Ifng
Recombinant Rat Interferon-gamma

Catalog No.	CRI002A	**Quantity:**	20 µg
	CRI002B		100 µg
	CRI002C		1.0 mg

Alternate Names: T-cell interferon, MAF, IFNG, IFG, IFI

Description: Interferon-gamma (IFN-gamma, also known as Type II interferon or immune interferon) is a cytokine produced primarily by T-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. Recombinant Rat Interferon-gamma is a single non-glycosylated polypeptide chain containing 134 amino acids.

Gene ID: 25712

Source: *E. coli*

Molecular Weight: ~15.5 kDa

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in 1 × PBS, pH 7.4, 1 mM DTT, 5 % Trehalose and 0.05 % Tween-80.

Purity: >97% as determined by HPLC and SDS-PAGE

Endotoxin Level: Less than 1EU/µg as determined by LAL method.

Biological Activity: Fully biologically active when compared to standard. The ED50 as determined by an anti-viral assay using murine L929 cells infected with encephalomyocarditis (EMC) virus is less than 0.1 ng/ml, corresponding to a specific activity of > 1.0×10^7 IU/mg.

Specific Activity: > 1.0×10^7 IU/mg

Amino Acid Sequence: QGTVIESLES LKNYFNSSSM DAMEGKSLLL DIWRNWQKDG NTKILESQII SFYLRLFEVL KDNQAISNNI SVIESHLITN FFSNSKAKKD AFMSIAKFEV NNPQVQHKAV NELIRVIHQL SPESSLRKRK RSRC

Reconstitution: **Centrifuge vial prior to opening.** Reconstitute in 10 mM HAc to a concentration of 0.1 -1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Storage & Stability: This lyophilized preparation is stable at 2-8°C, but should be kept desiccated at -20°C for

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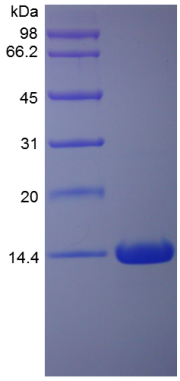
long term storage. Upon reconstitution, the preparation is stable for up to one week at 2 -8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. **Avoid repeated freeze/thaw cycles.**

SDS-PAGE



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