**APA563Mu01 100μg**
**Active Interleukin 1 Beta (IL1b)**
**Organism Species:** ***Mus musculus (Mouse)***
***Instruction manual***

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

## [ PROPERTIES ]

**Source:** Prokaryotic expression.
**Host:** *E. coli*
**Residues:** Val118~Ser269
**Tags:** Two N-terminal Tags, His-tag and GST-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:** 200μg/mL
**Applications:** Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
**Predicted isoelectric point:** 6.7
**Predicted Molecular Mass:** 46.6kDa
**Accurate Molecular Mass:** 46kDa 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 2-8ºC for one month.
Aliquot and store at -80ºC 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 37ºC 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 ]

VPI RQLHYRLRDE QQKSLVLSDP YELKALHLNG QNINQQVIFS MSFVQGEPSN DKIPVALGLK GKNLYLSCVM KDGTPTLQLE SVDPKQYPKK KMEKRFVFNK IEVKSKVEFE SAEFPNWYIS TSQAEHKPVF LGNNSGQDII DFTMESVSS

## [ ACTIVITY ]

Interleukin 1 beta (IL-1β) also known as leukocytic pyrogen, leukocytic endogenous mediator, mononuclear cell factor, lymphocyte activating factor and other names, is a member of the interleukin 1 family of cytokines. This cytokine is an important mediator of the inflammatory response, and is involved in a variety of cellular activities, including cell proliferation, differentiation, and apoptosis. It has been reported that IL-1β can induced IL-8 production in A549 cells. To test the bioactivity of IL-1β, A549 cells were seeded into 24-well plate at a density of $1x10^5$ cells/mL , and allowed to attach overnight before treated with certain concentrations of IL-1β for 24h and IL-8 levels in the cell supernatant were determined by ELISA. IL-8 levels in the cell supernatant of A549 cells increased significantly after stimulated with IL-1β have shown in Figure1.

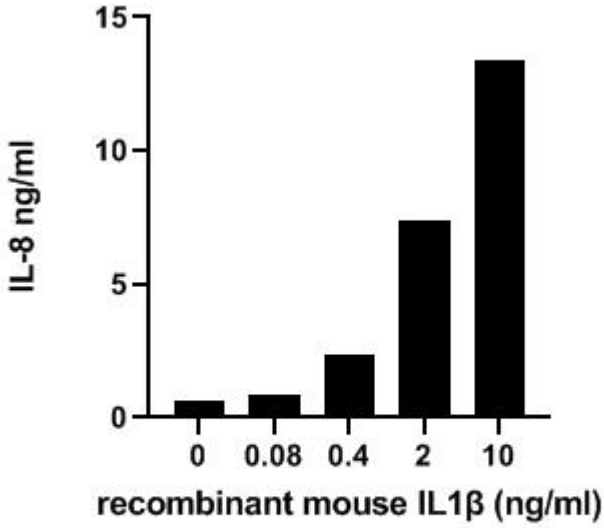


**Figure1. IL-8 levels in the cell supernatant of A549 induced by IL-1β**

## [ IDENTIFICATION ]

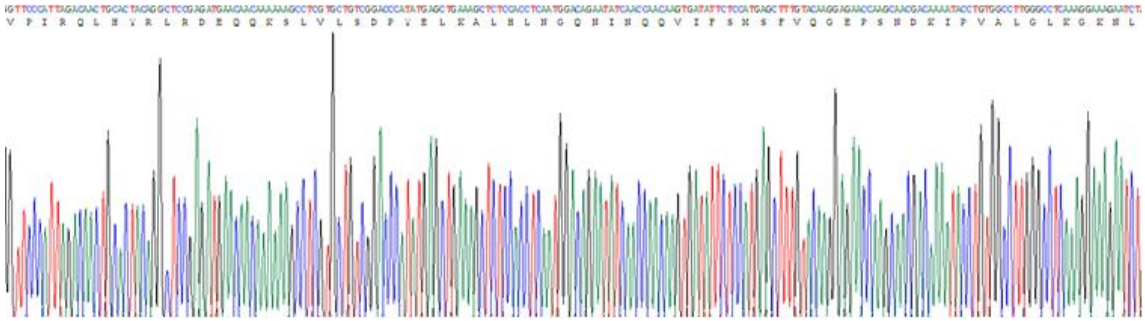

**Figure 2. Gene Sequencing (extract)**

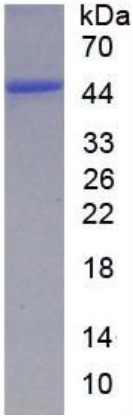


**Figure 3. SDS-PAGE**

**Sample: Active recombinant IL1b, Mouse**

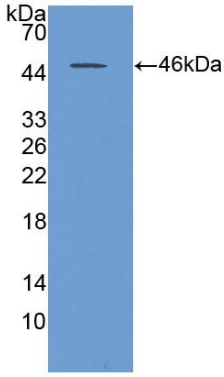


**Figure 4. Western Blot**

**Sample: Recombinant IL1b, Mouse;**

**Antibody: Rabbit Anti- Mouse IL1b Ab (PAA563Mu01)**

## [ 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.