

IL-13 (C-19): sc-1292

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

- Minty, A., et al. 1993. Interleukin-13 is a new human lymphokine regulating inflammatory and immune responses. *Nature* 362: 248-250.
- Zurawski, G., et al. 1994. Interleukin 13 elicits a subset of the activities of its close relative interleukin 4. *Stem Cells* 12: 169-174.
- 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.
- 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.
- Cosentino, G., et al. 1995. IL-13 down-regulates CD14 expression and TNF α secretion in normal human monocytes. *J. Immunol.* 155: 3145-3151.
- de Vries, J.E., et al. 1995. Immunoregulatory properties of IL-13: its potential role in atopic disease. *Intl. Arch. Allergy Immunol.* 106: 175-179.

CHROMOSOMAL LOCATION

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

SOURCE

IL-13 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus 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.

Blocking peptide available for competition studies, sc-1292 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

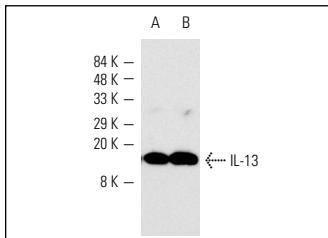
APPLICATIONS

IL-13 (C-19) 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

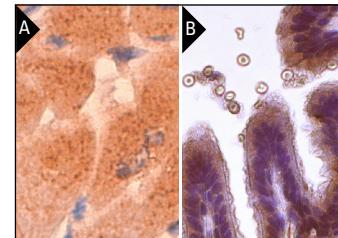
Suitable for use as control antibody for IL-13 siRNA (h): sc-39642, IL-13 shRNA Plasmid (h): sc-39642-SH and IL-13 shRNA (h) Lentiviral Particles: sc-39642-V.

Molecular Weight of IL-13: 13 kDa.

DATA



IL-13 (C-19): sc-1292. Western blot analysis of human recombinant IL-13 expression at 40 ng (**A**) and 80 ng (**B**).



IL-13 (C-19): sc-1292. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart tissue showing cytoplasmic and extracellular localization (**A**) and human bronchus tissue showing cytoplasmic staining of respiratory epithelial cells (**B**).

SELECT PRODUCT CITATIONS

- Kawakami, K., et al. 2001. *In vivo* overexpression of IL-13 receptor α 2 chain inhibits tumorigenicity of human breast and pancreatic tumors in immunodeficient mice. *J. Exp. Med.* 194: 1743-1754.
- Ulasov, I.V., et al. 2007. Novel recombinant adenoviral vector that targets the interleukin-13 receptor α 2 chain permits effective gene transfer to malignant glioma. *Hum. Gene Ther.* 18: 118-129.
- Weng, H.L., et al. 2009. The etiology of liver damage imparts cytokines transforming growth factor β 1 or interleukin-13 as driving forces in fibrogenesis. *Hepatology* 50: 230-243.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **IL-13 (F-6): sc-390676** or **IL-13 (JES10-2E10): sc-52564**, our highly recommended monoclonal alternatives to IL-13 (C-19).