

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant IFN- $\gamma$ , Human

Catalog Number: BK0080-1mg

Source: Escherichia coli.

Quantity: 1mg

### Description:

Human Interferon gamma (hIFN- $\gamma$ ) is a macrophage-activating factor and the lone member of Interferon type II. The active form of IFN- $\gamma$  is an antiparallel dimer that interacts with the receptor IFN- $\gamma$  R1 and sets off IFN- $\gamma$ /JAK/STAT pathway. IFN- $\gamma$  signaling does diverse biological functions primarily related to host defense and immune regulation, including antiviral and antibacterial defense, apoptosis, inflammation, and innate and acquired immunity. While IFN- $\gamma$ -induced inflammatory cascade summons 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 human Interferon gamma (rhIFN- $\gamma$ ) produced in E.coli is a non-glycosylated polypeptide chain of 144 amino acids. A fully biologically active molecule, rhIFN- $\gamma$  has a molecular mass of 17 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary refolding and chromatographic techniques at GenScript.

### Molecular Weight:

17kDa, observed by reducing SDS-PAGE.

### Purity:

> 95% as analyzed by reducing SDS-PAGE.

### Biological Activity:

ED50 < 0.05 ng/ml, measured by cytotoxicity assay using HT-29 cells.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

MQDPYVKEAENLKKYF-  
NAGHSDVADNGTLFLGILKNWKEES-  
DRKIMQSQIVSFYF-  
KLFKNFKDDQSIQKSVETIKEDMNVKFFNSNKK  
KRDDFEKLTNYSVTDLNVQRKAI-  
HELIQVMAELSPA AKTGKRKRSQMLFRGRRASQ

### Endotoxin:

< 1 EU/ $\mu$ g, determined by LAL

### Reconstitution:

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

### Storage:

Lyophilized recombinant human Interferon gamma (rhIFN- $\gamma$ ) remains stable up to 6 months at -80 $^{\circ}$  C from date of receipt. Upon reconstitution, rhIFN- $\gamma$  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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