

RP01897

Leader in Biomolecular Solutions for Life Science



# Recombinant Human IFN-alpha H2/IFNA14 Protein

Catalog No.: RP01897 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
HEK293 cells	3448	P01570

### Tags

C-His

### Synonyms

Interferon alpha-14; IFN-alpha-14;  
Interferon alpha-H; LeIF H; Interferon  
lambda-2-H , IFNA14

## Product Information

Source	Purification
HEK293 cells	≥ 95 % as determined by SDS-PAGE.

### Endotoxin

< 0.01 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 stabilizer (e.g. 0.1% BSA, 5% HSA,  
10% FBS or 5% Trehalose), and aliquot  
the reconstituted protein solution to  
minimize free-thaw cycles.

## Contact



[www.abclonal.com](http://www.abclonal.com)

## 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. The extracellular domain (ECD) of mature human IFNA14, shares 58% aa sequence identity with mouse IFNA14. 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 IFNA14 has been shown to be a strong inducer of IFN-stimulated genes and anti-viral protection. IFNA14 has been shown to be potent against HIV-1 by up-regulating the transcription of two intrinsic restriction factors with well-established anti-HIV-1 activity, MX2 and tetherin.

## Basic Information

### Description

Recombinant Human IFN-alpha H2/IFNA14 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Cys24-Asp189) of Human IFN-alpha H2/IFNA14 (Accession #NP\_002163.2) fused with a His tag at the C-terminus.

### Bio-Activity

Measured in a cell cytotoxicity assay using TF-1 cells. The ED<sub>50</sub> for this effect is 0.47 ± 1.88 ng/mL, corresponding to a specific activity of 5.32 × 10<sup>6</sup> - 2.13 × 10<sup>6</sup> units/mg.

### Shipping

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

### Operational Notes

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

### Storage

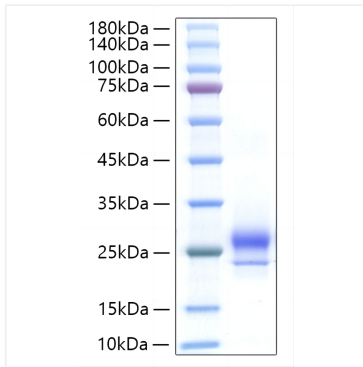
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

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

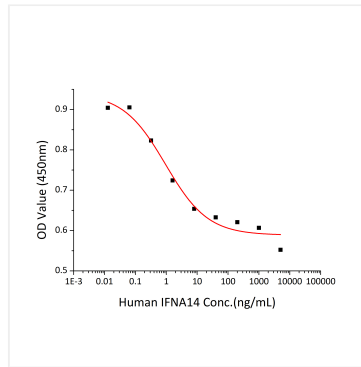
Avoid repeated freeze/thaw cycles.

\* For your safety and health, please wear a lab coat and disposable gloves when handling.

## Validation Data



Recombinant Human IFN-alpha H2/IFNA14 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human IFN-alpha H2/IFNA14 was measured in a cell cytotoxicity assay using TF-1 cells. The ED<sub>50</sub> for this effect is 0.47 ± 1.88 ng/mL, corresponding to a specific activity of 5.32 × 10<sup>5</sup> ~ 2.13 × 10<sup>6</sup> units/mg.