

# Active Interleukin 1 Alpha (IL1a) Instruction Manual

**SBPA045Hu01**

**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**

> 97%

**Isoelectric Point**

6.5

**Applications**

Cell culture; Activity Assays.

**ACTIVITY TEST**



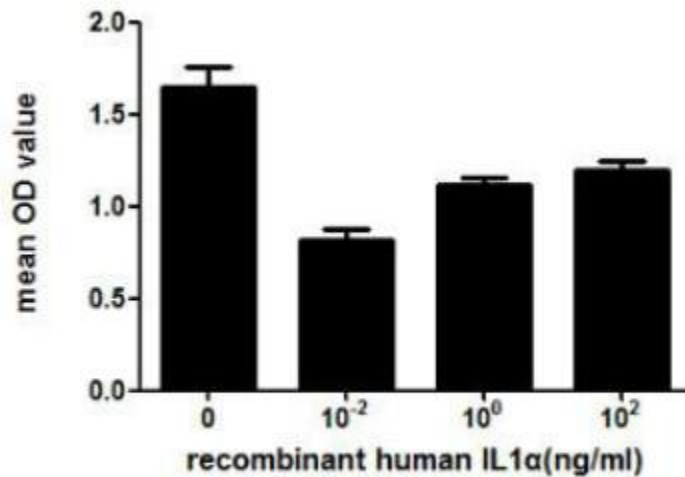
**Figure 1. Inhibitory effect of IL1 $\alpha$  on cell proliferation of MCF-7 cells.**

**(A) MCF-7 cells cultured in DMEM, stimulated with 1ng/mL IL1 $\alpha$  for 72h;**

**(B) Unstimulated MCF-7 cells cultured in DMEM for 72h.**

IL1 $\alpha$  (Interleukin-1 alpha) is a member of the interleukin 1 cytokine family. This cytokine is produced by monocytes and macrophages as a proprotein, which is proteolytically processed and released in response to cell injury, and thus induces cell apoptosis. It is reported that exposure of MCF-7 cells to certain concentration of IL1 $\alpha$

results in inhibition of cell growth. Thus, an cell proliferation assay of MCF-7 was conducted with the addition of IL1 $\alpha$ . MCF-7 cells were seeded overnight at a density of 5,000 cells/well, and then treated with or without various concentrations of IL1 $\alpha$  for 72h, then cells were observed by inverted microscope and cell viability was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 $\mu$ L of CCK-8 solution was added to each well of the plate, then measure the absorbance at 450nm using a microplate reader after incubating the plate for 1-4 hours in at 37 $^{\circ}$ C. Inhibition of MCF-7 cell proliferation after incubation with IL1 $\alpha$  for 72h observed by inverted microscope was shown in Figure 1.



**Figure 2. Inhibitory effect of IL1 $\alpha$  on cell proliferation of MCF-7 cells.**

Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with various concentrations of IL1 $\alpha$  for 72h. The mean OD value of MCF-7 assessed by CCK-8 was shown in Figure 2. It was obvious that IL1 $\alpha$  significantly decreased cell viability of MCF-7 cells.

## **USAGE**

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

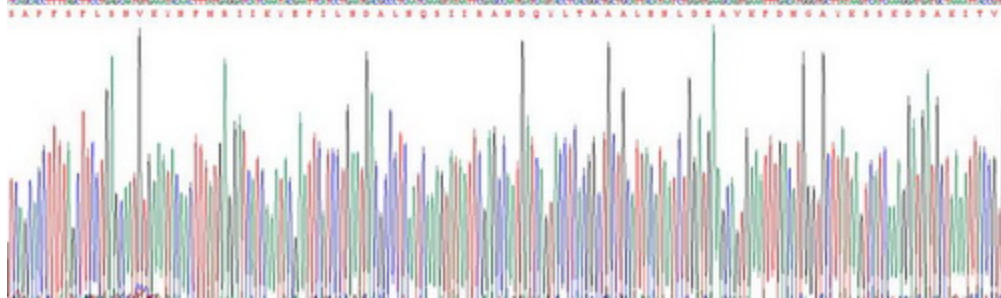
## **STORAGE**

Avoid repeated freeze/thaw cycles. Store at 2-8 $^{\circ}$ 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°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

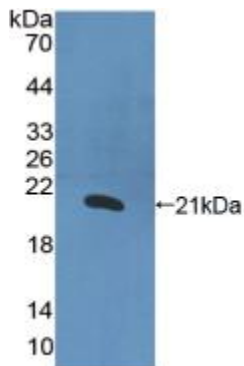


Figure. Western Blot; Sample: Recombinant IL1a, Human.

### **[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.