells were cultured in the absence or presence of suspensions of one of 62 heat-killed lactic acid bacterial strains for 24 hours. The activity of SEAP in the culture medium was evaluated by a chemiluminescent assay. A 50 pM concentration of TCDD was used as a positive control.



Supplementary Figure 2
One single treatment of mice with *Lactobacillus bulgaricus* OLL1181 does not affect the development of acute DSS-induced colitis.

Mice administered a 3% DSS solution in drinking water for 7 days (Day 1-8), followed by regular drinking water for an additional 3 days (Day 9-11), were treated with PBS or OLL1181 only on Day 1 as described in the text.

Body weight changes in mice (n = 3 mice per group) after the start of DSS are shown. The values represent the means  $\pm$  SD.