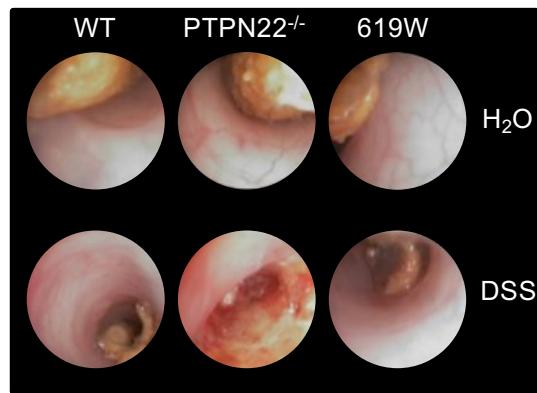
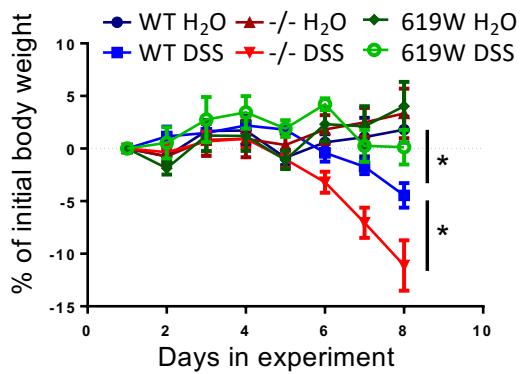


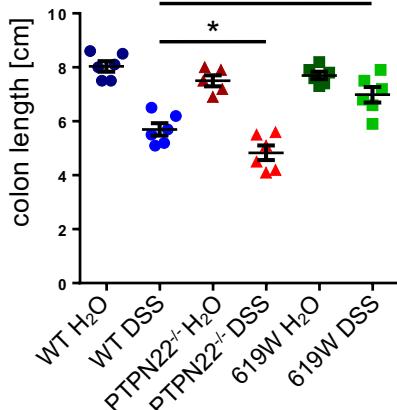
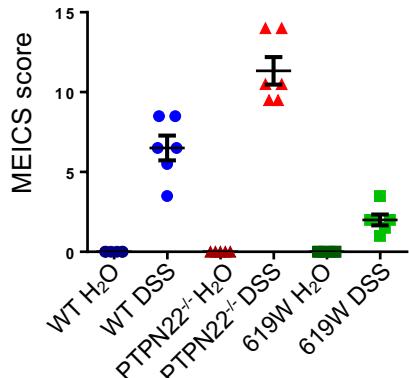
S1A

S1B



S1C

S1D



S1E

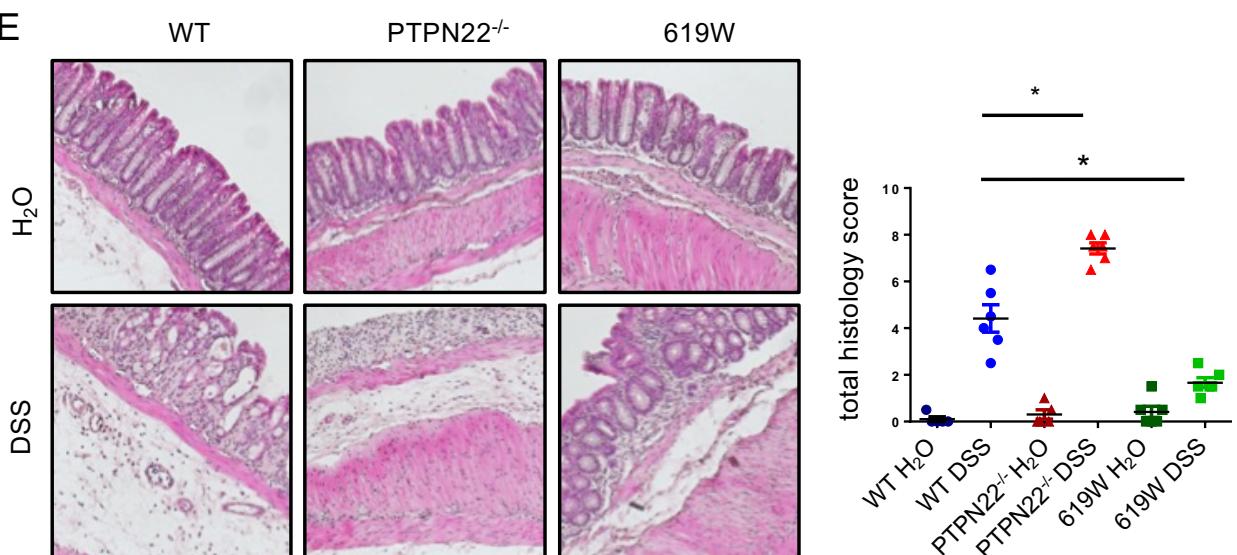
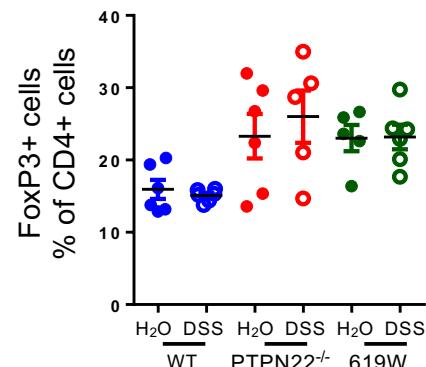


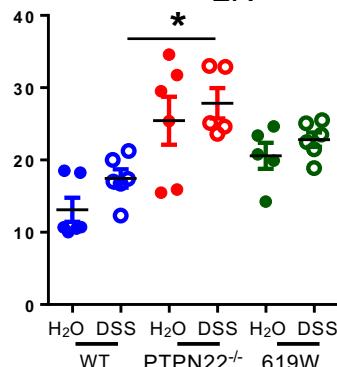
Figure S1. Presence of the 619W variant protects from acute colitis. Acute colitis was induced in PTPN22^{-/-} and 619W mice, as well as in their respective WT littermates. Depicted are A) weight development, B) representative pictures of colonoscopy, C) murine endoscopy index of colitis severity scoring, D) colon length, and E) representative pictures (original magnification 10x) from H&E stained sections of the terminal colon and F) respective scoring of inflammation. Data are representative for one out of two independent experiments. Depicted are Mean values and SEM (A-E) and each dot represents one individual mouse (C-E). In A) n in each group is equal to the individuals depicted in C, D. and F. * $=p<0.05$, ** $=p<0.01$, Kruskal Wallis test.

S2A

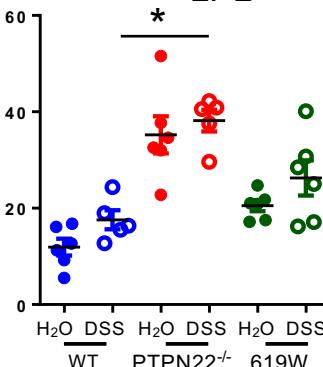
spleen



LN

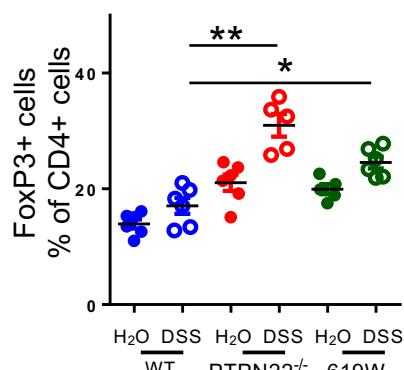


LPL

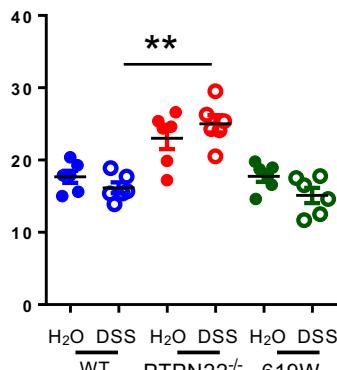


S2B

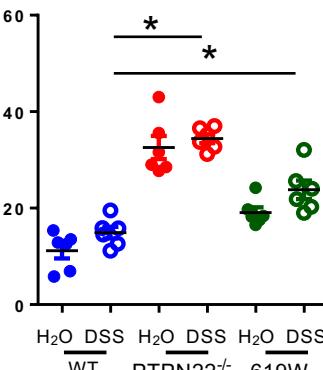
spleen



LN

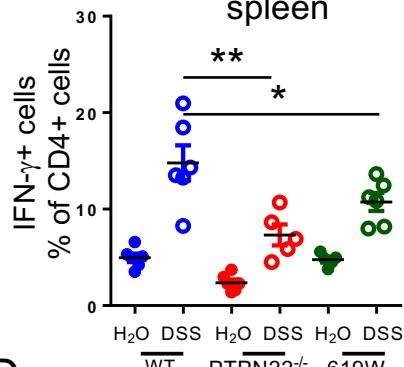


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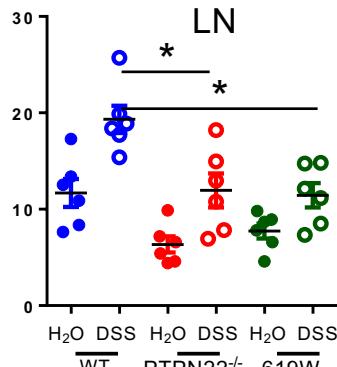


S2C

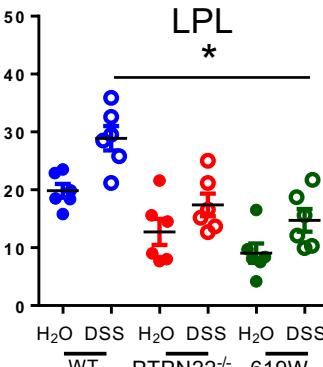
spleen



LN

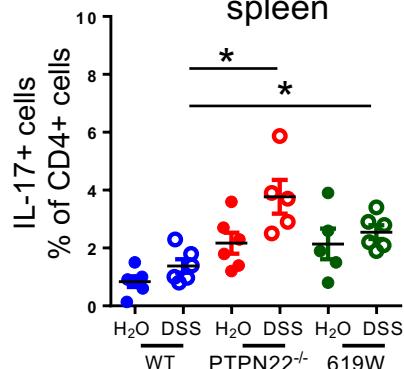


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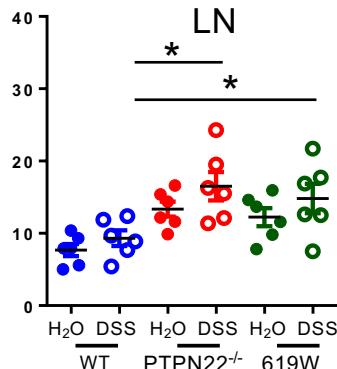


S2D

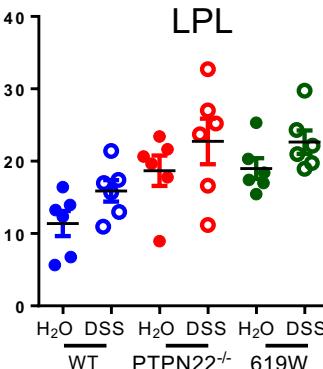
spleen



LN

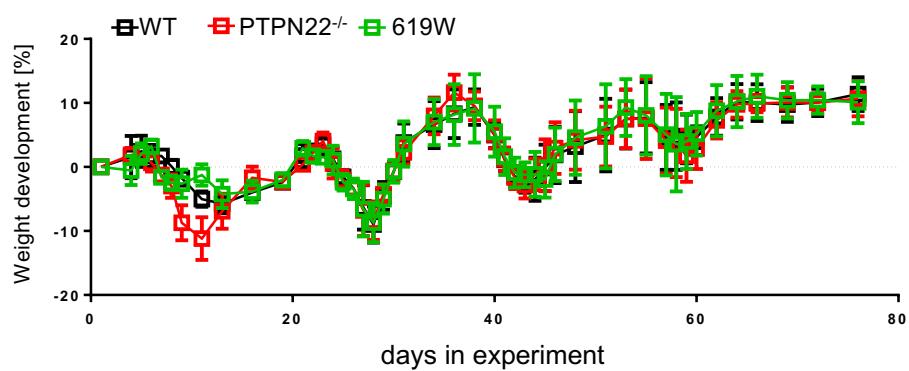


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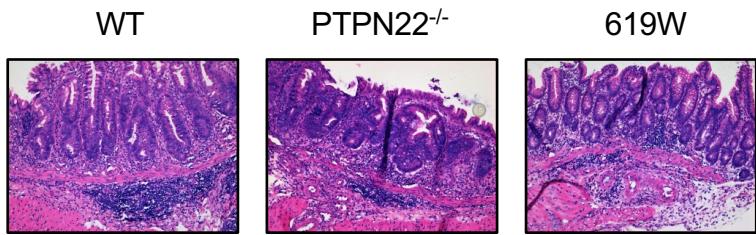
**Figure S2. Presence of the 619W variant affects Th cell subsets during colitis.**

Acute DSS colitis (**A**) or chronic DSS colitis (**B-D**) was induced in WT, PTPN22^{-/-} and 619W mice and immune cells were isolated from the spleen, mesenteric lymph nodes (LN) and the colonic lamina propria (LPL), activated with Ionomycin and PMA for 3h in presence of Brefeldin A, and subsequently stained for **A+B**) FoxP3+ CD4+ T cells, **C**) IFN- γ + CD4+ T cells, and **D**) IL-17+ CD4+ T cells. Depicted are Mean values and SEM (A-E) and each dot represents one individual mouse. * $=p<0.05$, ** $=p<0.01$, Kruskal Wallis test

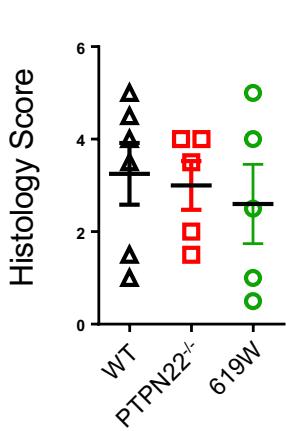
S3A



S3B



S3C



S3D

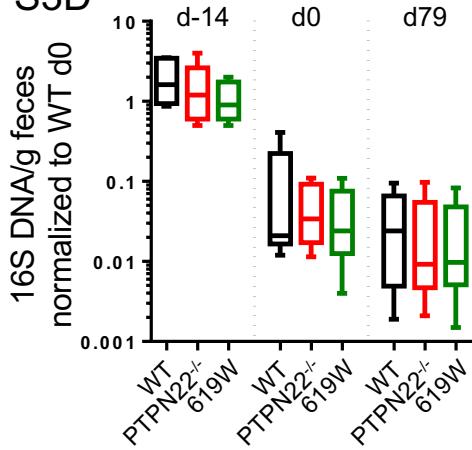


Figure S3. Antibiotics treatment annulates the genotype-dependent phenotype upon chronic colitis induction. PTPN22^{-/-}, 619W and WT mice were separated according to genotype after weaning and treated throughout the experiment with an antibiotic cocktail starting at the age of 10 weeks. At 12 weeks of age, the mice were subjected to chronic DSS-colitis induction (4 cycles consisting of 7 days treatment with 1% DSS followed by 10 days recovery phase, each). Depicted are **A**) weight development, **B**) representative pictures (original magnification 10x) and **C**) respective histological scoring from sections of the terminal colon collected at the end of the experiment, and **D**) relative abundance of 16S DNA in the feces at indicated time points (d-14 = start of antibiotics treatment, d0= start of DSS, d79=end of the experiment; box border: 25-75 percentile, whiskers: min-max value, middle horizontal line: median).