Active Interleukin 2 (IL2) Instruction Manual

SBPA047Hu61

Homo sapiens (Human)

Buffer Formulation	PBS, pH7.6, containing 5% trehalose.
Traits	Freeze-dried powder
Purity	> 95%
Isoelectric Point	7.1
Applications	Cell culture; Activity Assays.

ACTIVITY TEST

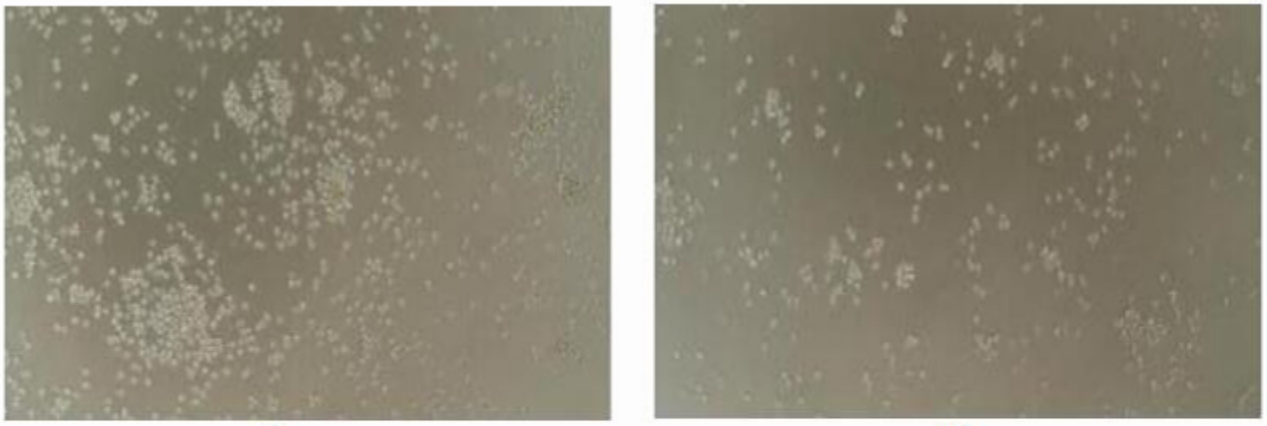


Figure 1. Cell proliferation of CTLL-2 cells after stimulated with IL2.

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

(B) Unstimulated CTLL-2 cells cultured in 1640 for 48h.

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.

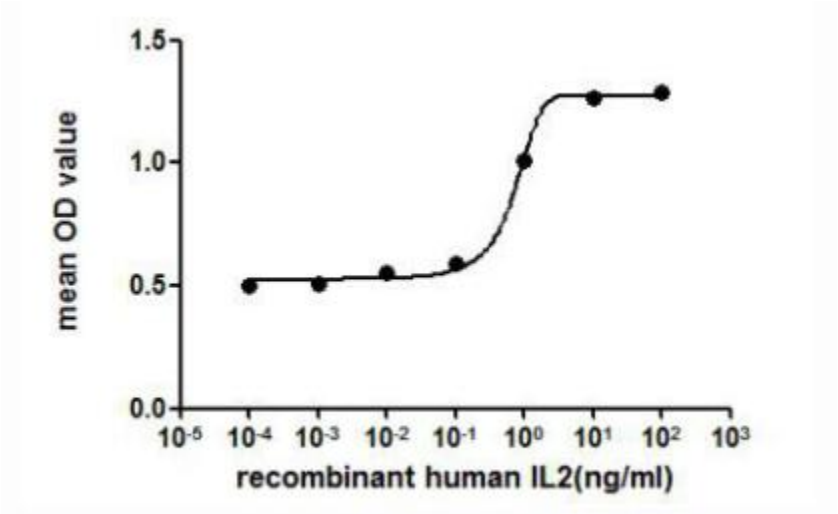


Figure 2. The dose-effect curve of IL2 on CTLL-2 cells.

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.

USAGE

Reconstitute in PBS (pH7.6) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

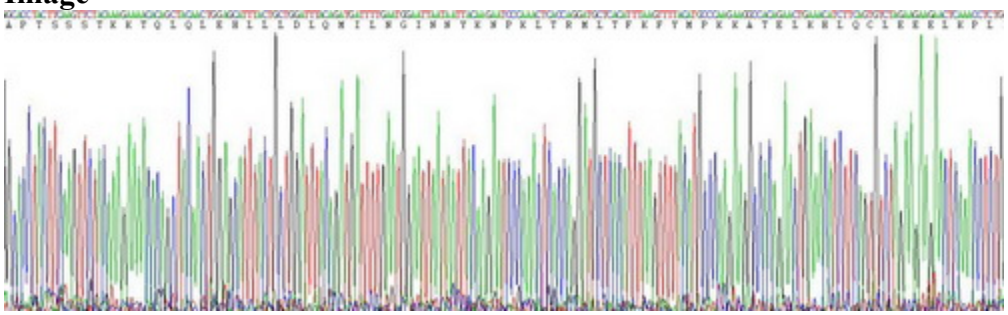
STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°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°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



SDS-PAGE Image

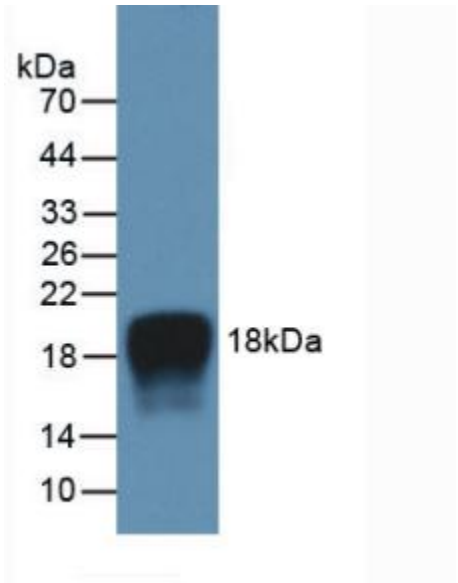


Figure. Western Blot; Sample: Recombinant IL2, Human.

[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.