

Supplementary Figure 1

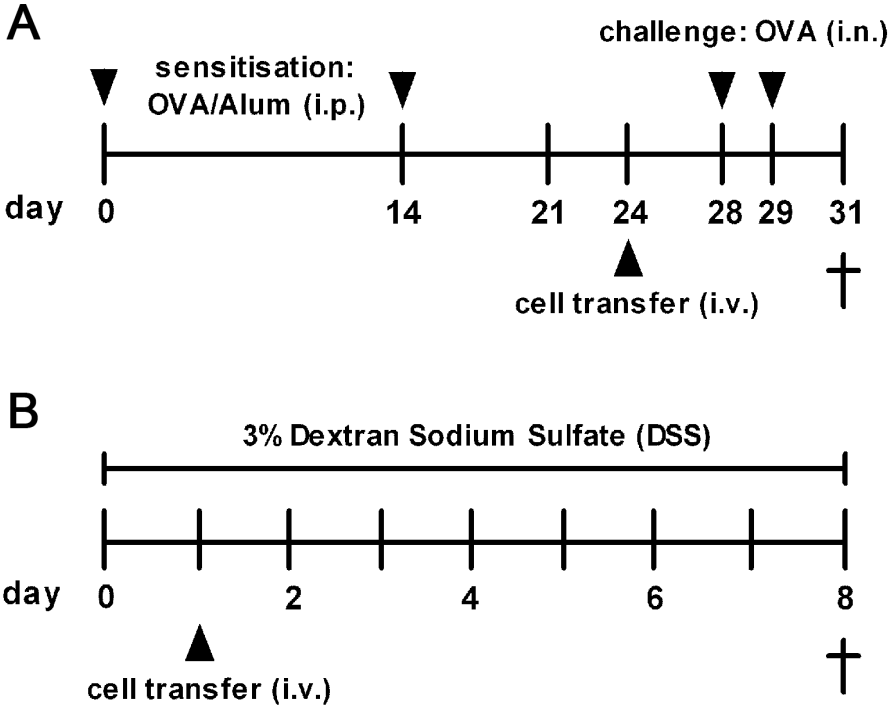


Figure S1. Disease models. (A) Scheme of OVA-induced airway inflammation. Animals were intraperitoneally sensitized with 20 $\mu\text{g}/\text{animal}$ OVA/Alum in PBS on days 0 and 14 and intranasally challenged with 50 $\mu\text{g}/\text{animal}$ OVA on days 28 and 29. (B) Scheme of DSS-induced colitis. Animals were given 3% DSS in drinking water from day 0 to 8.

Supplementary Figure 2

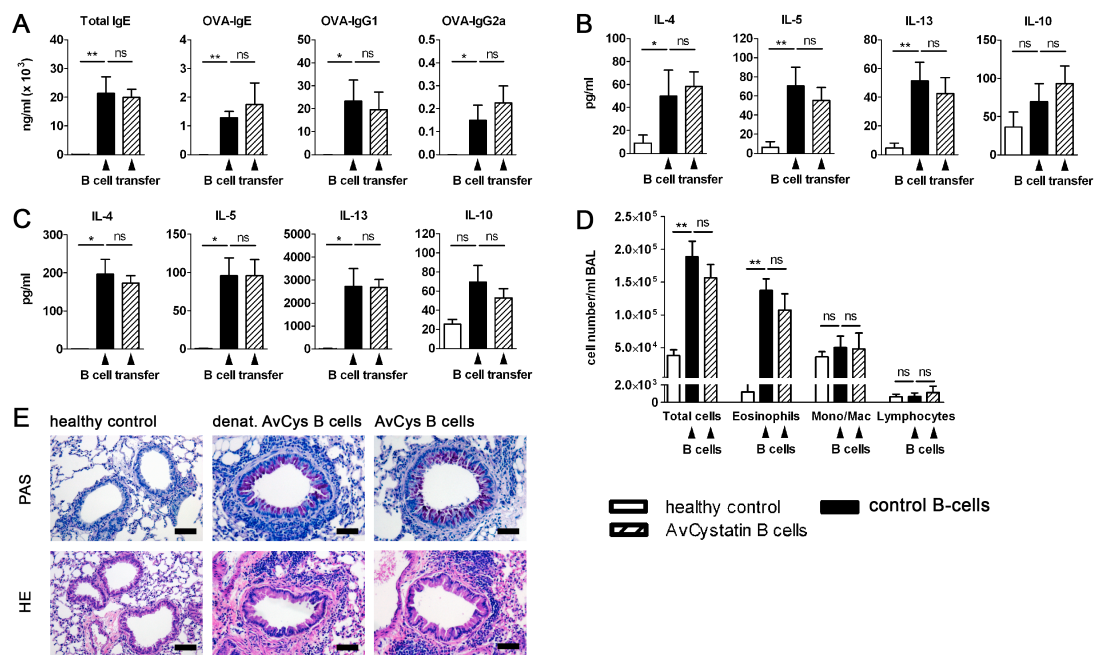


Figure S2. Transfer of AvCystatin-experienced B cells does not protect against airway inflammation. 2×10^6 purified B cells from AvCystatin- or control (denatured AvCystatin)-treated mice were transferred i.v. to ovalbumin-sensitized mice 18 hours post treatment. (A) Total and allergen-specific IgE, OVA-IgG1 and -IgG2a. (B) Th2 cytokine and IL-10 response in BAL-fluid. (C) OVA-specific cytokine response of recipient splenocytes. (D) Analysis of cells in the BAL-fluid. (E) Representative pictures of lung sections stained with periodic acid schiff (PAS) and hematoxylin eosin (HE). Bars, 100 μ m. Results are presented as mean \pm SD for one experiment with 5-6 mice per group. *, $P < 0.05$; **, $P < 0.01$

Supplementary Figure 3

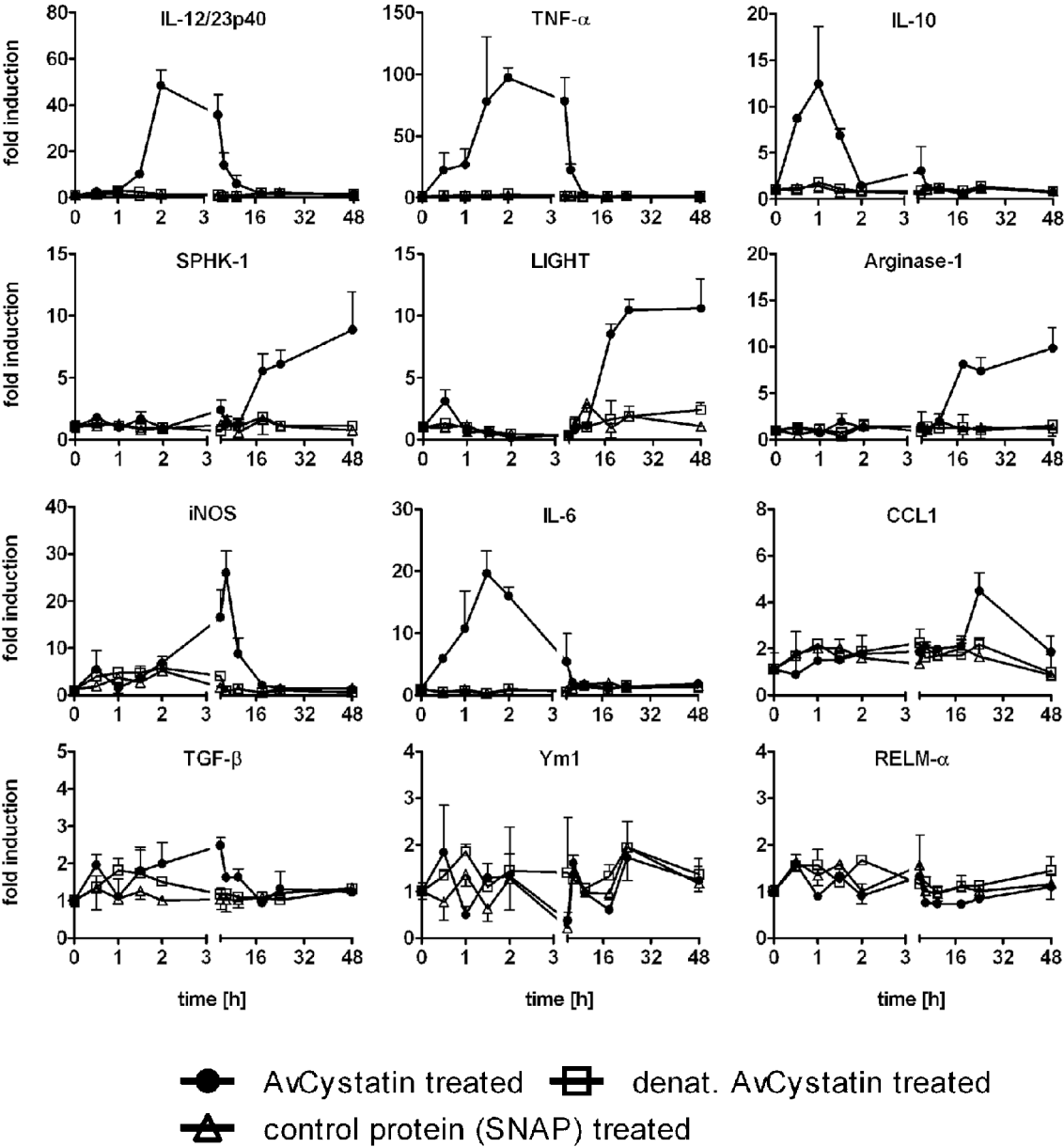


Figure S3. Gene expression of macrophages *in vitro*. (A) Macrophages purified from peritoneal exudate cells of naïve donor mice were treated *in vitro* with AvCystatin, denaturated AvCystatin or a recombinant control protein (SNAP) and analysed for gene expression by real-time PCR for expression of selected macrophage marker genes. Results (mean + SD) are representative of three independent experiments.

Supplementary Figure 4

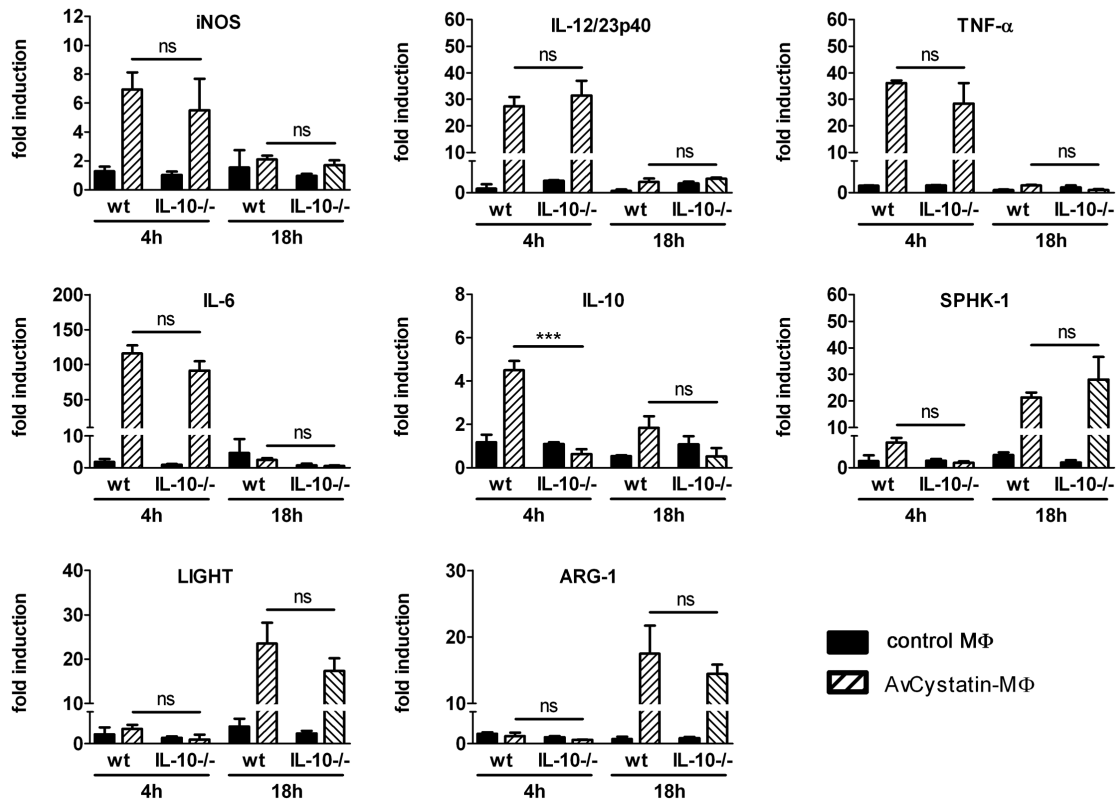


Figure S4. Phenotype of AvCystatin-Mreg is independent of autocrine IL-10. *Ex vivo* transcriptional profiling of macrophages isolated from AvCystatin or control (denatured AvCystatin) treated wild type and IL-10^{-/-} mice. Results (means + SD) are representative of two independent experiments. Normalized data are expressed as fold induction compared to untreated macrophages. For each group, macrophages from 8-10 animals were pooled and gene expression analysed in triplicates.

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