

# Recombinant Mouse IFN-gamma Protein

Catalog No.: RP01070 **Recombinant** **2 Publications**

## Sequence Information

Species	Gene ID	Swiss Prot
Mouse	15978	P01580

### Tags

C-hFc&His

### Synonyms

IFG;IFI;IFN gamma;Interferon Gamma;IFNG

## Product Information

Source	Purification
HEK293 cells	> 92% by SDS-PAGE.

### Endotoxin

< 0.1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

Interferon-gamma (IFN-gamma) is a secreted protein which belongs to the type II interferon family. IFN-gamma is produced by a variety of immune cells under inflammatory conditions, notably by T cells and NK cells. IFN-gamma, in addition to having antiviral activity, has important immunoregulatory functions. Interferon-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.

## Basic Information

### Description

Recombinant Mouse IFN-gamma Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met1-Cys155) of mouse Interferon Gamma (Accession #NP\_032363.1) fused with an Fc, 6×His tag at the C-terminus.

### Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized recombinant Mouse IFNGR1 at 0.2 μg/mL (100 μL/well) can bind recombinant Mouse IFNG, the EC<sub>50</sub> of Mouse IFNG is 2.2 ng/mL. 2. Recombinant Mouse IFN-gamma stimulates mouse bone marrow-derived macrophages and peritoneal macrophages differentiation into M1 Macrophages (classically activated macrophage). The expression of the related biological markers TNF-α, Nos2, IL-1β, and IL-6 was detected to be significantly upregulated. 3. Recombinant Mouse IFNG protein stimulates ZBP1 gene (ISGs) expression in mouse L-929 cells. 10 ng/mL of IFNG can effectively stimulate the expression of ZBP1 gene after 24h.

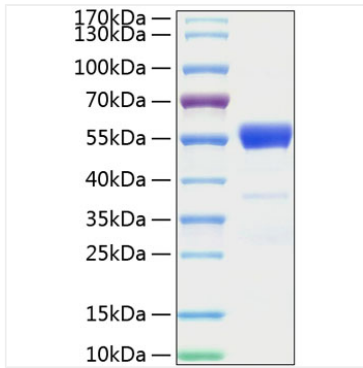
### Storage

Store the lyophilized protein at -20°C to -80 °C for long term.

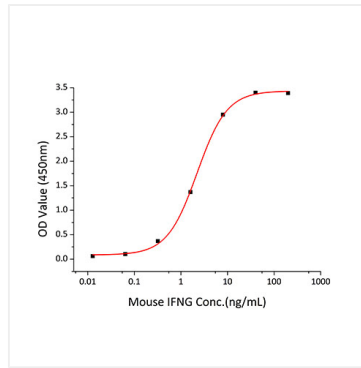
After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week.

Avoid repeated freeze/thaw cycles.

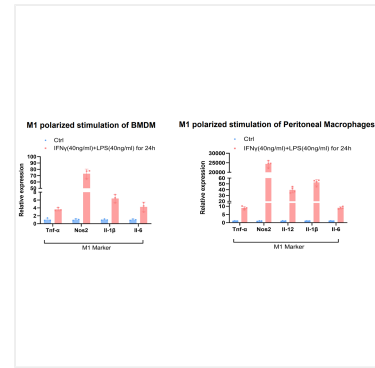
## Validation Data



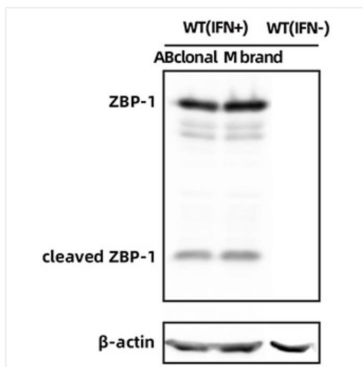
Recombinant Mouse IFN-gamma Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 55 kDa.



Immobilized recombinant Mouse IFNGR1 at 0.2 $\mu$ g/mL (100 $\mu$ L/well) can bind recombinant Mouse IFNG, the  $EC_{50}$  of Mouse IFNG is 2.2ng/mL.



Stimulates mouse bone marrow-derived macrophages and peritoneal macrophages differentiation into M1 Macrophages with IFN- $\gamma$ . The expression of the related biological markers TNF- $\alpha$ , Nos2, IL-1 $\beta$ , and IL-6 were detected to be significantly upregulated. (Customer Feedback Data)



Recombinant Mouse IFNG protein stimulates ZBP1 gene (ISGs) expression in mouse L-929 cells. 10 ng/mL of Mouse IFNG can effectively stimulate the expression of ZBP1 gene after 24h. (Customer Feedback Data)