Supplementary Figure 1

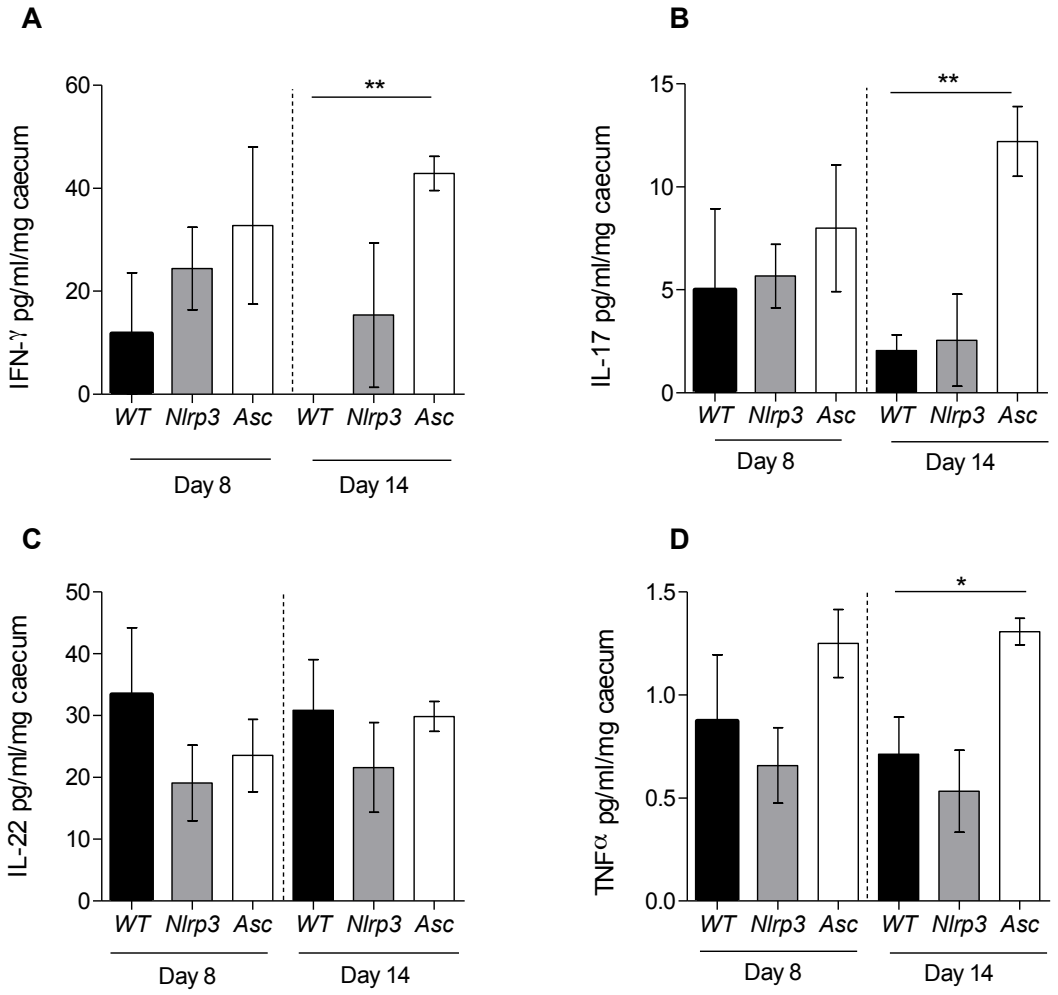

Figure S1. Induction of inflammatory cytokines upon infection with *C. rodentium*. Mice were orally infected with ~10^9 cfu of *C. rodentium* and sacrificed 8 or 14 days post-infection. Caeca were isolated and explants were cultured overnight before harvesting supernatants and analyzing for (A) IFNγ (B) IL-17 (C) IL-22 and (D) TNFα. Data represent means ±SEM. (n = 4 mice per time point). Statistical analysis was performed using the Mann-Whitney test (* = $p < 0.05$). Data are representative of two independent experiments.

Supplementary Figure 2

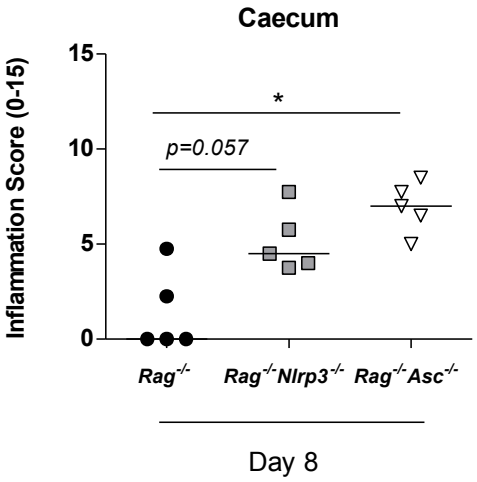

Figure S2. Nlrp3 and Asc confer protection against *C. rodentium* induced intestinal inflammation independently of the adaptive immune system. Mice were infected by oral gavage with ~10^9 cfu of *C. rodentium* and sacrificed 8 days post-infection. Inflammation scores in the caecum were assessed by scoring H & E stained histology sections and are graphically represented above. Results are from a single experiment. Horizontal bars represent the median inflammation scores. Statistical significance was determined by the Mann-Whitney test. (* = $P < 0.05$).

Supplementary Figure 3

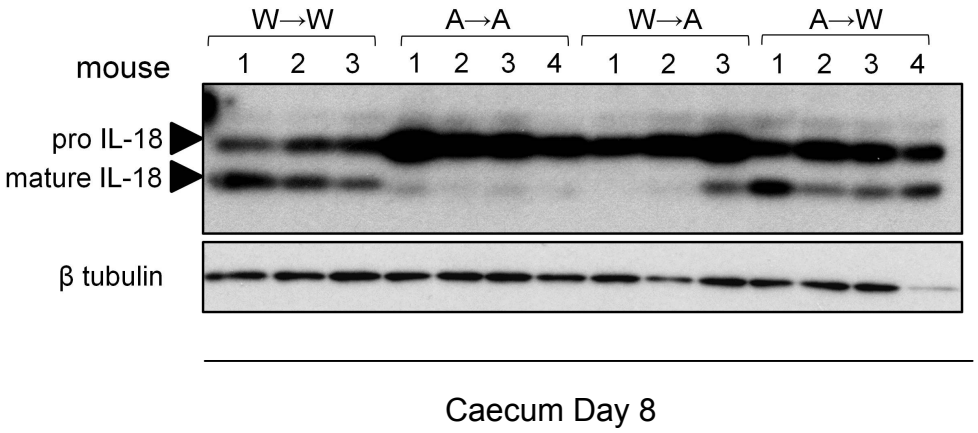

Figure S3. Non-haematopoietic cell Asc expression is required for IL-18 production in the intestine after *C. rodentium* infection. Irradiation bone marrow chimeras were generated as described in materials and methods, infected with ~10^9 *C. rodentium* and sacrificed 8 days later. The caeca of infected mice were then isolated and homogenized to isolate protein. Subsequently we carried out immunoblot analysis of total caecal protein extracts from WT, *Nlrp3*$^{-/-}$ and *Asc*$^{-/-}$ chimeras 8 days p.i., and probed with antibody against IL-18 and tubulin (n = 3-4 mice). Results shown are from a single experiment.

Supplementary Figure 4

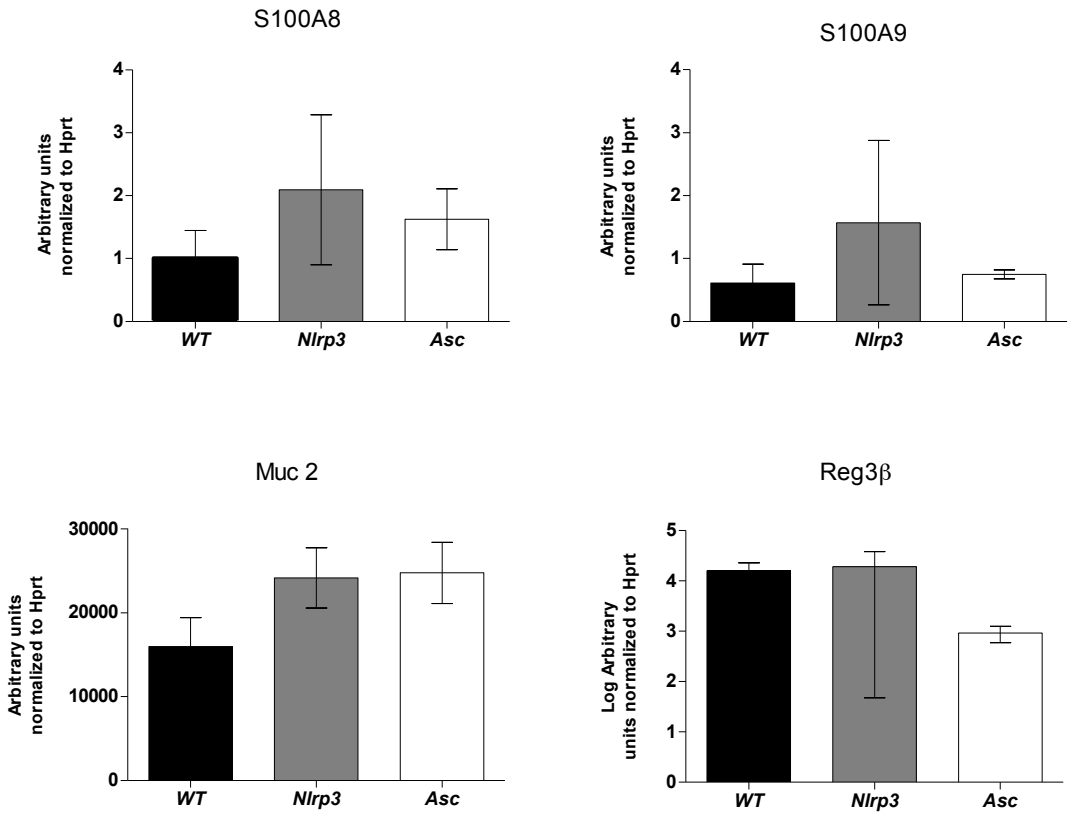

Figure S4. Comparable antimicrobial peptide (AMP) expression in inflammasome deficient mice. Expression of a variety of antimicrobial peptides and mucin were measured in the caeca of WT, *Nlrp3*$^{-/-}$ and *Asc*$^{-/-}$ mice at steady state by qPCR. Data are represented as mean ±SEM. *n* = 4-8 mice and are pooled from one to two independent experiments.

Supplementary Figure 5

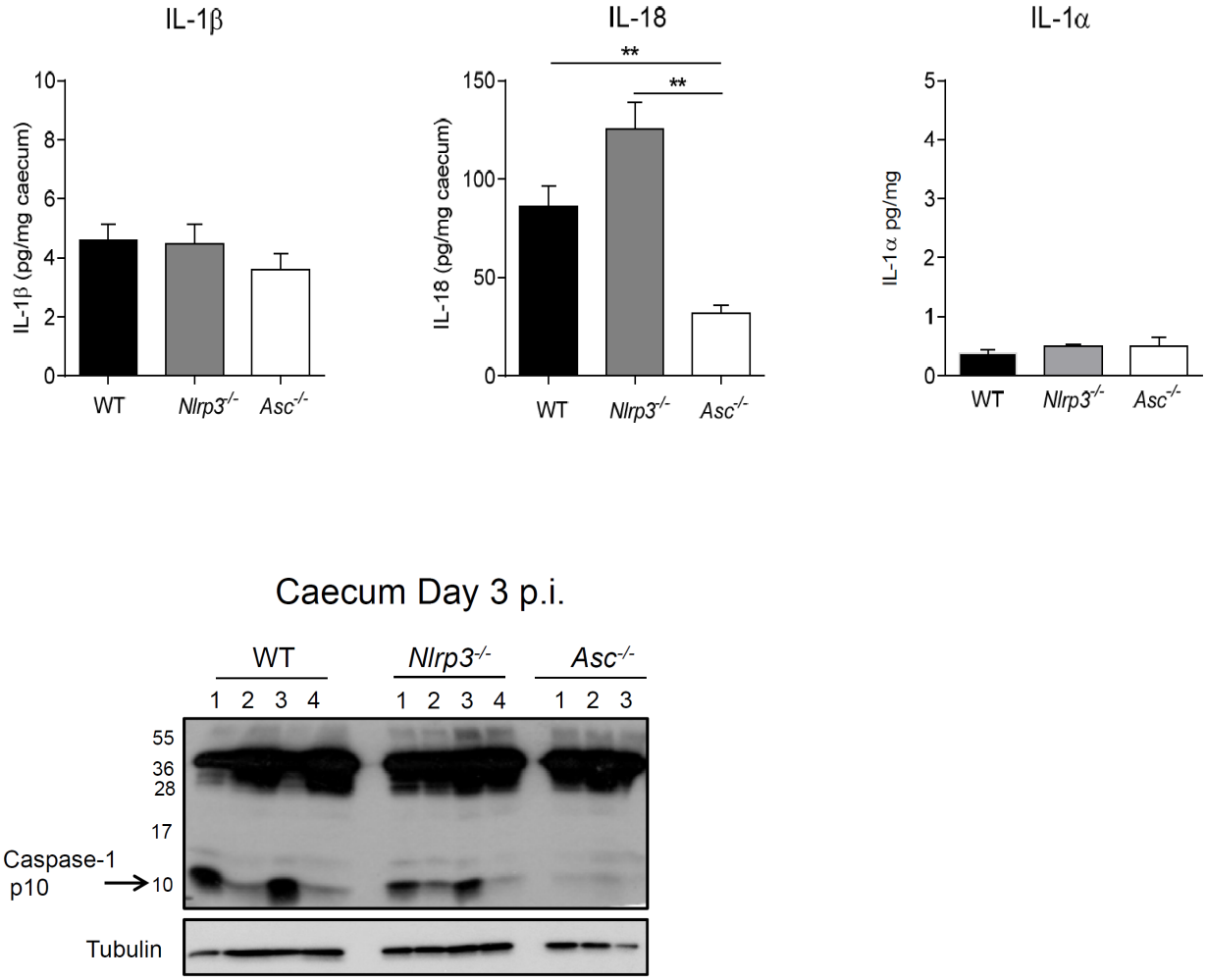

Figure S5. Early protection against *C. rodentium* is independent of caspase-1 cleaved cytokines. WT, *Nlrp3*$^{-/-}$*and Asc*$^{-/-}$ mice were infected by oral gavage with ~10^9 cfu of *C. rodentium* and sacrificed 72h post infection. Caecal explants were cultured overnight before harvesting supernatant and analyzing for IL-1β, IL-1α and IL-18 levels by ELISA. Additionally, immunoblot analysis of caecal protein extracts from WT, *Nlrp3*$^{-/-}$ and *Asc*$^{-/-}$mice was performed with antibodies to caspase-1 p10 and tubulin. Data are represented as means ±SEM. *n* = 3-4 mice from a single experiment representative of at least two independent experiments.

Supplementary Figure 6

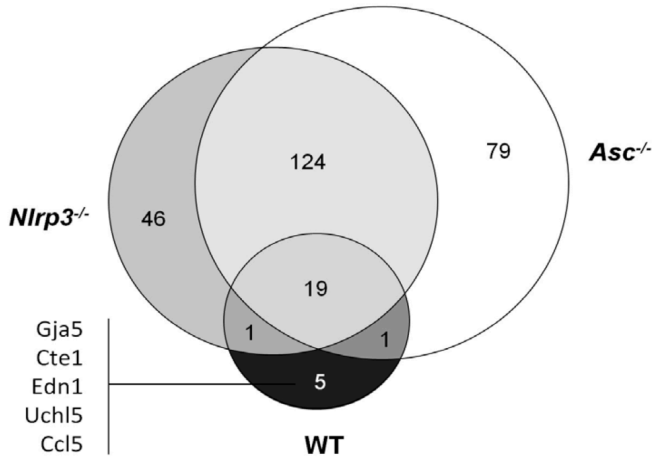

Figure S6. Genes induced upon infection in *Nlrp3*$^{-/-}$, *Asc*$^{-/-}$, and WT. WT, *Nlrp3*$^{-/-}$, and *Asc*$^{-/-}$ mice were infected with ~10^9 *C. rodentium* and sacrificed 72h p.i. (n = 3). RNA was isolated from caeca and gene expression profiled using Illumina Mouse WG6v2 Expression BeadChip. Venn diagram of the genes induced upon infection (at least 1.5-fold 72h p.i. vs uninfected).

Supplementary Figure 7

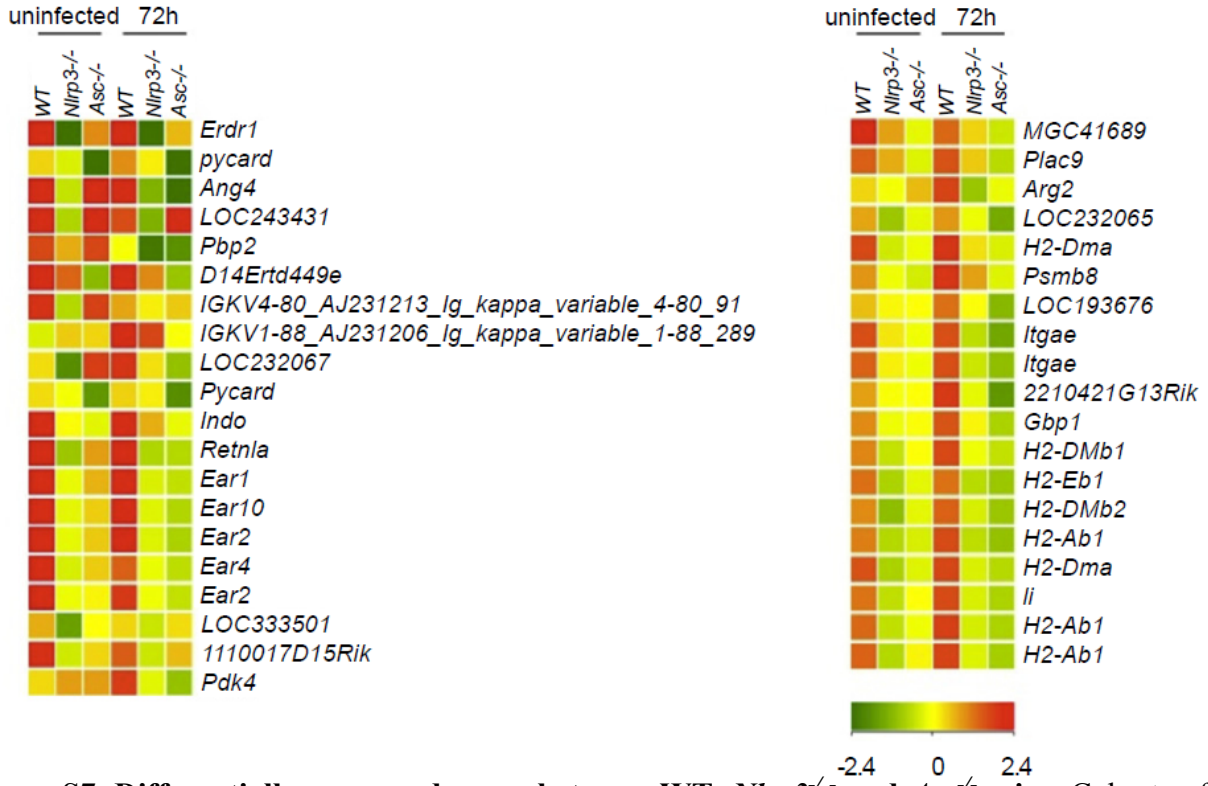

Figure S7. Differentially expressed genes between WT, *Nlrp3*$^{-/-}$ and *Asc*$^{-/-}$ mice. Cohorts of WT, *Nlrp3*$^{-/-}$, and *Asc*$^{-/-}$ mice were either left uninfected or orally infected with ~10^9 *C. rodentium* and sacrificed at 3 days p.i. (n = 3 per group). Thereafter caecal tissue RNA was isolated and subjected to genome wide transcriptional profiling.

Depicted above is a heat map representing 33 unique genes significantly expressed at a lower level (at least 2-fold) in either *Nlrp3*$^{-/-}$ or *Asc*$^{-/-}$ relative to WT mice, during steady state (uninfected) and/or 3 days p.i.. Colour range (green to red) represent log transformed normalized intensity values.