APA071Hu03 100μg
Active Interleukin 1 Alpha (IL1a)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Met1~Ala271
Tags: N-terminal His-tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .
Original Concentration: 200μg/mL
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 4.8
Predicted Molecular Mass: 34.3kDa
Accurate Molecular Mass: 36kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8ºC for one month.
Aliquot and store at -80ºC for 12 months.

Stability Test: 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 37ºC 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.

[SEQUENCE]

MAKVPDMFED LKNCYSENEE DSSSIDHLSL NQKSFYHVSY GPLHEGCMDQ
SVSLSISETS KTSKLTFKES MVVVATNGKV LKKRRLSLSQ SITDDDLEAI
ANDSEEEIIK PRSAPFSFLS NVKYNFMRII KYEFILNDAL NQSIIRANDQ
YLTAAALHNL DEAVKFDMGA YKSSKDDAKI TVILRISKTQ LYVTAQDEDQ
PVLLKEMPEI PKTITGSETN LLFFWETHGT KNYFTSVAHP NLFIATKQDY
WVCLAGGPPS ITDFQILENQ A

[ACTIVITY]

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

CCK-8 was shown in Figure 2. It was obvious that IL1α significantly decreased cell viability of MCF-7 cells and the EC50 was 4.69 ug/ml.

Figure 1. Inhibitory effect of IL1αon cell proliferation of MCF-7 cells

(A)MCF-7 cells cultured in DMEM, stimulated with 5 ug/ml IL1α for 72h;
(B)Unstimulated MCF-7 cells cultured in DMEM for 72h.

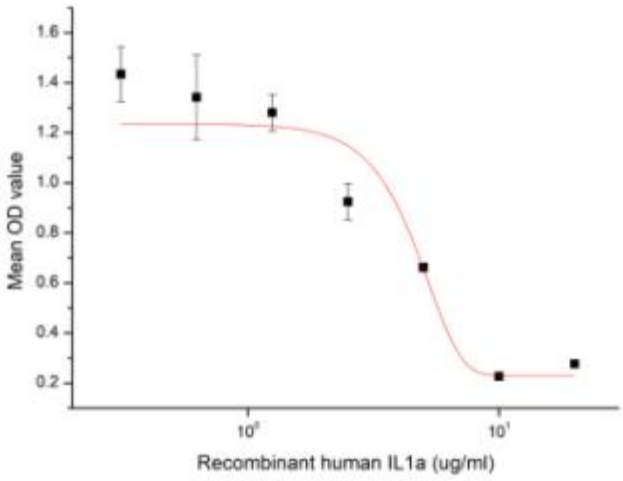

Figure 2. Inhibitory effect of IL1αon cell proliferation of MCF-7 cells

[IDENTIFICATION]

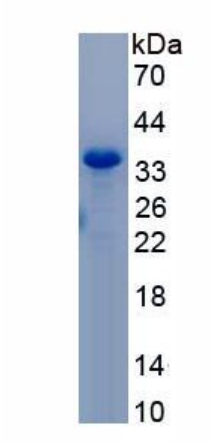

Figure 3. SDS-PAGE

Sample: Active 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.