

Expression of IL-22 in the Skin Causes Th2-Biased Immunity, Epidermal Barrier Dysfunction
and Pruritus via Stimulating Epithelial Th2 Cytokines and the GRP Pathway

Hongfei Lou, MD, PhD^{1,2}, Jingning Lu, PhD¹, Eun Byul Choi, MS¹, Min Hee Oh, MS¹,
Mingeum Jeong, MS¹, Sara Barmettler, MD¹, Zhou Zhu, MD, PhD¹, and Tao Zheng, MD^{1,§}

¹Yale University School of Medicine

Section of Allergy and Clinical Immunology

New Haven, CT

²Department of Otolaryngology Head and Neck Surgery,

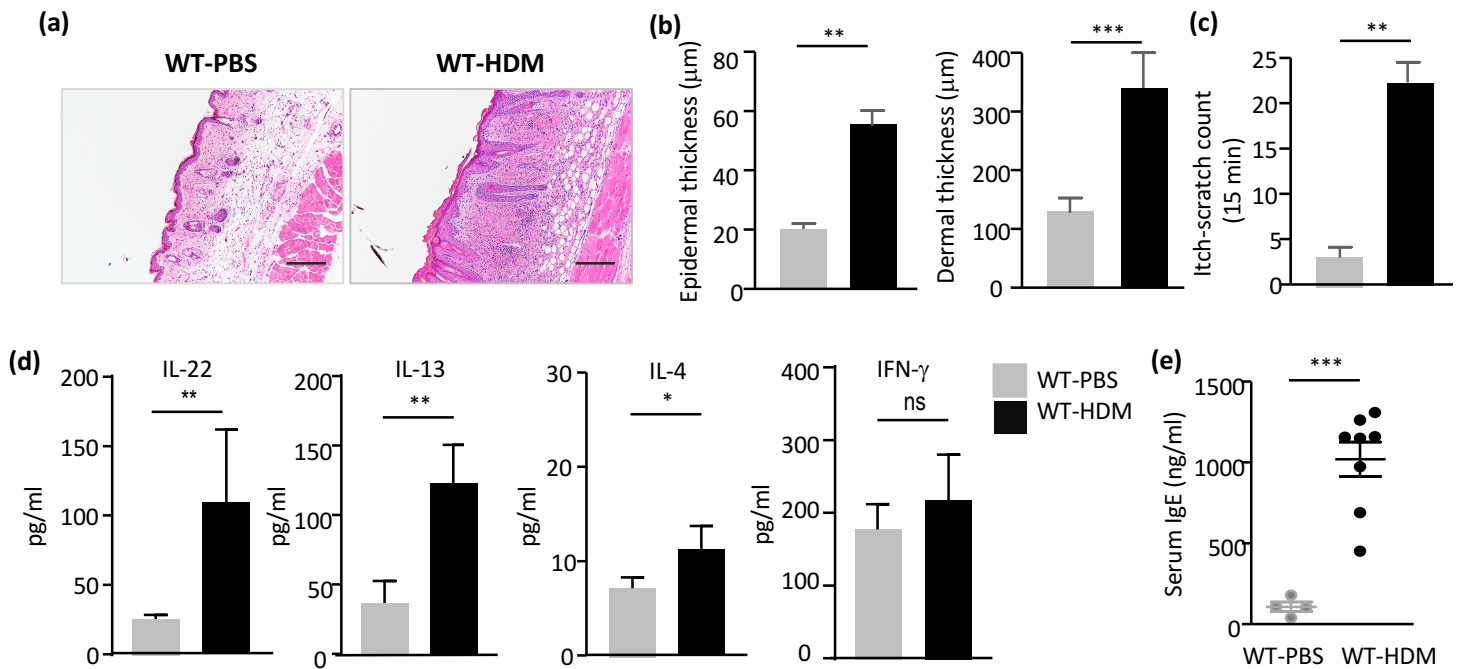
Beijing Tongren Hospital, Capital Medical University,

Beijing 100730, PR China

Running Title: IL-22 Induces Chronic Atopic Dermatitis in Mice

§Correspondence: Dr. Tao Zheng, Email: tao.zheng@yale.edu

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Supplemental Figure 1. Enhanced expression of Th22 cytokine IL-22 in HDM-sensitized skin of WT mice. (a) Representative photomicrographs of H&E-stained sections. (Scale bars: 100 μm .) (b) Epidermal and dermal thickness. (c) Itch/scratching scores. (d) Th22, Th2 and Th1 cytokines in the skin measured by ELISA. Similar results were obtained in two other independent experiments. Data are Mean \pm SEM (n = 5–6 per group). (e) Serum total IgE measured by ELISA. (WT-PBS n=4, WT-HDM n=8). (* P < 0.05; ** P < 0.01; *** P < 0.001. ns, not significant).

Supplemental Table 1. Primer sequences for real time PCR

Target Gene	Forward	Reverse
hIL-33	5'-AACCTACCAGAGCCTAGATGAG-3'	5'-GCCCAATGTGACAGTGAGTATTA-3'
hIL-13	5'-CACGGTCATTGCTCTCACTT-3'	5'-CTTCTGGTTCTGGGTGATGTT-3'
hIL-25	5'-TGAGTTGGACAGAGACTTGAAC-3'	5'-GAAGACAGTCTGGTTGTGGTAG-3'
hGRP	5'-AGGAATTTGCTGGGTCTCATAG-3'	5'-AGTTGCTGCTATCCTCTGAATC-3'
hGRPR	5'-CTCTGTTGGGGTGTCTGTCTT-3'	5'-TCTGGTTGGTGCTTTCCTCAT-3'
hTSLP	5'-GGCCACATTGCCTTACTGAAA-3'	5'-TCTCCTCTTCTTCATTGCCTGA-3'
hFLG1	5'-CAGGACACAAGCACAGAAAGC-3'	5'-CTGTTTCTCTGGGCTCTTGGA-3'
hFLG2	5'-GGGGTCTCACACACACATTCA-3'	5'-ATGCCCTTCTCCAGTTGTCC-3'
hTGase 3	5'-ATCATCTACAACGGCAGCCTT-3'	5'-ACCACCACCTCAGACTCATCT-3'
hGAPDH	5'-GGAAGGTGAAGGTCGGAGTC-3'	5'-GAAGGGGTCATTGATGGCAAC-3'
mFLG1	5'-GAAGGAACTTCTGGAAGGACAAC-3'	5'-TCCATCAGTCCACCATGCCTC-3'
mFLG2	5'-GAGCAAGGATGAGCTAAAGGAAC-3'	5'-GCCACGCCTATGCTTCTTTGAC-3'
mClaudin-1	5'-ATCGCAATCTTTGTGTCCACCATTG-3'	5'-ATTCTGTTCCATACCATGCTGTGG-3'
mTLR-7	5'-CCATCAACCACATACCAAGC-3'	5'-TCTGCAGCCTCTTGGTACAC-3'
mTLR-9	5'-GCATGGTGGTGCCTATACTG-3'	5'-AACACCACGAAGGCATCATA-3'
mIL-31	5'-GTGCCTGGAAATACTGATGAA-3'	5'-CTGCCATGCAGTTTGAGAACT-3'
mGAPDH	5'-ACT CCA CTC ACG GCA AAT TC-3'	5' TCT CCA TGG TGG TGA AGA CA-3'