## Transcription factor c-Rel is indispensable for generation of thymic but not of peripheral Foxp3<sup>+</sup> regulatory T cells

## SUPPLEMENTARY FIGURES



**Supplementary Figure 1: (A)** The percentage of Tregs in mLN of WT mice following depletion of CD25<sup>+</sup> cells. The percentage of Foxp3<sup>+</sup>CD4<sup>+</sup> T cells was analysed by flow cytometry on day 10 after two i.p. injections of 500  $\mu$ g PC61 mAb (on day 0 and 6, respectively). A dot plot is a representative of two independent experiments (gated on CD4<sup>+</sup> cells). **(B)** CD25 MFI values for *ex vivo* Helios<sup>+</sup> and Helios<sup>-</sup> Tregs derived from mLN of WT mice. Clone PC61.5 was used for FACS analysis. Results are displayed as means ± SEM; \**P*<0.05.



**Supplementary Figure 2:** (A) and (B) Frequencies of Helios<sup>+</sup>Foxp3<sup>+</sup> and Helios<sup>-</sup>Foxp3<sup>+</sup> Tregs in the colon of conventional (Conv.) and germ-free (GF) mice on C57BL/6 background. Cells are gated on the CD4<sup>+</sup> gate. A representative of three independent experiments is shown (A). Data in (B) are means  $\pm$  SEM; \*\**P*<0.01.



**Supplementary Figure 3:** (A) Measurement of the colon length in WT and  $rel^{-/-}$  mice was performed at the indicated time points after the induction of colitis with 3 % DSS (n= 8 mice per group). (B) At day 8 after colitis induction, colon explants (n= 8 per group) of DSS-treated  $rel^{-/-}$  and WT mice were cultured overnight and the concentration of indicated cytokines was measured by ELISA (All ELISA kits were purchased from eBioscience). (C) Quantitative RT-PCR analysis of IL-23 *p19* mRNA expression at day 8 after induction of colitis by 3 % DSS (n= 8 per group). The following primers were used for quantitative RT-PCR: IL-23 *p19* primers; forward AGCGGGACATATGAATCTACTAAGAGA; reverse GTCCTAGTAGGGAGGTGTGAAGTTG. For all experiments, the significance was determined by Student's *t*-test. Data are displayed as means ± SEM. Significance levels: n.s., not significant; \* p<0.05; \*\* p<0.01; \*\*\* p<0.001.



Supplementary Figure 4: Western blot analysis of phospho-Stat5 and  $\beta$ -Actin in WT and *rel*<sup>-/-</sup> CD4<sup>+</sup> T cells isolated from spleen and LN. Total CD4<sup>+</sup> T cells were cultured under optimal Treg-inducing conditions with IL-2 (50 U/ml) and TGF- $\beta$ 1 (2 ng/ml). Two similar experiments were performed.