

# Rat IFNA5 / IFNaG Protein (His Tag) (HPLC-verified)

Catalog Number: HPLC-80205-R08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

IFNA5

### Protein Construction:

A DNA sequence encoding the rat IFNA5 (XP\_001076062.1) (Met1-Glu189) was expressed with a polyhistidine tag at the C-terminus.

**Source:** Rat

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE.  
> 95 % as determined by SEC-HPLC.

### Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method.

### Stability:

Samples are stable for up to twelve months from date of receipt at -20°C to -80°C

**Predicted N terminal:** Cys 24

### Molecular Mass:

The recombinant rat IFNA5 consists of 177 amino acids and predicts a molecular mass of 20.7 kDa.

### Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## Protein 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 pathophysiologies. IFN-alpha emerged as a prototypic tumor suppressor protein that represses the clinical tumorigenic phenotype in some malignancies capable of differentiation.

## References

- 1.Lau JY, *et al.* (1993) Discrepancy between biochemical and virological responses to interferon-alpha in chronic hepatitis C. *Lancet.* 342(8881): 1208-9.
- 2.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.
- 3.Guterman JU. Cytokine therapeutics: lessons from interferon alpha. *Proc Natl Acad Sci U S A.* 91(4): 1198-205.

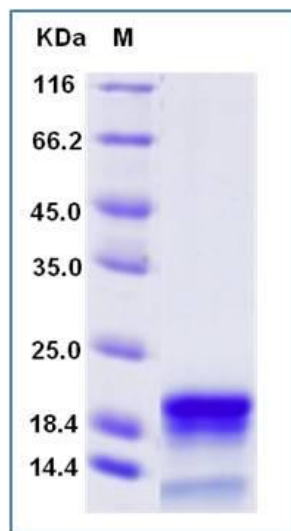
# Rat IFNA5 / IFNaG Protein (His Tag) (HPLC-verified)

Catalog Number: HPLC-80205-R08H



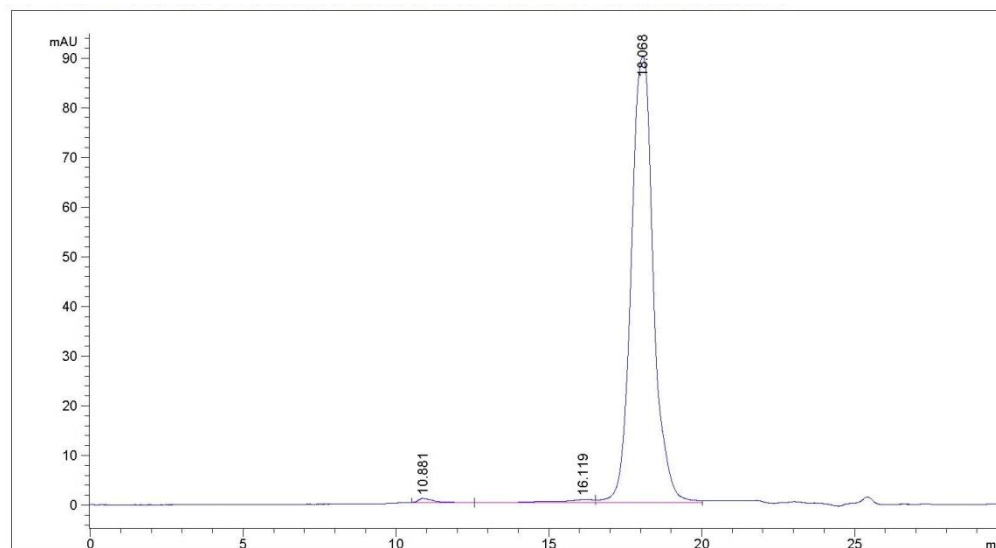
Sino Biological  
Biological Solution Specialist

## SDS-PAGE:



99.2% as determined by SDS-PAGE

## SEC-HPLC:



98.3% as determined by SEC-HPLC Analysis