

Recombinant Human IFN-alpha 10 Protein

Catalog No.: RP01919 Recombinant

Sequence Information

Species Gene ID Swiss Prot Human 3446 P01566

Tags

C-His

Synonyms

IFNA10; IFN-alpha 10; IFNalpha C; IFNalpha C; IFN-alpha-10; IFN-alphaC; interferon alpha-10; Interferon alpha-6L; Interferon alpha-C; interferon; alpha 10; LeIF C; MGC119878; MGC119879

Product Information

Source Purification

HEK293 cells \geq 90% as

determined by SDS-PAGE.

Calculated MW Observed MW

20.25 kDa 20-25 kDa

Endotoxin

< 1 EU/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

Interferons (IFN) are a family of cytokines with potent anti_viral, antiproliferative and immunomodulatory properties, classified based on their binding specificity to cell surface receptors . Human IFNA2 was originally cloned in the early '80s and now more than a dozen closely related IFN alpha subtypes have been identified in both the human and mouse genome, each sharing about 80% amino acid (aa) sequence homology. Structurally, type I IFNs belong to the class of five helical_bundle cytokines, with the IFNA subtypes containing 2 conserved disulfide bonds. Mature human IFNA10 shares 61% aa sequence identity with mouse IFNA7. The type I IFNs bind to the interferon alpha receptor (IFNAR), which consists of two subunits: IFNAR1 (alpha - subunit) and IFNAR2 (beta -subunit). Individual IFNA subtypes are known to display unique efficacies to viral protection, and IFNA10 has been shown to be a strong inducer of IFN-stimulated genes and anti_viral protection. Additionally, IFNA10 exhibits weak anti_viral effects against SARS-CoV-2.

Basic Information

Description

Recombinant Human IFN-alpha 10 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Cys24-Asp189) of Human IFN-alpha 10/IFNA10 (Accession #NP_002162.1) fused with His tag at the C-terminus.

Bio-Activity

Measured in a cell cytotoxicity assay using TF-1 cells. The ED $_{50}$ for this effect is 0.26-1.04 ng/mL, corresponding to a specific activity of $9.62\times10^5\sim3.85\times10^6$ units/mg.

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

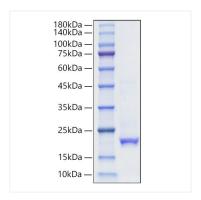
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

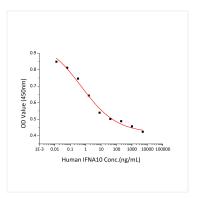
Operational Notes

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

Validation Data



Recombinant Human IFN-alpha 10 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human IFN-alpha 10/IFNA10 was measured in a cell cytotoxicity assay using TF-1 cells. The ED $_{50}$ for this effect is 0.26-1.04 ng/mL, corresponding to a specific activity of $9.62\times10^5\sim3.85\times10^6$ units/mg.