

Recombinant Mouse IFN-gamma Protein

Catalog No.: RP01070

Recombinant

6 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.

Calculated MW	Observed MW
44.70 kDa	55 kDa

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.

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 EC₅₀ 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.

Storage

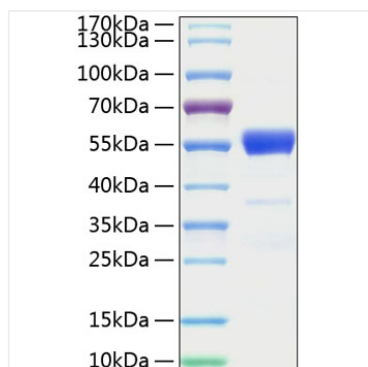
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.
Avoid repeated freeze/thaw cycles.

Contact

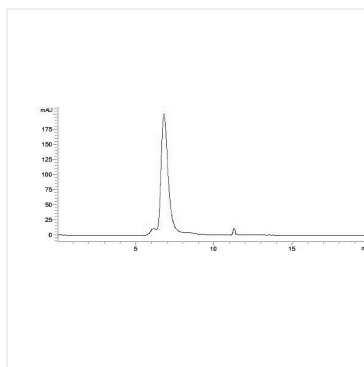
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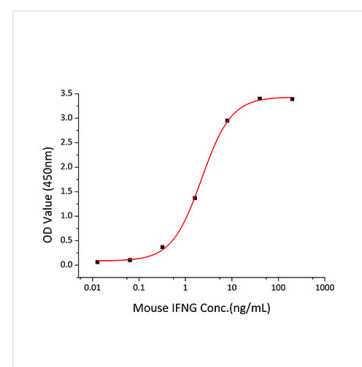
Validation Data



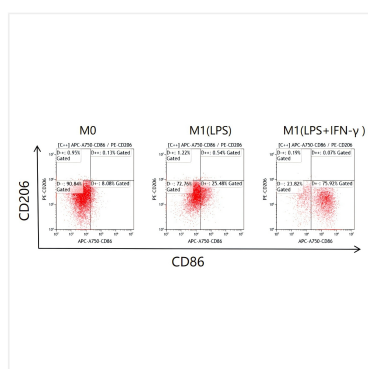
Recombinant Mouse IFN-gamma Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Mouse IFN-gamma Protein is greater than 90% as determined by SEC-HPLC.



Immobilized recombinant Mouse IFNGR1 at 0.2 μ g/mL (100 μ L/well) can bind recombinant Mouse IFNG, the EC_{50} 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).