

APA078Hu01 50µg

Active Interleukin 5 (IL5)

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: Ile20~Ser134

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: 400µg/mL

Applications: Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 7.9

Predicted Molecular Mass: 16.8kDa

Accurate Molecular Mass: 17kDa 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 2-8°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]

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I PTEIPTSALV KETLALLSTH RTLLIANETL
RIPVPVHKNH QLCTEEIFQG IGTLESQTVQ GGTVERLFKN LSLIKKYIDG
QKKKCGEERR RVNQFLDYLO EFLGVMNTEW IIES
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[ACTIVITY]

Interleukin 5 (IL5) is a T cell-derived cytokine crucial for eosinophil growth, differentiation, and activation, playing key roles in allergic inflammation and parasite defense. This homodimeric glycoprotein signals through the interleukin 5 receptor complex, composed of IL5Ra (CD125) and common beta chain (CD131). IL5 specifically binds IL5Ra with high affinity , initiating JAK/STAT signaling pathways that promote eosinophil survival and function.To detect the activity of recombinant IL5, a functional ELISA assay was performed to evaluate the interaction between recombinant human IL5 and recombinant human IL5Ra.Briefly, IL5 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to IL5Ra-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-IL5 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 °C , wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 μ L stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant human IL5 and recombinant human IL5Ra was shown in Figure 1, the EC50 for this effect is 0.047 μ g/mL.

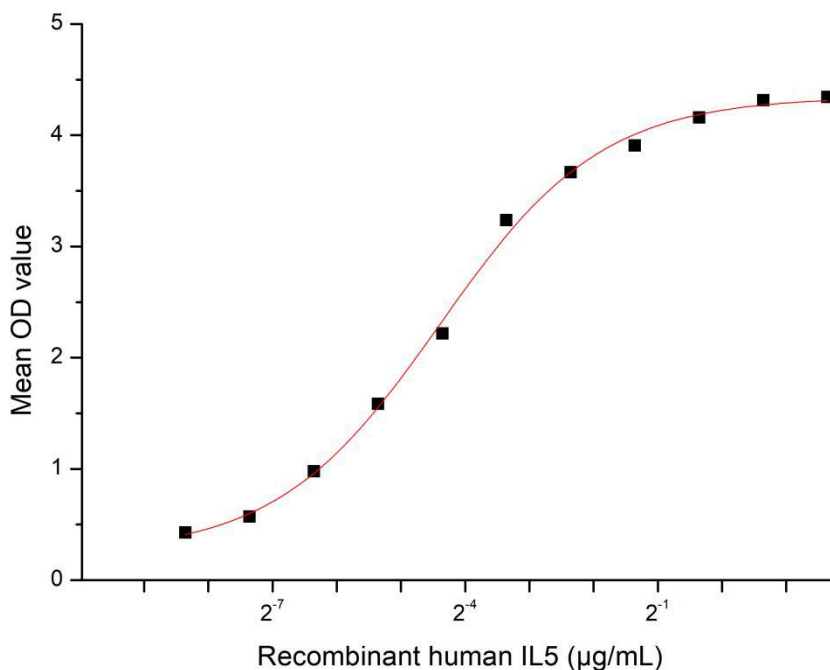


Figure 1. The binding activity of recombinant human IL5 and recombinant human IL5Ra

[IDENTIFICATION]

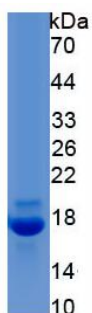


Figure 2. SDS-PAGE

Sample: Active recombinant IL5, 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.