

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Human Interferon- γ (rHuIFN- γ)

Catalog Number: PR1049

Source: Escherichia coli

Quantity: 20 μ g/100 μ g/1.0mg

Description

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.

Molecular Weight:

Approximately 17 kDa, a single non-glycosylated polypeptide chain containing 144 amino acids.

Purity:

>98% by SDS-PAGE and HPLC analyses.

Biological Activity:

Fully biologically active when compared to standard. The specific activity as determined in a viral resistance assay is less than 0.05 ng/ml, corresponding to a specific activity of 2.0×10^7 IU/ mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4.

AA Sequence:

M Q D P Y V K E A E N L K K Y F N A G H S D V A D N
G T L F L G I L K N W K E E S D R K I M Q S Q I V S F Y
F K L F K N F K D D Q S I Q K S V E T I K E D M N V K
F F N S N K K K R D D F E K L T N Y S V T D L N V Q R
K A I H E L I Q V M A E L S P A A K T G K R K R S Q M
L F Q G R R A S Q

Endotoxin:

Less than 1EU/ μ g of rHuIFN- 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 $<-20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at 2-8 $^{\circ}\text{C}$, but should be kept at -20 $^{\circ}\text{C}$ for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 $^{\circ}\text{C}$. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 $^{\circ}\text{C}$ to -70 $^{\circ}\text{C}$. Avoid repeated freeze/thaw cycles.

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MADE IN CHINA

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Usage:

HUMAN USE. Made in China

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR

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