



## Synonym

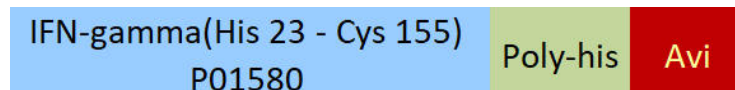
Interferon-gamma ,Interferon- $\gamma$

## Source

Biotinylated Mouse IFN-gamma Protein, His,Avitag(IFG-M82E3) is expressed from human 293 cells (HEK293). It contains AA His 23 - Cys 155 (Accession # [P01580](#)).

Predicted N-terminus: His 23

## 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 19.1 kDa. The protein migrates as 20-25 kDa and 26-31 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a dimer.

## 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

>90% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22  $\mu$ m 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

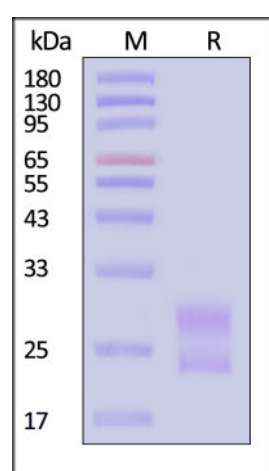
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

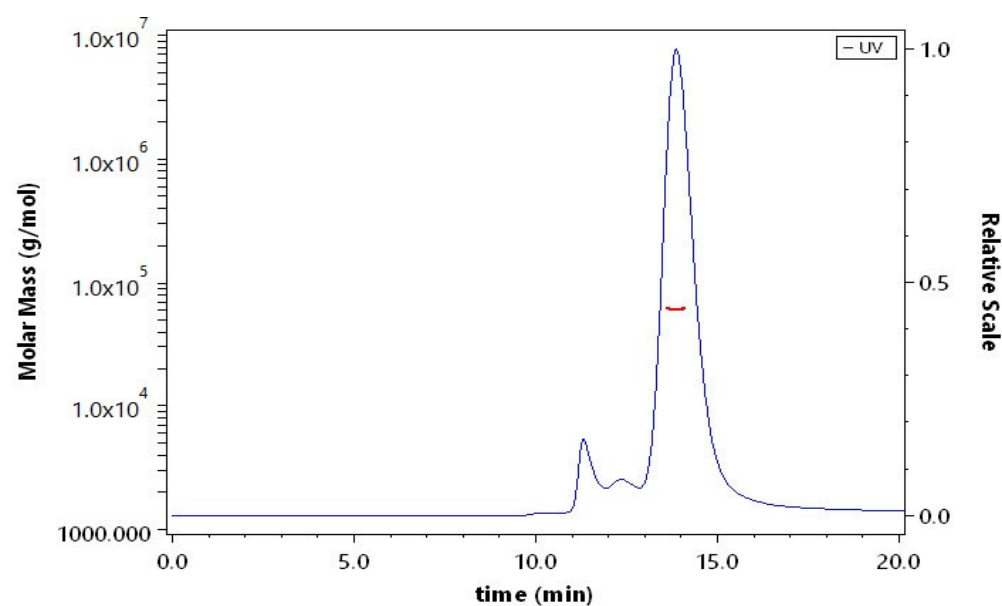
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



Biotinylated Mouse IFN-gamma 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 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

## SEC-MALS



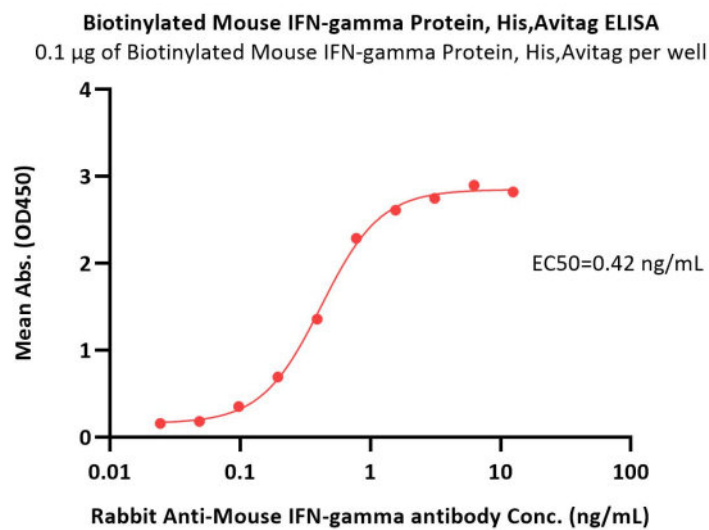
The purity of Biotinylated Mouse IFN-gamma Protein, His,Avitag (Cat. No. IFG-M82E3) is more than 85% and the molecular weight of this protein is around 50-65 kDa verified by SEC-MALS.

[Report](#)

## Bioactivity-ELISA

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Immobilized Biotinylated Mouse IFN-gamma Protein, His,Avitag (Cat. No. IFG-M82E3) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Rabbit Anti-Mouse IFN-gamma antibody with a linear range of 0.02-1 ng/mL (QC tested).

## Background

Interferon-gamma (IFN-γ/IFNG) is a dimerized soluble cytokine that is the only member of the type II class of interferon. This interferon was originally called macrophage-activating factor, a term now used to describe a larger family of proteins to which IFN-γ belongs. IFN-gamma has been used in a wide variety of clinical indications. Interferon-gamma (IFN-gamma) is a central regulator of the immune response and signals via the Janus Activated Kinase (JAK)-Signal Transducer and Activator of Transcription (STAT) pathway. Interferon gamma has broader roles in activation of innate and adaptive immune responses to viruses and tumors, in part through upregulating transcription of genes involved in cell cycle regulation, apoptosis, and antigen processing/presentation. Despite this, rodent and human trophoblast cells show dampened responses to IFNG that reflect the resistance of these cells to IFNG-mediated activation of major histocompatibility complex (MHC) class II transplanted antigen expression.

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