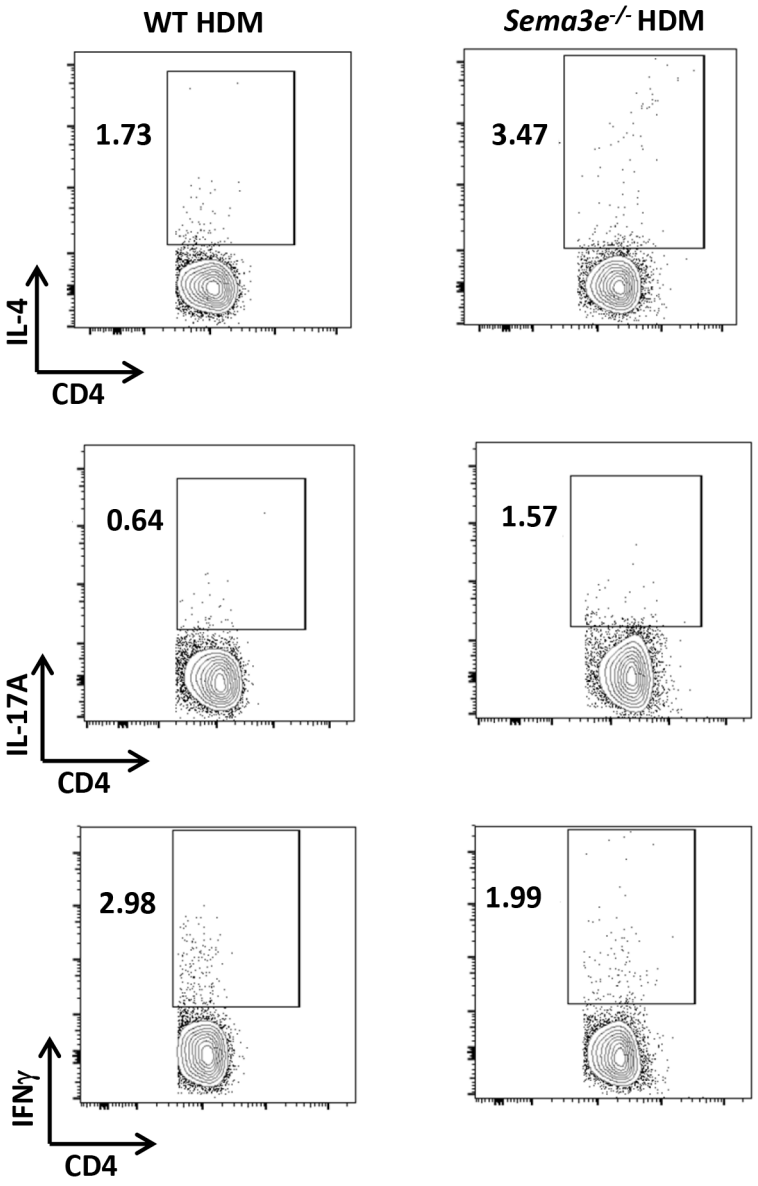
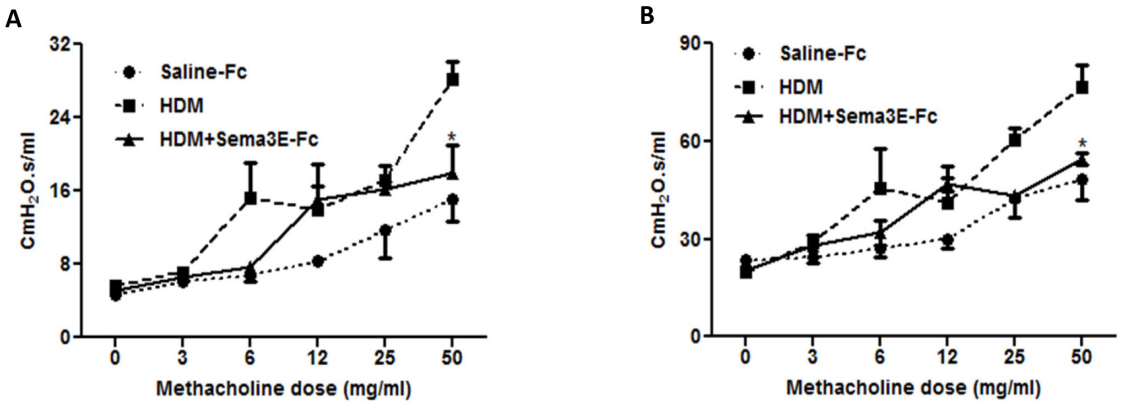
# Downregulation of semaphorin 3E promotes hallmarks of experimental chronic allergic asthma

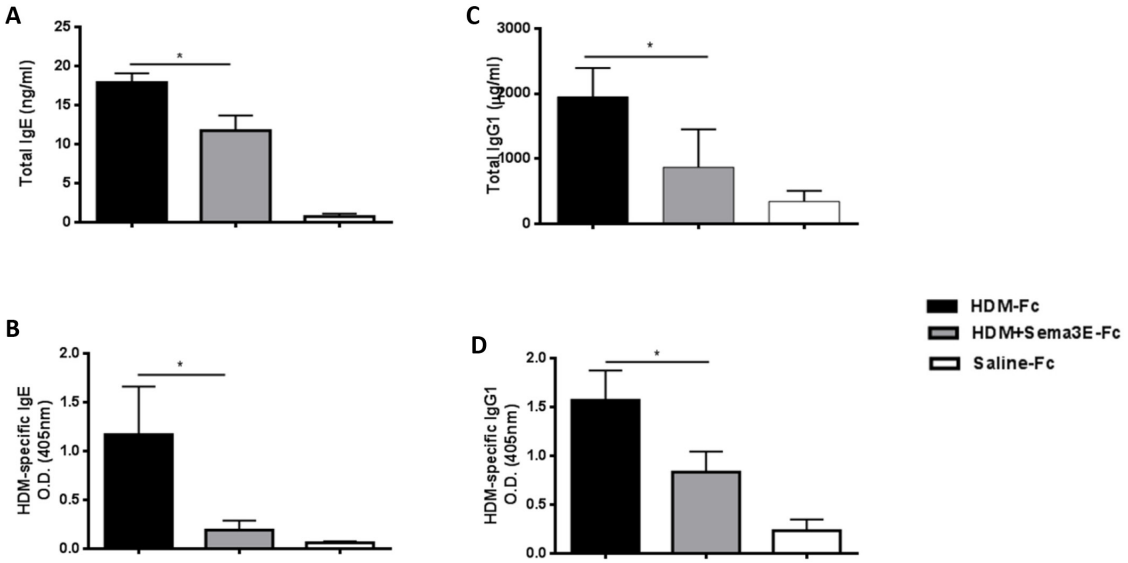
## SUPPLEMENTARY MATERIALS



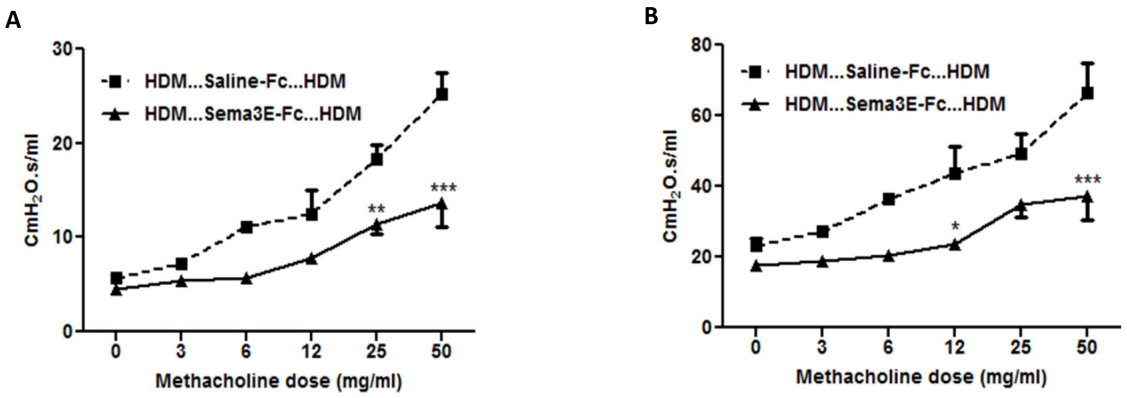

**Supplementary Figure 1: Sema3E deficiency leads to Th2/Th17-skewed cytokine response upon HDM challenge in mice.** Intracellular production of IL-4, IL-17A, and IFN-γ was investigated in $CD4^+$ MLN cells obtained from *Sema3e*$^{-/-}$ or WT mice after chronic exposure to HDM by flow cytometry using specific antibodies *ex vivo* (n = 5-6 mice per group).



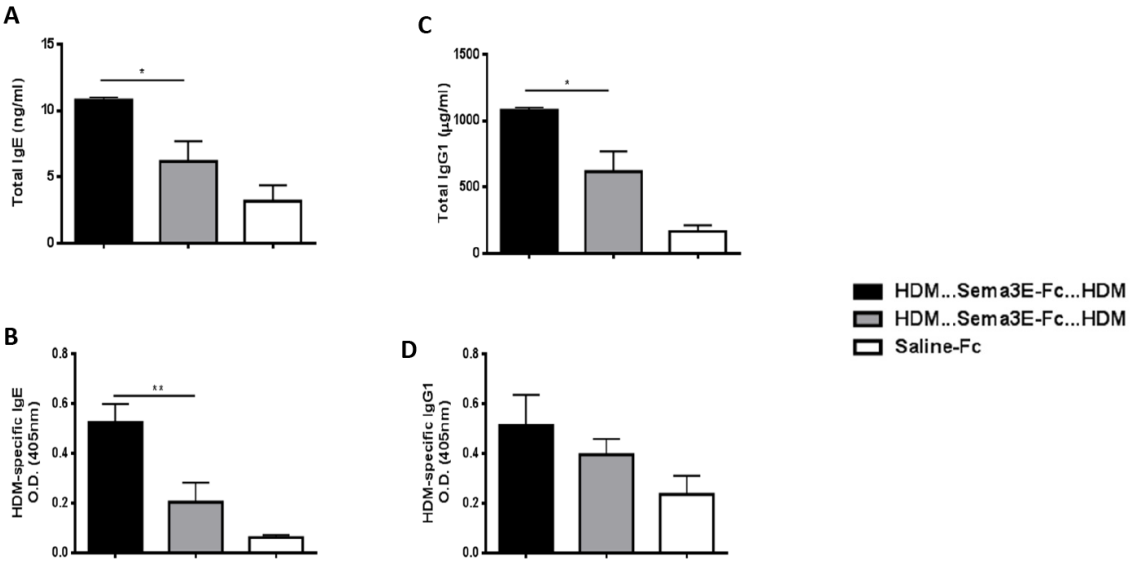

**Supplementary Figure 2: Sema3E treatment prevents HDM-induced pulmonary resistance and elastance.** Protective effect of intranasal Sema3E administration on lung tissue resistance **(A)** and elastance **(B)** was evaluated in chronically HDM-challenged mice by a FlexiVent system. (n=4 mice per group, *$P<0.05$).




**Supplementary Figure 3: Sema3E treatment negatively regulates HDM-induced IgE and IgG1 synthesis.** Total **(A)** and HDM-specific IgE **(B)** as well as IgG1 **(C-D)** were measured in the serum samples obtained from the mice treated with Sema3E before HDM challenge by ELISA (n=4 mice per group, **P<0.05)*.




**Supplementary Figure 4: Sema3E-mediated reduction of pulmonary resistance and elastance sustains upon HDM re-exposure.** The effect of intranasal treatment with Sema3E on lung tissue resistance **(A)** and elastance **(B)** was evaluated using a FlexiVent system in an established chronic model after HDM re-exposure. (n=4 mice per group, **P<0.05*, ***P<0.01*, and ****P<0.001*).




**Supplementary Figure 5: Sema3E treatment reduces IgE and IgG1 synthesis after HDM re-exposure.** Total **(A)** and HDM-specific IgE **(B)** as well as IgG1 **(C-D)** in the serum samples obtained from the chronically challenged mice treated with either Sema3E or saline was measured by ELISA upon HDM re-exposure (n=4 mice per group, **P<0.05* and ***P<0.01*).