Recombinant Human IFN-alpha 4 Protein

Catalog No.: RP01914

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Sequence Information

Species
Human

Gene ID
3441

Swiss Prot
P05014

Tags
C-His

Synonyms
Interferon alpha-4, IFN-alpha-4, Interferon alpha-4B, Interferon alpha-76, Interferon alpha-M1, IFNA4

Product Information

Source
HEK293 cells

Purification
≥ 90 % as determined by SDS-PAGE.

Calculated MW
20.22 kDa

Observed MW
15-20 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

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.

Background

IFN-alpha 4,Produced by macrophages, IFN-alpha have antiviral activities. Interferon stimulates the production of two enzymes: a protein kinase and an oligoadenylate synthetase.The interferons (IFN) are a family of cytokines with potent antiviral, antiproliferative and immunomodulatory properties, and are classified based on their binding specificity to cell surface receptors . The type I IFNs bind to the interferon alpha receptor (IFNAR), which consists of two subunits: IFNAR1 (alpha -subunit) and IFNAR2 (beta -subunit). This binding contributes to TNF-alpha induced signaling . Both the human and mouse genome code for more than a dozen closely related IFN-alpha subtypes and the various IFN-alphas share about 80% sequence homology among them . The mouse IFN-alpha 4 consists of 186 amino acids (aa) including a 24 aa signal peptide and a 162 aa IFN-alpha 4 mature domain. The mature mouse IFN-alpha 4 shares 58% and 76% sequence identity with mature human and rat IFN-alpha 4, respectively. The mouse IFN-alpha 4 reduces the local replication of murine cytomegalovirus in the tibia muscle. mIFN-A4 is a strong activator of Mx gene and was shown to be very effective in reducing splenomegaly .

Basic Information

Description
Recombinant Recombinant Human IFN-alpha 4 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Cys24-Asp189) of Human IFN-alpha 4(Accession #NP_066546.1) fused with a His tag at the C-terminus.

Activity
Measured in a cell cytotoxicity assay using TF-1 cells. The ED_{50} for this effect is 0.26-1.02 ng/mL, corresponding to a specific activity of 9.80×10^{5}~3.85×10^{6} units/mg.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

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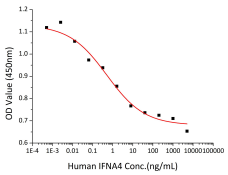
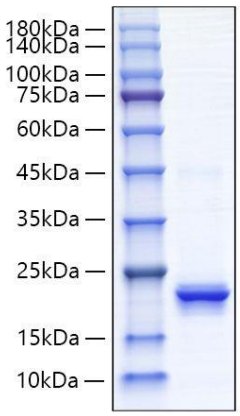
For research use only. Not for therapeutic or diagnostic purposes.
Please visit http://abclonal.com for a complete listing of recommended products.

Validation Data



Recombinant Human IFN-alpha 4 Protein cytotoxicity assay using TF-1 cells. The ED_{50} for this effect is 0.26-1.02 ng/mL, corresponding to a specific activity of 9.80×10^5 ~3.85×10^6 units/mg.



Recombinant Human IFN-alpha 4 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.