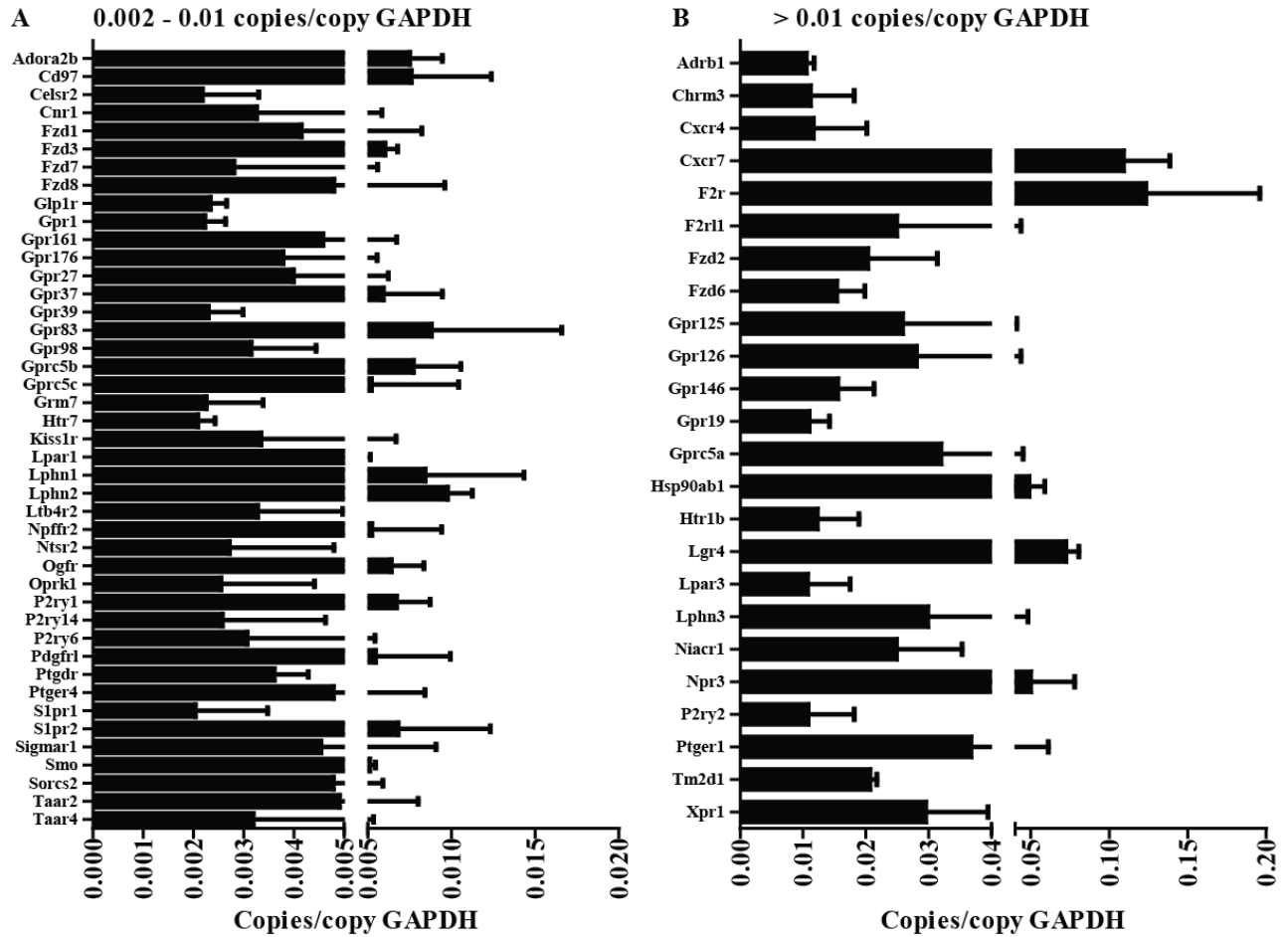


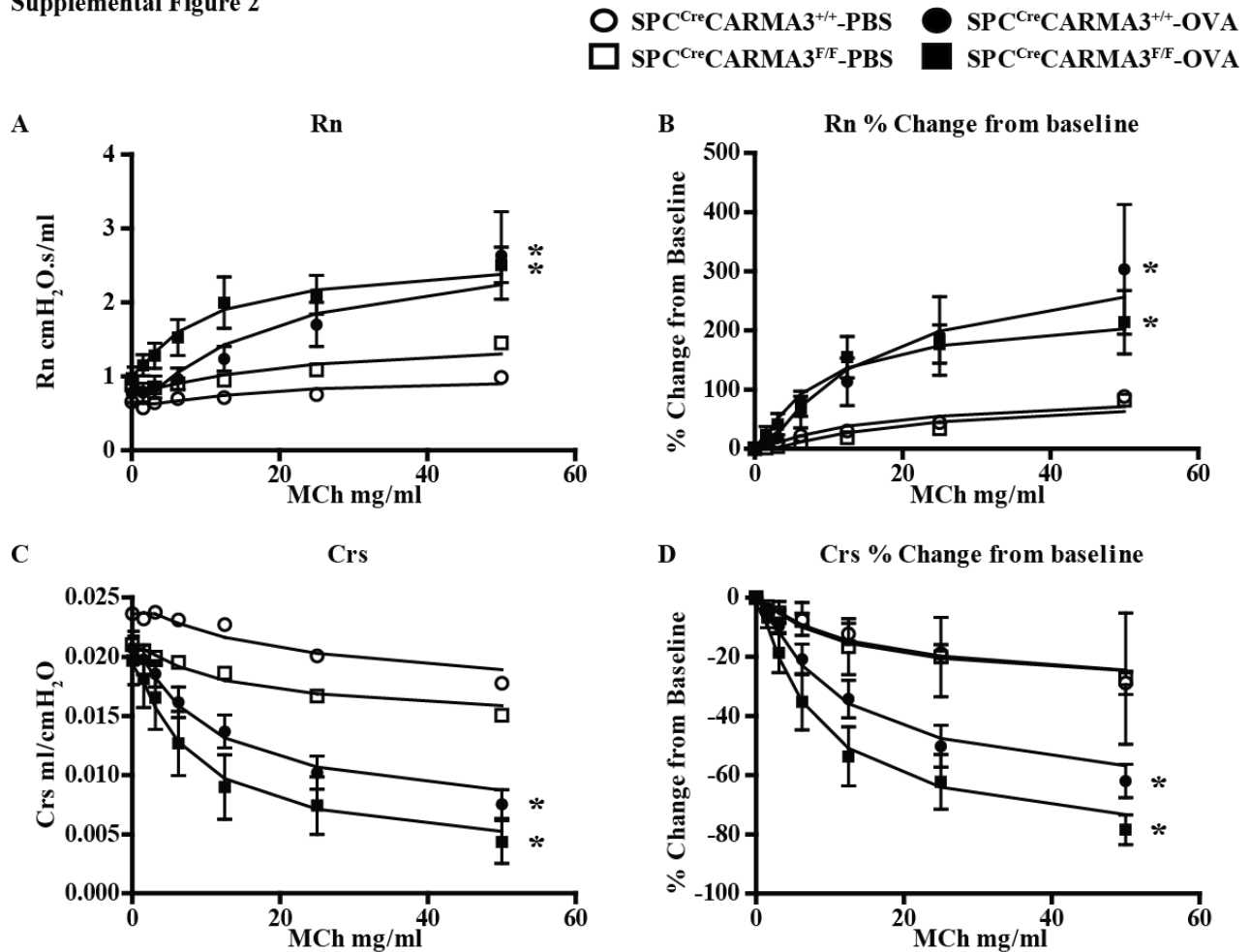
**Supplemental Figure 1**



**Supplementary Figure 1. GPCR profile of mouse tracheal epithelial cells.**

RNA was isolated from naïve, unstimulated mouse tracheal epithelial cells and the expression profile of a panel of 380 GPCRs was measured using a real-time qPCR mini-array. Shown are (A) medium and (B) high abundance GPCRs. GAPDH was used to normalize the values of GPCR genes tested.

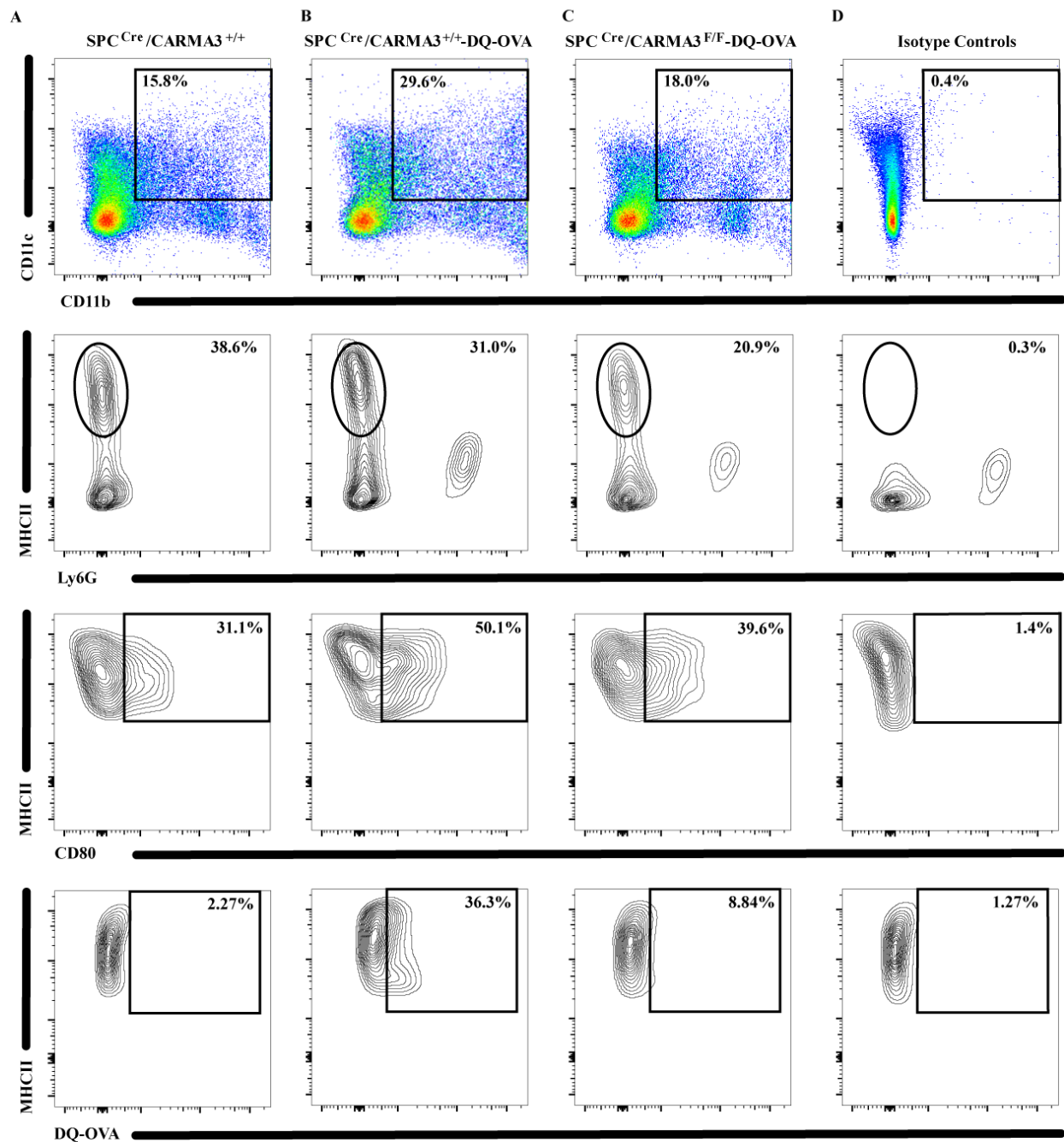
Supplemental Figure 2



**Supplementary Figure 2. Deletion of CARMA3 in airway epithelial cells does not influence the development of airways hyper-responsiveness.**

(A) Airway resistance of OVA/Alum immunized and either OVA or PBS challenged  $SPC^{Cre}/CARMA3^{+/+}$  and  $SPC^{Cre}/CARMA3^{F/F}$  mice. (B) Airway resistance as expressed as the percentage change from baseline. (C) Airway compliance of OVA/Alum immunized and either OVA or PBS challenged  $SPC^{Cre}/CARMA3^{+/+}$  and  $SPC^{Cre}/CARMA3^{F/F}$  mice. (D) Airway compliance as expressed as the percentage change from baseline. Data are means  $\pm$  SEMs of 8 mice per group from 2 experiments. Multiple comparisons between treatment and control conditions were performed using two-way ANOVA.

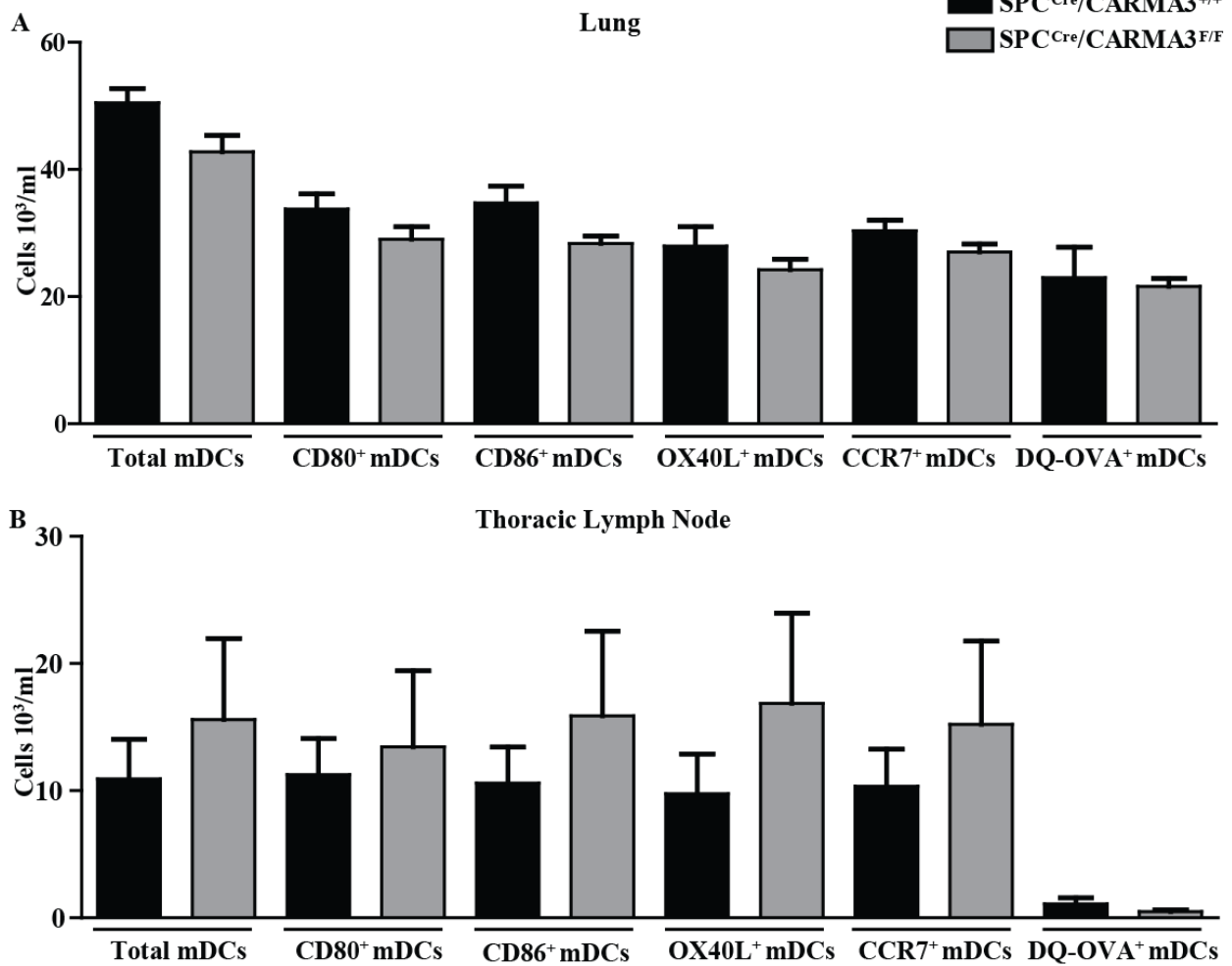
Supplemental Figure 3



**Supplementary Figure 3. Representative flow cytometry of mature myeloid DCs isolated from the lungs of  $SPC^{Cre}/CARMA3^{+/+}$  and  $SPC^{Cre}/CARMA3^{F/F}$  mice.**

Single cell suspension of lung and TLNs were analyzed by flow. After gating on live cells, we identified  $CD11c^{+}/CD11b^{+}/MHCII^{+}/Gr-1^{-}$  myeloid DCs and assessed expression of CD80, CD86, OX40L, CCR7 and DQ-OVA. Plots shown are CD80 and DQ-OVA expression on myeloid DCs from OVA/alum sensitized (A)  $SPC^{Cre}/CARMA3^{+/+}$  mice that received no DQ-OVA, (B)  $SPC^{Cre}/CARMA3^{+/+}$  mice that received DQ-OVA and (C)  $SPC^{Cre}/CARMA3^{F/F}$  mice that received DQ-OVA. (D) Isotype controls for CD11b, MHCII, CD80 and DQ-OVA.

Supplemental Figure 4



**Supplementary Figure 4. There is no difference in naïve DCs isolated from the lung and thoracic lymph nodes of SPC<sup>Cre</sup>/CARMA3<sup>+/+</sup> and SPC<sup>Cre</sup>/CARMA3<sup>F/F</sup> mice.**

The (A) lungs and (B) thoracic lymph nodes were isolated from naïve SPC<sup>Cre</sup>/CARMA3<sup>+/+</sup> and SPC<sup>Cre</sup>/CARMA3<sup>F/F</sup> mice and the number of myeloid DCs, CD80<sup>+</sup> myeloid DCs, CD86<sup>+</sup> myeloid DCs, OX40L<sup>+</sup> myeloid DCs, CCR7<sup>+</sup> myeloid DCs and DQ-OVA<sup>+</sup> myeloid DCs were determined by flow cytometry. Data are means ± SEMs of 8 mice per group from 2 experiments.