

APC007Hu62 100µg

Active Interleukin 34 (IL34)

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: Asn21~Pro242

Tags: N-terminal His Tag and C-terminal Fc Region of Human IgG1

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: Activity Assays.

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

Predicted isoelectric point: 6.0

Predicted Molecular Mass: 56.0kDa

Accurate Molecular Mass: 65kDa 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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NEPLEMWPLTQNEECTVTGFLRDKLQYRSRLQYMKHYFPINYKISVPYEGVFRIANVTRLQRAQVSERELRYLWVLVSLSATESVQDV  
LLEGHPSWKYLQEVETLLLNVQQGLTDVEVSPKVESVLSLLNAPGPNLKLVRPKALLDNCFRVMELLYCSCCKQSSVLNQDCEVPSP  
QSCSPEPSLQYAATQLYPPPPWSPSPPHSTGSVRPVRAQGEGLLP
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[ACTIVITY]

Interleukin-34 (IL-34) is a cytokine that binds to colony-stimulating factor-1 receptor (CSF-1R) and plays crucial roles in monocyte survival, differentiation, and osteoclastogenesis. It is also involved in inflammatory responses, autoimmune diseases, and tumor microenvironment regulation. IL-34 is produced by various cell types, including keratinocytes, neurons, and endothelial cells, and has been implicated in pathological conditions such as rheumatoid arthritis, neurodegenerative disorders, and cancer progression. Besides, Signal Transducer And Activator Of Transcription 3 (STAT3) has been identified as an interactor of IL-34, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human IL-34 and recombinant human STAT3. Briefly, biotin-linked IL-34 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to STAT3-coated microtiter wells and incubated for 1h at 37 °C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then 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 450nm immediately. The binding activity of IL-34 and STAT3 was shown in Figure 1, the EC50 for this effect is 0.05 μ g/mL.

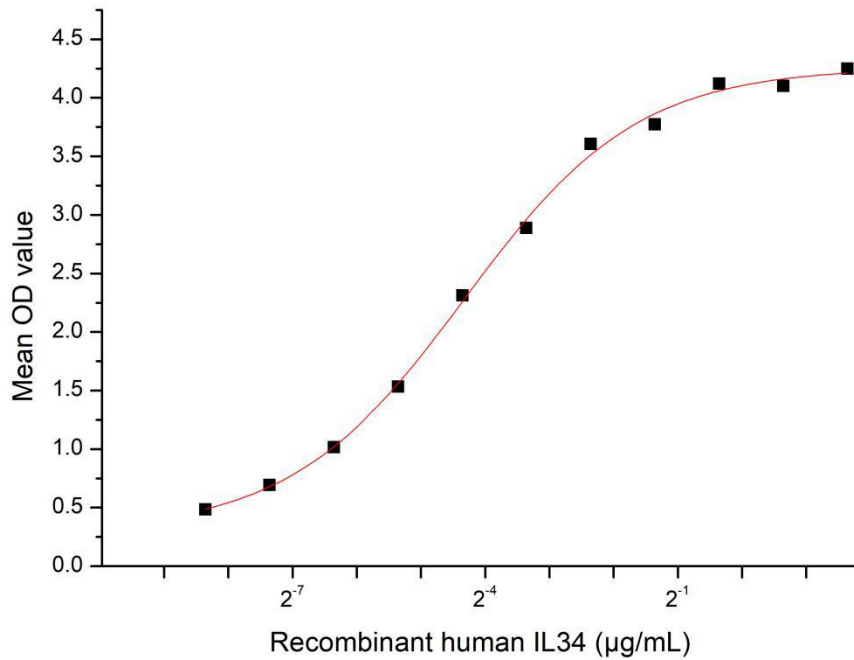


Figure 1. The binding activity of recombinant human IL-34 and recombinant human STAT3

[IDENTIFICATION]

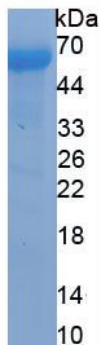


Figure 2. SDS-PAGE

Sample: Active recombinant IL34, 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.