

APA563Hu61 10µg
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: Ala117~Ser269

Tags: N-terminal His-tag

Purity: >95%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: 10mM PBS, pH7.4, containing 5% trehalose.

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

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

Predicted isoelectric point: 5.9

Predicted Molecular Mass: 19.0kDa

Accurate Molecular Mass: 22kDa 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 2-8°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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APVR SLNCTLRDSQ QKSLVMSGPY ELKALHLQGG
DMEQQVVFSM SFVQGEESND KIPVALGLKE KNLYLSCVLK DDKPTLQLES
VDPKNYPKKK MEKRFVFNKI EINNKLFEFES AQFPNWIYST SQAENMPVFL
GGTKGGQDIT DFTMQFVSS
    
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[**ACTIVITY**]

Interleukin-1 beta belongs to the interleukin 1 cytokine family, which plays a critical role in inflammation, immunity, antiviral responses, and a variety of diseases. It has been reported that IL-1 β -induced IL-6 production is mediated by both PI3K and IRAK4 in A549 cells. To test the bioactivity of IL-1 β , A549 cells were seeded into 24-well plate at a density of 1x10⁵ cells/mL, and allowed to attach overnight before treated with or without certain concentrations (1ng/mL, 10ng/mL) of IL1- β for 4h and IL-6 levels in the cell supernatant were determined by ELISA.

Result: IL-6 levels in the cell supernatant of A549 cells increased significantly after stimulated with IL1- β , the data was shown in Table 1 and Figure 1.

Sample (cell supernatant of A549 cells)	O.D. value	Corrected	Concentration of IL-6 (ng/mL)
stimulated with IL-1 β (1ng/mL)	1.04	0.975	61.71
stimulated with IL-1 β (10ng/mL)	0.966	0.901	56.77
unstimulated	0.309	0.244	12.44

Table 1. IL-6 levels in the cell supernatant of A549 cells up-regulated by IL1- β .

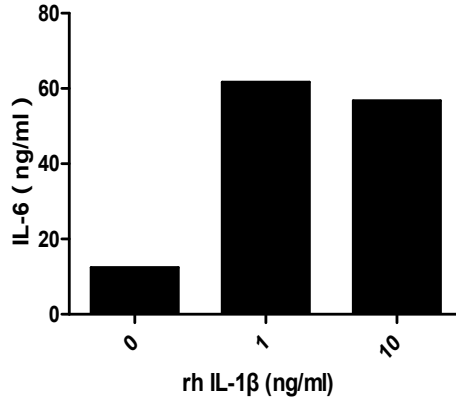


Figure 1. IL-6 levels in the cell supernatant of A549 cells up-regulated by IL1- β .

[IDENTIFICATION]

YQAGCIGTDCGATGCTGACMCCTGGCGCTTGGGACTGGAGCAAGAGCTGGTGGATGTGTGTCATATGACGTGAMGCTCTGGGCTGGAGGGACAGGATATGGAGCAAGAGTGGTGTCTGGATGCTCTTGTGAGGAGAGGAGGTATGACAAATACTGTGGCCCTGGGGCTCAGGAGAGAGAT
 A P V R S L N C T L R D S Q Q K S L V H S G P Y E L K A L B L I Q G Q D N E Q Q V V F S H S F V O G E E S K D K I P V A L G L K E K R

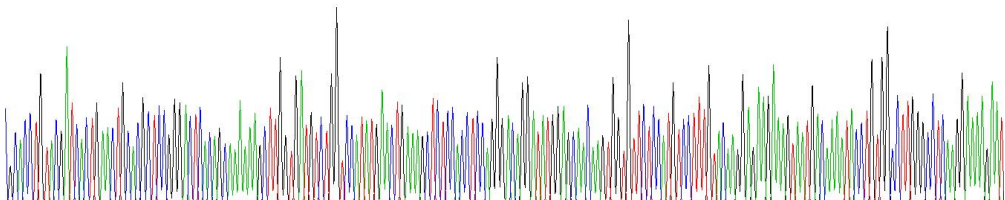


Figure 2. Gene Sequencing (extract)

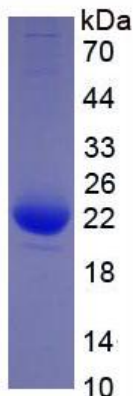


Figure 3. SDS-PAGE

Sample: Active recombinant IL1b, Human

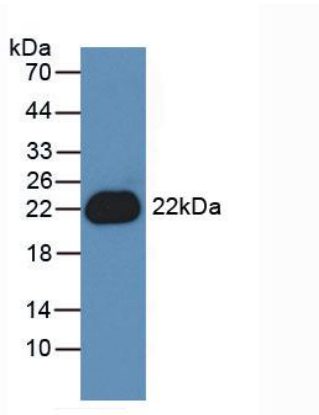


Figure 4. Western Blot

Sample: Recombinant IL1b, Human;

Antibody: Rabbit Anti-Human IL1b Ab (PAA563Hu06)

[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.