APA073Hu01 100μg
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: Prokaryotic expression.
Host: *E. coli*
Residues: Ala21~Thr153
Tags: N-terminal His-tag
Purity: >95%
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 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: 6.8
Predicted Molecular Mass: 15.8kDa
Accurate Molecular Mass: 17kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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^{o}C for one month.
Aliquot and store at -80^{o}C for 12 months.

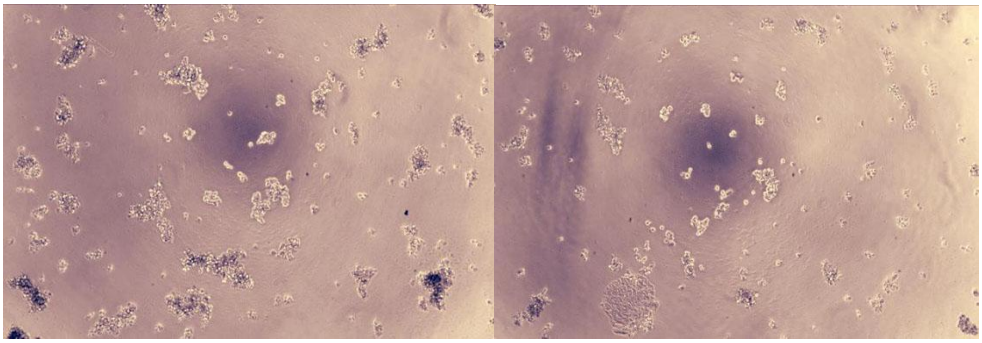
Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37ºC for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

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

[ACTIVITY]

Interleukin-2 (IL-2) is an interleukin, a type of cytokine signaling molecule in the immune system. IL-2 has essential roles in key functions of the immune system, tolerance and immunity, primarily via its direct effects on T cells. In the thymus, where T cells mature, it prevents autoimmune diseases by promoting the differentiation of certain immature T cells into regulatory T cells, which suppress other T cells that are otherwise primed to attack normal healthy cells in the body. IL-2 also promotes the differentiation of T cells into effector T cells and into memory T cells when the initial T cell is also stimulated by an antigen, thus helping the body fight off infections. To measure the effect of IL-2 on cell proliferation, CTLL-2 cells were seeded into triplicate wells of 96-well plates at a density of 2,000 cells/well with 2% serum standard 1640 contain various concentrations of recombinant human IL-2. After incubated for 96h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10μL of CCK-8 solution was added to each well of the plate, then the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37℃. Proliferation of CTLL-2 cells after incubation with IL-2 for 96h observed by inverted microscope was shown in Figure 1. Cell viability was assessed by CCK-8 assay after incubation with recombinant IL-2 for 96h. The result was shown in Figure 1. It was obvious that IL-2 significantly increased cell viability of CTLL-2 cells.



A B

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

(A) CTLL-2 cells cultured in 1640, stimulated with 10ng/mL IL-2 for 96h;

(B) Unstimulated CTLL-2 cells cultured in 1640 for 96h.

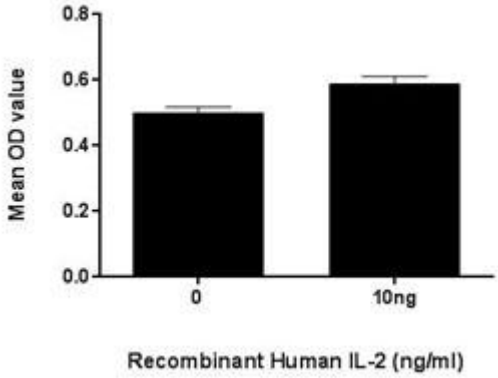


Figure 2. Cell proliferation of CTLL-2 cells after stimulated with IL-2.

[IDENTIFICATION]

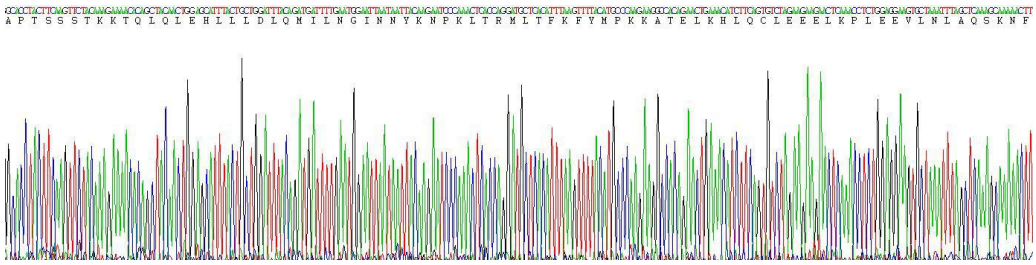


Figure 3. Gene Sequencing (extract)

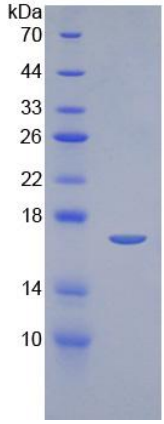


Figure 4. SDS-PAGE

Sample: Active recombinant IL2, Human

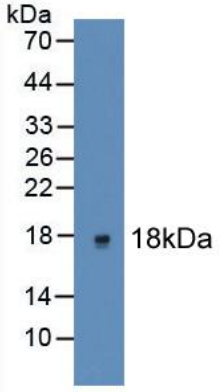


Figure 5. Western Blot

Sample: Recombinant IL2, Human;

Antibody: Rabbit Anti-Human IL2 Ab (PAA073Hu01)

[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.