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

Cat. No.:	HY-P78456
Synonyms:	Interferon-gamma; Interferon-γ; interferon; gamma; IFG; IFI; IFN gamma
Species:	Human
Source:	HEK293
Accession:	P01579 (Q24-G161)
Gene ID:	3458
Molecular Weight:	20-35 kDa

PROPERTIES

Biological Activity	Immobilized Human IFN gamma at 2 μg/mL (100 μL/Well) on the plate. Dose response curve for Human IFNGR1 hFc with the EC_{50} of 7.9 ng/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.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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 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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