

## Recombinant Rat IFNA5 Protein, His-tagged

**Cat. No.** IFNA5-435R    **Lot. No.** (See product label)

### SPECIFICATION

#### Product Overview

Recombinant Rat IFNA5 (XP\_001076062.1) (Leu22-Glu189) was expressed with a polyhistidine tag at the C-terminus.

#### Species

Rat

#### Source

Yeast

#### ProteinLength

Leu22-Glu189

#### Description

Interferon, alpha 5 (IFNA5) belongs to the alpha/beta interferon family. IFNA5 is the only IFNA subtype detected in normal liver, while a mixture of subtypes is observed in the liver tissue of patients with chronic hepatitis C. Interferons are produced by macrophages, IFN-alpha have antiviral activities. Interferon stimulates the production of two enzymes: a protein kinase and an oligoadenylate synthetase. IFN-alpha, the first cytokine to be produced by recombinant DNA technology, has emerged as an important regulator of growth and differentiation, affecting cellular communication and signal transduction pathways as well as immunological control. Originally discovered as an antiviral substance, the efficacy of IFN-alpha in malignant, viral, immunological, angiogenic, inflammatory, and fibrotic diseases suggests a spectrum of interrelated pathophysiology. IFN-alpha emerged as a prototypic tumor suppressor protein that represses the clinical tumorigenic phenotype in some malignancies capable of differentiation.

Full Name interferon, alpha 5 Research Areas  
Cell Biology>>Apoptosis

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Cell Biology>>Apoptosis>>Caspase & inhibitor>>Caspase Inhibitors  
 Immunology>>Inflammation / Inflammatory Mediator>>Inflammatory Cytokines & Chemokines and Receptors>>IL-10/Interferon Family  
 Cardiovascular>>Angiogenesis>>Cytokine & Receptor>>Interferon & Receptor>>Interferon  
 Immunology>>Innate Immunity>>Cytokine>>Interferons  
 Cell Biology>>Apoptosis>>Mitochondrial protein  
 References  
 Lau JY, et al. (1993) Discrepancy between biochemical and virological responses to interferon-alpha in chronic hepatitis C. *Lancet*. 342(8881): 1208-9.  
 Kessler DS, et al. (1990) Interferon-alpha regulates nuclear translocation and DNA-binding affinity of ISGF3, a multimeric transcriptional activator. *Genes Dev*. 4(10): 1753-65.  
 Gutterman JU. Cytokine therapeutics: lessons from interferon alpha. *Proc Natl Acad Sci U S A*. 91(4): 1198-205.

|                             |   |
|-----------------------------|---|
| <b>Predicted N Terminal</b> | Leu 22  |
| <b>Form</b>                 | Lyophilized from sterile PBS, pH 7.4. Normally 5 %- 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.                               |
| <b>Molecular Mass</b>       | The recombinant rat IFNA5 consists of 178 amino acids and predicts a molecular mass of 20.8 kDa.  |
| <b>Endotoxin</b>            | < 1.0 EU per µg protein as determined by the LAL method.  |
| <b>Purity</b>               | > 95 % as determined by SDS-PAGE.   |
| <b>Storage</b>              | Samples are stable for up to twelve months from date of receipt at -70 centigrade. Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended |

that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

**Reconstitution**

It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

**GENE INFORMATION**

**Gene Name** [Ifna5 interferon alpha family, gene 5 \[ Rattus norvegicus \]](#)

**Official Symbol** [IFNA5](#)

**Synonyms** IFNA5; interferon alpha family, gene 5;

**Gene ID** [690894](#)

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