APA061Hu01 100μg
Active Interleukin 15 (IL15)
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: Trp50~Ser162
Tags: N-terminal His-tag
Purity: >98%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5% Trehalose .
Original Concentration: 100μg/mL
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 5.1
Predicted Molecular Mass: 14.0kDa
Accurate Molecular Mass: 14&16&18kDa 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 0.1-0.5 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]

W

VNVISDLKKI EDLIQSMHID ATLYTESDVH PSCKVTAMKC FLLELQVISL ESGDASIHDT VENLIILANN SLSSNGNVTE SGCKECEELE EKNIKEFLQS FVHIVQMFIN TS

[ACTIVITY]

Interleukin 15 (IL15) is a widely expressed cytokine that is structurally and functionally related to IL2, which plays an important role in many immunological diseases. IL15 also regulates T and natural killer (NK) cell activation and proliferation. The activity of recombinant human IL15 was measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. MO7e cells were seeded into triplicate wells of 96-well plates at a density of 30,000 cells/well in RPMI-1640 with the addition of various concentrations of rhIL15. After incubated for 72h, cells were observed by inverted microscope and cell proliferation 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 the absorbance at 450 nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37 °C. Cell proliferation of MO7e cells after incubation with rhIL15 for 72h observed by inverted microscope was shown in Figure 1. The dose-effect curve of rhIL15 was shown in Figure 2. It was obvious that rhIL15 significantly

promoted cell proliferation of MO7e cells .The EC50 for this effect is typically 0.094 ug/ml.

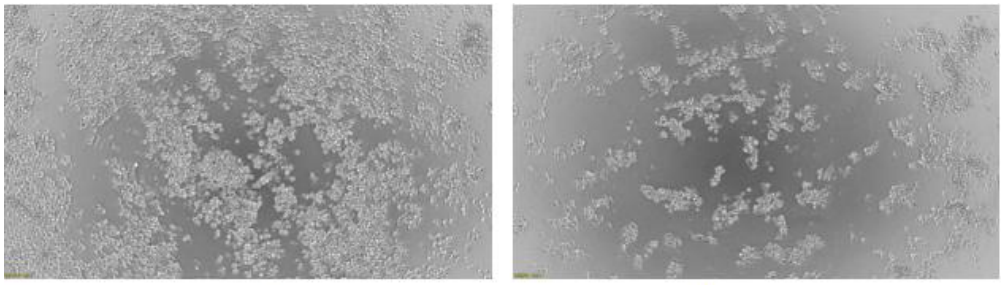

Figure 1. Cell proliferation of MO7e cells after stimulated with rhIL15

(A) MO7e cells cultured in RPMI-1640 , stimulated with 0.15 ug/ml rhIL15 for 72h;
(B) Unstimulated MO7e cells cultured in RPMI-1640 for 72h.

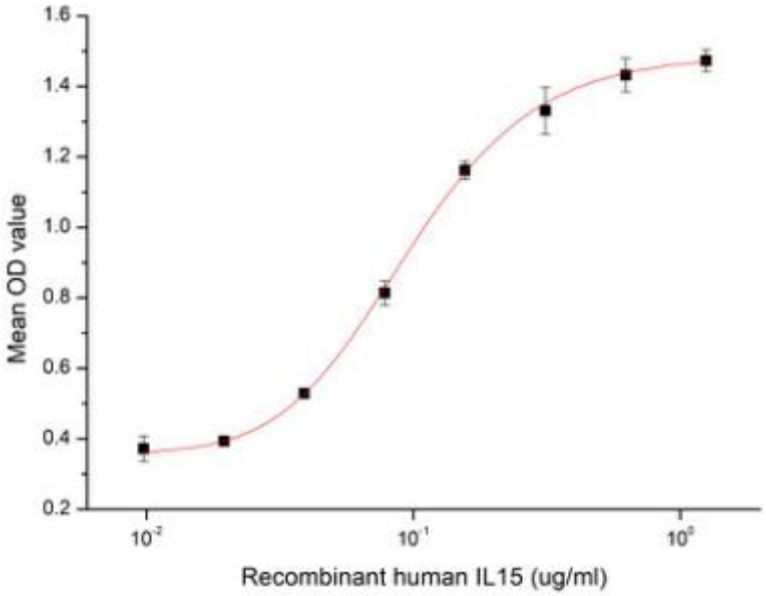

Figure 2. The dose-effect curve of rhIL15 on MO7e cells

[IDENTIFICATION]

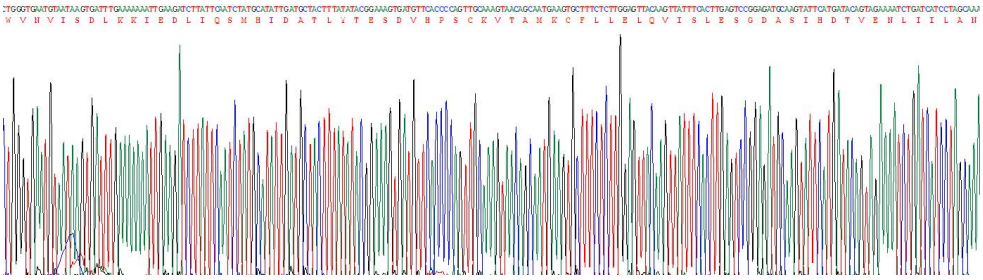

Figure 3. Gene Sequencing (extract)

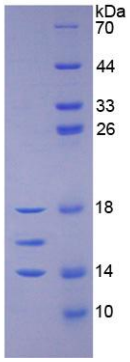

Figure 4. SDS-PAGE

Sample: Active recombinant IL15, 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.