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Recombinant Human IFN-alpha G/IFNA5 Protein

Catalog No.: RP01915 Recombinant

Sequence Information

Species Gene ID Swiss Prot HEK293 cells 3442 P01569

Tags C-His

C-1113

Synonyms

Ifa5; IFNA5; IFNalpha G; IFN-alpha G; IFN-alpha-5; IFN-alphaG; INFA5; interferon alpha-5; Interferon alpha-61; Interferon alpha-G; interferon; alpha 5; LeIF G

Product Information

Source Purification
HEK293 cells

Endotoxin

<0.1EU/µg of the protein by LAL method

Formulation

Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

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 has 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.

Basic Information

Description

Recombinant Human interferon-alpha/IFNA5 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu22-Glu189) of Human interferon-alpha/IFNA5 (Accession #NP_002160.1) fused with a His tag at the C-terminus.

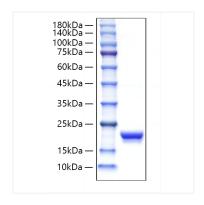
Bio-Activity

Measured in a cell cytotoxicity assay using TF-1 cells. The ED₅₀ for this effect is $3.27 \square 13.06$ ng/mL, corresponding to a specific activity of $7.66 \times 10 < \sup 4 < \sup 7.06 \times 10 < \sup 9.06 \times 10 < \sup 9.06$

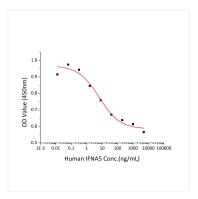
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.
 -80°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human IFN-alpha G/IFNA5 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 15-25 KD.



Recombinant Human IFN-alpha G/IFNA5 was measured in a cell cytotoxicity assay using TF-1 cells. The ED $_{50}$ for this effect is 3.27 \square 13.06 ng/mL, corresponding to a specific activity of $7.66 \times 10^4 \sim 3.06 \times 10^5$ units/mg.