

## IFN-gamma Rat E. coli

### Product Data Sheet

<b>Type:</b> Recombinant	<b>Cat. No.:</b>	
<b>Source:</b> E. coli	RBG30061020	(20 µg)
<b>Species:</b> Rat	RBG30061100	(100 µg)
<b>Other names:</b> Immune Interferon, type II interferon, T cell interferon, MAF	RBG30061250	(250 µg)

### Description

IFN- $\gamma$  is an acid-labile interferon produced by CD4 and CD8 T lymphocytes, as well as activated NK cells. IFN- $\gamma$  receptors are present in most immune cells, which respond to IFN- $\gamma$  signaling by increasing the surface expression of class I MHC proteins. This promotes the presentation of antigen to T-helper (CD4+) cells. IFN- $\gamma$  signaling in antigen-presenting cells, and antigen-recognizing B and T lymphocytes, regulates the antigen-specific phases of the immune response. Additionally, IFN- $\gamma$  stimulates a number of lymphoid cell functions, including the anti-microbial and anti-tumor responses of macrophages, NK cells, and neutrophils. Human IFN- $\gamma$  is species-specific and is biologically active only in human and primate cells. Recombinant rat IFN- $\gamma$  is a 15.6 kDa protein containing 135 amino acid residues.

### Introduction to the Molecule

IFN- $\gamma$  is an acid-labile interferon produced by CD4 and CD8 T lymphocytes as well as activated NK cells. IFN- $\gamma$  receptors are present in most immune cells, which respond to IFN- $\gamma$  signaling by increasing the surface expression of class I MHC proteins. This promotes the presentation of antigen to T-helper (CD4+) cells. IFN- $\gamma$  signaling in antigen-presenting cells and antigen-recognizing B and T lymphocytes regulate the antigen-specific phases of the immune response. Additionally, IFN- $\gamma$  stimulates a number of lymphoid cell functions including the anti-microbial and anti-tumor responses of macrophages, NK cells and neutrophils. Human IFN- $\gamma$  species-specific and is biologically active only in human and primate cells. Recombinant human IFN- $\gamma$  is a 16.8 kDa protein containing 144 amino acid residues.

### Research topic

Cardiovascular disease, Coronary artery disease, Diabetology - Other Relevant Products, Immune Response, Infection and Inflammation, Neural tissue markers, Oncology, Transplantation

### Amino Acid Sequence

MQGTLIESLE SLKNYFNSSS MDAMEGKSL LDIWRNWQKD GNTKILESQI ISFYLRRLFV LKDNQAISNN ISVIESHLIT  
NFFSNSKAKK DAFMSIAKFE VNNPQIQHKA VNELIRVIHQ LSPESLRRKR KRSRC

### Source

E. coli

### Purity

98%

### Biological Activity

The ED<sub>50</sub> as determined by a cytopathic affect inhibition assay with murine L929 cells challenged with EMC virus was ? 0.1 ng/ml, corresponding to a specific activity of ? 1x10<sup>7</sup> units/mg.

### Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

### Reconstitution

Centrifuge the vial prior to opening. Reconstitute in 10 mM Sodium Phosphate, pH 8.0 to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

### Storage, Stability/Shelf Life

<b>HEADQUARTERS:</b> BioVendor Laboratorní medicína, a.s.	Karasek 1767/1	621 00 Brno CZECH REPUBLIC	Phone: +420-549-124-185 Fax: +420-549-211-460	E-mail: info@biovendor.com sales@biovendor.com Web: www.biovendor.com
<b>AUSTRIA:</b> BioVendor GesmbH	Nußdorfer Straße 20/10	1090 Vienna AUSTRIA	Phone: +43-1-89090-25 Fax: +43-1-89090-2515	E-mail: infoAustria@biovendor.com
<b>GERMANY, SWITZERLAND:</b> BioVendor GmbH	Otto-Hahn-Straße 16	34123 Kassel GERMANY	Phone: +49-6221-433-9100 Fax: +49-6221-433-9111	E-mail: infoEU@biovendor.com
<b>USA, CANADA AND MEXICO:</b> BioVendor LLC	128 Bingham Rd. Suite 1300	Asheville, NC 28806 USA	Phone: +1-828-575-9250 +1-800-404-7807 Fax: +1-828-575-9251	E-mail: infoUSA@biovendor.com