Product Data Sheet

GMP IFN-gamma Protein, Human

Cat. No.: HY-P78552

Synonyms: Interferon Gamma; IFN-Gamma; Immune Interferon; IFNG

Species: Human
Source: E. coli

Accession: P01579 (Q24-Q166)

Gene ID: 3458

Molecular Weight: Approximately 16.7 kDa

PROPERTIES	
Biological Activity	Measured in anti-viral assays using WISH cells infected with vesicular stomatitis virus (VSV) and the ED_{50} is 8-80 pg/mL.
Appearance	Solution.
Formulation	Supplied as a 0.22 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<0.01 EU/μg, determined by LAL method.
Reconsititution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

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].

Page 1 of 2 www.MedChemExpress.com

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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Page 2 of 2 www.MedChemExpress.com