

IFNG

Recombinant Human Interferon-gamma

Catalog No.	CRI000A	Quantity:	20 µg
	CRI000B		100 µg
	CRI000C		1.0 mg

Alternate Names: IFN-gamma, Immune interferon

Description: Interferon-gamma (IFN-gamma), also known as Type II interferon or immune interferon, is a cytokine produced primarily by lymphocytes and natural killer cells. The protein shares no significant homology with IFN-beta or the various IFN-alpha family proteins. Mature IFN-gamma exists as noncovalently-linked homodimers. Human IFN-gamma is highly species specific and is biologically active only in human and primate cells. IFN-gamma was originally characterized based on its antiviral activities. The protein also exerts antiproliferative, immunoregulatory and proinflammatory activities and is thus important in host defense mechanisms. IFN-gamma induces the production of cytokines, upregulates the expression of class I and II MHC antigens, Fc receptor and leukocyte adhesion molecules. It modulates macrophage effector functions, influences isotype switching and potentiates the secretion of immunoglobulins by B cells. IFN-gamma also augments TH1 cell expansion and may be required for TH1 cell differentiation.

Gene ID: 3458

UniProt ID: P01579

Source: *E. coli*

Molecular Weight: 16.9 kDa (144 aa) monomer

Formulation: Lyophilized from a sterile-filtered solution in 10 mM sodium phosphate, 50 mM NaCl, pH 7.5

Purity: ≥ 95% by reducing and non-reducing SDS-PAGE

Endotoxin Level: ≤ 0.1 EU/µg of protein by kinetic LAL analysis

Biological Activity: Demonstrates dose-dependent inhibition of cytopathic effect using EMC-infected A549 cells.

Specific Activity: ≥ 1.0 x 10⁷ Units/mg

Amino Acid Sequence: MQDPYVKEAE NLKKYFNAGH SDVADNGTLF LGILKNWKEE SDRKIMQSQI
VSYFYKLFK N FKDDQSIQKS VETIKEDMNV KFFNSNKKKR DDFEKLTNYS
VTDLNVQRKA IHELIQVM AE LSPAAGTKGR KRSQMLFQGR RASQ

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX.** Allow several minutes for complete reconstitution.

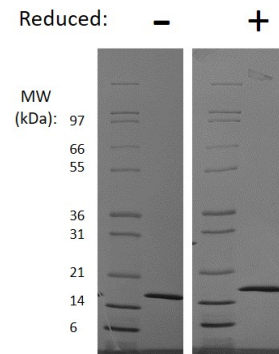
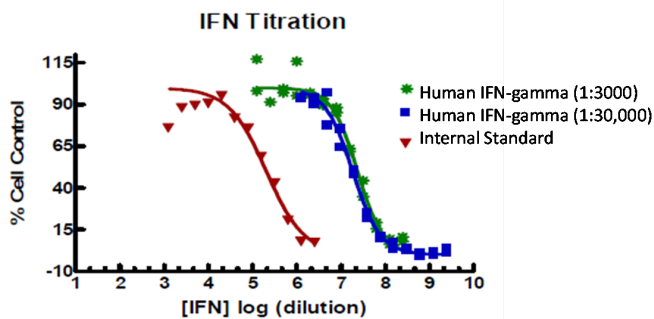


Storage & Stability:

Store as supplied at -20°C to -80°C for up to 1 year. Upon reconstitution, prepare working aliquots and store at -20°C to -80°C. It is recommended that a carrier protein such as 0.1% HSA or BSA is added for long term storage.

Avoid repeated freeze-thaw cycles.

The specific activity, as determined in a viral challenge assay using EMC virus on A549 cells, is 8×10^7 Units/mg. The corresponding ED50 is 4-5 pg/ml.

**Human IFN-gamma Gel**

1 ug of protein was run under (-) reducing conditions in a 4-20% Tris-Glycine gel, stained with Coomassie Blue. Human IFN-gamma is predicted to have MW of 16.9 kDa.

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.



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