Figure S1. CD4⁺ and CD8⁺ T cells expand in the popliteal and inguinal lymph nodes of *B. burgdorferi* infected IL-10$^{-/-}$ mice

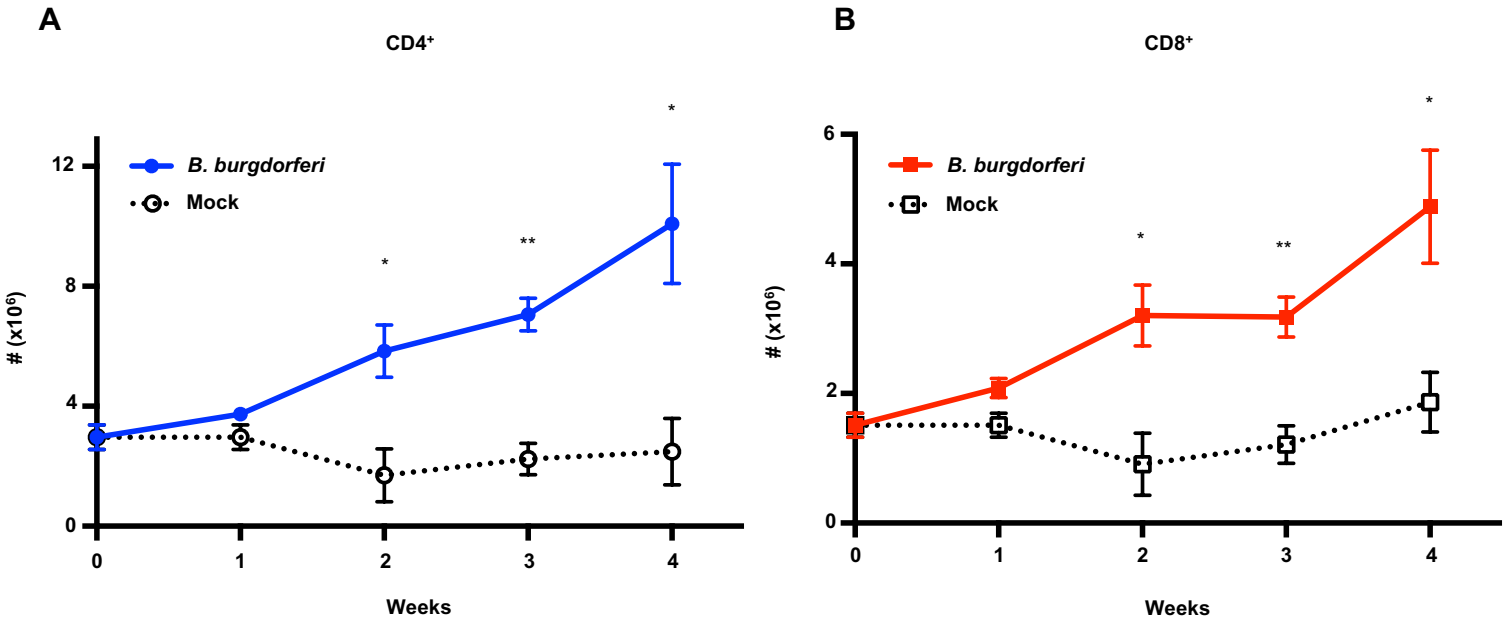

Figure S1. $CD4^+$ and $CD8^+$ T cells expand in the popliteal and inguinal Lymph nodes of *B. burgdorferi* infected IL-$10^{-/-}$ mice

Flow cytometry analysis of $CD4^+$ and $CD8^+$ T cells from the popliteal and inguinal lymph nodes of IL-$10^{-/-}$ mice infected with *B. burgdorferi* weekly throughout 4 weeks of infection. Error bars indicate the SEM ($n \geq 3$ per group). Statistically significant differences between groups by Student's t-test are indicated (*$p<0.05$, **$p<0.01$). Data are representative of two independent experiments.

Figure S2. CD4⁺ and CD8⁺ T cells were efficiently depleted in the blood draining lymph nodes, and joints using neutralizing antibodies

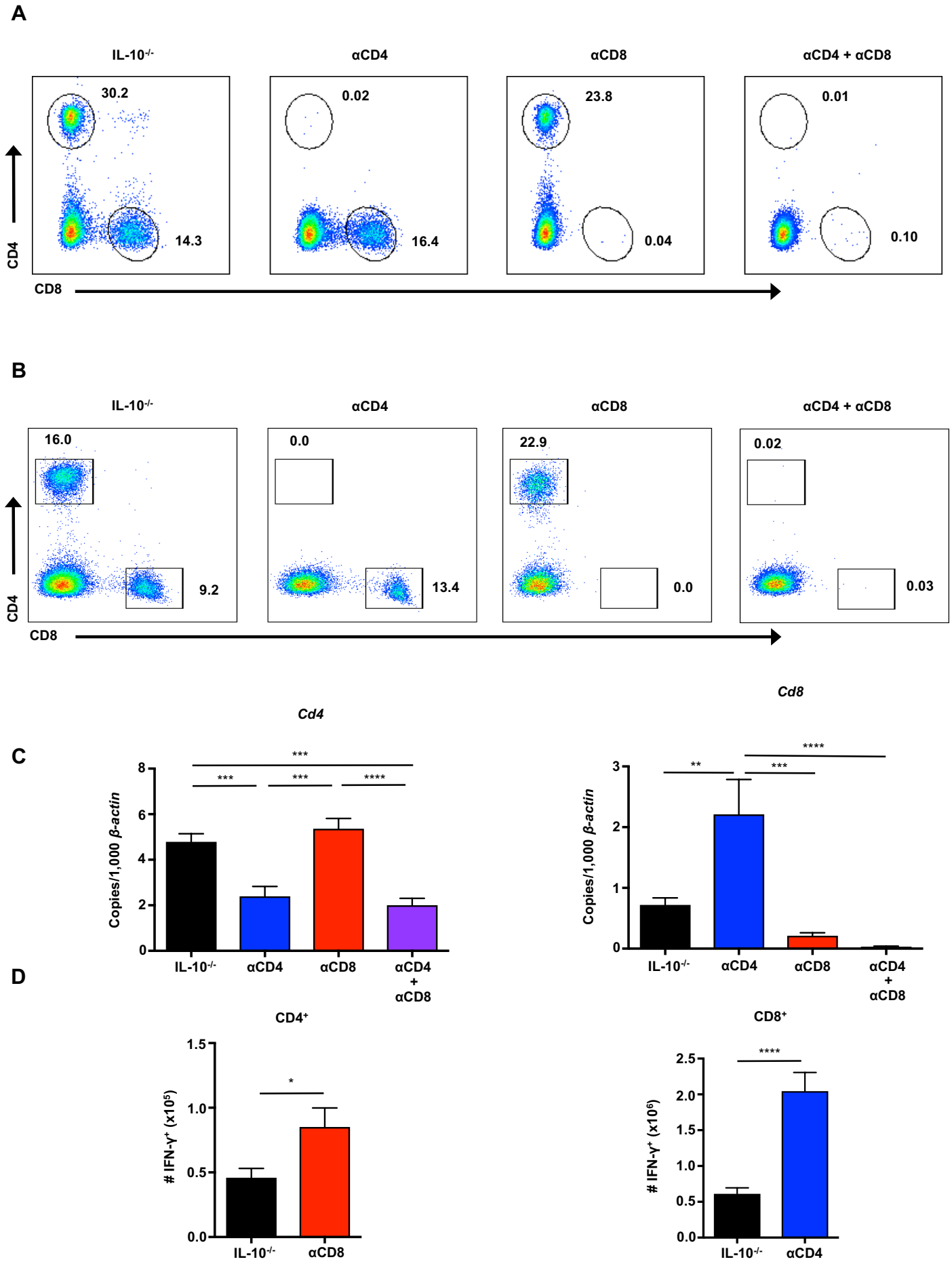

Figure S2. $CD4^+$ and $CD8^+$ T cells were efficiently depleted in the blood, draining lymph nodes, and joints using neutralizing antibodies

IL-$10^{-/-}$ mice were infected with *B. burgdorferi* for 4 weeks, and treated with isotype control antibody, anti-CD4, anti-CD8, or both anti-CD4 and anti-CD8 (**Methods**). (A) Blood was collected 4 days after the first antibody injection and analyzed by flow cytometry for the presence of $CD4^+$ and $CD8^+$ T cells. (B) Popliteal and inguinal lymph nodes were obtained 4 weeks post infection and analyzed by flow cytometry for the presence of $CD4^+$ and $CD8^+$ T cells. (C) Joints were collected 4 weeks post-infected and analyzed by qRT-PCR for the presence of *CD4* and *CD8* transcripts. (D) Popliteal and inguinal lymph nodes were analyzed 4 weeks post infection for $CD4^+IFN\gamma^+$ and $CD8^+IFN\gamma^+$ T cells by flow cytometry. (C) Statistically significant differences between groups by ANOVA followed by Bonferroni's post-hoc test are indicated (*$p<0.05$, **$p<0.01$, ***$p<0.001$, ****$p<0.0001$). (D) Statistically significant differences between groups by Student's t-test are indicated (*$p<0.05$, ****$p<0.0001$).

Figure S3. SMARTA/IL-10$^{-/-}$ arthritis development is partially dependent on IFN-γ

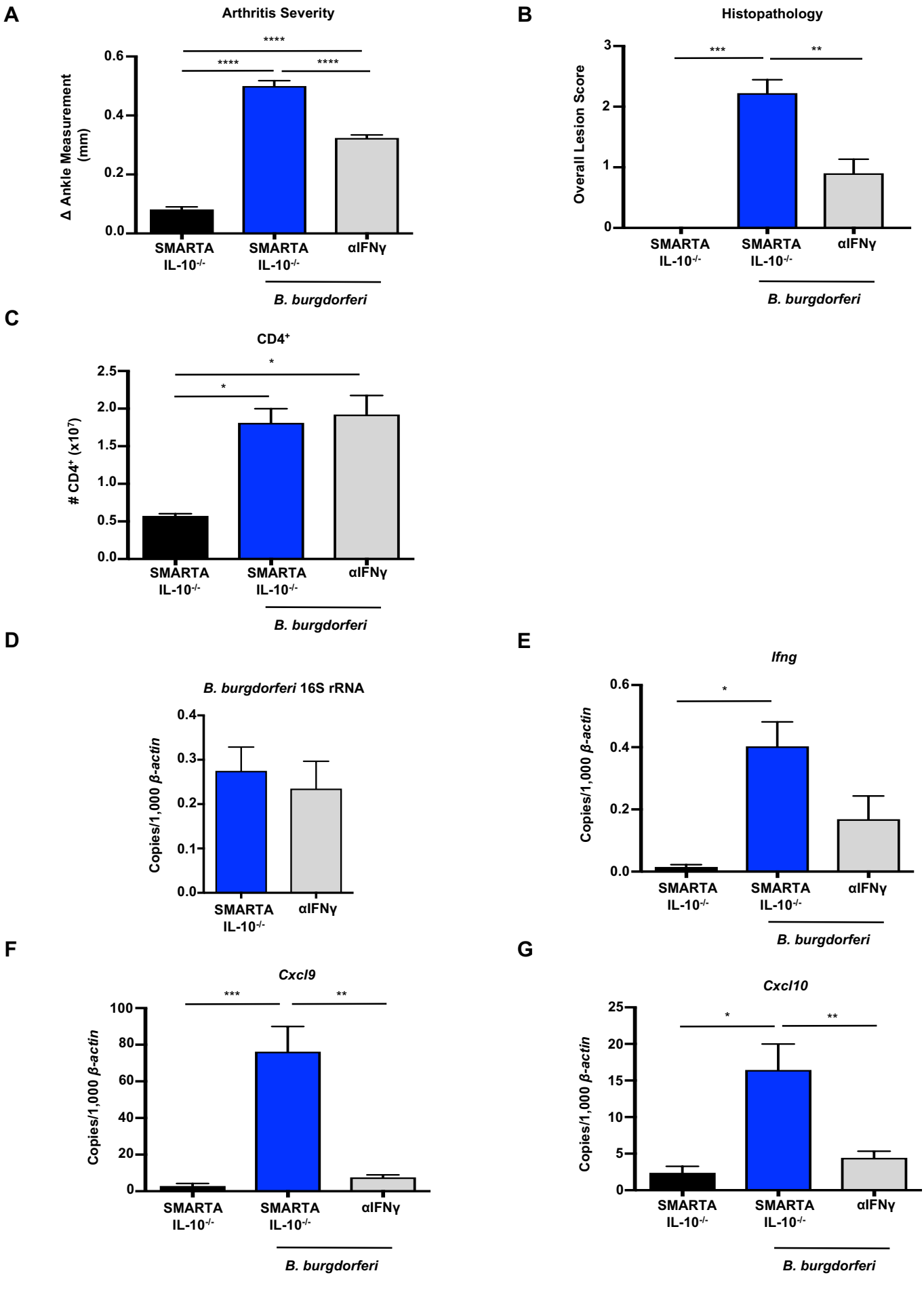

Figure S3. SMARTA/IL-10$^{-/-}$ arthritis development is partially dependent on IFN-γ

CD4^{+} TCR transgenic SMARTA/IL-10$^{-/-}$ mice were infected with *B. burgdorferi* for 4 weeks. Mice were injected with an isotype control or anti-IFN-γ over the course of infection. (A) Measurements of rear ankles of mice were taken before infection and 4 weeks post-infection, and change in ankle measurement is shown. (B) The most swollen ankle was assessed by histopathologic evaluation in a blind fashion. Scores 0-5, with 5 being most severe, were assigned to each sample. (C) The total number of CD4^{+} were quantified from the popliteal and inguinal lymph nodes using flow cytometry. (D-G) Quantification of *B. burgdorferi*-specific *16S rRNA*, *Ifng*, *Cxcl9*, and *Cxcl10* was normalized to 1,000 *β-actin* in the joint using qRT-PCR. Error bars indicate the SEM (n = 10 per group). Statistically significant differences between groups by ANOVA followed by Bonferroni's post-hoc test are indicated (*p<0.05, **p<0.01, ***p<0.001 ****p<0.0001).

Figure S4. TLR expression on CD4⁺ and CD8⁺ T cells following *B. burgdorferi* infection

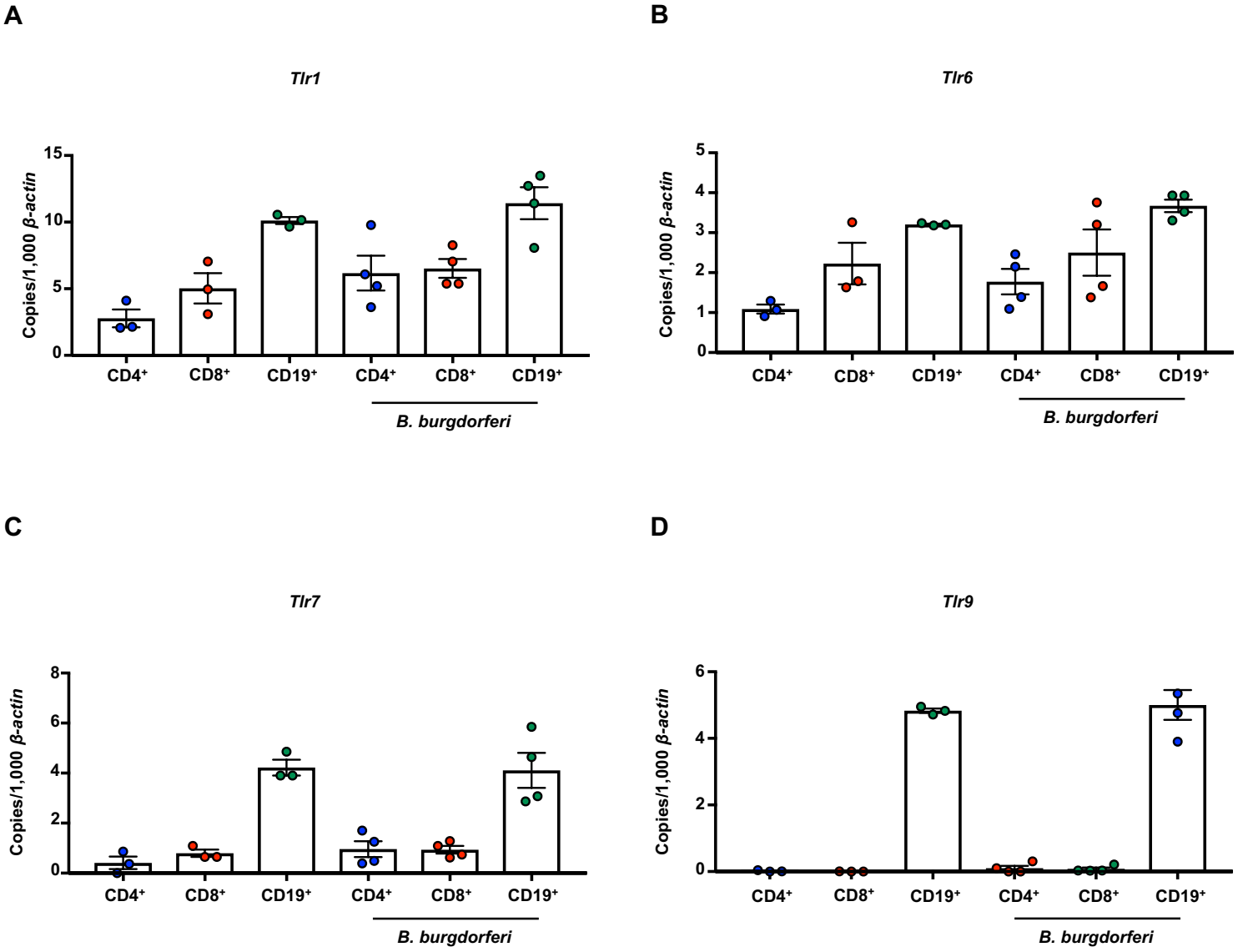

Figure S4. TLR expression on $CD4^+$ and $CD8^+$ T cells following *B. burgdorferi* infection

Expression of TLR's on $CD4^+$ and $CD8^+$ T cells from the popliteal and inguinal lymph nodes of mice infected with *B. burgdorferi* for 4 weeks. $CD3^+CD4^+$, $CD3^+CD8^+$, and $CD19^+$ cells were sorted out from popliteal and inguinal lymph nodes of IL-$10^{-/-}$ mice using FACS sorting (BD FACSAria). (A-D) Transcripts for *Tlr1*, *Tlr5*, *Tlr6*, and *Tlr9* were measured by qRT-PCR, normalized to 1,000 *β-actin*. Error bars indicate the SEM (n≥3 per group Error bars indicate the SEM (n≥5 per group). Statistically significant differences between groups by Student's t-test are indicated (***$p<0.001$). Data are representative of two independent experiments.