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Human IFN-γ protein, His tag (Animal-Free)

Cat #: PRP1050 Size: 20 µg/100 µg/500 µg/1 mg

Product Information

	Product Name: Human IFN-γ protein, His tag (Animal-Free)		
REF	Catalog Number: PRP1050	LOT	Lot Number: Refer to product label
	Purity: > 95 % as determined by SDS-PAGE		
Ŷ	Storage: Store at -20°C		Preparation method: E. coli
	Shipping: The product is shipped at ambient temperature.		

Background: IFN-γ, also known as IFNG, is a secreted protein which belongs to the type II interferon family. IFN-γ is produced predominantly by natural killer and natural killer T cells as part of the innate immune response, and by CD4 and CD8 cytotoxic T lymphocyte effector T cells once antigen-specific immunity develops. IFN-γ has antiviral, immunoregulatory, and anti-tumor properties. IFN-γ, in addition to having antiviral activity, has important immunoregulatory functions, it is a potent activator of macrophages, and has antiproliferative effects on transformed cells and it can potentiate the antiviral and antitumor effects of the type I interferons. The IFN-γ monomer consists of a core of six α-helices and an extended unfolded sequence in the C-terminal region. IFN-γ is critical for innate and adaptive immunity against viral and intracellular bacterial infections and for tumor control. Aberrant IFN-γ expression is associated with a number of autoinflammatory and autoimmune diseases. The importance of IFN-γ in the immune system stems in part from its ability to inhibit viral replication directly, and most importantly from its immunostimulatory and immunomodulatory effects. IFNG also promotes NK cell activity.

<u>Sequence</u>: Amino acid sequence derived from Human IFN-γ protein (Gln24-Gln166)(P01579) was expressed with 6xHis tag at the C-terminus.

<u>Protein length</u>: The secreted recombinant Human IFN-γ consists of 143 amino acids and has a predicted molecular mass of 17.7 kDa.

<u>Biological Activity</u>: Measure by its ability to induce cytotoxicity in HT29 cells. The ED₅₀ for this effect is <1 ng/mL. The specific activity of recombinant Human IFN- γ is approximately >2 x 10⁶ IU/mg.

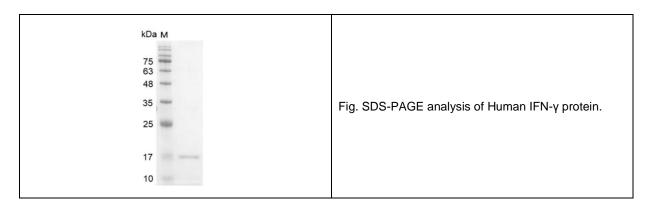
Endotoxin: < 0.01 EU per μg of the protein as determined by the LAL method.

Formulation: Lyophilized from sterile PBS, pH 8.0.



<u>Storage Instructions</u>: Lyophilized protein product should be stored desiccated below -18°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (5% HSA, 10%FBS or 0.1%BSA). Please prevent freeze-thaw cycles.

<u>Usage notes</u>: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized recombinant Human IFN-γ protein to a concentration of 0.1-1 mg/mL in sterile ddH₂O, and keep at room temperature for at least 20 min to fully dissolve. Please avoid vortex vigorously.



<u>Note:</u> The product listed herein is for research use only and is not intended for use in human or clinical diagnosis. Suggested applications of our products are not recommendations to use our products in violation of any patent or as a license. We cannot be responsible for patent infringements or other violations that may occur with the use of this product.

