

**APA077Hu01 100µg**

**Active Interleukin 4 (IL4)**

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

***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:** His25~Ser153

**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, 1mM DTT, 0.01% sarcosyl, 5% trehalose, and Proclin300.

**Predicted isoelectric point:** 9.3

**Predicted Molecular Mass:** 16.6kDa

**Accurate Molecular Mass:** 17kDa as determined by SDS-PAGE reducing conditions.

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

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

## **[ 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.

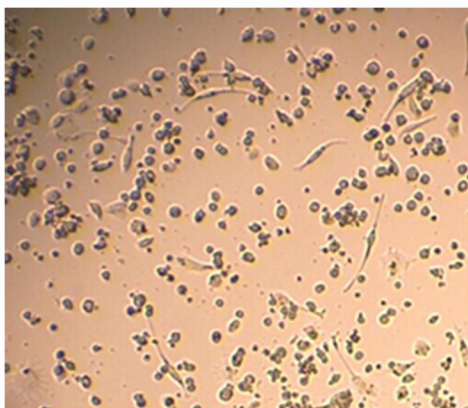
**Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration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

## [ SEQUENCE ]

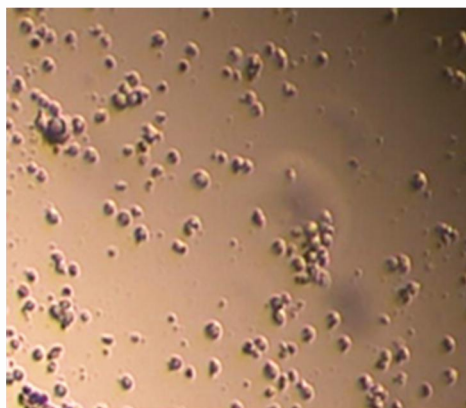
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HKCDIT LQEIIKTLNS LTEQKTLCTE  
LTVTDIFAAS KNTTEKETFC RAATVLRQFY SHHEKDTRCL GATAQQFHRH  
KQLIRFLKRL DRNLWGLAGL NSCPVKEANQ STLENFLERL KTIMREKYSK  
CSS
```

## [ ACTIVITY ]

As reported, IL-4 will 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 10 days of stimulation, partial cells became larger, grew synapses, and had vesicular bodies intracellular, which showed a morphological characteristics of dendritic cells and macrophages.



A



B

**Figure 1. Morphological change of THP-1 after stimulation of IL4.**

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

[ IDENTIFICATION ]

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

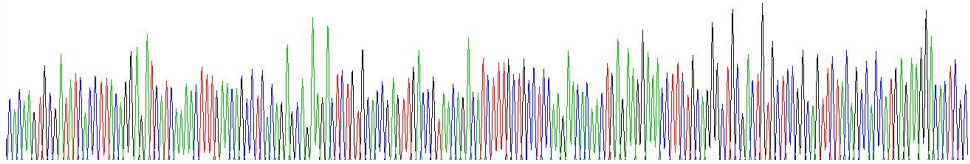


Figure 2. Gene Sequencing (extract)

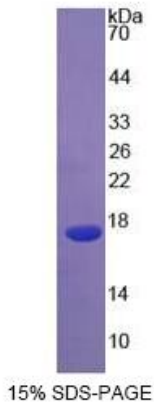


Figure 3. SDS-PAGE, Sample: Active recombinant IL4, Human

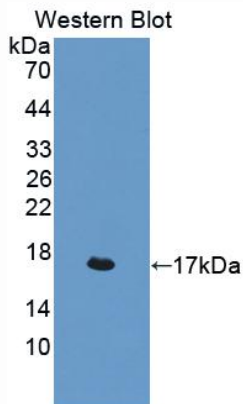


Figure 4. Western Blot, Sample: Recombinant IL4, Human;  
Antibody: Rabbit Anti-Human IL4 Ab (PAA077Hu01)