

## Recombinant Rat IFN-gamma Protein

### Product Information

Product Name	Cat#	Size
Recombinant Rat IFN-gamma Protein	91216ES60	100 µg
	91216ES76	500 µg

### Product Description

Interferon-gamma (IFN- $\gamma$ ), also known as Type II interferon or immune interferon, is a pleiotropic cytokine which is now recognised as an important modulator of the immune response. Mature human IFN- $\gamma$  exists as a non-covalently linked homodimer of 20-25 kDa variably glycosylated subunits. It shares 90% amino acid (aa) sequence identity with rhesus IFN- $\gamma$ , 59%-64% with bovine, canine, equine, feline, and porcine IFN- $\gamma$ , and 37%-43% with cotton rat, mouse, and rat IFN- $\gamma$ . Interferons have had increasing clinical usage in the treatment of a variety of disorders, at times being used in combination with chemo- or radiotherapy. IFN- $\gamma$  increases the potential immunogenicity of vascular endothelial cells by up-regulation of intercellular adhesion molecule-1 (ICAM-1) and class I MHC antigen expression and by induction of class II MHC antigens and certain chemokines.

### Product Properties

<b>Synonyms</b>	Interferon-gamma, IFN- $\gamma$ , IFG, IFI, IFNG, IFNgamma, IFN-gamma.
<b>Accession</b>	P01581
<b>GeneID</b>	25712
<b>Source</b>	E.coli-derived rat IFN- $\gamma$ protein, Gln23-Cys156.
<b>Molecular Weight</b>	Approximately 15.5 kDa.
<b>AA Sequence</b>	QGTLIESLES LKNYFNSSSM DAMEGKSLLL DIWRNWQKDG NTKILESQII SFYLRLFEVL KDNQAISNNI SVIESHLITN FFSNSKAKKD AFMSIAKFEV NNPQIQHKAV NELIRVIHQL SPESSLRKRK RSRC
<b>Tag</b>	None
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Purity</b>	> 97% by SDS-PAGE and HPLC analyses.
<b>Biological Activity</b>	The ED <sub>50</sub> as determined by an anti-viral assay using murine L929 cells infected with encephalomyocarditis (EMC) virus is less than 0.1 ng/mL, corresponding to a specific activity of > 1.0 × 10 <sup>7</sup> IU/mg. Fully biologically active when compared to standard.
<b>Endotoxin</b>	< 0.1 EU per 1µg of the protein by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 1 × PBS, pH 7.4, 1 mM DTT, 5% Trehalose and 0.05% Tween-80.  We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
<b>Reconstitution</b>	Reconstitute in 10 mM HAc to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.

## **Shipping and Storage**

The products are shipped with ice pack and can be stored at -20 °C for 1 year.

1 month, 2 to 8 °C under sterile conditions after reconstitution.

3 months, -20 °C under sterile conditions after reconstitution.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

## **Cautions**

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!