

Datasheet for ABIN6239759

IL-7 Protein (AA 26-177) (His tag)

3 Images

[Go to Product page](#)

Overview

| | |
|-------------------------------|---|
| Quantity: | 50 µg |
| Target: | IL-7 (IL7) |
| Protein Characteristics: | AA 26-177 |
| Origin: | Human |
| Source: | Escherichia coli (E. coli) |
| Biological Activity: | Active |
| Purification tag / Conjugate: | This IL-7 protein is labelled with His tag. |
| Application: | Cell Culture (CC), Activity Assay (AcA) |

Product Details

| | |
|------------------------------|--|
| Characteristics: | Tag location: N-terminal His Tag |
| Purity: | > 95 % |
| Biological Activity Comment: | <p>IL7 (Interleukin 7) is a hematopoietic growth factor secreted by stromal cells in the bone marrow and thymus. The interaction between IL17 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, 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-</p> |

Product Details

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.

Target Details

| | |
|-------------------|--|
| Target: | IL-7 (IL7) |
| Abstract: | IL7 Products |
| Background: | Alternative Names: Pre-B-cell Growth Factor, Lymphopoietin-1 |
| Molecular Weight: | 21kDa |
| UniProt: | P13232 |
| Pathways: | JAK-STAT Signaling |

Application Details

| | |
|--------------------|------------------------|
| Application Notes: | Isoelectric Point: 8.9 |
| Restrictions: | For Research Use only |

Handling

| | |
|--------------------|---|
| Format: | Lyophilized |
| Buffer: | 20 mM Tris, 150 mM NaCl, pH 8.0, containing 1 mM EDTA, 1 mM DTT, 0.01 % SKL, 5 % Trehalose and Proclin300. |
| Preservative: | Dithiothreitol (DTT), Other preservative, ProClin |
| Precaution of Use: | This product contains ProClin and Dithiothreitol (DTT): POISONOUS AND HAZARDOUS SUBSTANCES which should be handled by trained staff only. |

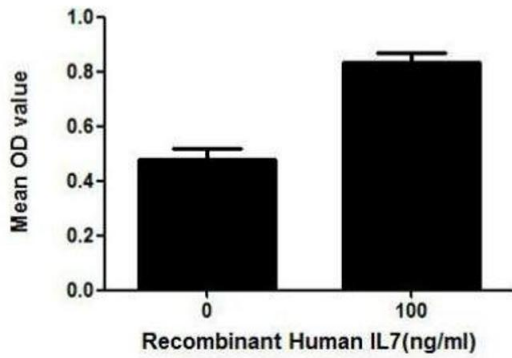


Figure 2. Cell proliferation of Jurkat cells after stimulated with IL7.

Image 1. IL7 (Interleukin 7) is a hematopoietic growth factor secreted by stromal cells in the bone marrow and thymus. The interaction between IL17 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.

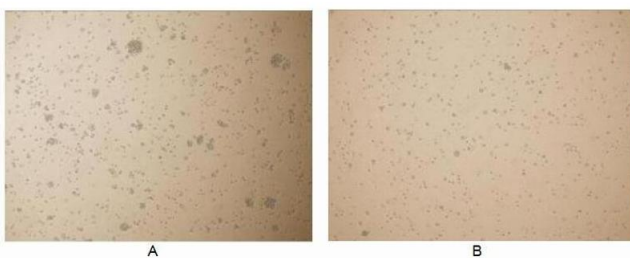


Figure 1. Cell proliferation of Jurkat cells after stimulated with IL7.

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

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

Image 2.

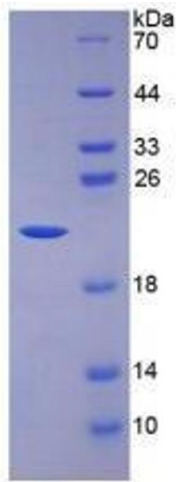


Image 3.