Datasheet for ABIN6239760

IL-11 Protein (AA 22-199) (His tag)

3 Images

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Overview

Quantity:	50 µg
Target:	IL-11 (IL11)
Protein Characteristics:	AA 22-199
Origin:	Human
Source:	Escherichia coli (E. coli)
Biological Activity:	Active
Purification tag / Conjugate:	This IL-11 protein is labelled with His tag.
Application:	Activity Assay (AcA), Cell Culture (CC)

Product Details

Characteristics:	Tag location: N-terminal His Tag
Purity:	> 90 %
Biological Activity Comment:	IL11 (Interleukin-11) is a multifunctional cytokine first isolated from bone marrow-derived stromal cells. It stimulates the proliferation of hematopoietic stem cells and megakaryocyte progenitor cells and induces megakaryocyte maturation resulting in increased platelet production. Besides, IL11 is reported to induce the proliferation of human T-cells, thus, a proliferation assay was conducted to detect the bioactivity of human recombinant IL11 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 IL11. 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

Product Details

incubating the plate for 1-4 hours at 37°C. Cell proliferation of Jurkat cells after incubation with IL11 for 72h observed by inverted microscope was shown in Figure 1. The CCK-8 data was shown in Figure 2. It was obvious that IL11 significantly promoted cell proliferation of Jurkat cells.

Target Details

Target:	IL-11 (IL11)
Abstract:	IL11 Products
Background:	Alternative Names: AGIF, Adipogenesis Inhibitory Factor, Oprelvekin
Molecular Weight:	27kDa
UniProt:	P20809
Pathways:	JAK-STAT Signaling, Negative Regulation of Hormone Secretion

Application Details

Application Notes:	Isoelectric Point: 11.3
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.

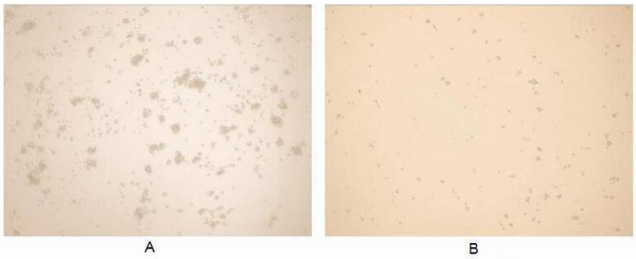

Figure 1. Cell proliferation of Jurkat cells after stimulated with IL11.

(A) Jurkat cells cultured in RPMI-1640, stimulated with 100ng/mL IL11 for 72h;

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

Image 1.

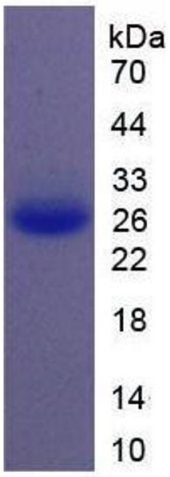

Image 2.

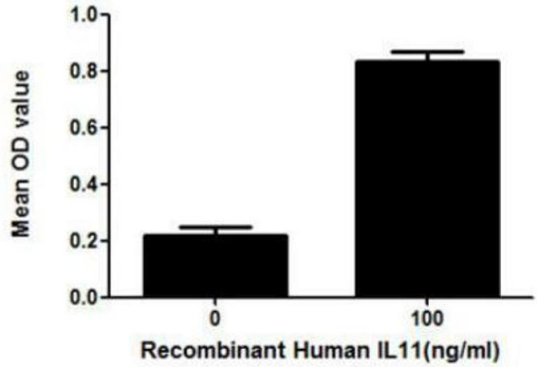

Figure 2. Cell proliferation of Jurkat cells after stimulated with IL11.

Image 3. IL11 (Interleukin-11) is a multifunctional cytokine first isolated from bone marrow-derived stromal cells. It stimulates the proliferation of hematopoietic stem cells and megakaryocyte progenitor cells and induces megakaryocyte maturation resulting in increased platelet production. Besides, IL11 is reported to induce the proliferation of human T-cells, thus, a proliferation assay was conducted to detect the bioactivity of human recombinant IL11 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 IL11. 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 1-4 hours at 37*°C. Cell proliferation of Jurkat cells after incubation with IL11 for 72h observed by inverted microscope was shown in Figure 1. The CCK-8 data was shown in Figure 2. It was obvious that IL11 significantly promoted cell proliferation of Jurkat cells.*

