

**Synonym**

IL12B,CLMF,CLMF2,NKSF,NKSF2,p40

**Source**

Human IL-12B, Fc Tag(NK2-H5258) is expressed from human 293 cells (HEK293). It contains AA Ile 23 - Ser 328 (Accession # [AAH67499](#)).

Predicted N-terminus: Ile 23

**Molecular Characterization**

IL-12B(Ile 23 - Ser 328) AAH67499	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus

The protein has a calculated MW of 61.3 kDa. The protein migrates as 66-76 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

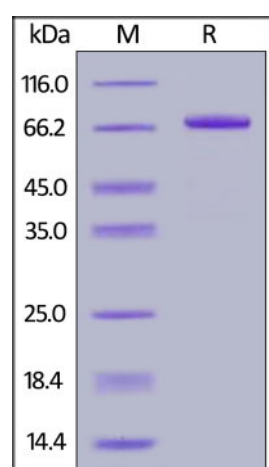
**Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

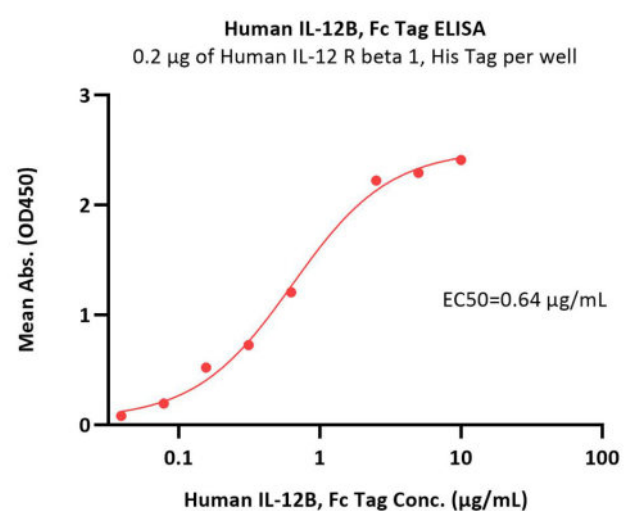
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Human IL-12B, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

**Bioactivity-ELISA**



Immobilized Human IL-12 R beta 1, His Tag (Cat. No. ILB-H52H9) at 2 µg/mL (100 µL/well) can bind Human IL-12B, Fc Tag (Cat. No. NK2-H5258) with a linear range of 0.039-0.625 µg/mL (QC tested).

## Background

Interleukin-12 (IL12) is also known as natural killer cell stimulatory factor (NKSF), cytotoxic lymphocyte maturation factor (CLMF), is a heterodimeric cytokine encoded by two separate genes, IL-12A (p35) and IL-12B (p40). IL12 is naturally produced by dendritic cells, macrophages and human B-lymphoblastoid cells (NC-37) in response to antigenic stimulation. IL-12 is involved in the differentiation of naive T cells into Th0 cells and plays an important role in the activities of natural killer cells and T lymphocytes. IL-12 also has anti-angiogenic activity, which means it can block the formation of new blood vessels.

Interleukin-12 subunit beta (IL12B) also known as NKSF2, CLMF2 and P40. Interleukin-12 subunit beta has been shown to interact with IL23. 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.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.