

**Supplementary Figure 1 (A-C).** (A) RT-PCR, expression analysis of IFN $\gamma$ -related genes in the mucosa of unchallenged (day 0) and AOM/DSS-treated WT and  $Stat6^{-/-}$  mice on day 15 (WT d0/ $Stat6^{-/-}$  d0 n=3; WT d15/ $Stat6^{-/-}$  d15 n=5); (B) Immunoblot analysis of p-STAT3 Y705 and STAT3 in unchallenged mucosa (d0) and AOM/DSS-treated (d15) colon from WT and  $Stat6^{-/-}$  mice.  $\beta$ -ACTIN as loading control; (C) Immunoblot analysis of bone marrow from  $Stat6^{-/-}BM$  >WT and WT BM > $Stat6^{-/-}$  mice at the end of the CAC model.  $\beta$ -ACTIN as loading control. Data are mean ±SEM.



Supplementary Figure 2 (A-B). (A-B) Immunoblot analysis of HP1 $\gamma$  and HP1 $\beta$  expression in unchallenged WT and  $Stat6^{-/-}$  colonic organoids; β-ACTIN as loading

5 control.