

**APE842Hu02 100µg**

**Active Interleukin 1 Zeta (IL1z)**

**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:** Val46~Asp218

**Tags:** N-terminal His Tag

**Purity:** >95%

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

**Buffer Formulation:** PBS, pH7.4, containing 0.01% SKL, 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:** 8.9

**Predicted Molecular Mass:** 23.0kDa

**Accurate Molecular Mass:** 23kDa 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.

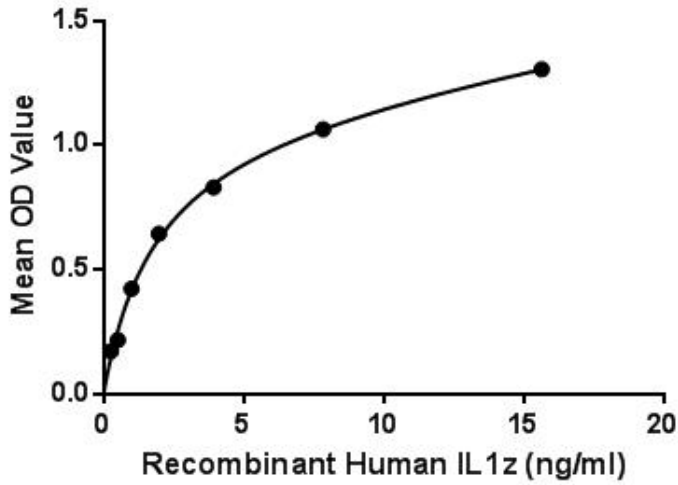
## [ SEQUENCE ]

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VHTSP KVKNLNPKKF  
SIHQDQHKVL VLDSGNLIAV PDKNYIRPEI FFALASSLSS ASAEKGSPIL LGVSKGEFCL  
YCDKDKGQSH PSLQLKKEKL MKLAAQKESA RRPFI FYRAQ VGSWNMLESA AHPGWFICTS  
CNCNEPVGVT DKFENRKHIE FSFQPVCKAE MSPSEVSD
```

## [ ACTIVITY ]

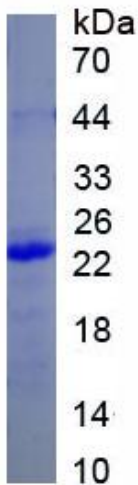
Interleukin 37, also known as Interleukin 1 Zeta (IL1z), is an anti-inflammatory cytokine. Interleukines are cytokines that make an important part of immune signaling. It belongs to the interleukin-1 family. IL-37 plays a role in protecting the body against endotoxin shock, ischemia-reperfusion injury, autoimmune diseases, and cardiovascular diseases. In addition, IL-37 has a potential antitumor effect. Besides, Interleukin 18 Receptor 1 (IL18R1) has been identified as an interactor of IL1z, thus a binding ELISA assay was conducted to detect the interaction of recombinant human IL1z and recombinant human IL18R1. Briefly, IL1z were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µl were then transferred to IL18R1-coated microtiter wells and incubated for 2h at 37 °C . Wells were washed with PBST and incubated for 1h with anti-IL1z 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 IL1z and IL18R1 was shown in Figure 1, and this effect was in a dose dependent

manner.



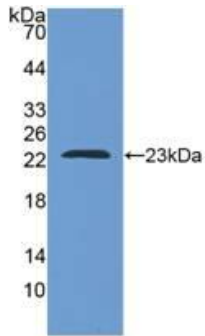
**Figure 1. The binding activity of IL1z with IL18R1**

## [ IDENTIFICATION ]



**Figure 2. SDS-PAGE**

**Sample: Active recombinant IL1z, Human**



**Figure 3. Western Blot**

**Sample: Recombinant IL1z, Human;**

**Antibody: Rabbit Anti- Human IL1z (PAE842Hu02)**

### **[ 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.