

**APA064Hu01 10µg**

**Active Interleukin 18 (IL18)**

**Organism Species: *Homo sapiens* (Human)**

***Instruction manual***

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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1st Edition (Apr, 2016)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Tyr37~Asp193

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

**Purity:** >92%

**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.

**Applications:** Cell culture; Activity Assays.

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

**Predicted isoelectric point:** 5.8

**Predicted Molecular Mass:** 19.5kDa

**Accurate Molecular Mass:** 18kDa 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 ]**

YFGK LESKLSVIRN  
LNDQVLFIDQ GNRPLFEDMT DSDCRDNAPR TIFIISMYKD SQPRGMAVTI  
SVKCEKISTL SCENKIISFK EMNPPDNIKD TKSDIIFFQR SVPGHDKMQ  
FESSYEGYF LACEKERDLF KLILKKEDEL GDRSIMFTVQ NED

## **[ ACTIVITY ]**

Interleukin-18 (IL18, also known as interferon-gamma inducing factor) is a proinflammatory cytokine that belongs to the IL-1 superfamily and is produced by macrophages and other cells. IL18 works by binding to the interleukin-18 receptor, and together with IL-12 it induces cell-mediated immunity following infection with microbial products like lipopolysaccharide (LPS). Besides, Caspase 1 (CASP1) has been identified as an interactor of IL18, thus a binding ELISA assay was conducted to detect the interaction of recombinant human IL18 and recombinant human CASP1. Briefly, IL18 were diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to CASP1-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-IL18 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°C. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of IL18 and CASP1 was shown in Figure 1, and this effect was in a dose dependent manner.

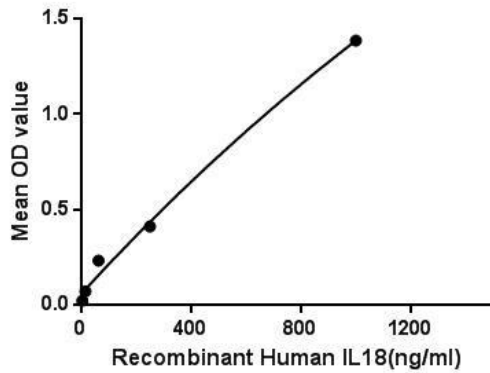


Figure 1. The binding activity of IL18 with CASP1.

## [ IDENTIFICATION ]

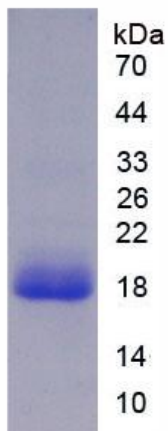
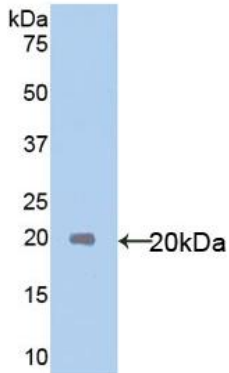


Figure 2. SDS-PAGE

Sample: Active recombinant IL18, Human



**Figure 3. Western Blot**

**Sample: Recombinant IL18, Human;**

**Antibody: Rabbit Anti-Human IL18 Ab (PAA064Hu01)**

### **[ 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.