

Cynomolgus IL13 Protein (His Tag)

Catalog Number: 11057-C07H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

IL13

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: HEK293 Cells

QC Testing

Purity: > 95 % 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 range of 0.156-2.5 µg/ml.

2. Measured in a cell proliferation assay using TF1 human erythroleukemic cells. The ED₅₀ for this effect is typically 100-400 ng/mL.

Endotoxin:

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

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, mannitol and 0.01% Tween80 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

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

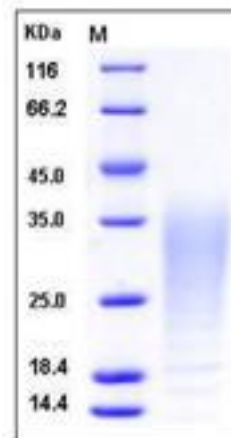
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Interleukin 13 (IL-13) is a single-chain glycosylated polypeptide, which belongs to the IL-13/IL-4 family. IL-13 protein is secreted by many cell types, but especially by T helper type 2 (Th2) cells. IL-13 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 (IL-13 Rα1 and IL-13 Rα2). As a cytokine, IL-13 protein is critical in regulating inflammatory, immune responses and diseases. In addition, it inhibits the production of pro-inflammatory cytokines and chemokines, and thus down-regulates macrophage activity. IL-13 protein and antibody is more importantly implicated as a central mediator of immunoregulatory processes in various cell types.

References

Junttila IS, et al. (2008) Tuning sensitivity to IL-4 and IL-13: differential expression of IL-4Rα, IL-13Rα1, and γc regulates relative cytokine sensitivity. J Exp Med. 205(11): 2595-608.

Shimamura T, et al. (2008) Novel role of IL-13 in fibrosis induced by nonalcoholic steatohepatitis and its amelioration by IL-13R-directed cytotoxin in a rat model. J Immunol. 181(7): 4656-65.