APA073Hu61 100μg
Active Interleukin 2 (IL2)
Organism Species: Homo sapiens (Human)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1th Edition (Apr, 2016)

[PROPERTIES]

Source: Eukaryotic expression.

Host: 293F cell

Residues: Ala21~Thr153

Tags: N-terminal His-tag

Purity: >95%

Buffer Formulation: PBS, pH7.6, 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 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 2-8ºC 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

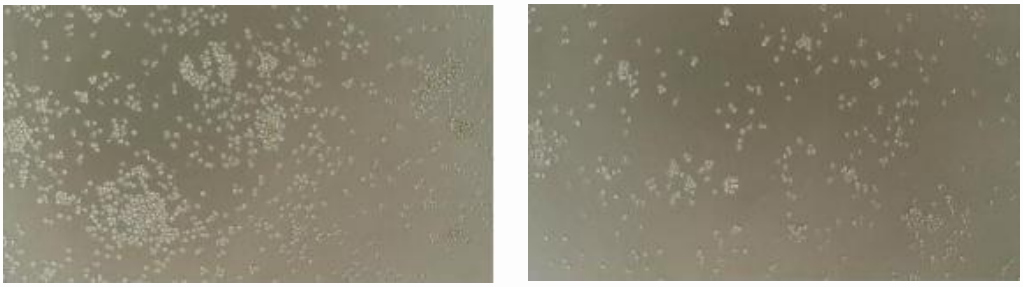
observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

APTSSSTKKT QLQLEHLLLD LQMILNGINN YKNPKLTRML TFKFYMPKKA TELKHLQCLE EELKPLEEVL NLAQSKNFHL RPRDLISNIN VIVLELKGSE TTFMCEYADE TATIVEFLNR WITFCQSIIS TLT

[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). 10μL 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.



A B

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.

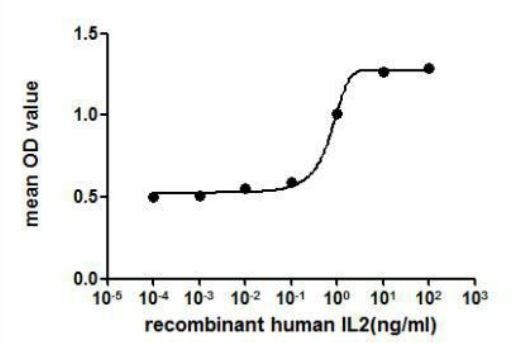


Figure 2. The dose-effect curve of IL2 on CTLL-2 cells.

[IDENTIFICATION]

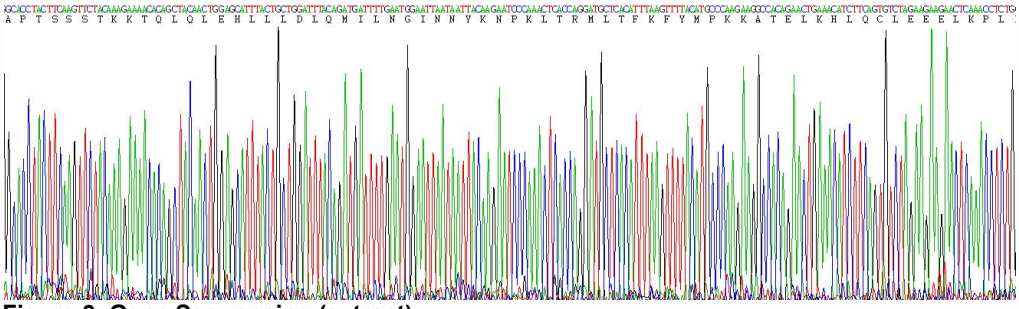


Figure 3. Gene Sequencing (extract)

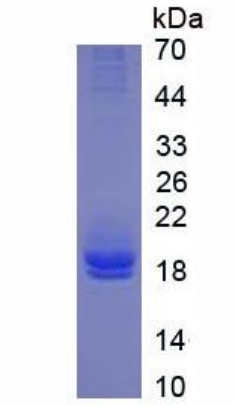


Figure 4. SDS-PAGE

Sample: Active recombinant IL2, Human

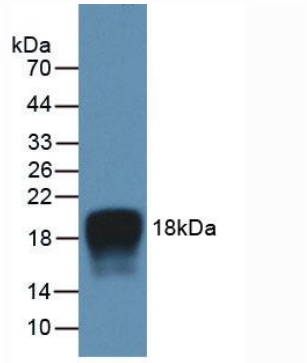


Figure 5. Western Blot

Sample: Recombinant IL2, Human;

Antibody: Rabbit Anti-Human IL2 Ab (PAA073Hu06)