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# **Recombinant Mouse IFN-gamma Protein**

Catalog No.: RP01070 Recombinant 6 Publications

# **Sequence Information**

**Species Gene ID Swiss Prot** HEK293 cells 15978 P01580

# Tags

C-hFc&His

#### **Synonyms**

IFG;IFI;IFN gamma;Interferon Gamma;IFNG

#### **Product Information**

**Source** Purification
HEK293 cells > 92% by SDSPAGE.

## **Endotoxin**

 $< 0.1 \; \text{EU/}\mu\text{g}$  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 stablizer (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. Interferongamma 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.

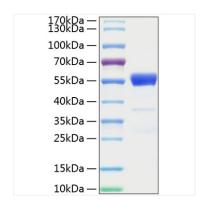
#### **Bio-Activity**

1.Measured by its binding ability in a functional ELISA. Immobilized recombinant Mouse IFNGR1 at 0.2  $\mu$ g/mL (100  $\mu$ L/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-a, Nos2, IL-1 $\beta$ , and IL-6 was detected to be significantly upregulated.|

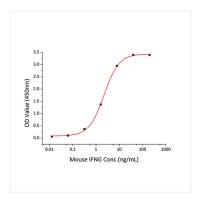
#### Storage

Store at  $-20^{\circ}$ C. Store the lyophilized protein at  $-20^{\circ}$ C to  $-80^{\circ}$ C up to 1 year from the date of receipt. <br/> <br/> After reconstitution, the protein solution is stable at  $-20^{\circ}$ C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

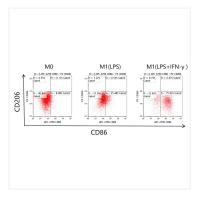
# **Validation Data**



Recombinant Mouse IFN-gamma Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



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



M0 macrophages(Catalog # RP01216S) can be induced differentiation into M1 macrophages(CD86+CD206-) by Recombinant Mouse IFN-gamma Protein (50ng/mL) and LPS (100ng/mL).