

## Interferon Alpha Active Protein | IFNa active protein

Active Interferon Alpha (IFNa)

CATALOG #  
**AAA150049**

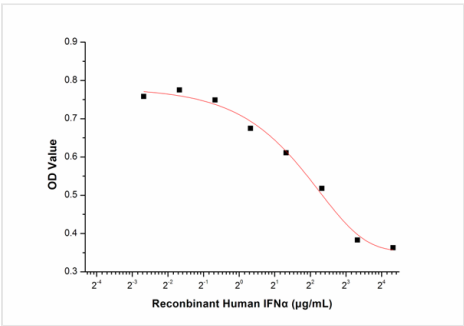
APPLICATIONS  
**Activity Assay, Cell Culture**

### PRODUCT SYNONYMS

Interferon Alpha; Active Interferon Alpha (IFNa); IFNA1; IFL; LeIF D; IFN; IFN-Alpha; IFNA13; IFN-A; IFNAP22; IFN-Alpha 1b; Interferon Alpha 1b; Interferon; Leukocytic; Leukocyte; Interferon alpha-D; IFNa active protein

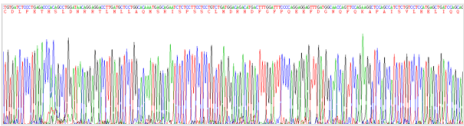
### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purity/Purification                             | >90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Form/Format                                     | Freeze-dried powder<br>20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.                                                                                                                                                                                                                                                                                                                                                            |
| Sequence Positions                              | Cys24~Leu181                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Sequence Length                                 | 189                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Applicable Applications for IFNa active protein | Activity Assay, Cell Culture                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Species                                         | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Tag                                             | N-terminal His and GST Tag                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Isoelectric Point                               | 5.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Reconstitution                                  | Reconstitute in 20mM Tris, 150mM NaCl (PH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.                                                                                                                                                                                                                                                                                                                                                                                     |
| Preparation and Storage                         | Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles.<br><br>Stability: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition. |



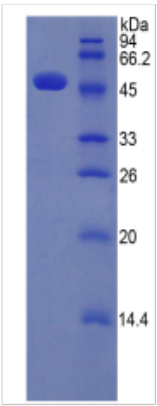
Bioactivity

Figure 2. Inhibition of A549 cells proliferation after stimulated with IFN-.



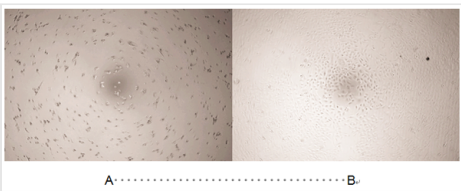
Gene Sequencing

Figure. Gene Sequencing (Extract)



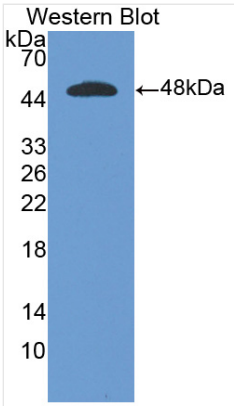
SDS-PAGE

Figure. SDS-PAGE



Application Data

Interferon-alpha (IFN-), also known as leukocyte interferon, represents a group of related but distinct proteins that share over 95% amino acid sequence homology. They are members of the type I interferon family which share a common cell surface receptor composed of two subunits. IFN- has both anti-viral and immunomodulatory activities on target cells. To test the effect of IFN- on cell apoptosis, A549 cells were seeded into 96-well plates at a density of 3,000 cells/well with 1% serum standard DMEM including various concentrations of recombinant human IFN-. After incubated for 48h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 uL of CCK-8 solution was added to each well of the plate, then the absorbance at 450 nm was measured using a microplate reader after incubating the plate for 2 hours at 37. Proliferation of A549 cells after incubation with IFN- for 48h observed by inverted microscope was shown in Figure 1. Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with recombinant human IFN- for 48h. The result was shown in Figure 2. It was obvious that IFN- significantly inhibit cell viability of A549 cells. The ED50 is 3.4 ug/mL.(A) A549 cells cultured in DMEM, stimulated with 10ug/mL IFN- for 48h;(B) Unstimulated A549 cells cultured in DMEM for 48h.



WB (Western Blot)

Figure. Western Blot; Sample: Recombinant Human, IFNα; Antibody: Rabbit Anti-IFNα Human Ab (PAA033Hu)

ADDITIONAL INFORMATION

Product Categories/Family for IFNα  
active protein

Cytokine; Infection immunity

NCBI AND UNIPROT INFORMATION

|                            |                                                                     |
|----------------------------|---------------------------------------------------------------------|
| NCBI GI #                  | 124455                                                              |
| UniProt Accession #        | P01562                                                              |
| Molecular Weight           | Predicted Molecular Mass: 48.2kDa<br>Accurate Molecular Mass: 48kDa |
| NCBI Official Full Name    | Interferon alpha-1/13                                               |
| UniProt Protein Name       | Interferon alpha-1/13                                               |
| UniProt Gene Name          | IFNA1                                                               |
| UniProt Synonym Gene Names | IFN-alpha-1/13; LeIF D                                              |
| UniProt Entry Name         | IFNA1_HUMAN                                                         |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/ifna-active-protein/interferon-alpha/150049>