

## IFNG

### Recombinant Human Interferon-gamma

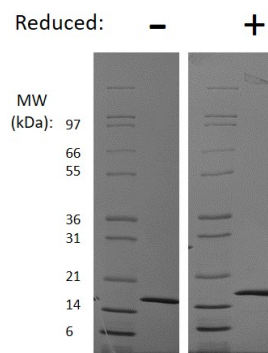
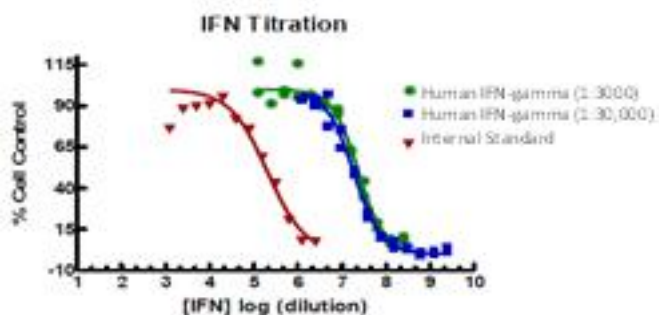
<b>Catalog No.</b>	CRI000A CRI000B CRI000C	<b>Quantity:</b>	20 µg 100 µg 1.0 mg
<b>Alternate Names:</b>	IFN-gamma, Immune interferon		
<b>Description:</b>	Interferon-gamma (IFN-gamma), also known as Type II interferon or immune interferon, is a cytokine produced primarily by lymphocytes and natural killer 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.		
<b>Gene ID:</b>	3458		
<b>UniProt ID:</b>	P01579		
<b>Source:</b>	<i>E. coli</i>		
<b>Molecular Weight:</b>	16.9 kDa (144 aa) monomer		
<b>Formulation:</b>	Lyophilized from a sterile-filtered solution in 10 mM sodium phosphate, 50 mM NaCl, pH 7.5		
<b>Purity:</b>	≥ 95% by reducing and non-reducing SDS-PAGE		
<b>Endotoxin Level:</b>	≤ 1 EU/µg of protein by kinetic LAL analysis (50% confidence range).		
<b>Biological Activity:</b>	Demonstrates dose-dependent inhibition of cytopathic effect using EMC-infected A549 cells.		
<b>Specific Activity:</b>	≥ 1.0 x 10 <sup>7</sup> Units/mg		
<b>Amino Acid Sequence:</b>	MQDPYVKEAE NLKKYFNAGH SDVADNGTLF LGILKNWKEE SDRKIMQSQI VSFYFKLFLK N FKDDQSIQKS VETIKEDMNV KFFNSNKKKR DDFEKLTNYS VTDLNVQRKA IHELIQVM AE LSPAAGTGKR KRSQMLFQGR RASQ		
<b>Reconstitution:</b>	<b>Centrifuge vial prior to opening.</b> 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. <b>DO NOT VORTEX.</b> 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  $8 \times 10^7$  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.**