

Mouse IL13 / ALRH Protein

Catalog Number: 50225-MNAH



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

IL13, IL-13

Protein Construction:

A DNA sequence encoding the mouse IL13 (P20109) (Pro22-Phe131) was expressed and purified.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio-Activity

Measured in a cell proliferation assay using TF1 human erythroleukemic cells (Kitamura, T. et al. (1989) J. Cell Physiol. 140:323.).

The ED50 for this effect is typically 2-10 ng/mL.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Pro 22

Molecular Mass:

The recombinant mouse IL13 consists of 110 amino acids and predicts a molecular mass of 12.1 KDa. It migrates as an approximately 14 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.5

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

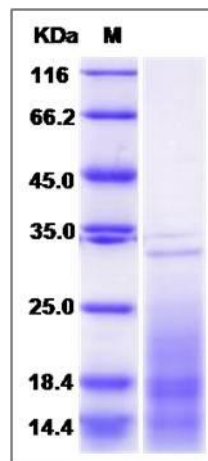
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Interleukin-13, also known as IL-13 and NC30, is a secreted protein which belongs to the IL-4 / IL-13 family. It is a single-chain glycosylated polypeptide, and is a cytokine critical in regulating inflammatory and immune responses. Interleukin-13 / IL-3 is secreted by many cell types, but especially by T helper type 2 (Th2) cells. IL13 is more importantly implicated as a central mediator of immunoregulatory processes in various cell types. Interleukin-13 / IL-3 is involved in several stages of B-cell maturation and differentiation including up-regulating CD23, CD71, CD72, and MHC class II expression, and promoting IgE isotype switching. Interleukin-13 / IL-3 inhibits the production of pro-inflammatory cytokines and chemokines, and thus down-regulates macrophage activity. Interleukin-13 / IL-3 exerts its effects through a multi-subunit receptor comprising the alpha chain of the IL-4 receptor (IL-4Rα) and at least one of two known IL-13-specific binding chains (IL13 Rα1 and IL13 Rα2). Most of the biological effects of Interleukin-13 / IL-3, like those of IL-4, are linked to signal transducer and activator of transcription 6 (STAT6). Interleukin-13 / IL-3 is associated primarily with the pathophysiology of atopic respiratory diseases such as allergic asthma. In addition, studies have identified IL13 expression as a common feature of cHL (classical Hodgkin lymphoma). Defects in IL-13 may be a cause of susceptibility to allergic rhinitis (ALRH) which is a common disease of complex inheritance and is characterized by mucosal inflammation caused by allergen exposure.

References

1. Minty A. et al., 1993, Nature. 362: 248-50.
2. Sironi M. et al., 1994, Blood. 84: 1913-21.
3. Solymar DC. et al., 2002, Immunity. 17: 41-50.
4. Skinnider BF. et al., 2002, Leuk Lymphoma. 43: 1203-10.
5. Monticelli S. et al., 2004, J Biol Chem. 279: 36210-8.

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