



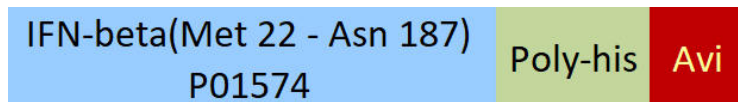
**Synonym**

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

**Source**

Biotinylated Human IFN-beta Protein, His,Avitag(IFB-H82E4) is expressed from human 293 cells (HEK293). It contains AA Met 22 - Asn 187 (Accession # [P01574](#)).

**Molecular Characterization**



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 23.9 kDa. The protein migrates as 27-30 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Labeling**

*Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.*

**Protein Ratio**

Passed as determined by the HABA assay / binding ELISA.

**Purity**

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

**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**

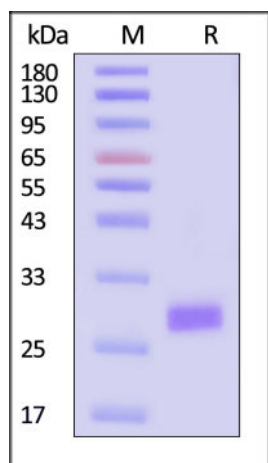
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

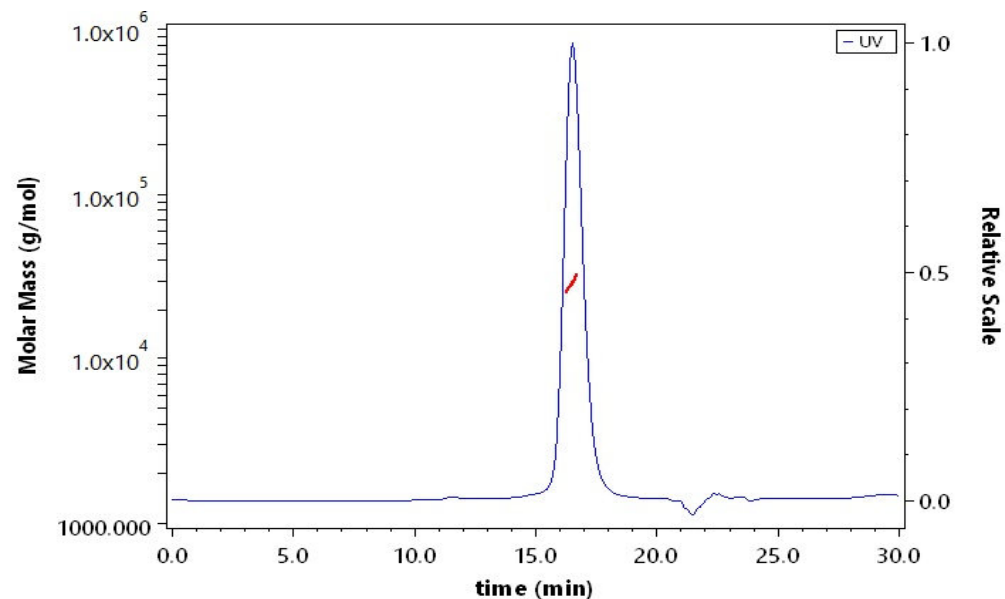
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**



Biotinylated Human IFN-beta Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

**SEC-MALS**

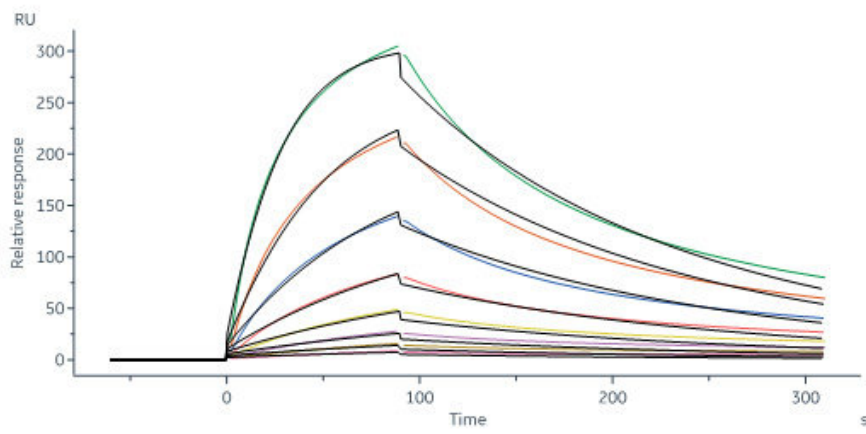


The purity of Biotinylated Human IFN-beta Protein, His,Avitag (Cat. No. IFB-H82E4) is more than 90% and the molecular weight of this protein is around 25-35 kDa verified by SEC-MALS.

[Report](#)

**Bioactivity-SPR**





Biotinylated Human IFN-beta Protein, His,Avitag (Cat. No. IFB-H82E4) captured on Biotin CAP-Series S Sensor Chip can bind Human IFNAR2, His Tag (Cat. No. IF2-H5224) with an affinity constant of 203 nM as determined in a SPR assay (Biacore 8K) (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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