

IFN-gamma Protein, Human (Biotinylated, HEK293, His-Avi)

Cat. No.:	HY-P78140
Synonyms:	Interferon-gamma; Interferon- γ ; interferon; gamma; IFG; IFI; IFN gamma
Species:	Human
Source:	HEK293
Accession:	P01579 (Q24-G161)
Gene ID:	3458
Molecular Weight:	25-40 kDa

PROPERTIES

AA Sequence	<p>Q D P Y V K E A E N L K K Y F N A G H S D V A D N G T L F L G I L K N W K E E S</p> <p>D R K I M Q S Q I V S F Y F K L F K N F K D D Q S I Q K S V E T I K E D M N V K</p> <p>F F N S N K K K R D D F E K L T N Y S V T D L N V Q R K A I H E L I Q V M A E L</p> <p>S P A A K T G K R K R S Q M L F R G</p>
Biological Activity	<ol style="list-style-type: none"> 1. Immobilized Biotinylated Human IFN gamma at 1 $\mu\text{g}/\text{mL}$ (100 $\mu\text{L}/\text{Well}$) on the plate. Dose response curve for Human IFNGR1 hFc with the $\text{EC}_{50} < 35.7 \text{ ng}/\text{mL}$ determined by ELISA. 2. Immobilized Human IFNGR1, hFc Tag at 2 $\mu\text{g}/\text{mL}$ (100 $\mu\text{L}/\text{well}$) on the plate. Dose response curve for Biotinylated Human IFN gamma, His Tag with the $\text{EC}_{50} \leq 0.16 \text{ }\mu\text{g}/\text{mL}$ determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/ μg , determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	IFN-gamma is a dimeric soluble cytokine that is the only member of type II interferon IFN-gamma is produced by immune cells T cells and NK cells and plays an important role in antimicrobial, antiviral and anti-tumor responses by activating effector immune cells and enhancing antigen presentation. IFN-gamma influences gene regulation by interacting with its
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receptor IFNGR1 through the JAK-STAT pathway, and can also trigger mTOR, MAPK, and PI3K/AKT signaling pathways. IFN-gamma plays a role in the Class I antigen presentation pathway by inducing the substitution of the catalytic proteasome subunit for the immune proteasome subunit. IFN-gamma upregulates the MHC II complex on the cell surface by promoting the expression of several key molecules such as pepsin B/CTSB, H/CTSH, and L/CTSL. IFN-gamma is involved in the regulation of hematopoietic stem cells under developmental and homeostasis conditions by influencing the development, quiescence and differentiation of hematopoietic stem cells^{[1][2][3][4][5]}.

Caution: Product has not been fully validated for medical applications. For research use only.

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