Biotinylated Mouse IFN-beta Protein, His,Avitag™ (MALS & SPR verified)

Catalog # IFB-M82E3

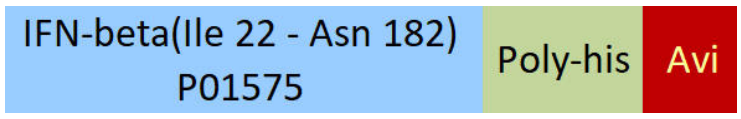
Synonym

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

Source

Biotinylated Mouse IFN-beta Protein, His,Avitag(IFB-M82E3) is expressed from human 293 cells (HEK293). It contains AA Ile 22 - Asn 182 (Accession # P01575).

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 23.6 kDa. The protein migrates as 33-38 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

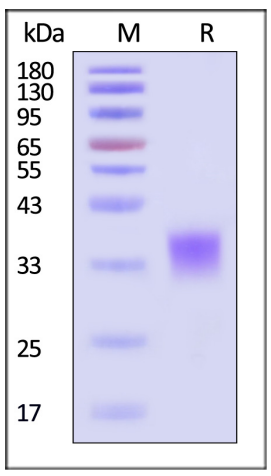
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

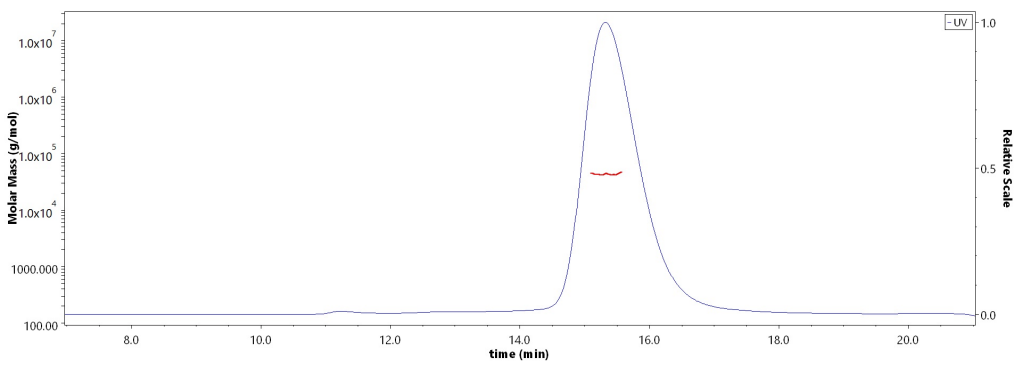
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



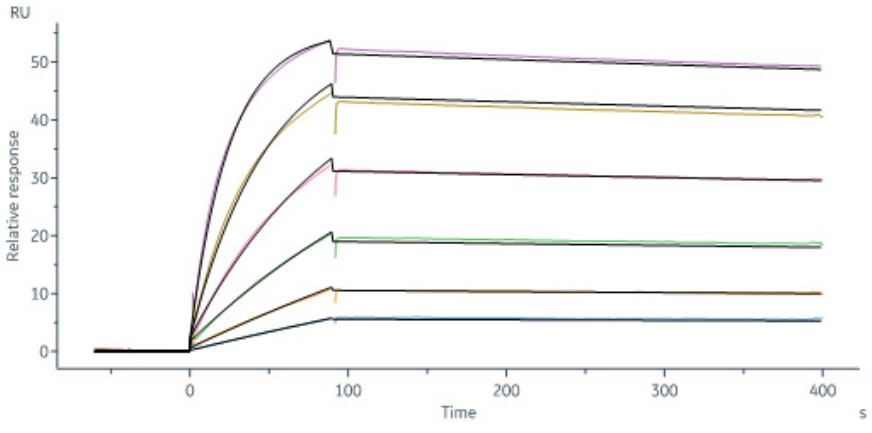
Biotinylated Mouse IFN-beta Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



The purity of Biotinylated Mouse IFN-beta Protein, His,Avitag (Cat. No. IFB-M82E3) is more than 90% and the molecular weight of this protein is around 35-50 kDa verified by SEC-MALS.
Report

Bioactivity-SPR



Biotinylated Mouse IFN-beta Protein, His,Avitag (Cat. No. IFB-M82E3) captured on Biotin CAP-Series S Sensor Chip can bind Mouse IFN-alpha / beta R1, His Tag (Cat. No. IF1-M5225) with an affinity constant of 0.277 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).