Human IFNA5 / IFNaG / Interferon alpha-G Protein (Fc Tag)

Catalog Number: **10342-H01H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

IFN-alpha; IFN-alpha-5; IFN-alphaG; INA5; INFA5; leIF G; RP11-380P16.5

Protein Construction:

A DNA sequence encoding the human IFNα G (NP_002160.1) (Leu 22-Glu 189) was fused with the Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured in antiviral assays using WISH human amnion cells infected with vesicular stomatitis virus (VSV). The EC_{50} for this effect is 0.16-0.8 ng/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 20

Molecular Mass:

The recombinant human IFNα G/Fc chimera is a disulfide-linked homodimer. The reduced monomer comprises 405 amino acids with a predicted molecular mass of 46.3 kDa. As a result of glycosylation, rh IFNα G/Fc monomer migrates as an approximately 48-50 kDa band in SDS-PAGE under reducing conditions.

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:

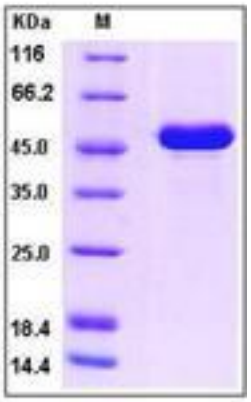
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Interferon, alpha 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.Gutterman JU. Cytokine therapeutics: lessons from interferon alpha. Proc Natl Acad Sci U S A. 91(4): 1198-205.