

# Recombinant Rat IFN-gamma Protein

#### **Product Information**

Product Name	Cat#	Size
Recombinant Rat IFN-gamma Protein	91216ES60	100 μg
Recombinant Rat II-14-gamina Flotein	91216ES76	500 μg

### **Product Description**

Interferon-gamma (IFN-γ), 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-γ 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-γ, 59%-64% with bovine, canine, equine, feline, and porcine IFN-γ, and 37%-43% with cotton rat, mouse, and rat IFN-γ. 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-γ 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**

Accession P01581  GeneID 25712  Source E.coli-derived rat IFN-γ protein, Gln23-Cys156.  Molecular Weight Approximately 15.5 kDa.  QGTLIESLES LKNYFNSSSM DAMEGKSLLL DIWRNWQKDG NTKILESQII SFYLRLFEVL SPESSLRKRK SRC  AA Sequence KDNQAISNNI SVIESHLITN FFSNSKAKKD AFMSIAKFEV NNPQIQHKAV NELIRVIHQL SPESSLRKRK SRC  Tag None  Physical Appearance Purity 597% by SDS-PAGE and HPLC analyses.  The ED50 as determined by an anti-viral assay using murine L929 cells infected with encephalomyocarditis and ologically active when compared to standard.  Endotoxin C.0.1 EU per 1 μg of the protein by the LAL method.  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.	C	I de la companya del companya de la companya del companya de la co		
GeneID       25712         Source       E.coli-derived rat IFN-γ protein, Gln23-Cys156.         Molecular Weight       Approximately 15.5 kDa.         QGTLIESLES       LKNYFNSSSM       DAMEGKSLLL       DIWRNWQKDG       NTKILESQII       SFYLRLFEVL         AA Sequence       KDNQAISNNI       SVIESHLITN       FFSNSKAKKD       AFMSIAKFEV       NNPQIQHKAV       NELIRVIHQL         SPESSLRKRK SRC         Tag       None         Physical Appearance       Sterile Filtered White lyophilized (freeze-dried) powder.         Purity       > 97% by SDS-PA/GE and HPLC analyses.         The ED30 as determined by an anti-viral assay using murine L929 cells infected with encephalomyocarditis         Biological Activity       (EMC) virus is less than 0.1 ng/mL, corresponding to a specific activity of > 1.0 × 107 IU/mg. Fully biologically active when compared to standard.         Endotoxin       < 0.1 EU per lµg of the protein by the LAL method.         Formulation         Hyphilized 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.	Synonyms	Interferon-gamma, IFN-γ, IFG, IFI, IFNG, IFNgamma, IFN-gamma.		
Source       E.coli-derived rat FN-γ protein, Gln23-Cys156.         Molecular Weight       Approximately 15.5 kDa.       QGTLIESLES       LKNYFNSSSM       DAMEGKSLLL       DIWRNWQKDG       NTKILESQII       SFYLRLFEVL         AA Sequence       KDNQAISNNI       SVIESHLITN       FFSNSKAKKD       AFMSIAKFEV       NNPQIQHKAV       NELIRVIHQL         Tag       None         Purity       >97% by SDS-PAGE and HPLC analyses.         The ED <sub>50</sub> as determined by an anti-viral assay using murine L929 cells infected with encephalomyocarditis         Biological Activity       (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.         Endotoxin       < 0.1 EU per 1µg of the protein by the LAL method.	Accession	P01581		
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SPESSLRKRK RSRC  Tag None  Physical Appearance Sterile Filtered White lyophilized (freeze-dried) powder.  Purity > 97% by SDS-PAGE and HPLC analyses.  The ED <sub>50</sub> as determined by an anti-viral assay using murine L929 cells infected with encephalomyocarditis  Biological Activity (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.  Endotoxin < 0.1 EU per 1μg of the protein by the LAL method.  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.		QGTLIESLES LKNYFNSSSM DAMEGKSLLL DIWRNWQKDG NTKILESQII SFYLRLFEVL		
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	Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.		
Reconstitute in 10 mM HAc to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned		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 $\leq$ -20°C. Further dilutions should be made in appropriate buffered		into working aliquots and stored at $\leq$ -20°C. Further dilutions should be made in appropriate buffered		
solutions.		solutions.		

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## **Shipping and Storage**

The products are shipped with ice pack and can be stored at -20  $^{\circ}$ 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!

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