Human IL12A / NKSF1 Protein (Fc Tag)

Catalog Number: **10021-H02H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

IL12A, CLMF, IL-12A, NFSK, NKSF1, P35

Protein Construction:

A DNA sequence encoding the p35 subunit of human IL12, termed as IL12A (P29459) (Met 1-Ser 219) was fused with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

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 ℃

Predicted N terminal: Arg 23

Molecular Mass:

The recombinant human IL12A/Fc is a disulfide-linked homodimer. The reduced monomer consists of 435 amino acids and has a predicted molecular mass of 49.3 kDa. As a result of glycosylation, the rhIL12A/Fc monomer migrates as an approximately 65-70 kDa band 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.

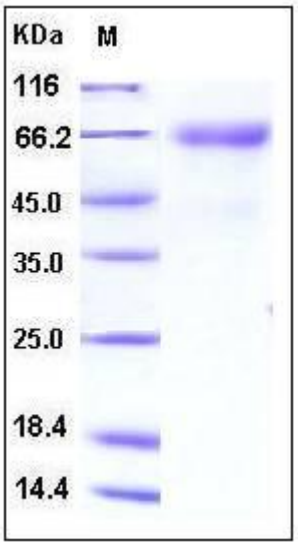
Usage Guide

Storage:

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

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitutio ı 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 35-kD subunit P35 and a 40-kD 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 cytolytic function and mitogenic effects, as well as induction of IFN-gamma during which it can synergize with other IFN-gamma inducers. The most powerful inducers of IL-12 production are bacteria, bacterial products and parasites. IL12A shows significant sequence similarity to IL-6, G-CSF, and exerts biological activities only when the IL12B is co-expressed. IL12B deficient mice are resistant to the induction of experimental chronic inflammatory diseases whereas IL12A knock-out mice develop more severe forms, suggesting opposite functions of the two subunits in the outcome of chronic inflammatory diseases.

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. Chehimi, J. et al., 1993, Eur. J. Immunol. 23: 1826-1830.
5. Kim, J.H. et al., 1997, Clin. Exp. Immunol. 108: 243-250.