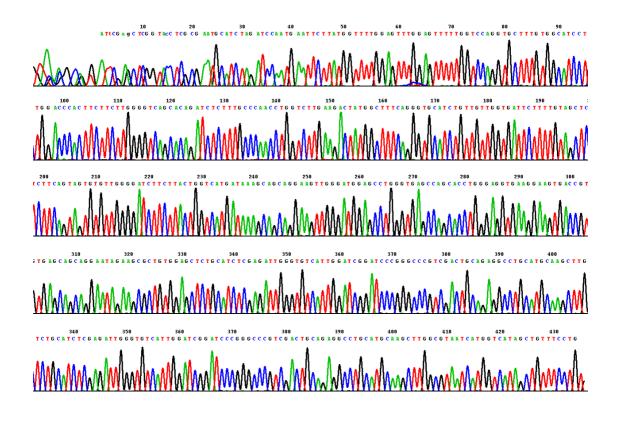
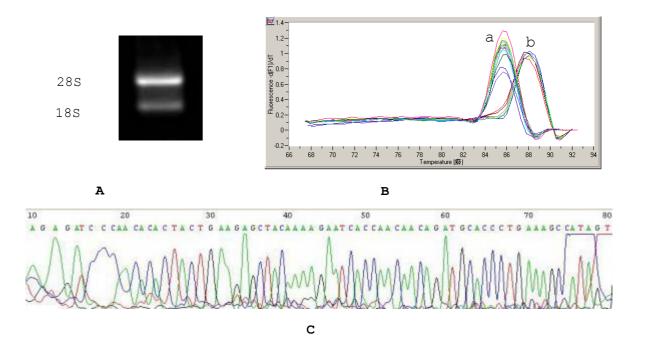


**Supplementary Figure S1.** Blood cell counts in mouse ACD model (n = 6).  $\bullet$  Eos ( $\times 10^7/1$ );  $\bullet$  Lym ( $\times 10^9/1$ );  $\bullet$  Neu ( $\times 10^9/1$ );  $\times$  Mon ( $\times 10^7/1$ )



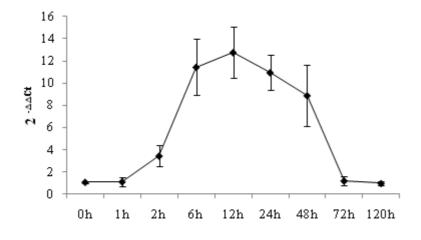
Supplementary Figure S2. pUC57-eotaxi Plasmid sequencing

Supplementary Figure S3. PBS-eotaxin plasmid sequencing

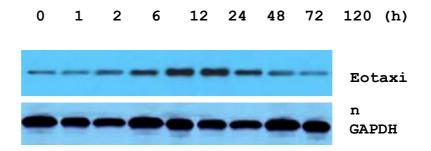


Supplementary Figure S4. Real-time PCR quality control. A – Total RNA electrophoresis, B – dissociation curve, C – sequencing of eotaxin PCR products,

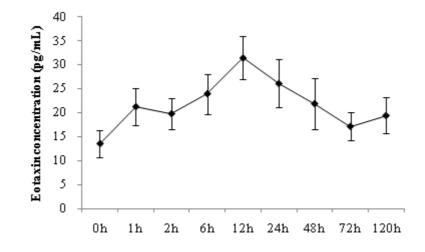
a – eotaxin, b – GAPDH



Supplementary Figure S5. Time course of eotaxin mRNA expression in mouse ACD model (n = 6)

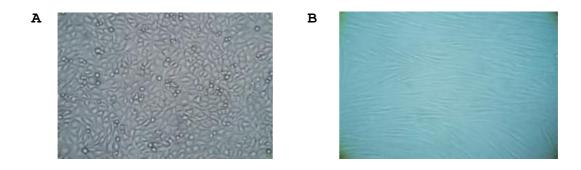


Supplementary Figure S6. Eotaxin secretion in mouse ACD model detected by western-blotting method

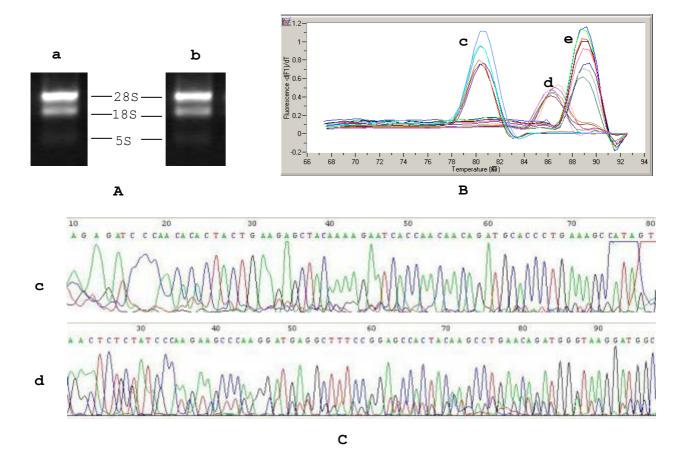


Supplementary Figure S7. Eotaxin concentration in serum of mouse ACD model

(n = 6)



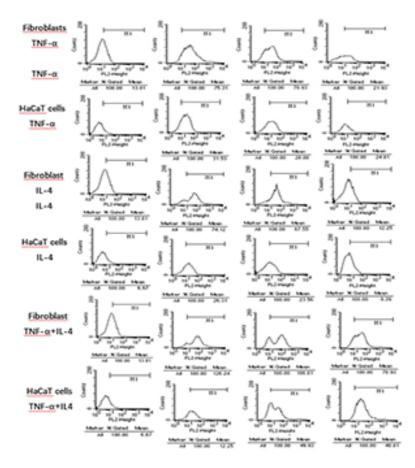
Supplementary Figure S8. Confluent cells under phase-contrast microscope (40×). A - HaCaTcells, B - FBs



Supplementary Figure S9. Real-time PCR quality control. A – Total RNA electrophoresis, B – dissociation curve, C – sequencing of PCR products; a – HaCaT cells, b – FBs, c – Eotaxin, d – STAT6, e – GAPDH

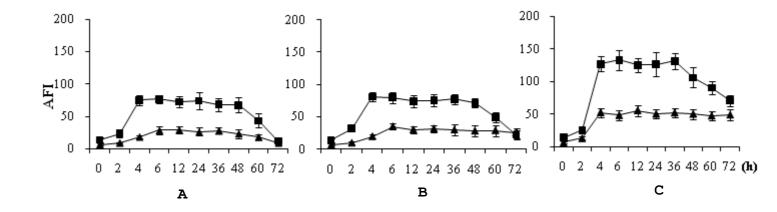
0 h

24 h

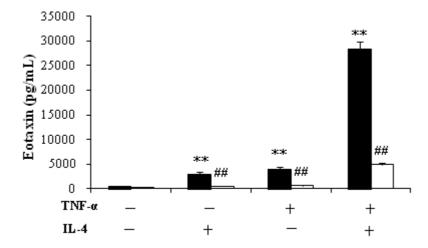


Supplementary Figure S10. Eotaxin secretion in FBs and HaCaT cells induced by

TNF- $\alpha$  and/or IL-4



**Supplementary Figure S11.** Eotaxin expression time kinetics induced by TNF- $\alpha$  and/or IL-4 in HaCaT cells and FBs detected by FCM (n = 6). A – TNF- $\alpha$ , B – IL-4, C – TNF- $\alpha$  + IL-4;  $\blacksquare$  FBs,  $\blacktriangle$  HaCaT cells

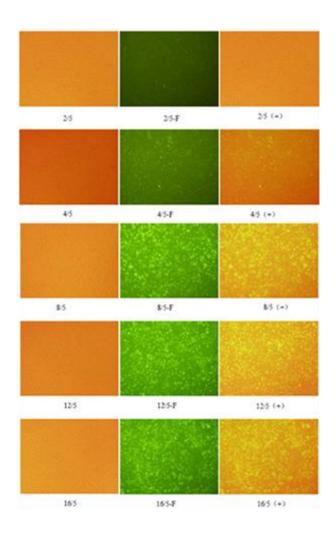


**Supplementary Figure S12.** Synergistic effect of TNF-α and IL-4 in inducing eotaxin secretion in two skin cells (*n* = 6). ■ FBs, □ HaCaT cells; \*\**p* < 0.01, vs. FBs control group, <sup>##</sup>*p* < 0.01, vs. HaCaT cells control group

| Fibrobla               | as |    |     | -  | 4  | -  | -   |     |    | - |
|------------------------|----|----|-----|----|----|----|-----|-----|----|---|
| Stimulation time [min] |    | 0  | 15  | 30 | 45 | 60 | 30  | 30  | 30 |   |
| Stimulation time [min] |    | 0  | 15  | 30 | 45 | 60 | 45  | 45  | 45 |   |
| HaCaT cell             | Ls | ł  | i i |    | -  | 8  | ła, | 1   | 4  | - |
| TNF-α [ng/ml]          | 0  | 50 | ) 5 | 50 | 50 | 50 | 10  | 100 | 50 |   |
| PDTC                   | _  | _  | _   | _  | _  | _  | _   | _   | _  | + |

**Supplementary Figure S13.** Dynamic process of NF-κB transcription regulated by

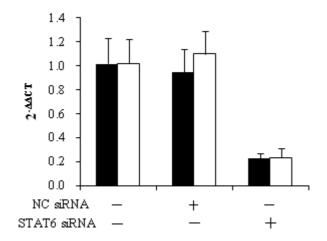
TNF-α



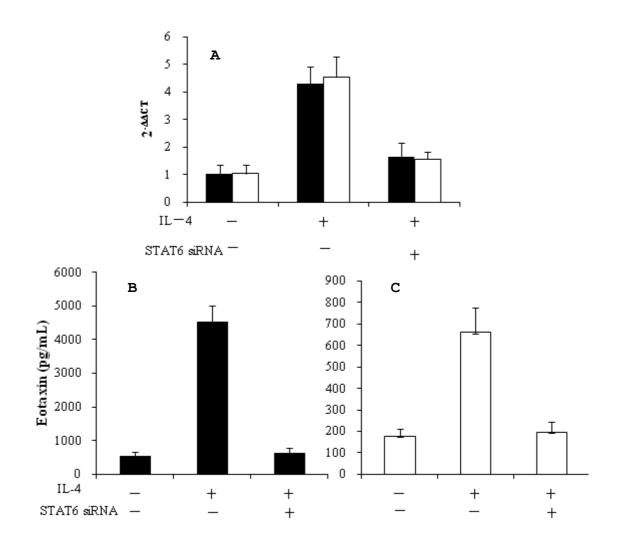
Supplementary Figure S14. siRNA transfection efficiency test in HaCaT cells

| 62   | 6/2-F  | 6/2 (+)  |
|------|--------|----------|
|      |        |          |
| 82   | 8/2-F  | 8/2 (+)  |
|      |        |          |
| 10/2 | 10/2-F | 10/2 (+) |
|      |        |          |
| 12/2 | 12/2-F | 12m2 (+) |

Supplementary Figure S15. siRNA transfection efficiency test in FBs



Supplementary Figure S16. Knock down efficiency of STAT6 specific siRNA. N = 6.  $\blacksquare$  FBs,  $\Box$  HaCaT cells.



**Supplementary Figure S17.** The inhibitory effect of IL-4 inducing eotaxin generation by STAT6 siRNA in two skin cells. N = 6; A – Eotaxin mRNA expression, B – eotaxin secretion;  $\blacksquare$  FBs,  $\Box$  HaCaT cells