

**APA064Mu01 100µg**

**Active Interleukin 18 (IL18)**

**Organism Species: Mus musculus (Mouse)**

***Instruction manual***

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

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1th Edition (Apr, 2016)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Asn36~Ser192

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

**Purity:** >92%

**Buffer Formulation:** 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.

**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:** 5.0

**Predicted Molecular Mass:** 19.4kDa

**Accurate Molecular Mass:** 19kDa 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 ]**

```
                                NFGRL HCTTAVIRNI  
NDQVLFVDKR QPVFEDMTDI DQSASEPQTR LIIYMYKDSE VRGLAVTLVS  
KDSKMSTLSC KNKIISFEEM DPPENIDDIQ SDLIFFQKRV PGHNKMEFES  
SLYEGHFLAC QKEDDAFKLI LKKKDENGDK SVMFTLTNLH QS
```

## **[ ACTIVITY ]**

IL18 (interleukin 18) is a cytokine that shares similarities in structure with IL1, and is produced by macrophages and other cells. IL18 has been reported to stimulate T cells proliferation and NK cell activity, besides, murine IL18 has been found to enhance the production of INF $\gamma$  in spleen cells in vitro. Thus, a stimulation assay was conducted to detect the activity of IL18 using murine spleen cells. Briefly, murine spleen cells were seeded into wells of 6-well plates at a density of  $2 \times 10^6$  cells/mL in RPMI-1640 with the addition of various concentrations of IL18. After incubation for 48 hours, the concentration of INF $\gamma$  in the cell supernatant was detected using an ELISA kit. INF $\gamma$  levels in the cell supernatant of spleen cells increased significantly after stimulated with IL18, the data was shown in Figure 1.

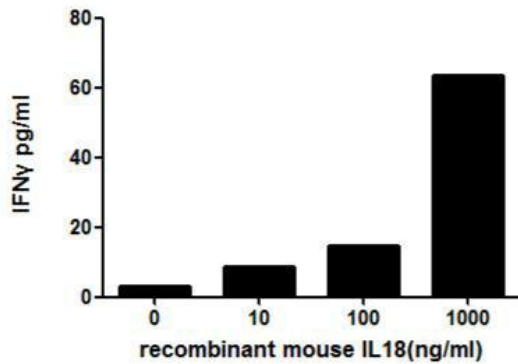


Figure 1. IFN $\gamma$  concentration in the cell supernatant of murine spleen cells up-regulated by IL18

[ IDENTIFICATION ]

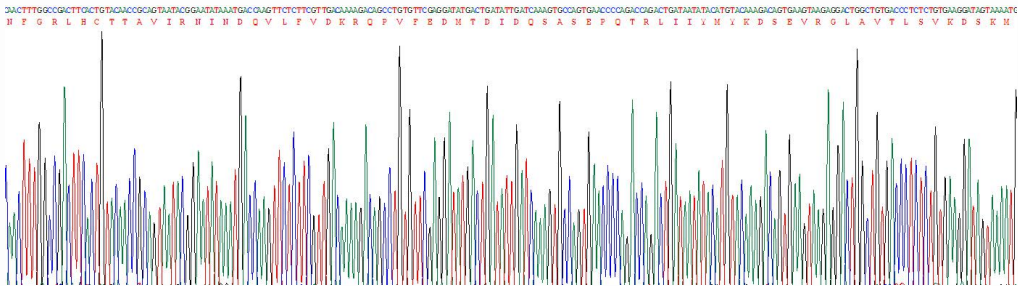


Figure 2. Gene Sequencing (extract)

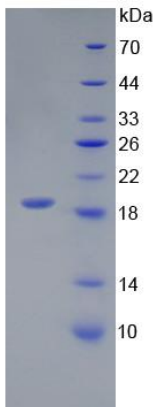
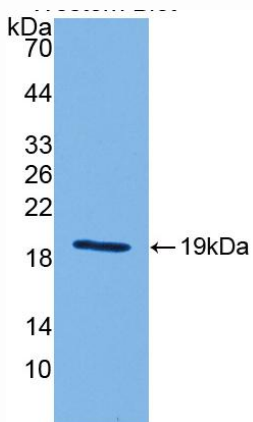


Figure 3. SDS-PAGE

Sample: Active recombinant IL18, Mouse



**Figure 4. Western Blot**

**Sample: Recombinant IL18, Mouse;**

**Antibody: Rabbit Anti-Mouse IL18 Ab (PAA064Mu01)**