RP01899

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Recombinant Human IFN-alpha I/IFN17 Protein

Catalog No.: RP01899 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
HEK293 cells	3451	P01571

Tags
C-His

Synonyms
Interferon alpha-17; IFN-alpha-17; Interferon alpha-88; Interferon alpha-I'; LeIF I; Interferon alpha-T , IFNA17

Product Information

Source	Purification
HEK293 cells	> 97% by SDS-PAGE.

Endotoxin
<0.01EU/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 antiviral, 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 . There is not a mouse homolog for IFNA17, but mature human IFNA17 shares 58% aa sequence identity with chimpanzee IFNA17. 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 . IFNA17 has been shown to be potent against HIV-1 activity . Human IFNA17 is the only IFNA subtype identified with antiviral activity but a reduced ability to activate NK cells . A mutation in IFNA17, Ile184Arg, is associated with an increased risk for cervical cancer.

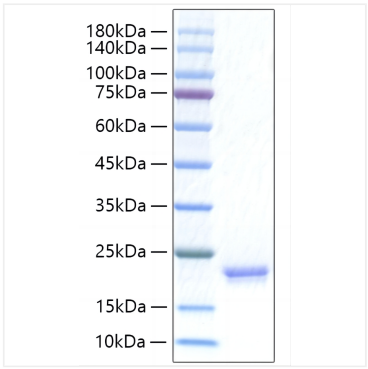
Basic Information

Description
Recombinant Human IFN-alpha I/IFN17 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Cys24-Asp189) of Human IFN-alpha I/IFN17 (Accession #NP_067091.1) fused with a His tag at the C-terminus.

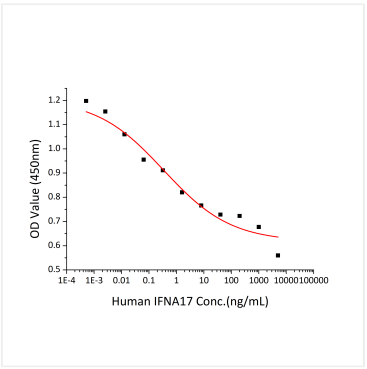
Bio-Activity
Measured in a cell cytotoxicity assay using TF-1 cells. The ED₅₀ for this effect is 0.17 0.68 ng/mL, corresponding to a specific activity of 1.47×10⁶~5.88×10⁶ units/mg.

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.

Validation Data



Recombinant Human IFN-alpha I/IFN17 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 20-25 kDa.



Recombinant Human IFN-alpha I/IFN17 Protein cytotoxicity assay using TF-1 cells. The ED_{50} for this effect is 0.17□ 0.68 ng/mL, corresponding to a specific activity of 1.47×10^{6}~5.88×10^{6} units/mg.