

IL-13 (H-112): sc-7901

BACKGROUND

Interleukin-13, or IL-13, is a pleiotropic cytokine that exhibits 30% sequence identity with IL-4 and shares many of the same biological activities. Like IL-4, IL-13 affects monocytes, macrophages and B cells by upregulating the expression of CD23 and MHC proteins, and downregulating the expression of CD14. Both IL-4 and IL-13 are secreted by activated T lymphocytes and are powerful regulators of inflammation. Both inhibit the secretion of proinflammatory cytokines and chemokines from activated monocytes and stimulate the expression of IgE on activated B cells. IL-13 contains five cysteine residues and multiple N-linked glycosylation sites and has been reported to inhibit the production of IL-2 in natural killer cells. IL-13 cDNA encodes a 131 amino acid precursor with a 20 amino acid signal peptide which is cleaved to generate a mature protein.

REFERENCES

1. Minty, A., et al. 1993. Interleukin-13 is a new human lymphokine regulating inflammatory and immune responses. *Nature* 362: 248-250.
2. Zurawski, G., et al. 1994. Interleukin 13 elicits a subset of the activities of its close relative interleukin 4. *Stem Cells* 12: 169-174.
3. Deleuran, B., et al. 1995. Interleukin 13 suppresses cytokine production and stimulates the production of 15-HETE in PBMC. A comparison between IL-4 and IL-13. *Cytokine* 7: 319-324.
4. Katz, Y., et al. 1995. IL-13 results in differential regulation of the complement proteins C3 and factor B in tumour necrosis factor (TNF)-stimulated fibroblasts. *Clin. Exp. Immunol.* 101: 150-156.
5. Cosentino, G., et al. 1995. IL-13 down-regulates CD14 expression and TNF- α secretion in normal human monocytes. *J. Immunol.* 155: 3145-3151.
6. de Vries, J.E., et al. 1995. Immunoregulatory properties of IL-13: its potential role in atopic disease. *Int. Arch. Allergy Immunol.* 106: 175-179.

CHROMOSOMAL LOCATION

Genetic locus: IL13 (human) mapping to 5q31.1.

SOURCE

IL-13 (H-112) is a rabbit polyclonal antibody raised against amino acids 21-132 of IL-13 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

IL-13 (H-112) is recommended for detection of IL-13 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-13 siRNA (h): sc-39642, IL-13 shRNA Plasmid (h): sc-39642-SH and IL-13 shRNA (h) Lentiviral Particles: sc-39642-V.

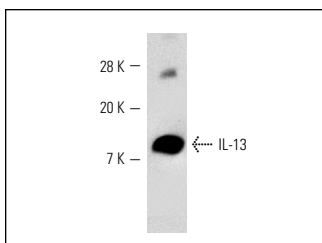
Molecular Weight of IL-13: 13 kDa.

Positive Controls: human heart extract: sc-363763.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



IL-13 (H-112): sc-7901. Western blot analysis of human recombinant IL-13.

SELECT PRODUCT CITATIONS

1. Sano, Y., et al. 2013. Thymic stromal lymphopoietin expression is increased in the horny layer of patients with atopic dermatitis. *Clin. Exp. Immunol.* 171: 330-337.



Try **IL-13 (F-6): sc-390676** or **IL-13 (JES10-2E10): sc-52564**, our highly recommended monoclonal alternatives to IL-13 (H-112).