

Marmoset IL12B / IL-12B Protein (Fc Tag)

Catalog Number: 90289-C02H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

IL12B

Protein Construction:

A DNA sequence encoding the marmoset IL12B (F7IQ84) (Met1-Asn328) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Marmoset

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. 2. Immobilized marmoset IL12B-Fc at 10 µg/mL (100 µL/well) can bind biotinylated human IL12RB1-His (Cat:11674-H08H). The EC₅₀ of human IL12RB1-His is 0.66-1.53 µg/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: Ile 23

Molecular Mass:

The recombinant marmoset IL12B is a disulfide-linked homodimer. The reduced monomer comprises 547 amino acids and has a calculated molecular mass of 61.9 KDa. The apparent molecular mass of the protein is approximately 66 KDa in SDS-PAGE.

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

Storage:

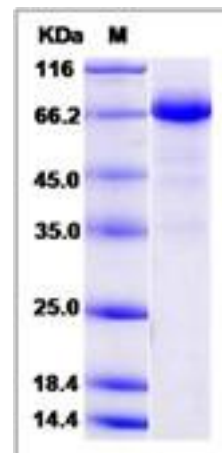
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

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, p40) (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 40 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.

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For US Customer: Fax: 267-657-0217

● Tel: 215-583-7898

Global Customer: Fax :+86-10-5862-8288

● Tel:+86-400-890-9989 ●

<http://www.sinobiological.com>