

Cynomolgus IL13 / ALRH Protein (His Tag)

Catalog Number: 11057-C07H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

IL-13

Protein Construction:

A DNA sequence encoding the mature form of Cynomolgus (Macaca fascicularis) IL-13 (ABG75889.1) (Ser 21-Asn 132) was fused with a polyhistidine tag at the N-terminus.

Source: Cynomolgus

Expression Host: Human Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized cynomolgus IL-13 at 4 µg/ml (100 µl/well) can bind human IL13RA1 with a linear ranger of 0.156-2.5 µg/ml.
2. 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 50-200 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: His

Molecular Mass:

The recombinant cynomolgus IL13 consists of 128 amino acids and has a calculated molecular mass of 14.5 kDa. The apparent molecular mass of the protein is approximately 25-35 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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.

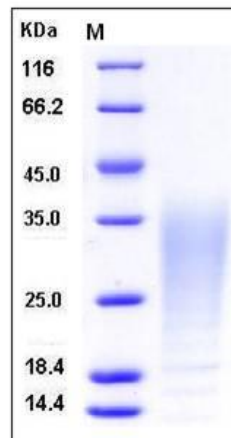
Usage Guide

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 (IL-13) is a single-chain cytokine which belongs to the IL13/IL4 family. In humans, IL13 is secreted by many cell types, but especially by T helper type 2 (Th2) cells. IL13 inhibits the production of pro-inflammatory cytokines and chemokines, and thus down-regulates macrophage activity. Meanwhile, IL-13 synergizes with IL2 in regulating IFN-gamma synthesis. IL-13 binds to 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), and exerts its effects through signal transducer and activator of transcription 6 (STAT6), like IL-4. Accordingly, IL-13 may be critical in regulating inflammatory and immune responses as a central mediator in various cell types.

References

1. Minty, A. et al., 1993, Nature, 362: 248-250.
2. Sironi, M. et al., 1994, Blood, 84: 1913-1921.
3. Monticelli, S. et al., 2004, J. Biol. Chem. 279: 36210-36218.
4. Solymar, D.C. et al., 2002, Immunity. 17: 41-50.
5. Skinner, B.F. et al., 2002, Leuk. Lymphoma. 43: 1203-1210.

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