RP01919

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Recombinant Human IFN-alpha 10 Protein

Catalog No.: RP01919 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
HEK293 cells	3446	P01566

Tags
C-His

Synonyms
IFNA10; IFN-alpha 10; IFNalpha C; IFN-alpha 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
HEK293 cells

Purification
≥ 90% as determined by SDS-PAGE.

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

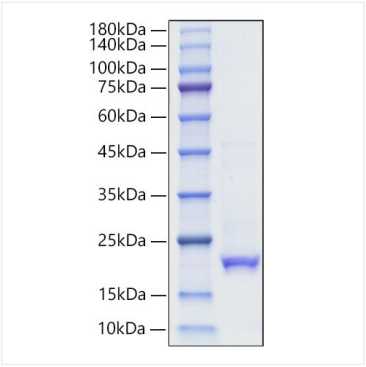
Description
Recombinant Human IFN-alpha 10 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Cys24-Asp189) of Human IFN-alpha 10/IFNA10 (Accession #NP_002162.1) fused with His tag at the C-terminus.

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 9.62×10^{5}-3.85×10^{6} units/mg.

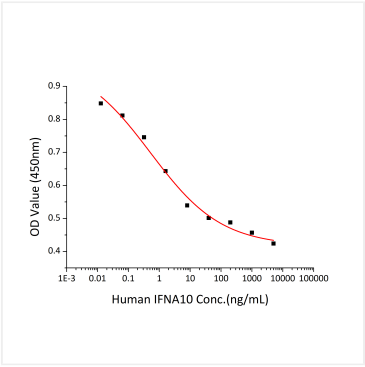
Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

* For your safety and health, please wear a lab coat and disposable gloves when 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 9.62×10^{5}~3.85×10^{6} units/mg.