



Technical Data Sheet

Recombinant Rat Interferon- γ (rRa IFN- γ)

Rat Interferon γ

Interferon-gamma (IFN- γ , 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- β or the various IFN- α family proteins. Mature IFN- γ exists as noncovalently-linked homodimers. Human IFN- γ is highly species specific and is biologically active only in human and primate cells.

IFN- γ 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- γ 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- γ also augments TH1 cell expansion and may be required for TH1 cell differentiation.

Catalog Number:	RC257-17+A114
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 15.6 kDa, a single non-glycosylated polypeptide chain containing 135 amino acids.
Quantity:	20ug/100ug/1mg
Purity:	>95% by SDS-PAGE and HPLC analyses.
Biological Activity:	Measured in an antiviral assay using L929 mouse fibrosarcoma cells infected with encephalomyocarditis (EMC) virus. The ED ₅₀ for this effect is typically 1-3 ng/mL.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μ m filtered concentrated (1mg/ml) solution in PBS, pH 7.4.
AA Sequence:	MQGTLIESLES LKNYFNSSMDAMEGKSLLLDIWRNWQKDGNTKILESQIIS FYLR LFEVLKDNQAISNNISVIESHLITNFFSNSKAKKDAFMSIAKFEVNNPQI QHKAVNELIRVIHQLSPESSLRKRKRSRC
Endotoxin:	Less than 1EU/ μ g of rRaIFN- γ as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at \leq -20°C. Further dilutions should be made in appropriate buffered solutions.
Storage:	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable



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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 -70°C. **Avoid repeated freeze/thaw cycles.**

Usage:

This material is offered by Bio Basic Inc. for research, laboratory or further evaluation purposes. **NOT FOR HUMAN USE.**