

APA563Ov01 100µg
Active Interleukin 1 Beta (IL1b)
Organism Species: *Ovis aries*; *Ovine* (Sheep)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

12th Edition (Revised in Aug, 2016)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Met1~Pro266

Tags: N-terminal His-tag

Purity: >97%

Traits: Freeze-dried powder

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: 5.0

Predicted Molecular Mass: 34.4kDa

Accurate Molecular Mass: 35kDa 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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MATVPEPINE VMAYYSDENE LLFEVDGPKQ MKSCTQHLDL GSMGDGNIQL  
QISHQLYNKS FRQVSVIVA MEKLRSDRAYE HVFRDDDLRS ILSFIFEEEP  
VIFETSSDEL LCDAAVQSVK CKLQDREQKS LVLDSPCVLK ALHLPSQEMS  
REVVFCMSFV QGEERDNKIP VALGIRDKNL YLSCVKKGDT PTLQLEEVDP  
KVYPKRNMEK RFVFKTEIK NTVEFESVLY PNWYISTSQI EEKPVFLGRF  
RGGQDITDFR METLSP
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[ACTIVITY]

Interleukin 1 beta (IL-1 β) 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-1 β can induced IL-8 production in A549 cells. To test the bioactivity of recombinant sheep 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 certain concentrations of recombinant sheep IL-1 β for 48h and IL-8 levels in the cell supernatant were determined by ELISA (SEA080Hu). IL-8 levels in the cell supernatant of A549 cells increased significantly after stimulated with IL-1 β which was shown in Figure1, the EC₅₀ was 6.47ug/ml.

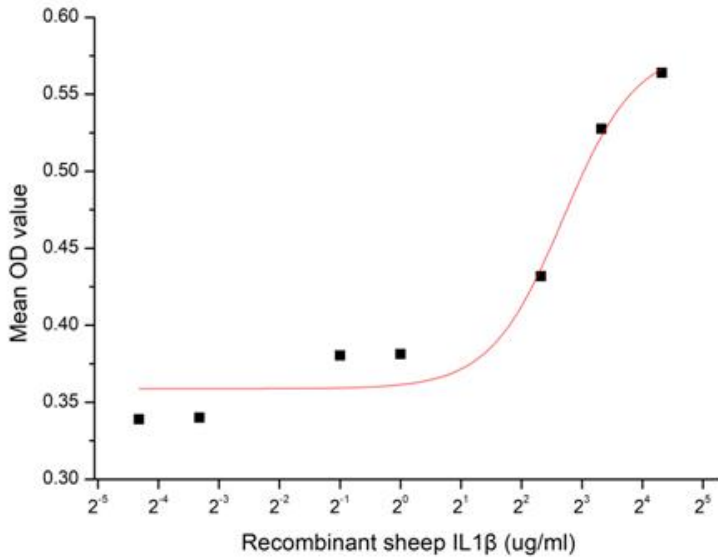


Figure1. IL-8 levels in the cell supernatant of A549 induced by recombinant sheep IL-1β

[IDENTIFICATION]

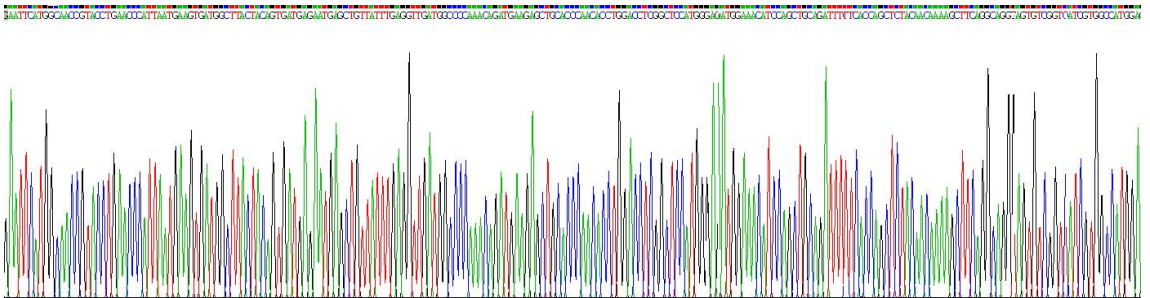


Figure 2. Gene Sequencing (extract)

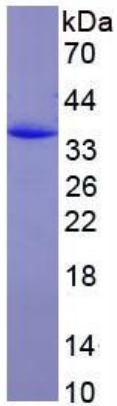


Figure 3. SDS-PAGE

Sample: Active recombinant IL1b, Sheep

[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.