

IL-13 (A130D 12G5 1E4): sc-101407

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 pro-inflammatory 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

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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 downregulates CD14 expression and TNF α secretion in normal human monocytes. *J. Immunol.* 155: 3145-3151.
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7. Marietta, E.V., et al. 1996. Modulation of expression of the anti-inflammatory cytokines interleukin-13 and interleukin-10 by interleukin-3. *Eur. J. Immunol.* 26: 49-56.
8. Suresh, V., et al. 2007. Measurement of IL-13-induced iNOS-derived gas phase nitric oxide in human bronchial epithelial cells. *Am. J. Respir. Cell Mol. Biol.* 37: 97-104.
9. Knackmuss, S., et al. 2007. Specific inhibition of interleukin-13 activity by a recombinant human single-chain immunoglobulin domain directed against the IL-13 receptor α 1 chain. *Biol. Chem.* 388: 325-330.

SOURCE

IL-13 (A130D 12G5 1E4) is a mouse monoclonal antibody raised against recombinant IL-13 of rat origin.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

IL-13 (A130D 12G5 1E4) is recommended for detection of recombinant and native IL-13 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), flow cytometry (1 μ g per 1×10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of IL-13: 13 kDa.

SELECT PRODUCT CITATIONS

1. Fang, C., et al. 2015. Downregulation of SUMF2 gene in ovalbumin-induced rat model of allergic inflammation. *Int. J. Clin. Exp. Pathol.* 8: 12053-12063.

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.

PROTOCOLS

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