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Anti-IL13 Picoband Antibody

Catalog # ABO10015

Product Information

Application	WB, IHC-P
Primary Accession	P35225
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Interleukin-13(IL13) detection. Tested with WB, IHC-P in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3596
Other Names	Interleukin-13, IL-13, IL13, NC30
Calculated MW	15788
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, By Heat Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Secreted.
Source	Eukaryota
Protein Name	Interleukin-13
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human IL13 recombinant protein (Position: P36-N146). Human IL13 shares 55.3% and 61.9% amino acid (aa) sequence identity with mouse and rat IL13, respectively.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	IL13
Synonyms	NC30
Function	Cytokine that plays important roles in allergic inflammation and immune response to parasite infection (PubMed:8096327, PubMed:8097324). Synergizes with IL2 in regulating interferon-gamma synthesis (PubMed:8096327). Stimulates B-cell proliferation, and activation of eosinophils, basophils, and mast cells (PubMed:7903680, PubMed:8759755). Plays an important role in controlling IL33 activity by modulating the production of transmembrane and soluble forms of interleukin-1 receptor-like 1/IL1RL1 (By similarity). Displays the capacity to antagonize Th1-driven proinflammatory immune response and down-regulates synthesis of many proinflammatory cytokines including IL1, IL6, IL10, IL12 and TNF through a mechanism that partially involves suppression of NF-kappa-B (By similarity). Also functions on nonhematopoietic cells, including endothelial cells where it induces vascular cell adhesion protein 1/VCAM1, which is important in the recruitment of eosinophils (PubMed:8639787). Exerts its biological effects through its receptors which comprises the IL4R chain and the IL13RA1 chain, to activate JAK1 and TYK2, leading to the activation of STAT6 (PubMed:9013879). Aside from IL13RA1, another receptor IL13RA2 acts as a high affinity decoy for IL13 and mediates internalization and depletion of extracellular IL13 (PubMed:21622864). Induces inflammatory response in esophageal epithelium which results in a dysregulation of desmosome intercellular adhesion junctions, via down-regulation of DSG1 (PubMed:24220297).
Cellular Location	Secreted.

Background

Interleukin 13 is a protein that in humans is encoded by the IL-13 gene. It is a kind of cytokine secreted by many cell types, but especially T helper type 2 (Th2) cells, which is an important mediator of allergic inflammation and disease. The IL-13 gene is mapped to 5q23-q31. IL-13 induces its effects through a multi-subunit receptor that includes the alpha chain of the IL-4 receptor (IL-4R □±) and at least one of two known IL-13-specific binding chains. Furthermore, this gene acts more prominently as a molecular bridge linking allergic inflammatory cells to the non-immune cells in contact with them, thereby altering physiological function.

Images

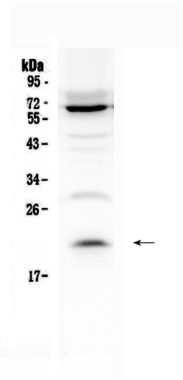


Figure 1. Western blot analysis of IL13 using anti-IL13 antibody (ABO10015). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: K562 whole cell lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-IL13 antigen affinity purified polyclonal antibody (Catalog # ABO10015) at 0.5 □¼g/mL overnight at 4 □°C,

then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for IL13 at approximately 20KD. The expected band size for IL13 is at 16KD.

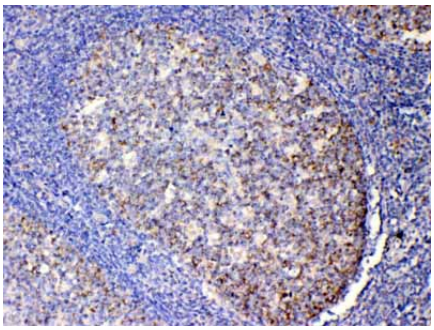


Figure 2. IHC analysis of IL13 using anti-IL13 antibody (ABO10015).IL13 was detected in paraffin-embedded section of human tonsil tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-IL13 Antibody (ABO10015) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.