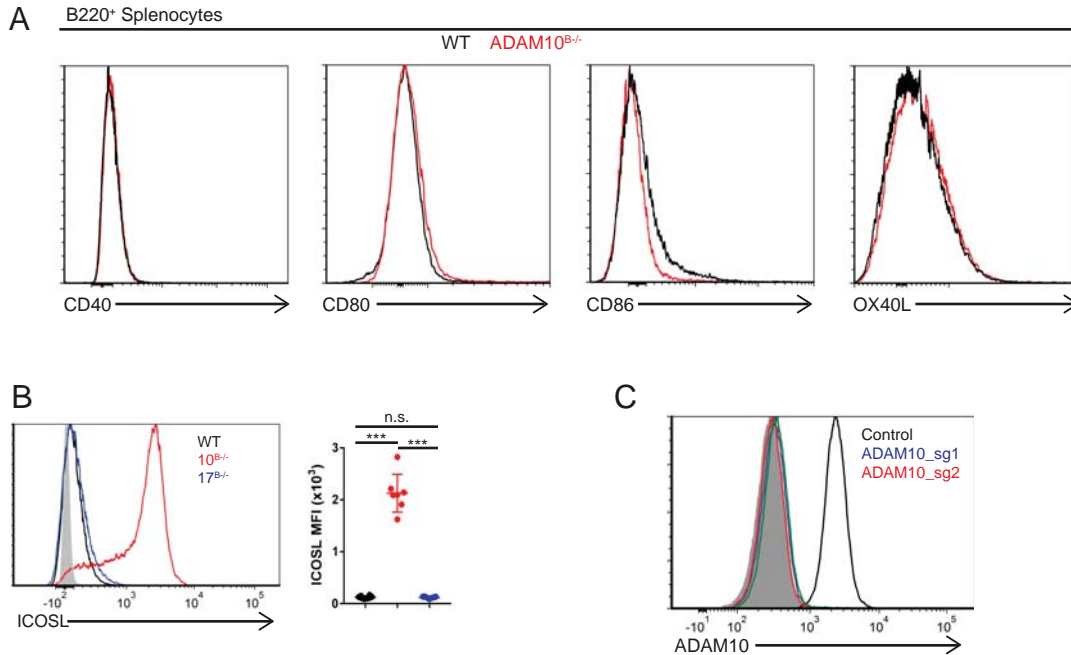
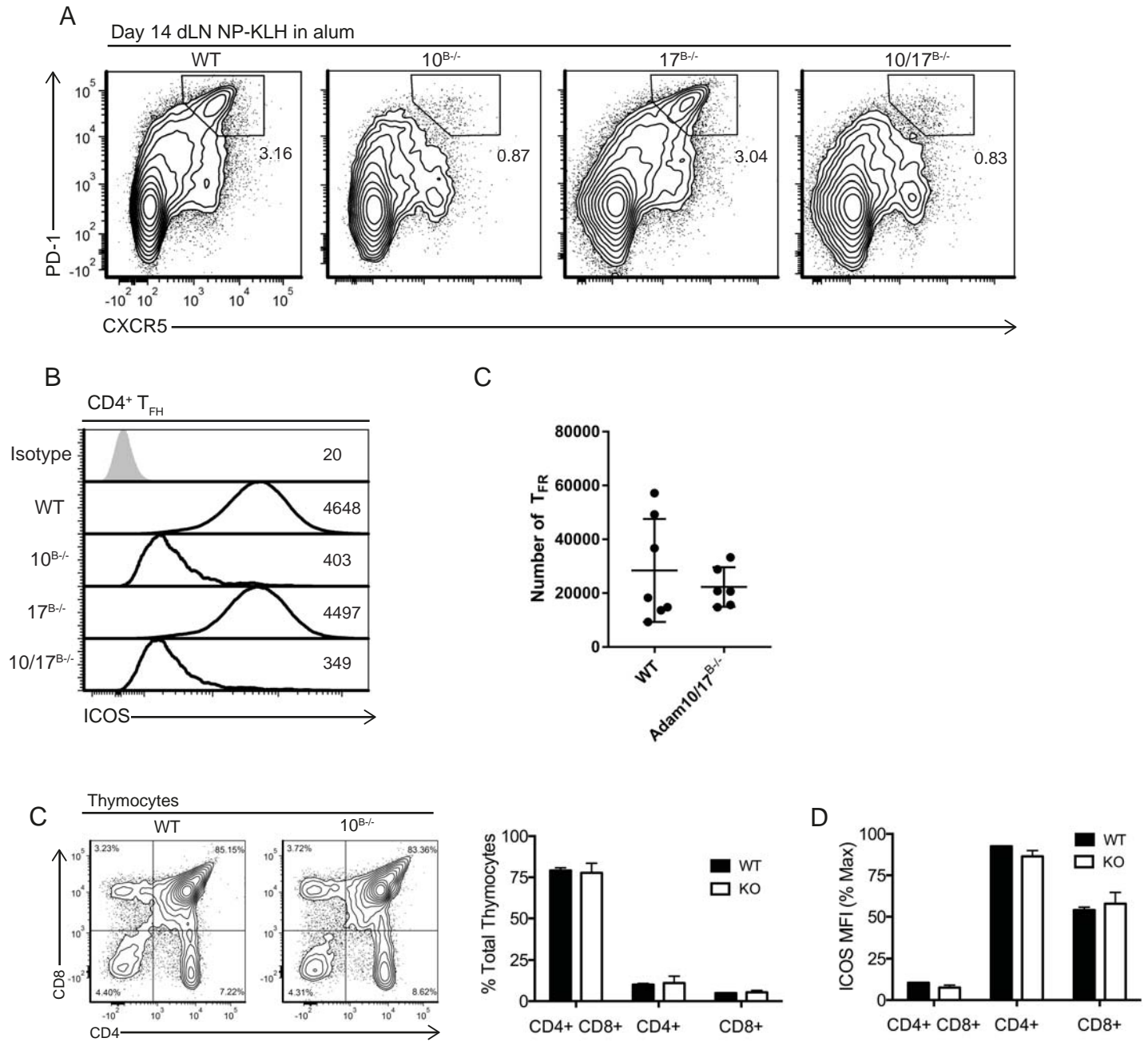


Supplemental Figure 1

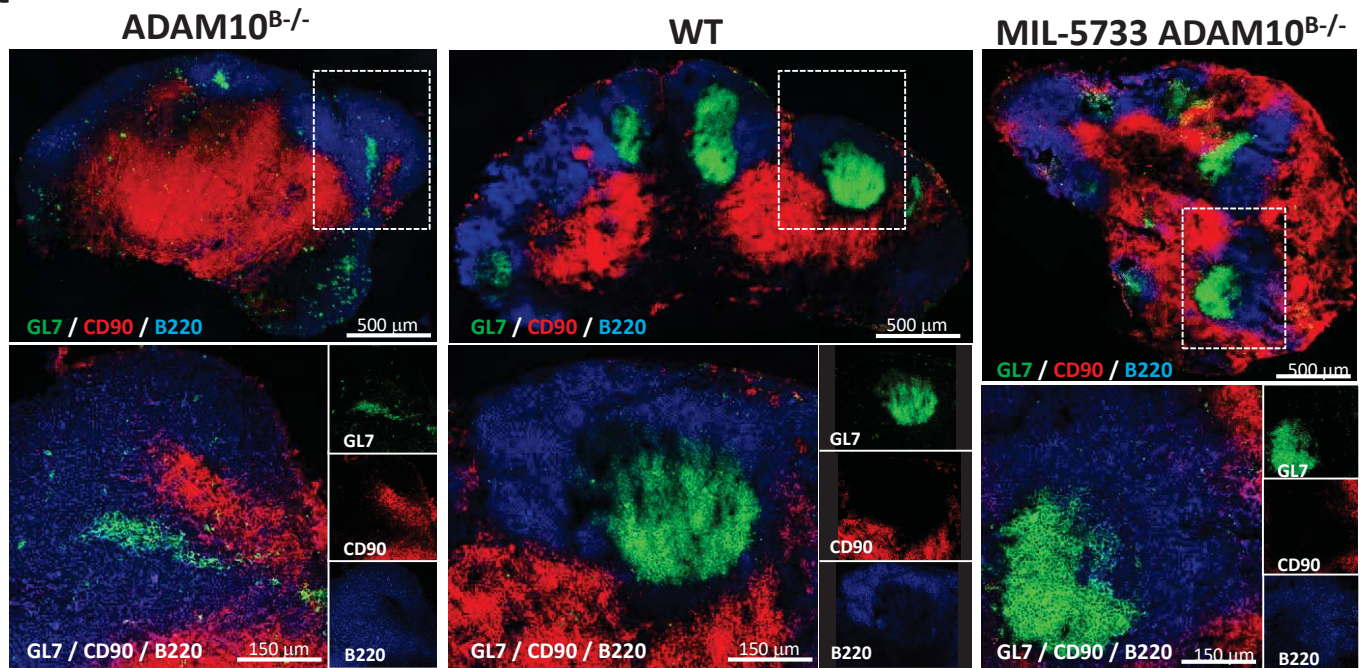
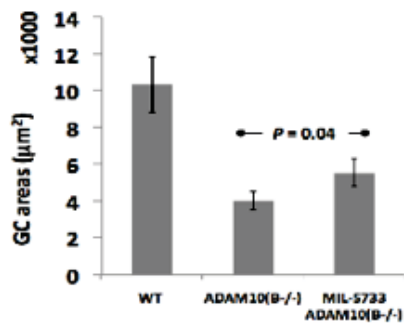


Supplemental Fig. 1: (A) B220<sup>+</sup> splenocytes from WT (black line) and ADAM10<sup>B-/-</sup> (red line) mice were analyzed for costimulatory molecule expression by flow cytometry. (B) Representative histogram of B cells from WT (black line), ADAM10<sup>B-/-</sup> (red line) and ADAM10/17B<sup>-/-</sup> (blue line) mice and analysis of multiple samples shown at right of B. Isotype control staining shaded gray. n.s., not significant ( $P \geq 0.05$ ). \* $P < 0.05$ , \*\*\* $P < 0.001$ , \*\*\*\* $P < 0.0001$  Kruskal-Wallis (A-D) and One-way ANOVA (F). Data are pooled from three (A-D, F, mean  $\pm$  s.d.) independent experiments. (C) Histogram of ADAM10 levels on WT and ADAM10<sup>-/-</sup> RPMI 8866 cells. Isotype shading in grey. n.s., not significant ( $P \geq 0.05$ ), \*\*\* $P < 0.001$ . One-way ANOVA with Tukey's post-test (B).

Supplemental Figure 2

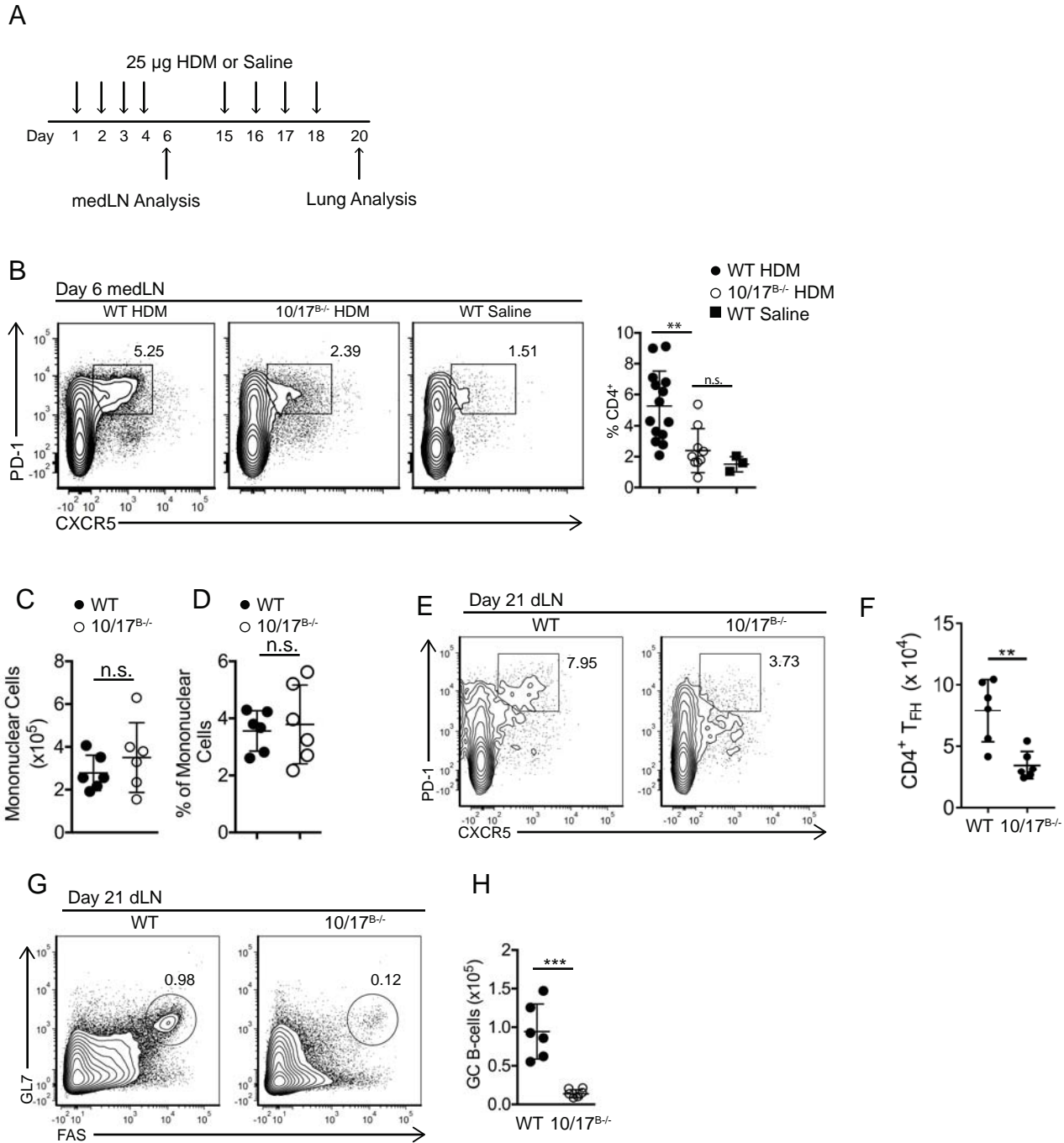


Supplemental Fig. 2: (a) Mice were immunized with 10µg NP31-KLH in alum in each footpad and TFH were determined by gating on CXCR5<sup>+</sup> PD-1<sup>hi</sup> CD4<sup>+</sup> T cells. (b) TFH ICOS levels were determined by flow cytometry. (c) Thymic subsets were analyzed in WT and ADAM10B<sup>-/-</sup> mice. (d) Thymic subset ICOS levels were determined by flow cytometry in WT and ADAM10B<sup>-/-</sup> mice.

**A****B****Average total GC areas at mid-sagittal plane**

Supplemental Fig. 3: (A - C) representative IHC images of draining lymph nodes from NP-KLH immunized mice. (D) Analysis of average total GC sizes in a mid-sagittal plane. *n.s.*, not significant ( $P \geq 0.05$ ).  $*P < 0.05$ . One-way ANOVA (D).

Supplemental Figure 4



Supplemental Fig. 4: (A) Model depicting sensitization (days 1-4) and challenge (days 15-18) in the HDM model used. (B) medLN were examined by flow cytometry at day 6 for TFH as defined by CXCR5+ PD-1<sup>hi</sup> CD4<sup>+</sup> T cells. (C) CNS mononuclear cell count was determined following Percoll isolation from CNS tissue. (D) CD4<sup>+</sup> T cells were examined in the CNS as a percent of total mononuclear cells. (E - H) Draining lymph nodes were examined for relative TFH levels (E) and absolute quantitation of TFH (F) as well as relative GC B cell levels (G) and GC B cell absolute quantitation (H). n.s., not significant ( $P \geq 0.05$ ). \* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$ , \*\*\*\* $P < 0.0001$ . One-way analysis of variance (ANOVA) with Tukey's post-test (B), Student's t-test (C, D, F, H). Data are pooled from three (A-E) independent experiments.