

APB862Bo61 100µg

Active Interferon Tau (IFNt)

Organism Species: *Bos taurus*; Bovine (Cattle)

Instruction manual

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Eukaryotic expression.

Host: 293F cell

Residues: Cys24~Leu195

Tags: N-terminal His-tag

Purity: >90%

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

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

Original Concentration: 200µg/mL

Applications: Activity Assays.

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

Predicted isoelectric point: 5.7

Predicted Molecular Mass: 21.4kDa

Accurate Molecular Mass: 26kDa 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]

CYLSEDHMLGARENLRLLARMNRLSPHPCLQDRKDFGLPQEMVEGNQLQKDQAISVLHEML
QQCFNFLFYTEHSSAAWNTTLLEQLCTGLQQQLLEDLDACLGPVMGEKSDSMGRMGPIITVKK
YFQGIHVYLKEKEYSDCAWEIIRVEMMRALSSSTTLQKRLRKMGGDLNSL

[ACTIVITY]

Interferon tau (IFN- τ), a ruminant-specific type-I interferon secreted by conceptus trophectoderm, serves as the core signal for maternal pregnancy recognition. It triggers JAK-STAT cascades to exert immunomodulatory, antiproliferative and antiviral bioactivities. Beyond canonical receptor engagement, IFN- τ exhibits direct physical-binding activity toward 3-Mercaptopyruvate Sulfurtransferase (MST).

Thus a functional ELISA assay was conducted to detect the interaction of recombinant IFN- τ and recombinant MST. Briefly, IFN- τ was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ L were then transferred to MST-coated microtiter wells and incubated for 1h at 37 °C . Wells were washed with PBST and incubated for 1h with anti-IFN- τ pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 °C , wells were aspirated and washed 5 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 450/630nm immediately. The binding activity of recombinant IFN- τ and recombinant MST was shown in Figure 1, the EC50 for this effect is 0.426 μ g/mL.

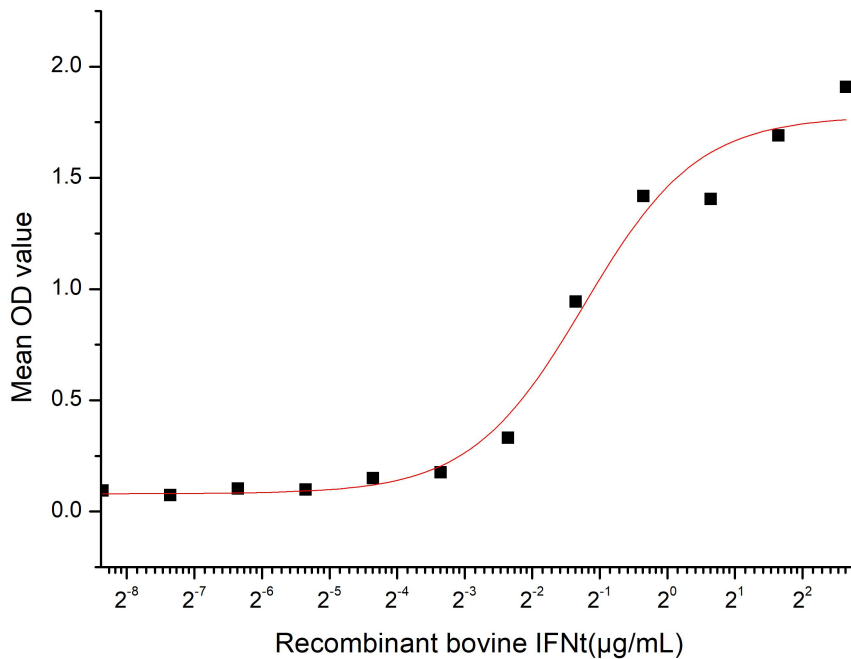


Figure 1. The binding activity of recombinant IFN- τ and MST

[IDENTIFICATION]

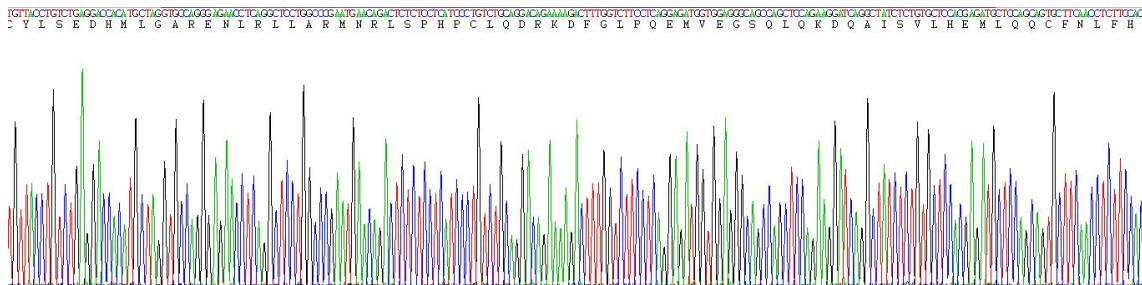


Figure 2. Gene Sequencing (extract)

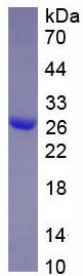


Figure 3. SDS-PAGE

Sample: Active recombinant IFNt, Cattle

[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.