

**APA056Hu61 100µg**

**Active Interleukin 10 (IL10)**

**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:** Eukaryotic expression.

**Host:** 293F cell

**Residues:** Ser19~Asn178

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

**Purity:** >98%

**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:** 7.6

**Predicted Molecular Mass:** 20.3kDa

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

```
SP GQGTQSENSC THFPGNLPNM LRDLRDAFSR
VKTFFQMKDQ LDNLLLKESL LEDFKGYLGC QALSEMIQFY LEEVMPQAEN
QDPDIKAHVN SLGENLKTLR LRLRRCHRFL PCENKSKAVE QVKNAFNKLQ
EKGIYKAMSE FDIFINYIEA YMTMKIRN
```

## **[ ACTIVITY ]**

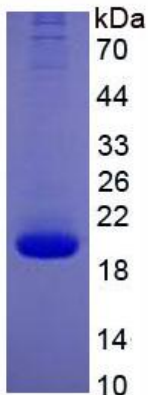
Interleukin 10 (IL-10), also known as human cytokine synthesis inhibitory factor (CSIF), is an anti-inflammatory cytokine. IL-10 was initially reported to suppress cytokine secretion, antigen presentation and CD4<sup>+</sup> T cell activation. Further investigation has shown that IL-10 predominantly inhibits lipopolysaccharide (LPS) mediated induction of the pro-inflammatory cytokines TNF $\alpha$ , IL-1 $\beta$ , IL-12, and IFN $\gamma$  made by cells such as macrophages and Th1 T cells. Therefore, THP1 cells were cultured in 24 well plates at a concentration of 10<sup>6</sup> cells/ml and activated by LPS (1 $\mu$ g/mL) in the absence or presence of IL-10 (5ng/mL, 10ng/mL) for 24h and production of IL-1 $\beta$  was determined in the supernatants by cytokine specific ELISA.

Activation of THP1 cells with LPS (1 $\mu$ g/mL) resulted in high levels of production of IL-1 $\beta$  and strong inhibitory effects of IL-10 (5ng/mL, 10ng/mL) were observed on the production of IL-1 $\beta$  as shown in Table 1.

**Table 1. Inhibitory effects of IL-10 on IL-1 $\beta$  production by THP1 cells**

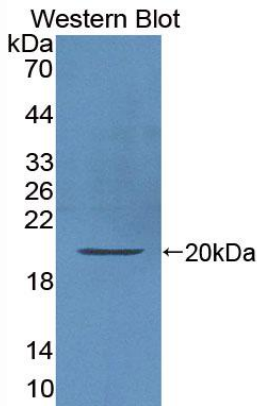
<b>Sample (cell supernatant of THP1 cells)</b>	<b>Concentration of IL-1<math>\beta</math> (ng/mL)</b>
Stimulated with LPS (1ug/mL) and IL-10 (5ng/mL)	<2.343
Stimulated with LPS (1ug/mL) and IL-10 (10ng/mL)	<2.343
Stimulated with LPS (1ug/mL)	19.9
Unstimulated	<2.343

**[ IDENTIFICATION ]**



**Figure 1. SDS-PAGE**

**Sample: Active recombinant IL10, Human**



**Figure 2. Western Blot**

**Sample: Recombinant IL10, Human;**

**Antibody: Rabbit Anti-Human IL10 Ab (PAA056Hu06)**