

Figure S1: WT and AMPK Ko mice are comparable in terms of humoral immunity (A) Analysis of total AMPK α 1 in CD4 and Tregs in WT and AMPK-KO mice by western blotting. (B) Representative flow cytometric plot showing the percentage of (B) germinal center B-cells and (C) Tfh cells in payer's patches of WT and AMPK-KO mice (D) Concentration of IgG (1:20000), IgG1 (1:20000), IgG2a (1:20000), IgG2b (1:20000), IgG3 (1:20000), IgE (1:20) and IgM (1:5000) in serum from WT and AMPK-KO mice.

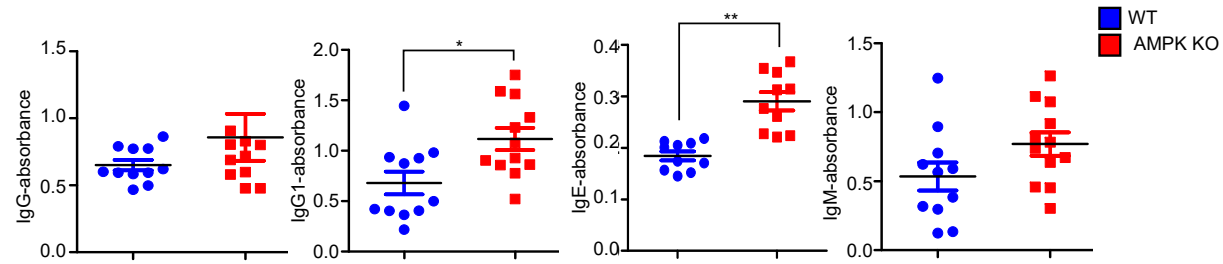
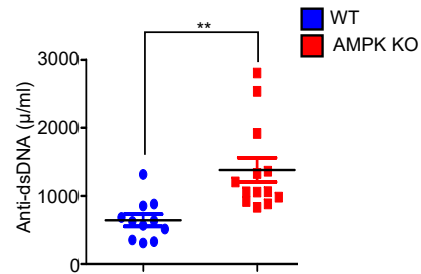
A**B**

Figure S2: Alteration in humoral immunity in aged mice (A) Absorbance of IgG (1:20000), IgG1 (1:20000), IgG2a (1:20000), IgG2b (1:20000), IgG3 (1:20000), IgE (1:20) and IgM (1:5000) in serum from WT and AMPK-KO mice. **(B)** Concentration of antibodies to double stranded DNA in WT and AMPK-KO mice.

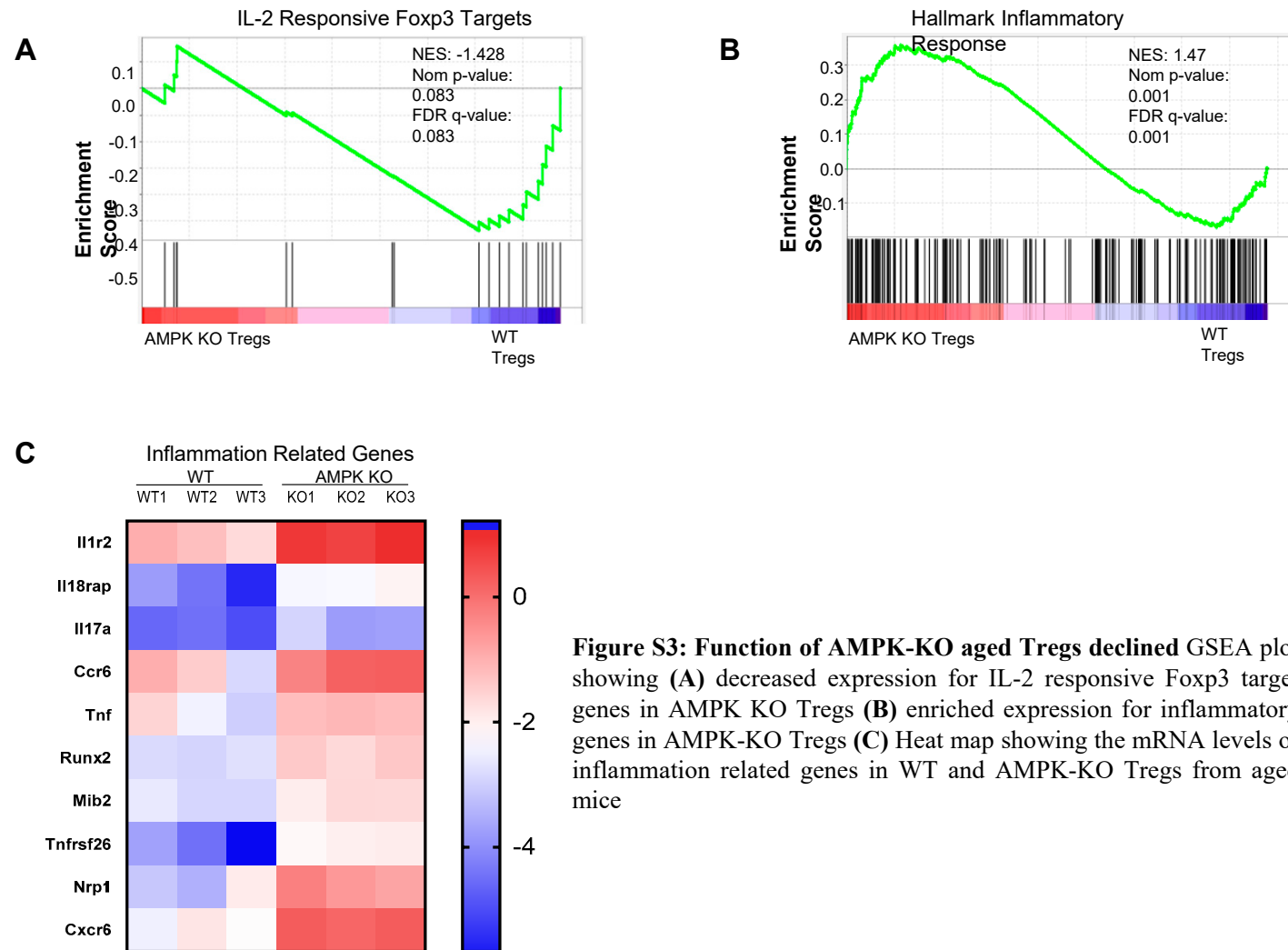


Figure S3: Function of AMPK-KO aged Tregs declined GSEA plot showing (A) decreased expression for IL-2 responsive Foxp3 target genes in AMPK KO Tregs (B) enriched expression for inflammatory genes in AMPK-KO Tregs (C) Heat map showing the mRNA levels of inflammation related genes in WT and AMPK-KO Tregs from aged mice