**APA060Hu62 100μg**
**Active Interleukin 13 (IL13)**
**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:** Eukaryotic expression.
**Host:** 293F cell
**Residues:** Gly35~Asn146
**Tags:** N-terminal His-tag
**Purity:** >80%
**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:** 8.3
**Predicted Molecular Mass:** 13.9kDa
**Accurate Molecular Mass:** 14-50kDa 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 ]

GPVPPSTALRELIEELVNITQNQKAPLCNGSMVWSINLTAGMYCAALESLINVSGCSAIEKTQRM
LSGFCPHKVSAGQFSSLHVRDTKIEVAQFVKDLLLHLKKLFREGQFN

## [ ACTIVITY ]

Interleukin 13 (IL13) is cytokine secreted by many cell types, but especially T helper type 2 (Th2) cells. IL13 has effects on immune cells that are similar to those of the closely related cytokine IL4. In addition, IL-13-bound IL-13 Rα2 can directly promote tumor cell proliferation、 invasiveness and the development of tissue fibrosis. To test the effect of IL13 on cell proliferation, TF-1 cells were seeded into triplicate wells of 96-well plates and allowed to attach, replaced with various concentrations of recombinant human IL13. 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 ℃. Cell viability was assessed by CCK-8 assay after incubation with recombinant human IL13 for 72h. The result

was shown in Figure 1. It was obvious that IL13 significantly increased cell viability of TF-1 cells. The ED50 of recombinant human IL13 is 0.914 μg/ml.

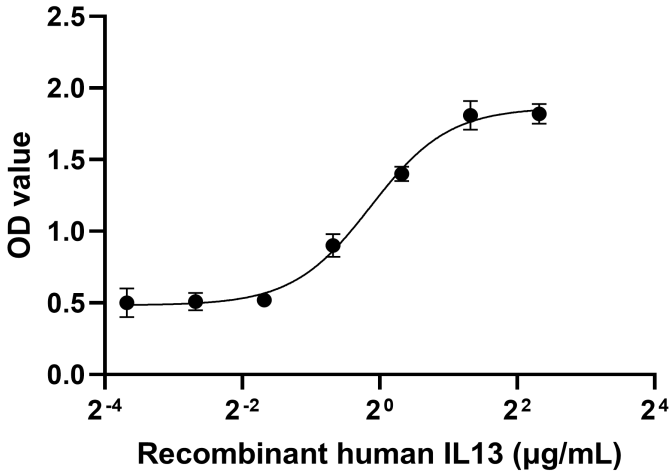


**Figure.1 The dose-effect curve of recombinant human IL13 on TF-1 cells**

## [ IDENTIFICATION ]

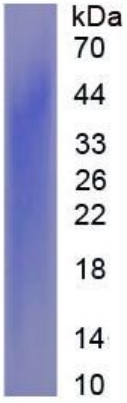


**Figure 2. SDS-PAGE**

**Sample: Active recombinant IL13, 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.