

Active Interleukin 7 (IL7) Instruction Manual

SBPA161Hu01

Homo sapiens (Human)

Buffer Formulation

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

Traits

Freeze-dried powder

Purity

> 95%

Isoelectric Point

8.9

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

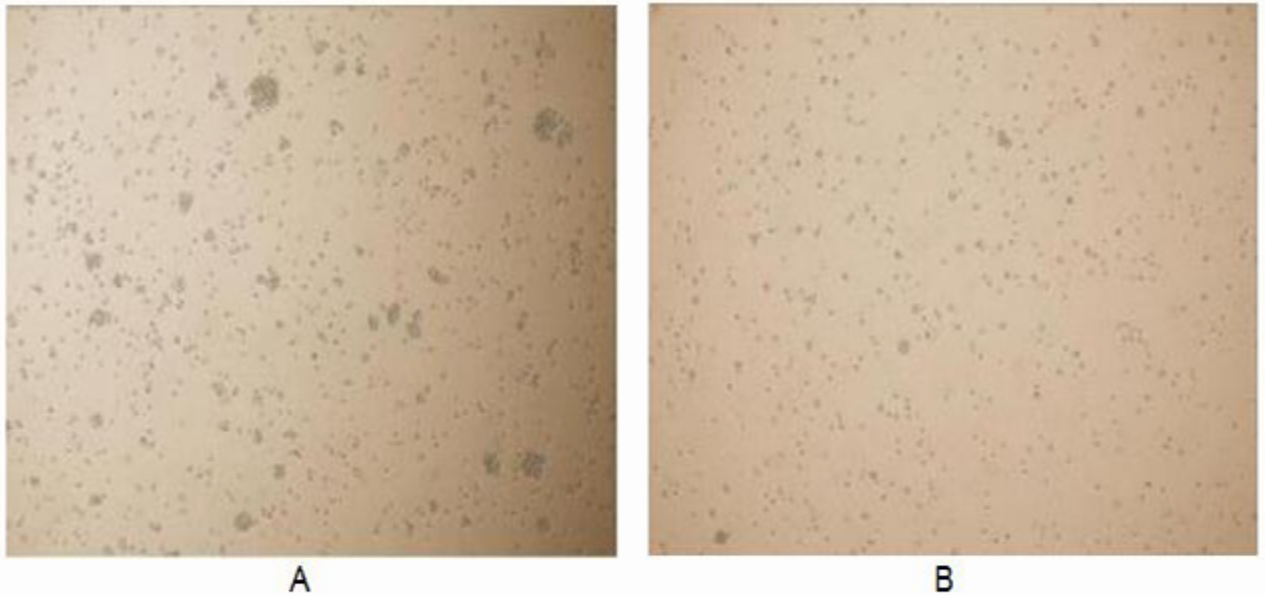


Figure 1. Cell proliferation of Jurkat cells after stimulated with IL7.

(A) Jurkat cells cultured in RPMI-1640, stimulated with 100ng/mL IL7 72h;

(B) Unstimulated Jurkat cells cultured in RPMI-1640 for 72h.

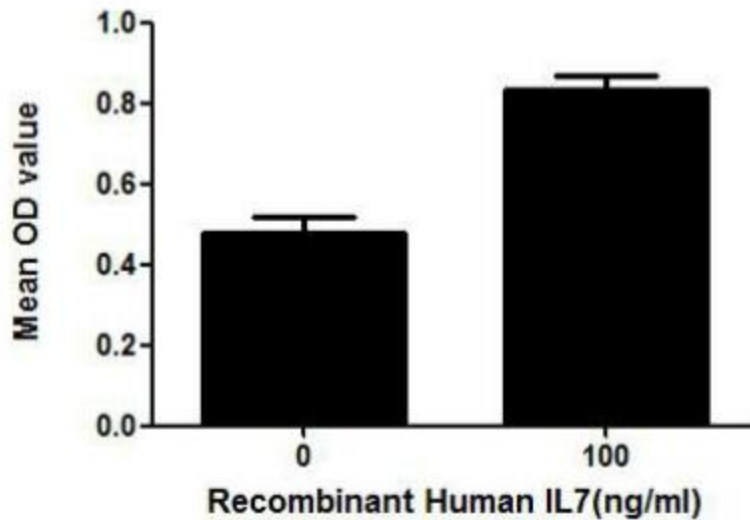


Figure 2. Cell proliferation of Jurkat cells after stimulated with IL7.

IL7 (Interleukin 7) is a hematopoietic growth factor secreted by stromal cells in the bone marrow and thymus. The interaction between IL7 and the IL7 receptor triggers a cascade of signals important for T-cell development within the thymus and survival within the periphery. It is reported that IL-7 acts on both resting and activated T cells, including Jurkat cells. Thus, a proliferation assay of recombinant human IL7 was conducted using Jurkat cells. Briefly, Jurkat cells were seeded into triplicate wells of 96-well plates at a density of 10,000 cells/well in RPMI-1640 with the addition of various concentrations of IL7. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 μ L 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°C. Cell proliferation of Jurkat cells after incubation with IL7 for 72h observed by inverted microscope was shown in Figure 1. The CCK-8 data was shown in Figure 2. It was obvious that IL7 significantly promoted cell proliferation of Jurkat cells.

USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

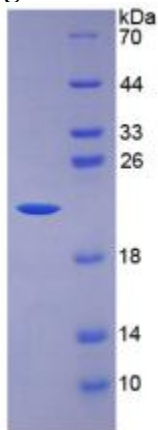
STORAGE

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

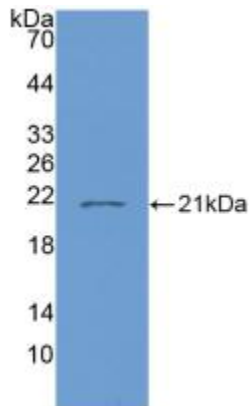


Figure. Western Blot; Sample: Recombinant IL7, Human.

[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.