

APA033Mu01 100µg
Active Interferon Alpha (IFNα)
Organism Species: *Mus musculus* (Mouse)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

12th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Cys24~Lys189

Tags: N-terminal His and GST Tag

Purity: >95%

Traits: Freeze-dried powder

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 5% Trehalose.

Original Concentration: 200µg/mL

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 9.1

Predicted Molecular Mass: 47.8kDa

Accurate Molecular Mass: 48kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

Stability Test: 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°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.

[SEQUENCE]

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          CDLPQTH NLRNKRALTL LVQMRRLSPL
SCLKDRKDFG FPQEKVDAQQ IKKAQAIPVL SELTQQILNI FTSKDSSAAW
NTTLLDSFCN DLHQQLNDLQ GCLMQQVGVO EFPLTQEDAL LAVRKYFHRI
TVYLREKKHS PCAWEVVRAE VWRALSSSAN VLGRLREEK
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[ACTIVITY]

Interferon-alpha (IFNa), 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- α has both anti-viral and immunomodulatory activities on target cells. To test the effect of IFNa on cell apoptosis, A549 cells were seeded into triplicate wells of 96-well plates at a density of 4,000 cells/well and allowed to attach overnight, then the medium was replaced with various concentrations of recombinant mouse IFNa diluted with 5% serum standard DMEM. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 μ l 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 1-4 hours at 37 °C. Apoptosis of A549 cells after incubation with IFNa for 72h 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 mouse IFN α for 72h. The result was shown in Figure 2. It was obvious that IFN α significantly decreased cell viability of A549 cells. The ED50 of recombinant mouse IFN α is 0.65 μ g/ml.

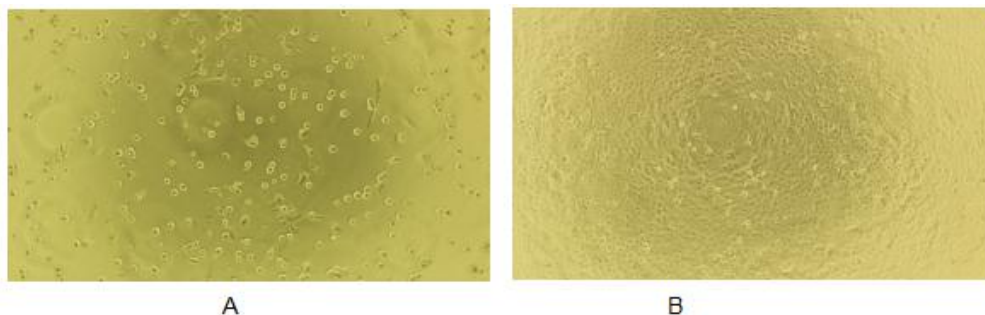


Figure 1. Inhibition of A549 cells proliferation after stimulated with recombinant mouse IFN α

(A) A549 cells cultured in DMEM, stimulated with 0.625 μ g/mL IFN α for 72h;

(B) Unstimulated A549 cells cultured in DMEM for 72h.

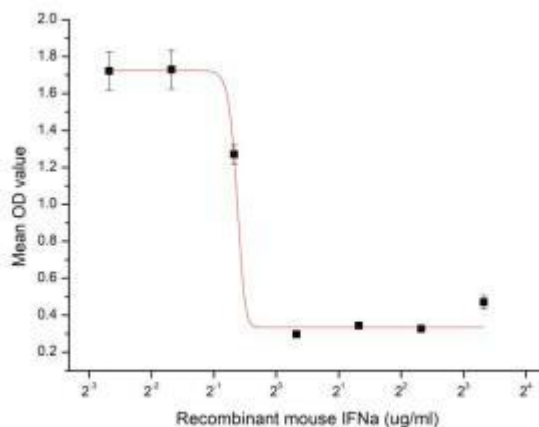


Figure 2. Inhibition of A549 cells proliferation after stimulated with recombinant mouse IFN- α .

[IDENTIFICATION]

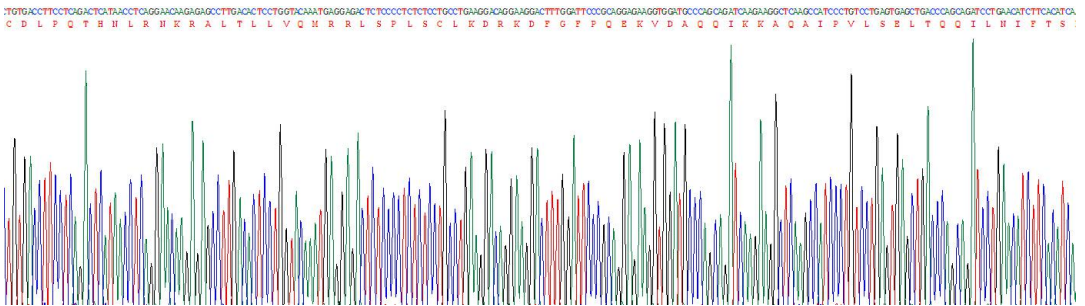


Figure 3. Gene Sequencing (extract)

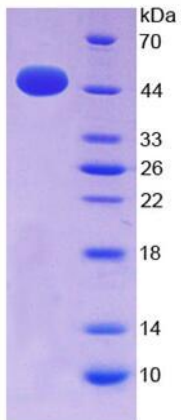


Figure 4. SDS-PAGE

Sample: Active recombinant IFNa, Mouse

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.