
Mouse IL-13 Recombinant Protein

Catalog Number: 14-8131

Also Known As: Interleukin-13, IL13

RUO: For Research Use Only

Product Information

Contents: Mouse IL-13 Recombinant Protein

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Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in a sterile environment

Source: E. coli expressed amino acids Ser 26-Phe 131 of mature mouse IL-13 (accession # NM_008355).


Molecular Mass: The protein is not methionylated at the N-terminal and has a predicted molecular mass of 11,677. The DTT reduced protein migrates as a 9 kDa polypeptide on SDS-PAGE and the non-reduced protein migrates with slightly greater mobility.

Purity: Greater than 98%, as determined by SDS-PAGE


Endotoxin Level: Less than 0.01 ng/ug cytokine as determined by the LAL assay.

Bioactivity: Measured by TF-1 cell proliferation assay. The ED₅₀ is 3.8 ng/ml, corresponding to a specific activity of 2.7×10^5 Units/mg.

Formulation: Sterile liquid; 10 mM sodium phosphate, pH 7.2, 150 mM NaCl, with 0.5% BSA. 0.22 µm filtered.

 Temperature Limitation: Store at less than or equal to -70°C.

 Batch Code: Refer to Vial

 Use By: Refer to Vial

Description

Mouse interleukin-13 (IL-13), originally designated p600, is a 11.6 kDa protein secreted by activated T helper cells, CD8+ T cells, and NK cells. IL-13 was originally identified in 1989 through differential hybridization of cDNA libraries prepared from T helper 1 and T helper 2 cells. IL-13 contains four cysteine residues, which form two intramolecular disulfide bonds. IL-13 shares many activities with IL-4; this relates to a requirement for IL-4Rα chain for signal transduction. The biological activities of IL-13 include suppression of macrophage cytotoxic activity, upregulation of IL-1RA expression, and suppression of inflammatory cytokine expression. IL-13 induces CD23 expression on B cells and enhances CD72, and expression of class II MHC gene products. Mouse IL-13 does not display the activities on T cells and B cell stimulatory effects which IL-4 exhibits. Mouse IL-13 is active on human and mouse cells.

Applications Tested

This recombinant mouse IL-13 has been tested by bioassay using the IL-13 responsive cell line TF-1. The ED₅₀, as determined by the dose-dependent proliferation of TF-1 cells, is ~3.8 ng/ml, corresponding to a specific activity of > 2.7 x 10⁵ Units/mg.

References

de Waal Melfyt, R. and J. de Vries. 1998. Interleukin-13. In *The Cytokine Handbook*. A. Thompson, Editor. Academic Press, p. 427 – 442.
Kitamura, T., et al. 1989. Establishment and characterization of a unique human cell line that proliferates dependently on GM-CSF, IL-3, or erythropoietin. *J. Cell. Physiol.* 140: 323-334.

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