

APA073Hu61 50µg

Active Interleukin 2 (IL2)

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: Ala21~Thr153

Tags: N-terminal His-tag

Purity: >95%

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: 7.1

Predicted Molecular Mass: 17.0kDa

Accurate Molecular Mass: 18kDa 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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          APTSSSTKKT QLQLEHLLLD LQMILNGINN  
YKNPKLTRML TFKFYMPKKA TELKHLQCLE EELKPLEEVL NLAQSKNFHL  
RPRDLISNIN VIVLELKGSE TTFMCEYADE TATIVEFLNR WITFCQSIIS  
TLT
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[ACTIVITY]

IL2 (Interleukin-2) is a cytokine produced by T-cells in response to antigenic or mitogenic stimulation. IL2 is a type of signaling molecule in the immune system, that is required for both T-cell and B-cell proliferation and other activities crucial to regulation of the immune response. Recombinant human IL2 shares 56% AA sequence identity with mouse IL2, suggesting the exist of cross-species activity. Therefore, in order to detect the bioactivity of rhIL2, a cell proliferation assay has been conducted using CTLL-2 mouse cytotoxic T cells. Briefly, CTLL-2 cells were seeded into triplicate wells of 96-well plates at a density of 5,000 cells/well with or without the addition of various concentrations of IL2. After incubated for 48h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). 10 μ L of CCK-8 solution was added to each well of the plate, the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37°C. Proliferation of CTLL-2 cells after incubation with IL2 for 48h observed by inverted microscope was shown in Figure 1.

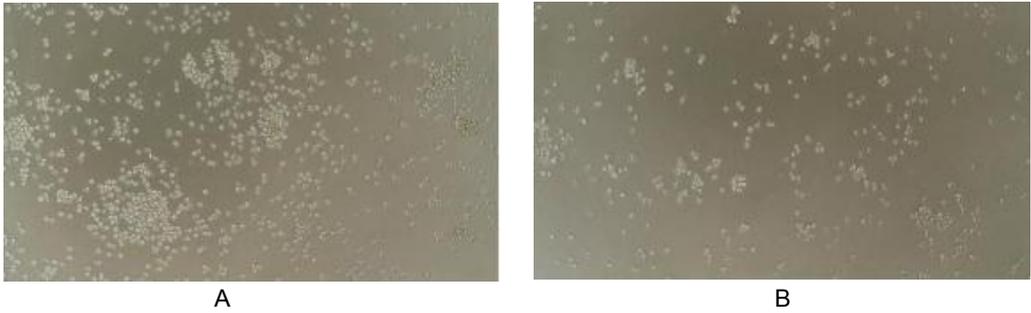


Figure 1. Cell proliferation of CTLL-2 cells after stimulated with IL2.

- (A) CTLL-2 cells cultured in 1640, stimulated with 10ng/mL IL2 for 48h;**
- (B) Unstimulated CTLL-2 cells cultured in 1640 for 48h.**

The dose-effect curve of CTLL-2 was shown in Figure 2. It was obvious that CTLL-2 significantly promoted cell proliferation of CTLL-2 cells. The ED50 for this effect is typically 1.992 to 6.663 ng/mL.

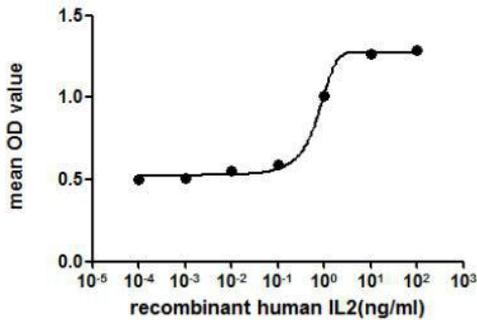


Figure 2. The dose-effect curve of IL2 on CTLL-2 cells.

[IDENTIFICATION]

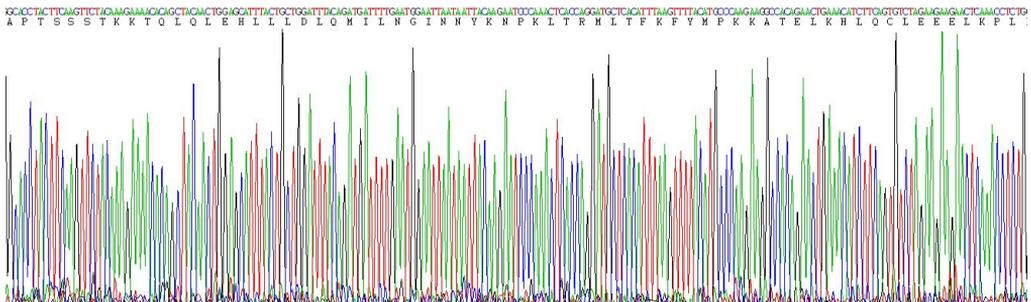


Figure 3. Gene Sequencing (extract)

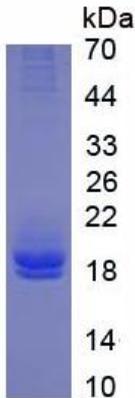


Figure 4. SDS-PAGE

Sample: Active recombinant IL2, Human

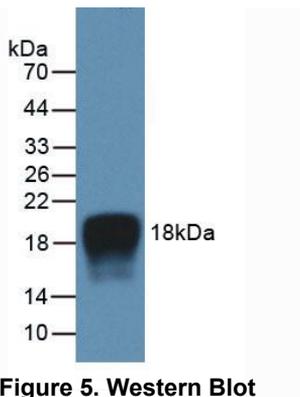


Figure 5. Western Blot

Sample: Recombinant IL2, Human;

Antibody: Rabbit Anti-Human IL2 Ab (PAA073Hu06)

[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.