

**APA049Hu61 100µg**  
**Active Interferon Gamma (IFNγ)**  
**Organism Species: Homo sapiens (Human)**  
***Instruction manual***

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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1th Edition (Apr, 2016)

## **[ PROPERTIES ]**

**Source:** Eukaryotic expression.

**Host:** 293F cell

**Residues:** Gln24~Gln166

**Tags:** N-terminal His-tag

**Purity:** >95%

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

**Buffer Formulation:** 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5% trehalose, and Proclin300.

**Predicted isoelectric point:** 9.7

**Predicted Molecular Mass:** 18.4kDa

**Accurate Molecular Mass:** 22&25kDa as determined by SDS-PAGE reducing conditions.

**Applications:** Cell culture; Activity Assays; In vivo assays.

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

## **[ 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 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.

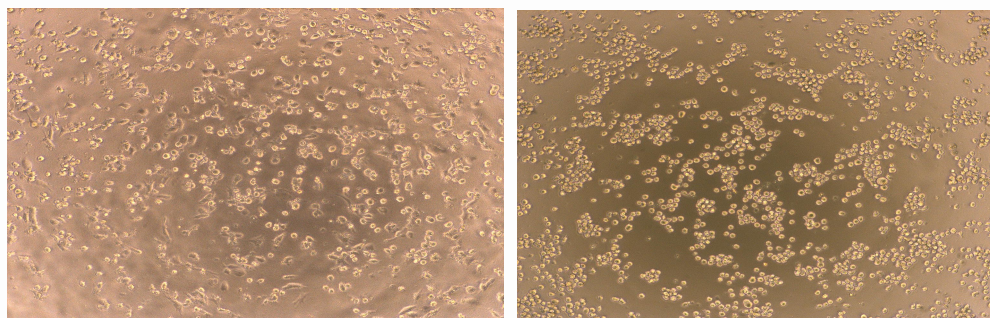
## [ **SEQUENCE** ]

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QDPYVKE AENLKKYFNA GHSDVADNGT  
LFLGILKNWK EESDRKIMQS QIVSFYFKLF KNFKDDQSIQ KSVETIKEDM  
NVKFFNSNKK KRDDFEKLTN YSVTDLNVQR KAIHELIVQM AELSPAATG  
KRKRSQMLFR GRRASQ
```

## [ **ACTIVITY** ]

IFN- $\gamma$  is a dimerized soluble cytokine that is the only member of the type II class of interferons. The importance of IFN  $\gamma$  in the immune system stems in part from its ability to inhibit viral replication directly, and most importantly from its immunostimulatory and immunomodulatory effects. As reported, IFN  $\gamma$  is an important activator of human monocytic THP1 cells. Therefore, THP-1 cells were incubated in RPMI 1640 with various concentration of IFN- $\gamma$ , then cells were observed by inverted microscope everyday. After stimulated with IFN- $\gamma$  (5 ng/ml) for 5 days, morphological changes occurred in THP1 cells which displayed the shape of fusiform or polygon and were more likely to adhere.

Effect of IFN- $\gamma$  on THP1 cells is shown in Figure 1.



A

B

**Figure 1. Effect of IFN- $\gamma$  on THP1 cells.**

(A) THP1 cells cultured in RPMI1640, stimulated with 5 ng/mL IFN- $\gamma$  for 5 days;

(B) Unstimulated THP1 cells cultured in RPMI1640 (negative control)

## [ IDENTIFICATION ]

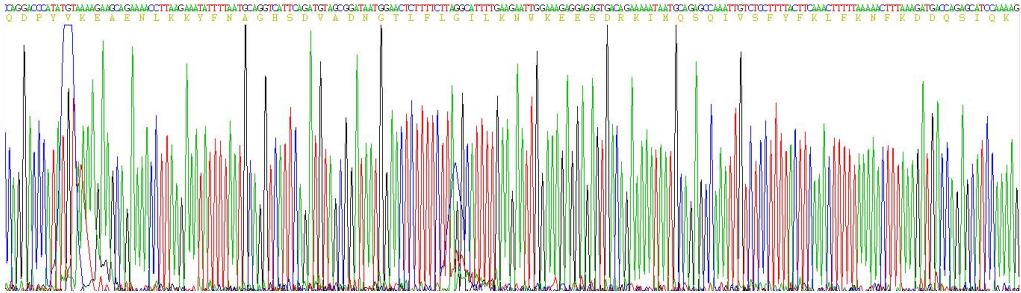


Figure 2. Gene Sequencing (extract)

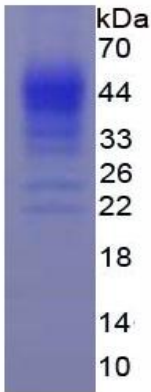
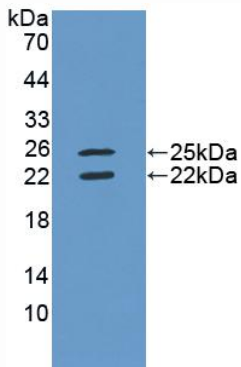


Figure 3. SDS-PAGE

Sample: Active recombinant IFN $\gamma$ , Human



**Figure 4. Western Blot****Sample: Recombinant IFNg, Human;****Antibody: Rabbit Anti-Human IFNg Ab (PAA049Hu06)**