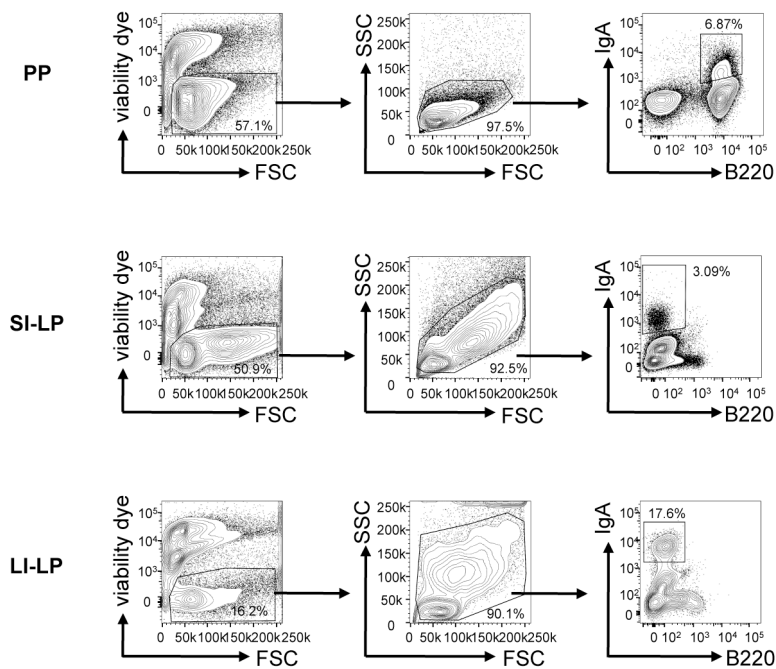
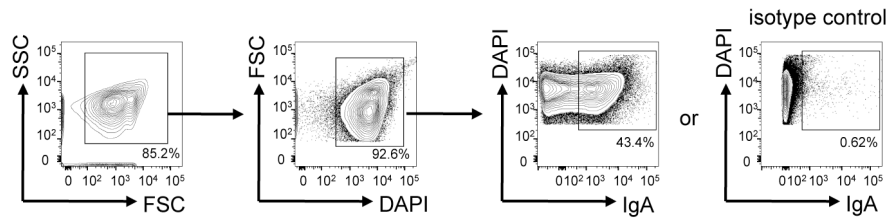


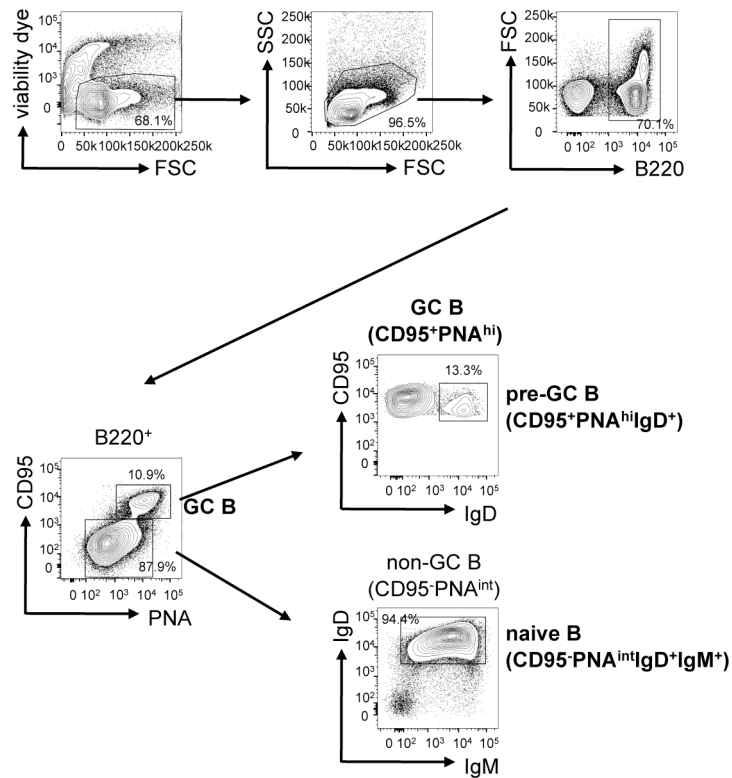
Supplementary Figure S1. CCR6^{-/-} mice have small size of PPs. Mice were sacrificed and PPs were isolated from small intestines. **A.** Number of PPs in one mouse is shown. **B.** Total lymphocyte number of PPs in one mouse is shown. Each symbol represents one mouse. Data are a compilation of three (**A**) or six (**B**) independent experiments. ****, $P < 0.0001$.



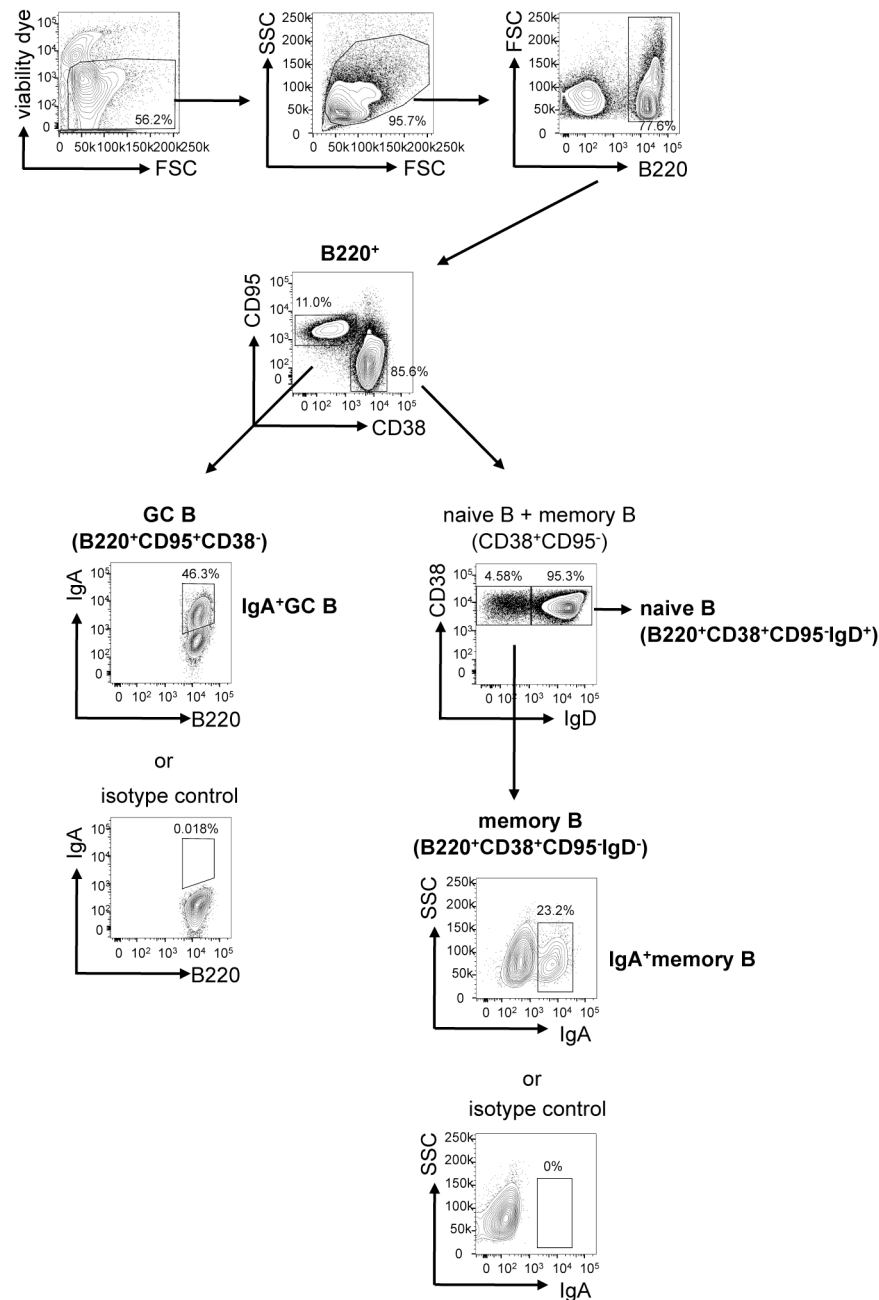
Supplementary Figure S2. Gating strategy to detect IgA-bearing cells in the intestinal tissues. Dead cells were excluded using a viability dye. Leukocytes were gated using a FSC vs. SSC plot. IgA-bearing B cells (IgA⁺B220⁺ in PP) and IgA-bearing plasma cells (IgA⁺B220⁻ in SI-LP and LI-LP) were further identified by surface staining of B220 and IgA.



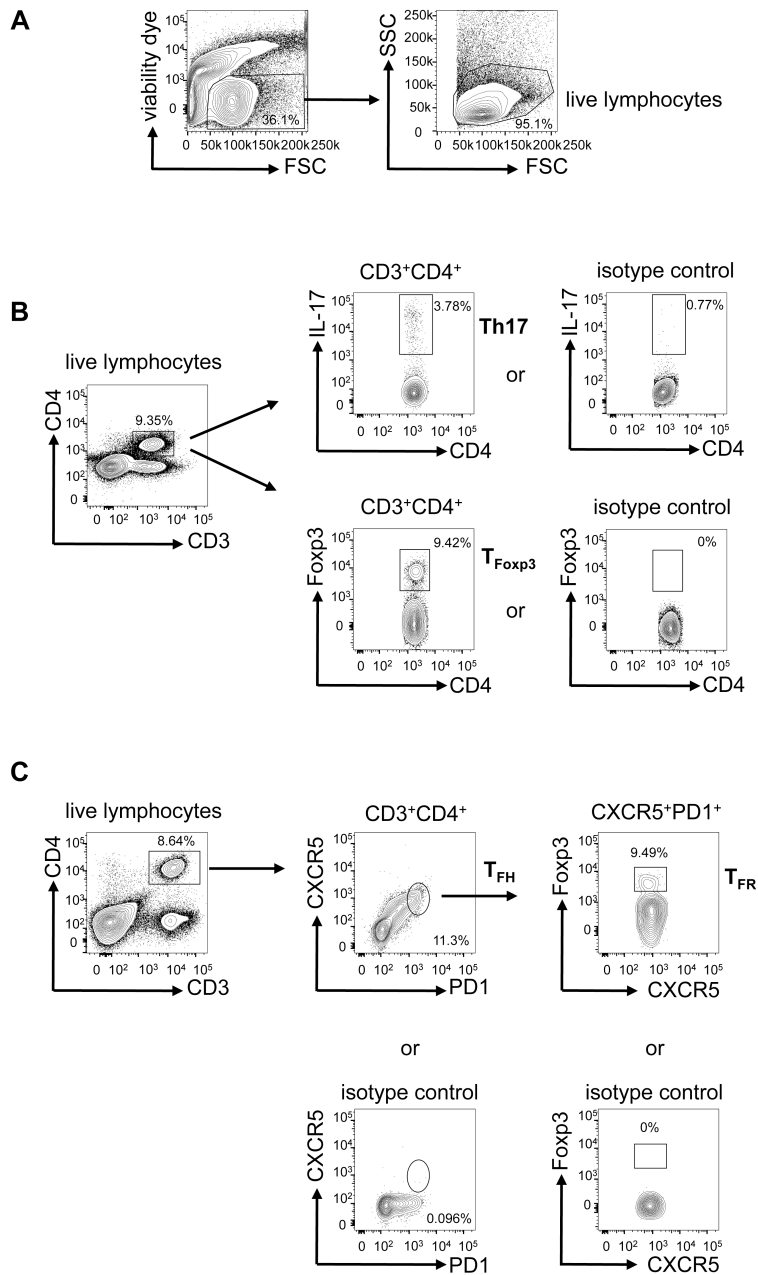
Supplementary Figure S3. Gating strategy to detect IgA-coated fecal bacteria. Bacteria were gated using a FSC vs. SSC plot and DAPI positive events were gated for further analysis. Bacteria coated with mouse IgA were identified by IgA-positive events. IgA isotype control (far right panel) was also included for each bacteria sample.



Supplementary Figure S4. Gating strategy to detect naive B, pre-GC B and GC B cells by staining cells with antibodies to B220, IgD, IgM, CD95 and PNA. Dead cells were excluded using a viability dye. PP lymphocytes were gated using a FSC vs. SSC plot. B220⁺ cells were identified as PP B cells. Within B220⁺ population, cells were further identified as GC B cells (CD95⁺PNA^{hi}) and non-GCB cells (CD95⁻PNA^{int}). Pre-GC B cells were further identified as IgD⁺ cells within GC B cells. Naive B cells were further identified as IgD⁺IgM⁺ cells within non GC-B cells.



Supplementary Figure S5. Gating strategy to detect naive B, GC B, IgA-bearing GC B and IgA-bearing memory B cells by staining cells with antibodies to B220, IgD, CD95, CD38 and surface IgA. Dead cells were excluded using a viability dye. PP lymphocytes were gated using a FSC vs. SSC plot. B220⁺ cells were identified as PP B cells. PP B cells were further identified as GC B cells (CD95⁺CD38⁻) or naive and memory B cells (CD95⁻CD38⁺). IgA⁺ GC B cells were further identified within GC B cells. Naive B cells were further identified as IgD⁺ cells within the CD95⁻CD38⁺ population and memory B cells were further identified as IgD⁻ cells within the CD95⁻CD38⁺ population. IgA⁺ memory B cells were identified as surface IgA⁺ within the memory B cell population.



Supplementary Figure S6. Gating strategy to detect PP T cell subsets. **A.** Dead cells were excluded using a viability dye. PP lymphocytes were gated using a FSC vs. SSC plot. **B.** CD4⁺ T helper cells were gated on CD3⁺CD4⁺ cells within the lymphocyte population. Th17 cells were further identified as CD3⁺CD4⁺IL-17⁺ T cells and the isotype control for anti-IL-17 was also included. T_{Foxp3} cells were further identified as CD3⁺CD4⁺Foxp3⁺ cells and the isotype control for anti-Foxp3 was also included. **C.** T_{FH} cells were identified as CD3⁺CD4⁺CXCR5⁺PD1⁺ cells, and T_{FR} cells were further gated on Foxp3⁺ cells within the T_{FH} population. The isotype controls for anti-CXCR5 and for anti-Foxp3 were also included.

Supplement Table S1. Primer sequences and the Taqman probes used in this study.

(A) Primer sequences used for qPCR

murine gene	forward	reverse
Reg3 β	ATGGCTCCTACTGCTATGCC	GTGTCCTCCAGGCCTCTTT
Reg3 γ	ATGGCTCCTATTGCTATGCC	GATGTCCTGAGGGCCTCTT
SAA1	CATTTGTTACGAGGCTTTCC	GTTTTTCCAGTTAGCTTCCTTCATGT
SAA2	TGTGTATCCCACAAGGTTTCAGA	TTATTACCCTCTCCTCCTCAAGCA
CCL20	TACGACTGTTGCCTCTCGTACATAC	TCTGTGCAGTGATGTGCAGGTGAA
CXCL13	TTACGCCCCCTGGGAATGGCT	GGGTATGCAACGGAGCTTGAGCA
CD79 α	GAACCACAGGGGCTTGTACT	GGTTCTTGGTACCTTCCCCC
LT α	TCCACTCCCTCAGAAGCACT	AGAGAAGCCATGTTCGGAGAA
LT β	TACACCAGATCCAGGGGTTCC	ACTCATCCAAGCGCCTATGA
TGF- β 1	AAGGCTCGCCAGTCCCCCAA	TAGATGGCGTTGTTGCGGTCCAC
IL-21	AGGGCCAGATCGCCTCCTGA	GCATGCTCACAGTGCCCCTTTACA
BAFF	AGGCTGGAAGAAGGAGATGAG	CAGAGAAGACGAGGGGAAGGG
APRIL	GGGGAAGGAGTGTCAGAGTG	GCAGGGAGGGTGGGAATAC
GAPDH	TACTTGGCAGGTTTCTCCAG	GTCGTGGAGTCTACTGGTGT

(B) Gene expression analyzed with Taqman probes

murine gene	Taqman probe
IL-22	Mm04203745_mH
IL-17A	Mm00439618_m1
RORc	Mm01261022_m1
IL-10	Mm00439614_m1
IL-6	Mm00446190_m1
GM-CSF	Mm01290062_m1
GAPDH	Mm99999915_g1