

Active Interleukin 2 (IL2) Instruction Manual

SBPA047Ra61

Rattus norvegicus (Rat)

Buffer Formulation	PBS, pH7.4, containing 5% Trehalose.
Traits	Freeze-dried powder
Purity	> 90%
Isoelectric Point	6.3
Applications	Cell culture; Activity Assays.

ACTIVITY TEST

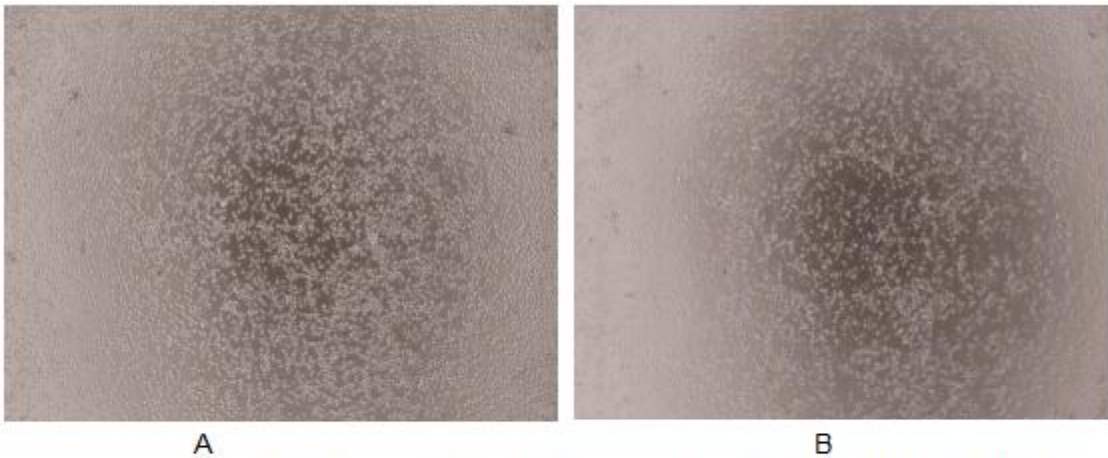


Figure 1. Cell proliferation of splenic lymphocytes cells after stimulated with IL-2.
(A) Splenic lymphocytes cells cultured in 1640, stimulated with 100ng/ml IL-2 for 72h;
(B) Unstimulated Splenic lymphocytes cells cultured in 1640 for 72h.

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.

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 μ l 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 $^{\circ}$ C . Proliferation of Splenic lymphocytes cells after incubation with IL-2 for 72h observed by inverted microscope was shown in Figure 1.

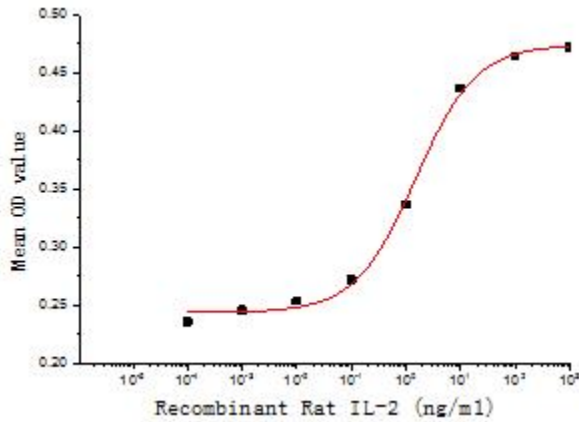


Figure 2. The dose-effect curve of IL-2 on Splenic lymphocytes cells.

USAGE

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8 $^{\circ}$ C for one month. Aliquot and store at -80 $^{\circ}$ C for 12 months.

STABILITY

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 $^{\circ}$ 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.

Image

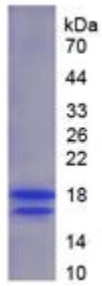


Figure. SDS-PAGE

[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.