Active Interferon Alpha (IFNa) Instruction Manual

SBPA017Hu01

Homo sapiens (Human)

Buffer Formulation   PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.
Traits   Freeze-dried powder
Purity   > 90%
Isoelectric Point   5.8
Applications   Cell culture; Activity Assays.

ACTIVITY TEST

A···B

Interferon-alpha (IFN-α), 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 IFN-α 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-α. After incubated for 48h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 µL 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-α 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-α for 48h. The result was shown in Figure 2. It was obvious that IFN-α significantly inhibit cell viability of A549 cells. The ED50 is 3.4 µg/mL.
(A) A549 cells cultured in DMEM, stimulated with 10µg/mL IFN-α for 48h;
(B) Unstimulated A549 cells cultured in DMEM for 48h.
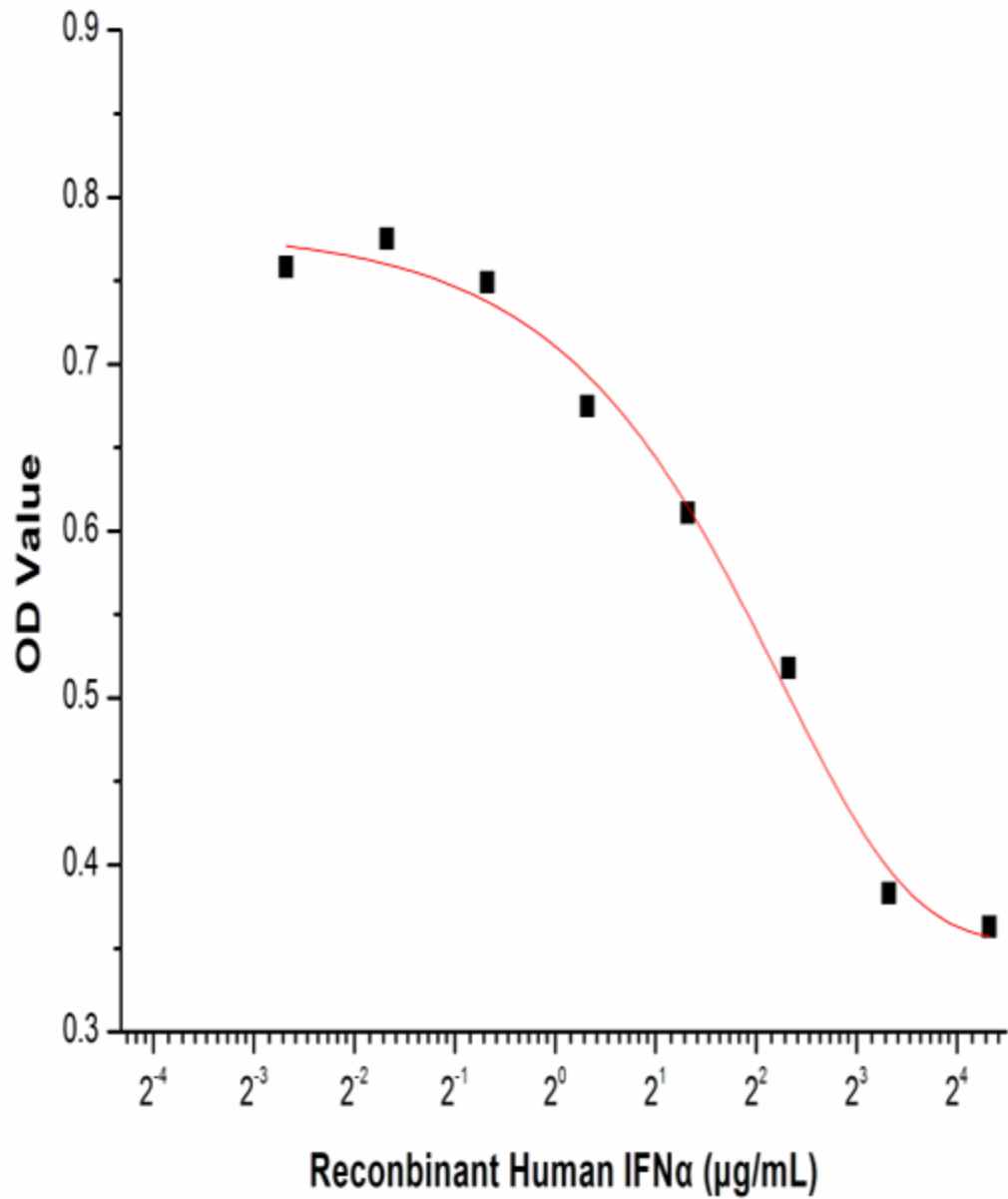Figure 1. Inhibition of A549 cells proliferation after stimulated with IFN-α

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

USAGE

Reconstitute in ddH$_2$O to a concentration of 0.1-0.5 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

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°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.
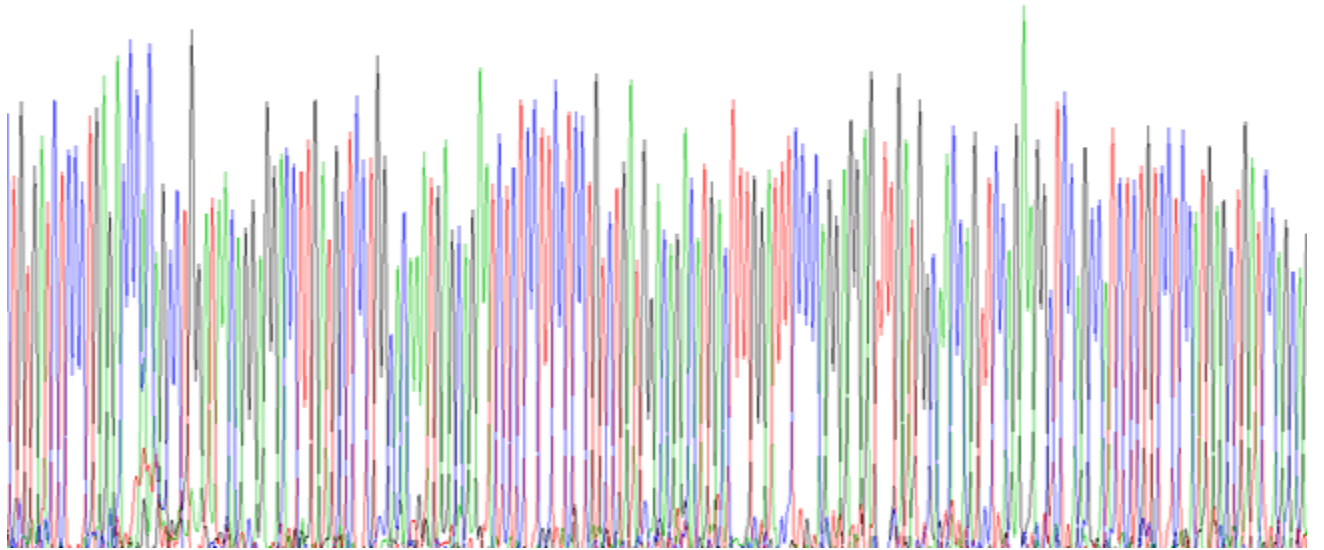
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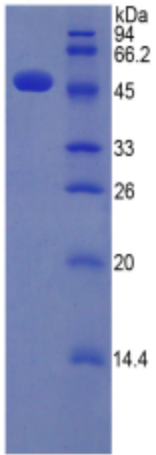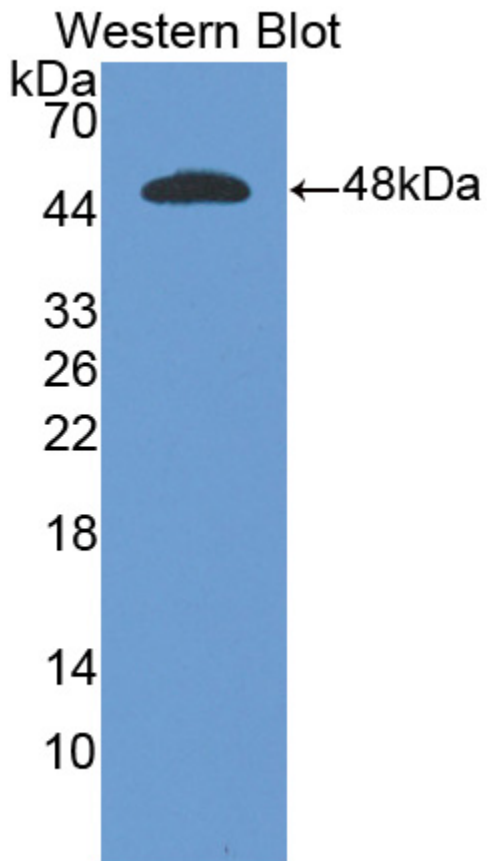Figure. Gene Sequencing (Extract)

Image

Figure. SDS-PAGE

Sample: Recombinant Human, IFNa;
Antibody: Rabbit Anti-IFNa Human Ab (PAA033Hu)
Figure 5. Western Blot

[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.