

Rat IL12B / IL-12B Protein (His Tag)

Catalog Number: 80352-R08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

IL12B

Protein Construction:

A DNA sequence encoding the rat IL12B (G3V9Y5) (Met1-Ser335) was expressed with a polyhistidine tag at the C-terminus.

Source: Rat

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA.

Immobilized rat IL12B (cat: 80352-R08H) at 10 µg/ml (100 µl/well) can bind biotinylated mouse IL12RB2 (Cat:50099-M08H). The EC₅₀ of biotinylated mouse IL12RB2 (Cat:50099-M08H) is 0.6-1.5 µg/ml.

Endotoxin:

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

Predicted N terminal: Met 23

Molecular Mass:

The recombinant rat IL12B comprises 324 amino acids and predicts a molecular mass of 37.2 kDa. The apparent molecular mass of the recombinant protein is approximately 47 and 45 kDa in SDS-PAGE under reducing conditions due to glycosylation.

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.

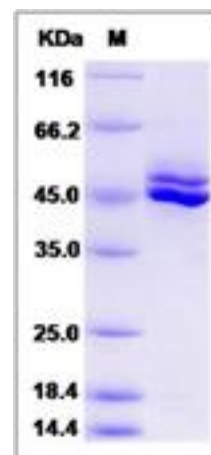
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Subunit beta of interleukin 12 (also known as natural killer cell stimulatory factor 2, or cytotoxic lymphocyte maturation factor 2, p4) (IL12B) is a subunit of human interleukin 12. IL12B/IL-12B is a cytokine that acts on T and natural killer cells, and has a broad array of biological activities. Interleukin 12 is a disulfide-linked heterodimer composed of the 4 kD cytokine receptor like subunit encoded by this gene, and a 35 kD subunit encoded by IL12A. IL12B/IL-12B is expressed by activated macrophages that serve as an essential inducer of Th1 cells development. This cytokine has been found to be important for sustaining a sufficient number of memory/effector Th1 cells to mediate long-term protection to an intracellular pathogen. Overexpression of this gene was observed in the central nervous system of patients with multiple sclerosis (MS), suggesting a role of this cytokine in the pathogenesis of the disease. The promoter polymorphism of this gene has been reported to be associated with the severity of atopic and non-atopic asthma in children. IL12B/IL-12B associates with IL23A to form the IL-23 interleukin, an heterodimeric cytokine which functions in innate and adaptive immunity.

References

- 1.Taoufik Y, et al. (1997) Human immunodeficiency virus gp120 inhibits interleukin-12 secretion by human monocytes: an indirect interleukin-10-mediated effect. *Blood*. 89 (8): 2842-8.
- 2.Fantuzzi L, et al. (1996) Induction of interleukin-12 (IL-12) by recombinant glycoprotein gp120 of human immunodeficiency virus type 1 in human monocytes/macrophages: requirement of gamma interferon for IL-12 secretion. *J Virol*. 70 (6): 4121-4.
- 3.Aragane Y, et al. (1995) IL-12 is expressed and released by human keratinocytes and epidermoid carcinoma cell lines. *J Immunol*. 153 (12): 5366-72.