APA062Hu01 10μg
Active Interleukin 16 (IL16)
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: Met1203~Ser1332
Tags: N-terminal His-tag
Purity: >80%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 5% Trehalose.
Original Concentration: 120μg/mL
Applications: Cell culture; Activity Assays; In vivo assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 6.0
Predicted Molecular Mass: 17.1kDa
Accurate Molecular Mass: 19&20&23kDa as determined by SDS-PAGE reducing conditions.
Phenomenon explanation:
The possible reasons that the actual band size differs from the predicted are as follows:
1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

[USAGE]

Reconstitute in ddH_2O to a concentration of 0.1-0.2 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C 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 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.

[SEQUENCE]

MPDLNSST DSAASASAAS DVSVESTAEA TVCTVTLEKM SAGLGFSLEG GKGSLHGDKP LTINRIFKGA ASEQSETVQP GDEILQLGGT AMQGLTRFEA WNIIKALPDG PVTIVIRRKS LQSKETTAAG DS

[ACTIVITY]

Pro-IL16 (Interleukin16) is a 631 amino acid precursor molecule, which is then cleaved into different isoforms. Researches have shown that the recombinant human IL16, containing C-terminal 130 amino acids, has same bioactivity as the natural secreted human IL16. Besides, IL16 has been considered to stimulate the proliferation of Jurkat cells at low dose (10^{-9} M). Thus, a proliferation assay of recombinant human IL16 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 IL16. 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 IL16 for 72h observed by inverted microscope was shown in Figure 1. The CCK-8 data was shown in Figure 2. It was obvious that IL16 significantly promoted cell proliferation of Jurkat cells.

A B

Figure 1. Cell proliferation of Jurkat cells after stimulated with IL16.

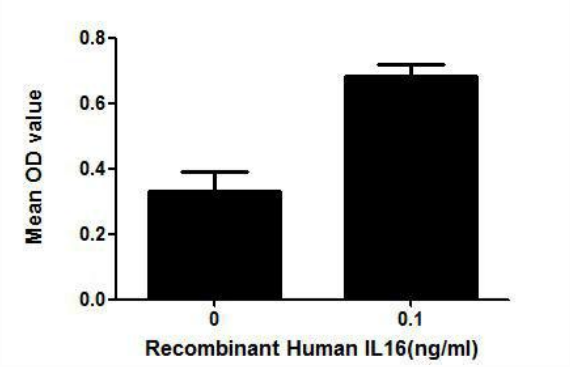

Figure 2. Cell proliferation of Jurkat cells after stimulated with IL16.

[IDENTIFICATION]

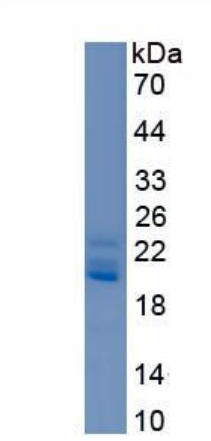

Figure 3. SDS-PAGE

Sample: Active recombinant IL16, 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.