

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

Catalog Number: 51004-M02H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

RP23-388G23.1, IL-12b, IL-12p40, IL12p40, p40

Protein Construction:

A DNA sequence encoding the mouse IL12B (P43432) (Met 1-Ser 335) was fused with the Fc region of human IgG1 at the C-terminus.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio-Activity

1. Measured by its binding ability in a functional ELISA.
2. Immobilized mouse IL12B-Fc at 10µg/mL (100µL/well) can bind biotinylated human IL12RB1-His (Cat:11674-H08H). The EC₅₀ of biotinylated human IL12RB1-His (Cat:11674-H08H) is 0.10-0.24µg/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: Met 23

Molecular Mass:

The secreted recombinant mouse IL12B/Fc is a disulfide-linked homodimer. The reduced monomer comprises 554 amino acids and has a calculated molecular mass of 62.8 kDa. As a result of glycosylation, the apparent molecular mass of the monomer is approximately 83 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.

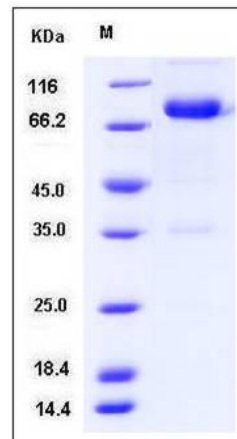
Usage Guide

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 12 (IL12), also known as natural killer cell stimulatory factor (NKSF) or cytotoxic lymphocyte maturation factor (CLMF), is a 70 kDa disulfide-linked heterodimeric cytokine composed of a 35kD subunit P35 and a 40kD subunit P40, also designated as IL12A and IL12B. IL12 is predominantly produced by macrophages and B lymphocytes and plays an important role in the activities of natural killer cells and T lymphocytes. IL12 is involved in the differentiation and development of Th1 cells, enhancement of natural killer cells' cytolytic function and mitogenic effects, as well as induction of IFN-gamma during which it can synergize with other IFN-gamma inducers. A large excess of monomeric IL12B is also secreted by the cells producing IL12, and exhibits no demonstrable biological activity. Overexpression of IL12B gene has been shown to be associated with the pathogenesis of multiple sclerosis. In addition, studies have revealed that the promoter polymorphism of this gene is implicated in the severity of atopic and non-atopic asthma in children.

References

1. Sieburth, D. et al., 1992, Genomics. 14: 59-62.
2. Gearing, D.P. et al., 1991, Cell. 66: 9-10.
3. Thierfelder, W.E. et al., 1996, Nature. 382: 171-174.
4. Ling, P. et al., 1995, J. Immunol. 154: 116-127.
5. Kim, J.H. et al., 1997, Clin. Exp. Immunol. 108:243-250.
6. Kato, K. et al., 1996, Proc. Natl. Acad. Sci. U.S.A. 93: 9085-9089.

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