

**APA056Mu61 50µg**

**Active Interleukin 10 (IL10)**

**Organism Species: *Mus musculus* (Mouse)**

***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:** Ser19~Ser178

**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.

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

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

**Predicted isoelectric point:** 8.2

**Predicted Molecular Mass:** 20.4kDa

**Accurate Molecular Mass:** 22kDa 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

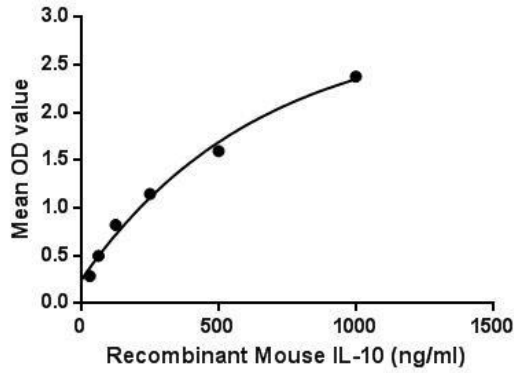
protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

## **[ SEQUENCE ]**

```
SR GQYSREDNNC THFPVGQSHM LLELRTAFSQ  
VKTFQTKDQ LDNILLTDSL MQDFKGYLGC QALSEMIQFY LVEVMPQAEK  
HGPEIKEHLN SLGEKTKTLR MRLRRCHRFL PCENKSKAVE QVKSDFNKLQ  
DQGVYKAMNE FDIFINCIEA YMMIKMKS
```

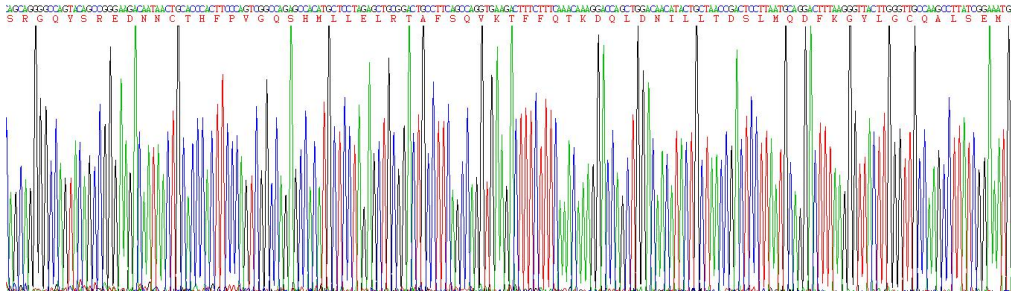
## **[ ACTIVITY ]**

Interleukin 10 (IL-10), also known as human cytokine synthesis inhibitory factor (CSIF), is an anti-inflammatory cytokine. IL-10 is a cytokine with multiple, pleiotropic, effects in immunoregulation and inflammation. It downregulates the expression of Th1 cytokines, MHC class II antigens, and co-stimulatory molecules on macrophages. It also enhances B cell survival, proliferation, and antibody production. IL-10 can block NF- $\kappa$ B activity, and is involved in the regulation of the JAK-STAT signaling pathway. Besides, Interleukin 10 Receptor Alpha (IL10Ra) has been identified as an interactor of IL-10, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse IL-10 and recombinant mouse IL10Ra. Briefly, IL-10 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 $\mu$ L were then transferred to IL10Ra-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-IL-10 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 50 $\mu$ L stop solution to the wells and read at 450nm immediately. The binding activity of IL-10 and IL10Ra was shown in Figure 1, and this effect was in a dose dependent manner.

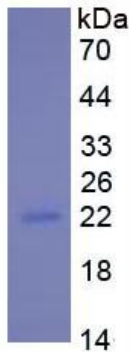


**Figure 1. The binding activity of IL-10 with IL10Ra.**

## [ IDENTIFICATION ]

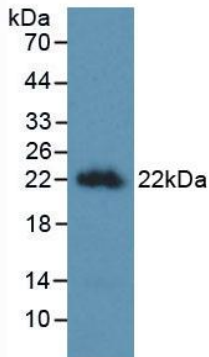


**Figure 2. Gene Sequencing (extract)**



**Figure 3. SDS-PAGE**

**Sample: Active recombinant IL10, Mouse**



**Figure 4. Western Blot**

**Sample: Recombinant IL10, Mouse;**

**Antibody: Rabbit Anti-Mouse IL10 Ab (PAA056Mu06)**

### **[ 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.