**Allyl isothiocyanate ameliorated allergic contact dermatitis and food allergy via inhibition of mast cells**

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**Supplementary Method**

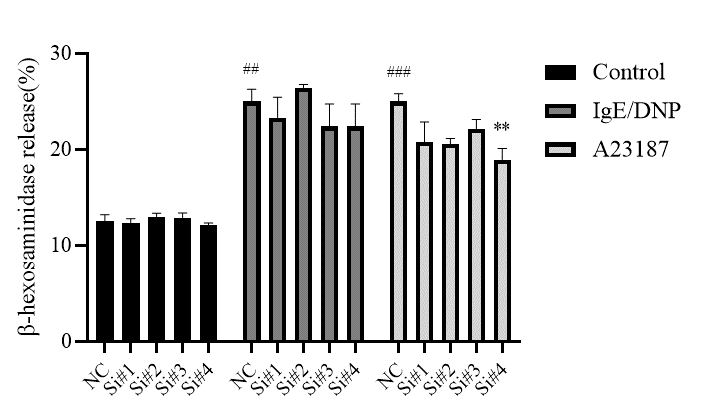
**Plasmid construction and siRNA transfection** For siRNA transfection, RBL-2H3 cells were transfected with ATF3 or NC siRNA using Namipo according to the manufacturer’s instructions. The sequences of the primers are shown in Supplementary Table .

**Supplementary Table S2**

Primer sequences of the genes for siRNA transfection.

|  |  |
| --- | --- |
| Gene | Primer sequence (5’-3’) |
| *ATF3*#1-forward | GGAGAGUGUGAAUGCCGAACUdTdT |
| *ATF3*#1-reverse | AGUUCGGCAUUCACACUCUCCdTdT |
| *ATF3*#2-forward  *ATF3*#2-reverse  *ATF3*#3-forward  *ATF3*#3-reverse | GCAGAAGGAGUCAGAGAAACUdTdT  AGUUUCUCUGACUCCUUCUGCdTdT  GGCUUCCUGUGCACUUCUAGAdTdT  UCUAGAAGUGCACAGGAAGCCdTdT |
| *ATF3*#4-forward | AGAUCGAGGAGCUGAAGAAUGdTdT |
| *ATF3*#4-reverse  *NC*-forward  *NC*-reverse | CAUUCUUCAGCUCCUCGAUCUdTdT  UUCUCCGAACGUGUCACGUTT  ACGUGACACGUUCGGAGAATT |

**Supplementary Figures**



**Supp. Figure S1 siRNA-ATF3 inhibited the β-hexosaminidase release of RBL-2H3.**

RBL-2H3 cells were incubated with siRNA-ATF3 (NC: negative control) for 24 h and stimulated with IgE/DNP-BSA or A23187, after which β-hexosaminidase release was detected. Data are presented as the mean ± SEM from three independent exper­iments. ##p<0.01, ###p<0.001 vs. Control NC, \*\*p<0.01 vs. A23187 NC.