

APA049Mu01 50µg
Active Interferon Gamma (IFN γ)
Organism Species: *Mus musculus* (Mouse)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: His23~Cys155

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, 0.01% sarcosyl, 5% trehalose, and Proclin300.

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

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

Predicted isoelectric point: 8.8

Predicted Molecular Mass: 16.8kDa

Accurate Molecular Mass: 17kDa 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 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**]

```
HGTVIESL ESLNNYFNSS GIDVEEKSLF
LDIWRNWQKD GDMKILQSQI ISFYLRLEFEV LKDNQAISNN ISVIESHLIT
TFFSNSKAKK DAFMSIAKFE VNNPQVQRQA FNELIRVVHQ LLPESLRKR
KRSRC
```

[**ACTIVITY**]

IFN- γ is an important activator of macrophages, it promotes production of inducible Nitric Oxide Synthase (iNOS) in macrophages. After stimulated with IFN- γ , morphological changes will occur in murine macrophage cell line (Raw 246.7 cells), and inducible nitric-oxide synthase (iNOS) in the cells will increase. Raw 246.7 cells were incubated in DMEM with IFN- γ (2ng/mL) for 24h, then cells were observed by inverted microscope and iNOS in cell lysates was detected by ELISA.

Effect of IFN- γ on morphological change of Raw 246.7 cells is shown in Figure 1.

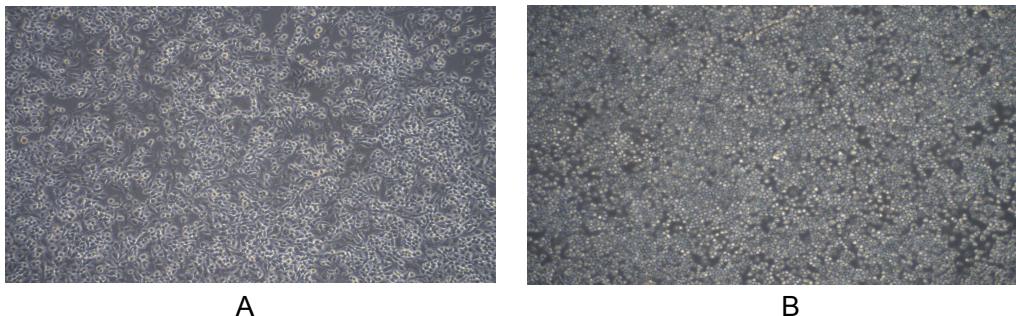


Figure 1. Morphological change of Raw 246.7 cells after stimulation of IFN γ .

(A) Raw 246.7 cells cultured in DMEM, stimulated with IFN γ ;

(B) Unstimulated Raw 246.7 cells cultured in DMEM (negative control).

Effect of IFN- γ on the expression of iNOS is shown in Table 1.

Table 1. ELISA detection of iNOS expression from RAW 246.7 cells stimulated by IFN γ

Sample (cell lysates of Raw 246.7 cells)	Concentration of iNOS (ng/mL)
Stimulated with IFN γ (2ng/mL)	16.25
Unstimulated	2.71

[IDENTIFICATION]

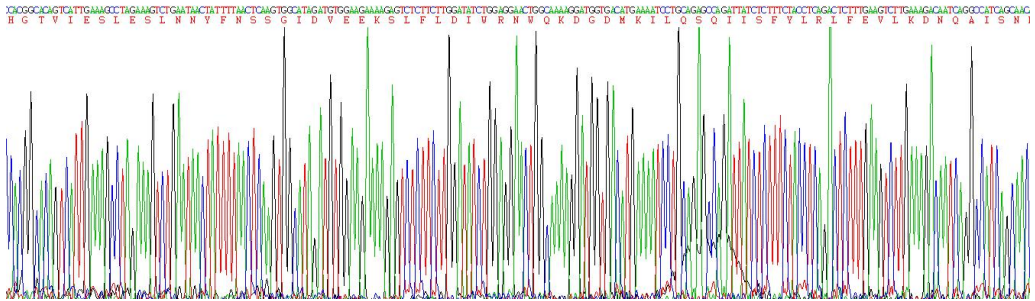


Figure 2. Gene Sequencing (extract)

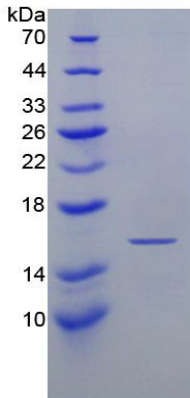


Figure 3. SDS-PAGE, Sample: Active recombinant IFN γ , Mouse

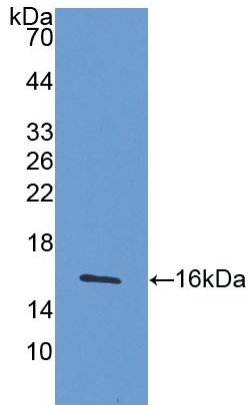


Figure 4. Western Blot

Sample: Recombinant IFNg, Mouse;

Antibody: Rabbit Anti-Mouse IFNg Ab (PAA049Mu01)

[IMPORTANT NOTE]

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.