SUPPLEMENTARY DATA

CARMA1 is Necessary for Optimal T Cell Responses in a Murine Model of Allergic Asthma[1, 2, 3]

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SUPPLEMENTARY FIGURE 1. *Deletion of CARMA1 after T cell activation using tamoxifen-induced Cre recombinase activity reduces T cell reactivation in vitro*. A) $CD4^+$ T cells isolated from mice were cultured with $OVA_{323-339}$ pulsed APCs, treated with 4-hydroxytamoxifen and restimulated with anti-CD3 and anti-CD28 coated beads. B) Transcript expression of CARMA1 in $CD4^+$ T cells three days following activation and after 5 days of culture with tamoxifen or vehicle, as analyzed by real-time quantitative PCR. RNA was isolated from pooled cells from 2 mice per genotype at the indicated time points. Expression was normalized to baseline CARMA1 expression in cells following activation with OVA loaded irradiated splenocytes for 3 days. Baseline expression did not differ between the two genotypes. C) Representative histograms demonstrating CD69 expression on $CD4^+$ T cells isolated from wild-type OT-II and $Rosa26^{CreERT2/+}$/$CARMA1^{F/F}$ OT-II mice following activation with OVA, tamoxifen or vehicle treatment for 5 days, and with or without 24 h restimulation with anti-CD3 and anti-CD28. Plots are representative of 2 experiments done with pooled cells from 2 mice per genotype.

SUPPLEMENTARY FIGURE 2. *In vivo $OX40^{+/Cre}$ activity is induced in $CD4^+$ T cells with OVA immunization and challenge.* A) $OX40^{+/Cre}$mT/mG mice were either sensitized or sensitized and challenged with OVA as depicted. Lung and BAL tissues were collected. B) Expression of OX40-Cre driven GFP in $CD4^+$ T cells from the lungs of mice following OVA immunization. C) Expression of OX40-Cre driven GFP in $CD4^+$ T cells from the lungs of mice following OVA immunization and challenge. D) Expression of OX40-Cre

driven GFP $CD4^+$ T cells recovered from the BAL of mice following OVA immunization and challenge.

SUPPLEMENTARY FIGURE 3. *Deletion of CARMA1 by Ox40-Cre does not impair the development of memory T cells in the thoracic lymph nodes*. Presented data are representative flow cytometry plots that indicate the percentage of $CD4^+$/$tetramer^+$/$CD8^-$/$CD11c^-$/$CD19^-$ cells following bead selection for tetramer-bound lymphocytes from the TLN of mice. TLNs within each genotype were pooled for each experiment. Depicted plot is representative of 1 such experiment. The experiment was repeated twice with similar results.