



### Synonym

IFNB1, Interferon beta, IFN-beta, IFB, IFNB

### Source

Human IFN-beta Protein, Fc Tag (IFB-H5254) is expressed from human 293 cells (HEK293). It contains AA Met 22 - Asn 187 (Accession # [P01574](#)).

Predicted N-terminus: Met 22

### Molecular Characterization

IFN-beta (Met 22 - Asn 187) P01574	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 46.5 kDa. The protein migrates as 50-55 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

### Purity

>90% as determined by SDS-PAGE.

### Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 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

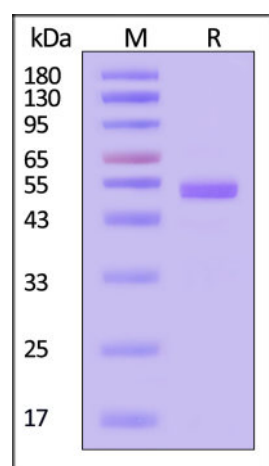
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

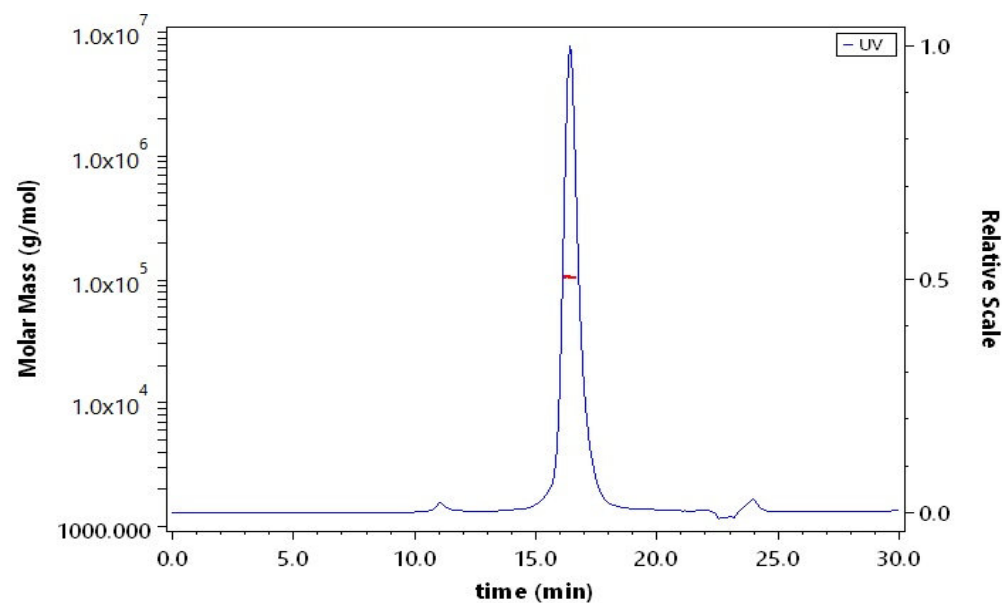
### SDS-PAGE



Human IFN-beta Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

### Bioactivity-ELISA

### SEC-MALS

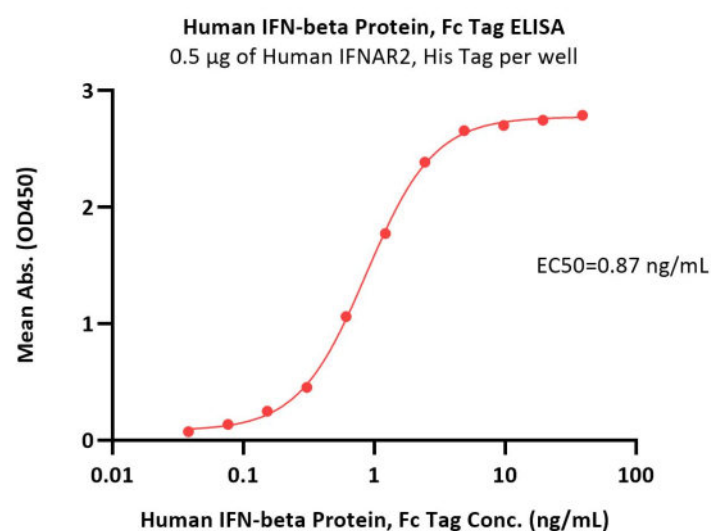


The purity of Human IFN-beta Protein, Fc Tag (Cat. No. IFB-H5254) is more than 85% and the molecular weight of this protein is around 95-120 kDa verified by SEC-MALS.

[Report](#)

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Immobilized Human IFNAR2, His Tag (Cat. No. IF2-H5224) at 5 µg/mL (100 µL/well) can bind Human IFN-beta Protein, Fc Tag (Cat. No. IFB-H5254) with a linear range of 0.03-2 ng/mL (QC tested).

## Background

Interferon beta (IFN beta) is type I interferon cytokine that plays a key role in the innate immune response to infection, developing tumors and other inflammatory stimuli. Signals via binding to high-affinity (IFNAR2) and low-affinity (IFNAR1) heterodimeric receptor, activating the canonical Jak-STAT signaling pathway resulting in transcriptional activation or repression of interferon-regulated genes that encode the effectors of the interferon response, such as antiviral proteins, regulators of cell proliferation and differentiation, and immunoregulatory proteins. IFNB1 is more potent than interferon-alpha (IFN-alpha) in inducing the apoptotic and antiproliferative pathways required for control of tumor cell growth (By similarity)

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