

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Murine Interferon- γ (rMuIFN- γ)

Catalog Number: PR2019

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 15.6 kDa, a single non-glycosylated polypeptide chain containing 134 amino acids.

Purity:

>95% by SDS-PAGE and HPLC analyses

Biological Activity:

encephalomyocarditis (EMC) virus. The ED50 for this effect is typically 0.2- 0.8ng/mL, corresponding to a Specific Activity of $\square 1.25 \times 10^6$ IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2mm filtered solution in PBS, pH 7.4, containing 5% trehalose.

AA Sequence:

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

Endotoxin:

Less than 1EU/mg of rMuIFN- 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.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

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