APA073Ra61 100μg
Active Interleukin 2 (IL2)
Organism Species: *Rattus norvegicus (Rat)*
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~Gln155
Tags: N-terminal His-tag
Purity: >98%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 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: 6.3
Predicted Molecular Mass: 17.1kDa
Accurate Molecular Mass: 17&18kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM 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]

APTSSPAKET QQHLEQLLLD LQVLLRGIDN YKNLKLPMML TFKFYLPKQA TELKHLQCLE NELGALQRVL DLTQSKSFHL EDAGNFISNI RVTVVKLKGS ENKFECQFDD EPATVVEFLR RWIAICQSII STMTQ

[ACTIVITY]

IL-2(Interleukin-2) is a cytokine produced by T-cells in response to antigenic or mitogenic stimulation. IL-2 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.Therefore, in order to detect the bioactivity of recombinant rat IL-2, spleen single suspensions were prepared, activated with conA (final concentration 3 ug/ml). Cells were collected after 72h and washed with hanks.Then mouse splenic lymphocytes were were seeded into triplicate wells of 96-well plates at a density of 10,000 cells/well with or without the addition of various concentrations of recombinant rat IL-2. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8(CCK-8). 10 µl of CCK-8 solution was added to each well of the plate, the absorbance at 450 nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37 °C . Proliferation of Splenic lymphocytes cells after incubation with IL-2 for 72h observed by inverted microscope was shown in Figure 1.

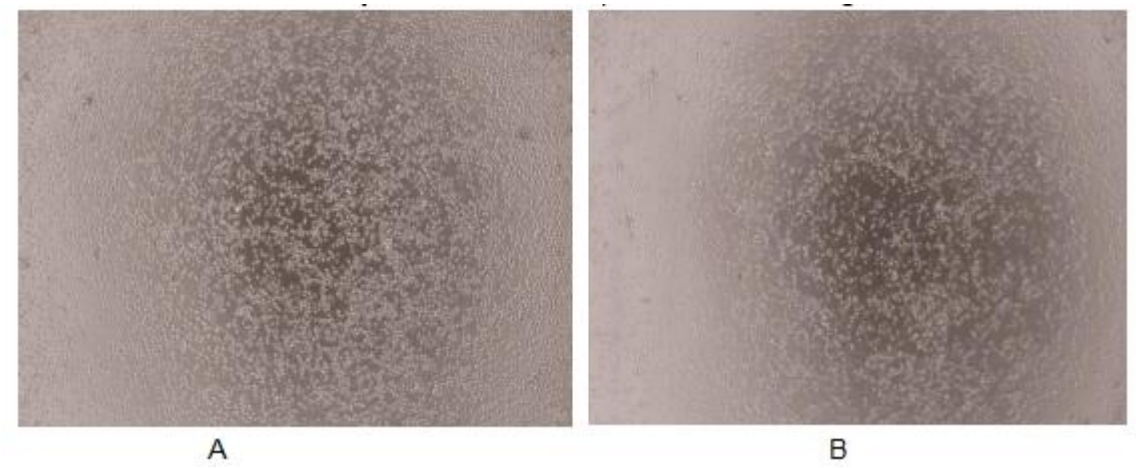

Figure 1. Cell proliferation of splenic lymphocytes cells after stimulated with IL-2.

(A) Splenic lymphocytes cells cultured in 1640, stimulated with 100ng/ml IL-2 for 72h;

(B)Unstimulated Splenic lymphocytes cells cultured in 1640 for 72h.

The dose-effect curve of recombinant rat IL-2 was shown in Figure2. It was obvious that recombinant rat IL-2 significantly promoted cell proliferation of Splenic lymphocytes cells .The ED50 for this effect is typically 1.5-1.7ng/mlng/ml.

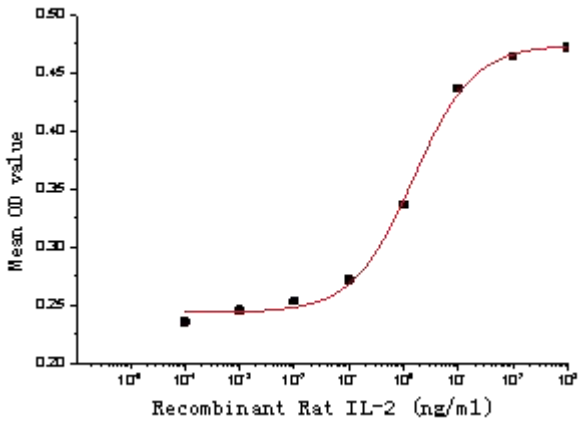

Figure 2. The dose-effect curve of IL-2 on Splenic lymphocytes cells

[IDENTIFICATION]

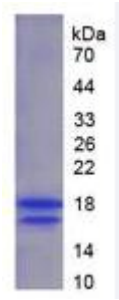

Figure 3. SDS-PAGE

Sample: Active recombinant IL2, Rat

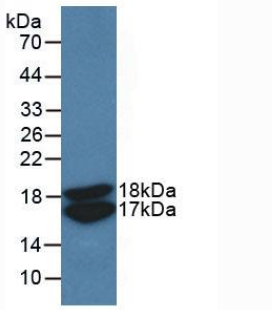

Figure 4. Western Blot

Sample: Recombinant IL2, Rat;

Antibody: Rabbit Anti-Rat IL2 Ab (PAA073Ra06)

[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.