

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant IFN- $\gamma$ , Rat

Catalog Number: BK0082-50 $\mu$ g

Source: Escherichia coli.

Quantity: 50 $\mu$ g

### Description:

Interferon gamma (IFN- $\gamma$ ), also known as Type II interferon, is a cytokine produced primarily by T-lymphocytes and natural killer cells. The active form of IFN- $\gamma$  is an antiparallel dimer that interacts with the receptor IFN- $\gamma$ R1 and activates the IFN- $\gamma$ /JAK/STAT pathway. IFN- $\gamma$  signaling promotes biological functions primarily related to antiviral and antibacterial defense, apoptosis, inflammation, and regulation of innate and acquired immune responses. While IFN- $\gamma$ -induced inflammatory cascades summon a variety of immune-related cell types, such as macrophages, natural killer (NK) cells and cytotoxic T lymphocytes (CTLs), IFN- $\gamma$  is also implicated in resistance to NK cell and CTL responses and in immune escape in a variety of cancers. Recombinant Rat Interferon gamma (IFN- $\gamma$ ) produced in E.coli is a single non-glycosylated polypeptide chain containing 134 amino acids. A fully biologically active molecule, rrIFN- $\gamma$  has a molecular mass of 15.5 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

### Molecular Weight:

15.5 kDa, observed by reducing SDS-PAGE.

### Purity:

> 95% as analyzed by SDS-PAGE and HPLC.

### Biological Activity:

ED50 <0.5 ng/ml, measured by cytotoxicity assay using WEHI-279 cells, corresponding to a specific activity of >2 $\times$ 10<sup>6</sup> units/mg.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

GTLIESLES LK NYFNSSMDAMEGKSLLLDI-  
WRNWQKDGNTKILESQIISFYLR LFE-  
VLKDNQAISNNISVIESHLITNFFSN-  
SKAKKDAFMSIAKFEVNNPQIQHKAVNELIRVI-  
HQLSPESSLRKRKR SRC

### Endotoxin:

< 0.2 EU/ $\mu$ g, determined by LAL method.

### Reconstitution:

Reconstituted in ddH<sub>2</sub>O or PBS at 100  $\mu$ g/ml.

### Storage:

Lyophilized recombinant Rat IFN- $\gamma$  remains stable up to 6 months at -80  $^{\circ}$ C from date of receipt. Upon reconstitution, recombinant Rat IFN- $\gamma$  should be stable up to 1 week at 4  $^{\circ}$ C or up to 2 months at -20  $^{\circ}$ C.

### Usage:

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