


Human IFN- γ protein

Cat #: PRP1014

Size: 20 μ g/100 μ g/500 μ g/1 mg

Product Information

	Product Name: Human IFN- γ protein		
REF	Catalog Number: PRP1014	LOT	Lot Number: Refer to product label
	Purity: > 98 % as determined by SDS-PAGE		
	Storage: Store at -20°C		Preparation method: <i>E. coli</i>
	Shipping: The product is shipped at ambient temperature.		

Background: IFN gamma (IFN- γ), also known as IFNG, is a secreted protein which belongs to the type I interferon family. IFN gamma 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. IFNG, 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 IFNG monomer consists of a core of six α -helices and an extended unfolded sequence in the C-terminal region. IFN gamma is critical for innate and adaptive immunity against viral and intracellular bacterial infections and for tumor control. Aberrant IFN gamma expression is associated with a number of autoinflammatory and autoimmune diseases. The importance of IFN gamma 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.

Sequence: Amino acid sequence derived from Human IFN- γ soluble form (NP_01579.1) (Gln24-Gln166) was expressed.

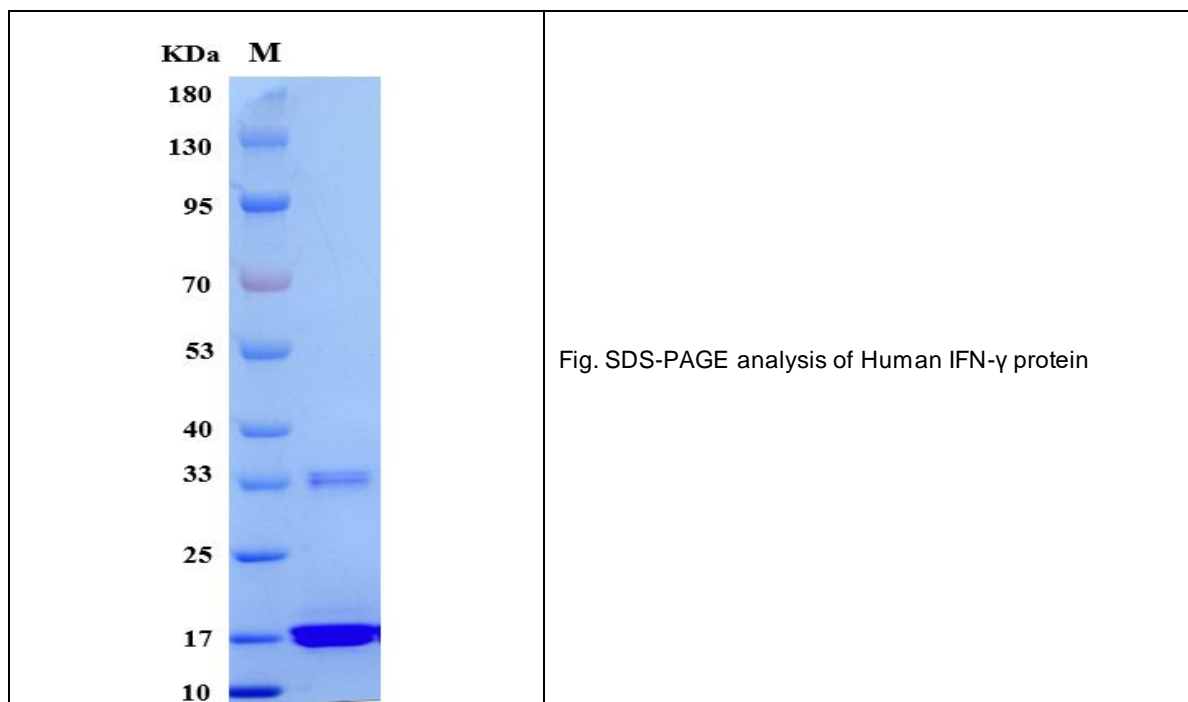
Protein length: The recombinant Human IFN- γ protein consists of 144 amino acids and predicts a molecular mass of 16.91 KDa.

Formulation: Lyophilized from sterile 150 mM NaCl, 20 mM Tris, pH 7.4.

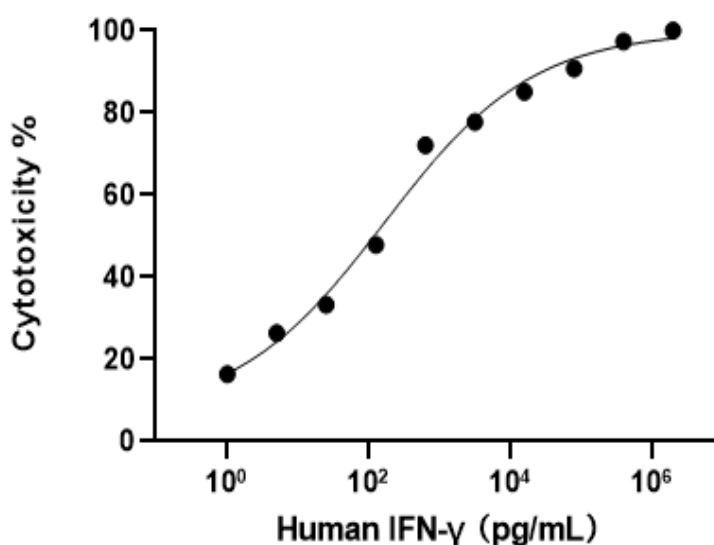
Storage Instructions: Lyophilized Human IFN- γ protein product should be stored desiccated below -20°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days and for future use below -20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Usage notes: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized Human IFN- γ protein

in sterile ddH₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.



Biological Activity: Measured in a cytotoxicity assay using L929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D. The ED₅₀ for this effect is typically 168.4 pg/mL. The specific activity of recombinant Human IFN-γ protein is approximately >5.9 x 10⁶ IU/mg.



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