

**APA077Hu61 50µg**  
**Active Interleukin 4 (IL4)**  
**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:** Eukaryotic expression.

**Host:** 293F cell

**Residues:** His25~Ser153

**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.

**Original Concentration:** 50µg/mL

**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:** 9.3

**Predicted Molecular Mass:** 16.6kDa

**Accurate Molecular Mass:** 20kDa as determined by SDS-PAGE reducing conditions.

## **[ USAGE ]**

Reconstitute in ddH<sub>2</sub>O to a concentration of 0.1-0.5mg/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.

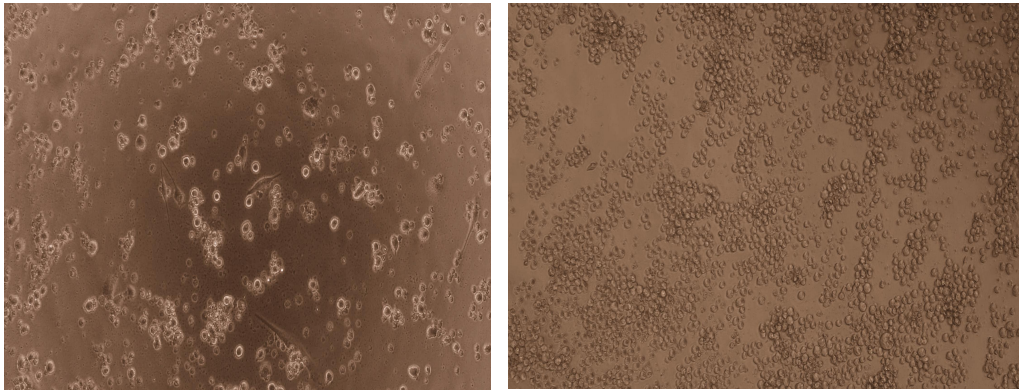
**Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

## [ SEQUENCE ]

```
HKCDIT LQEIIKTLNS LTEQKTLCTE  
LTVTDIFAAS KNTTEKETFC RAATVLRQFY SHHEKDTRCL GATAQQFHRH  
KQLIRFLKRL DRNLWGLAGL NSCPVKEANQ STLENFLERL KTIMREKYSK  
CSS
```

## [ ACTIVITY ]

Interleukin 4 (IL4) is a cytokine that induces differentiation of naive helper T cells (Th0 cells) to Th2 cells. It plays many biological roles, including the stimulation of activated B-cell and T-cell proliferation, and the differentiation of B cells and monocyte. As reported, IL-4 would induce the differentiation of THP-1 cells into dendritic cells and macrophages in vitro. THP-1 cells were cultured in RPMI-1640 and stimulated with 2ng/mL IL-4, after 7 days of stimulation, cell bodies enlarged with extending pseudopodia, and vesicular bodies appeared within the cells, which showed a morphological characteristics of dendritic cells and macrophages.



A

**Figure 1. Effect of IL4 on THP1 cells**

B

**(A) THP1 cells cultured in RPMI-1640, stimulated with IL-4;**

**(B) Unstimulated THP1 cells cultured in RPMI-1640**

# [ IDENTIFICATION ]

CACAG TGGATATCCCTTAGGAGATCCTAAACCTTGGAGGCTCCACAGAGCAGAGACTCTGTCGACGACCTGGAGCGTAAAGAGACTTTTCTCCCTCCGAGACACACCTGAGAGGAAACCTTCCAGGGCTGGGACTGTCTCCGGAGTCTCCAGCCACATGAGAGGACTTGCCTG  
H K C D I T L Q E I I K T L N S L T E Q K T L C T E L T V T D I F A A S K N T T E K E T F C R A A T V L R Q F Y S H H E K D T R C L

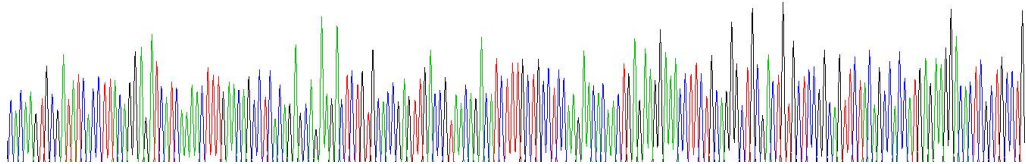


Figure 2. Gene Sequencing (extract)

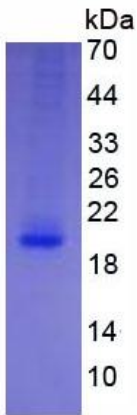


Figure 3. SDS-PAGE

Sample: Active recombinant IL4, Human

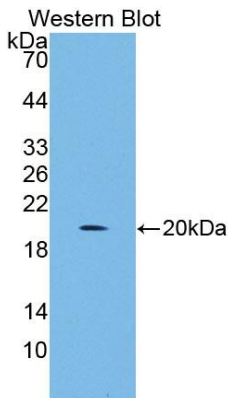


Figure 4. Western Blot

Sample: Recombinant IL4, Human;

Antibody: Rabbit Anti-Human IL4 Ab (PAA077Hu06)

**[ 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.