

APA078Mu61 100µg
Active Interleukin 5 (IL5)

Organism Species: *Mus musculus (Mouse)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Eukaryotic expression.

Host: 293F cell

Residues: Ala20~Gly133

Tags: N-terminal His-tag

Purity: >95%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: PBS, pH7.4, containing 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: 8.1

Predicted Molecular Mass: 14.8kDa

Accurate Molecular Mass: 14/17/19-25kDa 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 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 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

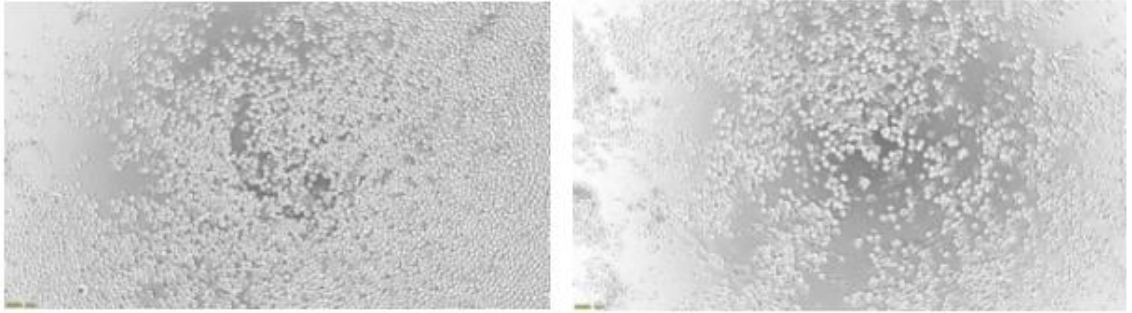
Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

AMEIPMSTVVKETLTQLSAHRALLTSNETMRLPVPTHKNHQLCIGEIFQGLDILKNQTVRGGTVEMLFQNLSLIKKYIDRQKEKCGEER
RRTRQFLDYLQEF LGVMSTEWAMEG

[ACTIVITY]

Interleukin-5 (IL-5), a secreted glycoprotein, is a member of the hematopoietic family. Interleukin 5 has been shown to stimulate the proliferation of TF-1 cells. To test this effect, TF-1 cells were seeded into triplicate wells of 96-well plates at a density of 2×10^4 cells/well and incubated for 72h in the presence or absence of various concentrations of recombinant mouse IL-5 at 37 °C. The growth of cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8(CCK-8). Briefly, 10 μ l 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 at 37 °C. Cell proliferation of TF-1 cells after incubation with IL-5 for 72h observed by inverted microscope was shown in Figure 1. The dose-effect curve of recombinant mouse IL-5 was shown in Figure 2. It was obvious that it significantly promoted cell proliferation of TF-1 cells. The ED50 for this effect is typically 2.9 ng/ml.



A

B

Figure 1. Cell proliferation of TF-1 cells after stimulated with recombinant mouse IL-5 .

- (A) TF-1 cells cultured in RPMI-1640, stimulated with 10 ng/ml rmIL-5 for 72h;
- (B) Unstimulated TF-1 cells cultured in RPMI-1640 for 72h.

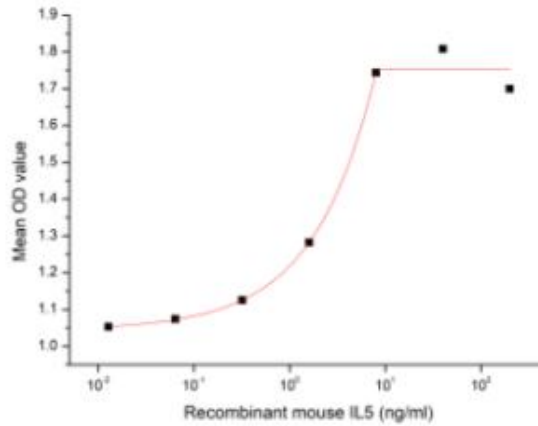


Figure 2. The dose-effect curve of recombinant mouse IL-5 on TF-1 cells

[IDENTIFICATION]

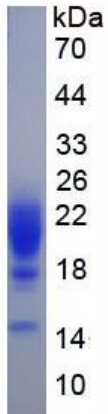


Figure 3. SDS-PAGE

Sample: Active recombinant IL5, Mouse

[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.