

APA563Ra61 100µg

Active Interleukin 1 Beta (IL1b)

Organism Species: *Homo sapiens* (Human)

Instruction manual

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Eukaryotic expression.

Host: 293F cell

Residues: Val117~Ser268

Tags: N-terminal His-tag

Purity: >95%

Buffer Formulation: 10mM PBS, pH7.6, containing 5% trehalose.

Applications: Cell culture; Activity Assays.

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

Predicted isoelectric point: 8.4

Predicted Molecular Mass: 18.2kDa

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

[USAGE]

Reconstitute in 10mM PBS (pH7.6) 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]

```
VPIR QLHCRLRDEQ QKCLVLSDPC ELKALHLNGQ  
NISQQVVFMS SFVQGETSND KIPVALGLKG LNLYLSCVMK DGTPTLQLES  
VDPKQYPKKK MEKRFVFNKI EVKTKVEFES AQFPNWIYST SQAHRPVFL  
GNSNGRDIVD FTMEPVSS
```

[ACTIVITY]

Interleukin 1 beta (IL1b) 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. His cytokine is an important mediator of the inflammatory response, and is involved in a variety of cellular activities, including cell proliferation, differentiation, and apoptosis. The induction of cyclooxygenase-2 (PTGS2/COX2) by this cytokine in the central nervous system (CNS) is found to contribute to inflammatory pain hypersensitivity. Besides, Interleukin 1 Receptor Type I (IL1R1) has been identified as an interactor of IL1b, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat IL1b and recombinant rat IL1R1. Briefly, IL1b were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to IL1R1-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-IL1b 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 50µL stop solution to the wells and read at 450nm immediately. The binding activity of IL1b and IL1R1 was shown in Figure 1, and this effect was in a dose dependent manner.

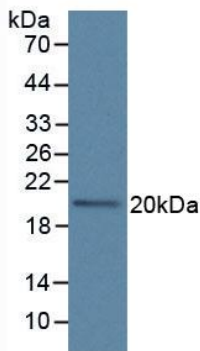


Figure 4. Western Blot

Sample: Recombinant IL1b, Human;

Antibody: Rabbit Anti-Human IL1b Ab (PAA563Ra06)

[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.