

Active Interferon Alpha (IFNa) Instruction Manual

SBPA017Ra01

Rattus norvegicus (Rat)

Buffer Formulation

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

Traits

Freeze-dried powder

Purity

> 97%

Isoelectric Point

8.3

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

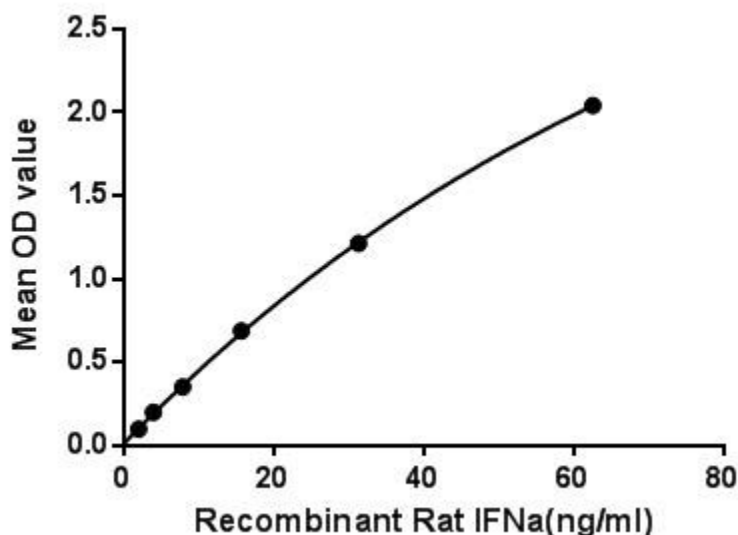


Figure. The binding activity of IFNa with IFNa/bR1.

Interferon Alpha (IFNa) belongs to a large subgroup of interferon proteins that help regulate the activity of the immune system. The IFNa proteins are produced by leukocytes. They are mainly involved in innate immune response against viral infection. It is also made synthetically as medication in hairy cell leukemia. Besides, Interferon Alpha/Beta Receptor 1 (IFNa/bR1) has been identified as an interactor of IFNa, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat IFNa and recombinant rat IFNa/bR1. Briefly, IFNa were diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to IFNa/bR1-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and

incubated for 1h with anti-IFN α pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 μ L stop solution to the wells and read at 450nm immediately. The binding activity of IFN α and IFN α /bR1 was shown in Figure 1, and this effect was in a dose dependent manner.

USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 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.

Image

TGTGACTGCTCATACTATAAAGCTAGGACAGGAGACTTTCAGACTCTGACACAAATGAGGAGACTCTCCCTGTCATGCTGAGGACAGAACTTTGGGTTCCCTTGGAGAGTGGATGCGAGGAGATCCAGAGAGCTCAGCTATCCCTGCTCAGTGAAGCTGACCCG
C D L P H T H N L R N K R V F T L L A Q M R R L S P V S C L K D R K Y F G F P L E K V D G Q Q I Q K A Q A I P V L H E L T Q Q

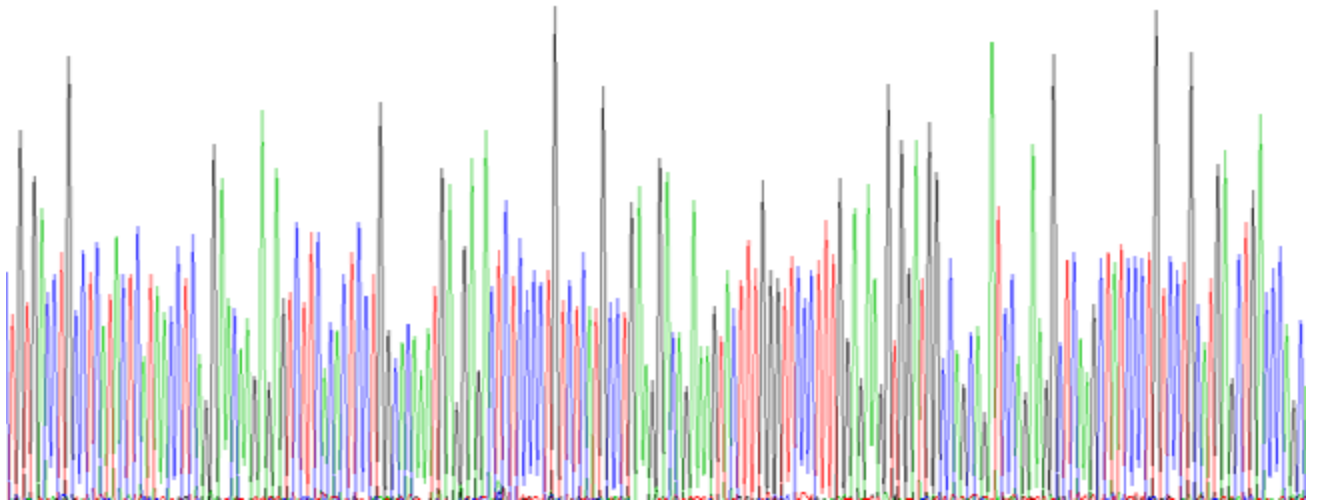


Figure. Gene Sequencing (Extract)

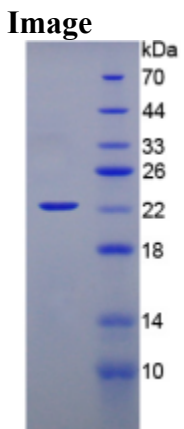


Figure. SDS-PAGE

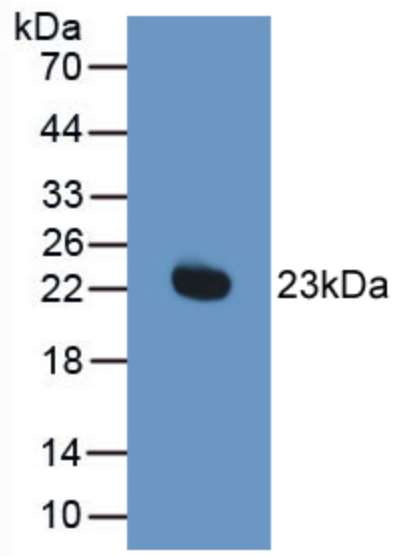


Figure. Western Blot

[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.