SUPPLEMENTARY DATA

Preliminary study on induction of mouse AC model

In preliminary study on induction conditions for this mouse AC model, we have tested if alum alone could induce allergic response. BALB/c mice were immunized with 50 µg of SRW pollen in 5mg alum (Alum+SRW group) or 5mg alum alone (Alum group) by footpad injection on day 0, and then challenged by three topical applications of 1.5mg SRW pollen suspended in 10 µL PBS into each eye once a day from days 10 to 12. Compared with untreated mice as control, TSLP mRNA expression was found to be upregulated in the corneal and conjunctival epithelia only from mice sensitized and challenged with SRW. Th2 cytokines, IL-4, IL-5 and IL-13, were also found to be expressed at significantly higher levels in ocular epithelia and the cervical lymph nodes from the Alum+SRW group (Figure S1). The IL-4 mRNA was not detected in the corneal epithelium, indicating fewer IL-4-producing cells infiltrated the cornea (data not shown). However, there are no significant differences between Alum group and control in mRNA expression of TSLP and Th2 cytokines evaluated by RT and real-time PCR.

Figure S1. The mRNA expression of TSLP, IL-4, IL-5 and IL-13 in cornea (CN), conjunctiva (CJ) and/or cervical lymph nodes (CLN) in SRW-induced allergic conjunctivitis (Alum+SRW), alum alone (Alum) and untreated (control) mice. Evaluated by RT and real-time PCR using TaqMan gene expression assay with GAPDH as an internal control. * P<0.05, ** P<0.01, *** P<0.001, Alum+SRW or Alum vs. control group, n=3.