

Recombinant Human IFNG protein

Cat. No. IFNG-116H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human IFNG protein (Gln24-Gln166) carries no tag and was expressed in human 293 cells (HEK293).

Species Human

Source HEK293

ProteinLength 143

Description

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 γ) 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 transplantation antigen expression.

Form Lyophilized from 0.22 μ m filtered solution in PBS, pH7.4, 10% trehalose.

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Molecular Mass	The protein has a calculated MW of 16.8 kDa. The protein migrates as 19-25 kDa under reducing (R) condition (SDS-PAGE) due to different glycosylation.
Endotoxin	Less than 1.0 EU per ug by the LAL method.
Purity	>90% as determined by SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 centigrade to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name	IFNG
Official Symbol	IFNG
Synonyms	IFNG; interferon, gamma; interferon gamma; IFN-gamma; immune interferon; IFG; IFI
Gene ID	3458
mRNA Refseq	NM_000619
Protein Refseq	NP_000610

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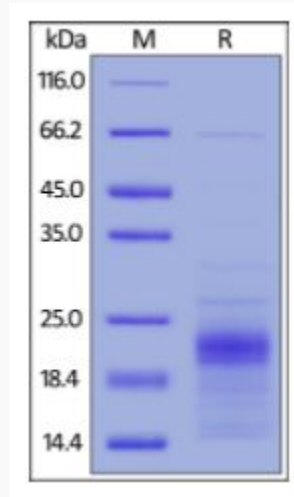
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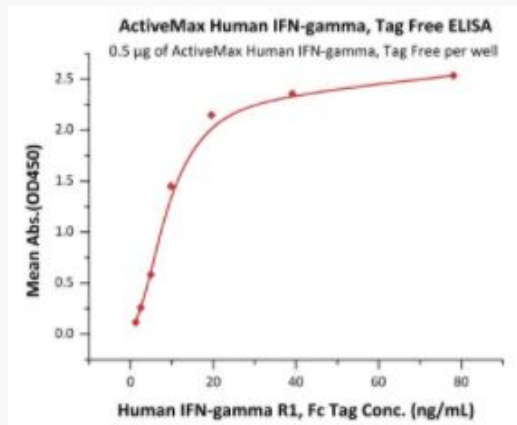
UniProt ID P01579

SDS-PAGE of IFNG-116H



Human IFN-gamma, Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA of IFNG-116H



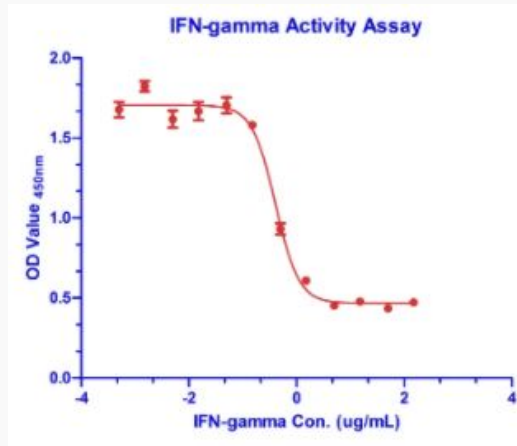
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Immobilized Human IFN-gamma, Tag Free at 5 $\mu\text{g/mL}$ (100 $\mu\text{L/well}$) can bind Human IFN-gamma R1, Fc Tag with a linear range of 1-10 ng/mL (QC tested).

**Bioactivity-Cell
based assay of IFNG-
116H**



The bio-activity of Human IFN-gamma, Tag Free was determined by dose-dependent inhibition of the proliferation of HT-29 cells. The EC50 for this effect is typically 0.41-0.74 ng/mL (Routinely tested).

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