APA179Hu01 100μg
Active Interferon Alpha 2 (IFNa2)
Organism Species: Homo sapiens (Human)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Cys24~Glu188
Tags: N-terminal His-tag
Purity: >95%
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 6.8
Predicted Molecular Mass: 23.0kDa
Accurate Molecular Mass: 23kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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 37ºC 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]

CDLPQTH SLGSRRTLML LAQMRKISLF
SCLKDRHDFG FPQEEFGNQF QKAETIPVLH EMIQQIFNLF STKDSSAAWD
ETLLDKFYTE LYQQLNDLEA CVIQGVGVTE TPLMKEDSIL AVRKYFQRIT
LYLKEKKYSP CAWEVVRAEI MRSFSLSTNL QESLRSKE

[ACTIVITY]

Interferon alpha-2 (IFNα2) is a cytokine belonging to the family of type I IFNs. In addition to their antiviral activity, IFNα2 also inhibit the proliferation of cells and regulate the activation of the immune system. Type I IFNs exert potent antitumor activity by several mechanisms such as inhibition of the proliferation of cancer cells, activation of the immune system which can eliminate tumor cells and increasing the antitumor activity of other antitumoral agents. Besides, Interferon Alpha/Beta Receptor 2 (IFNa/bR2) has been identified as an interactor of IFNα2, thus a binding ELISA assay was conducted to detect the interaction of recombinant human IFNα2 and recombinant human IFNa/bR2. Briefly, IFNα2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to IFNa/bR2-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-IFNα2 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℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of IFNα2 and IFNa/bR2. was shown in Figure 1, and this effect was in a dose dependent manner.

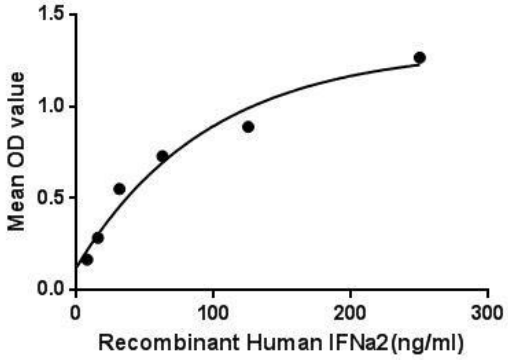

Figure 1. The binding activity of IFNα2 with IFNa/bR2.

[IDENTIFICATION]

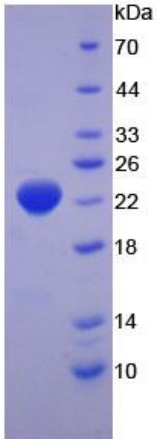

Figure 2. SDS-PAGE

Sample: Active recombinant IFNa2, Human

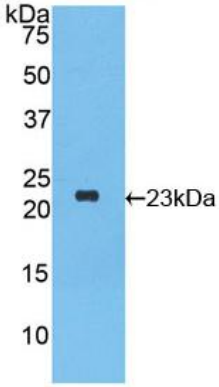

Figure 3. Western Blot

Sample: Recombinant IFNa2, Human;

Antibody: Rabbit Anti-Human IFNa2 Ab (PAA179Hu01)