Rat IFNA4 / IFNα4 / Interferon alpha-4 Protein (Fc Tag)

Catalog Number: **80173-R01H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

IFNA4

Protein Construction:

A DNA sequence encoding the rat IFNA4 (D3ZFH0) (Cys24-Lys189) was expressed, fused with Fc region of human IgG1 at the N-terminus.

Source: Rat

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Measured in antiviral assay using L929 cells infected with vesicular stomatitisvirus (VSV). The ED_{50} for this effect is typically 0.5-4 μg/mL.

Endotoxin:

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

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Glu

Molecular Mass:

The recombinant rat IFNA4 comprises 426 amino acids and predicts a molecular mass of 47.5 kDa. The apparent molecular mass of the recombinant protein is approximately 48 kDa in SDS-PAGE under reducing conditions due to glycosylation.

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:

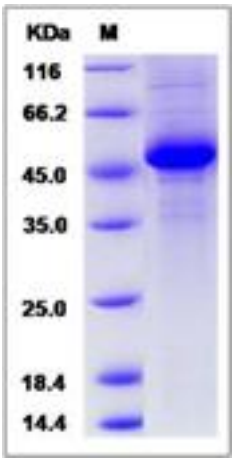
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Interferon, alpha 4 (IFNA4) belongs to the alpha/beta interferon family. Two variants of IFNA4 (IFNA4a and IFNA4b) are known, which differ from each other by changes in their coding regions at nucleotide positions 220 and 410 and can be distinguished by selective restriction enzyme analysis. 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.Gutterman JU. Cytokine therapeutics: lessons from interferon alpha. Proc Natl Acad Sci U S A. 91(4): 1198-205.