

APA081Hu01 100µg
Active Interleukin 9 (IL9)

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: Gln19~Ile144

Tags: N-terminal His-tag

Purity: >90%

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

Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 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: 9.1

Predicted Molecular Mass: 17.8kDa

Accurate Molecular Mass: 18kDa 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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QG CPTLAGILDI NFLINKMQED PASKCHCSAN  
VTSCLCCLGIP SDNCTRPCFS ERLSQMTNTT MQTRYPLIFS RVKKSVEVLK  
NNKCPYFSCQ QPCNQTTAGN ALTFLKSLLE IFQKEKMRGM RGKI
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[ACTIVITY]

Interleukin-9 (IL-9), also known as P40 and MEA (mast cell growth-enhancing activity), is a 30-40 kDa protein which was originally identified in mice as a T cell growth factor and is a member of the common γ -chain-receptor cytokine family, with other members including IL-2, IL-4, IL-7, IL-15 and IL-21. IL-9 is produced predominantly by helper T cells such as Th2 and Th9 cells. It normally functions through the activation of a JAK/STAT pathway and plays a critical role in immunity and the pathogenesis of cancer. S100 Calcium Binding Protein A6 (S100A6) is a high affinity receptor for IL-9. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human IL-9 and recombinant mouse S100A6. Briefly, IL-9 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to S100A6-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-IL9 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 450/630 nm immediately. The binding activity of recombinant human IL-9 and recombinant mouse S100A6 was shown in Figure 1, the EC₅₀ for this effect is 0.09 μ g/mL.

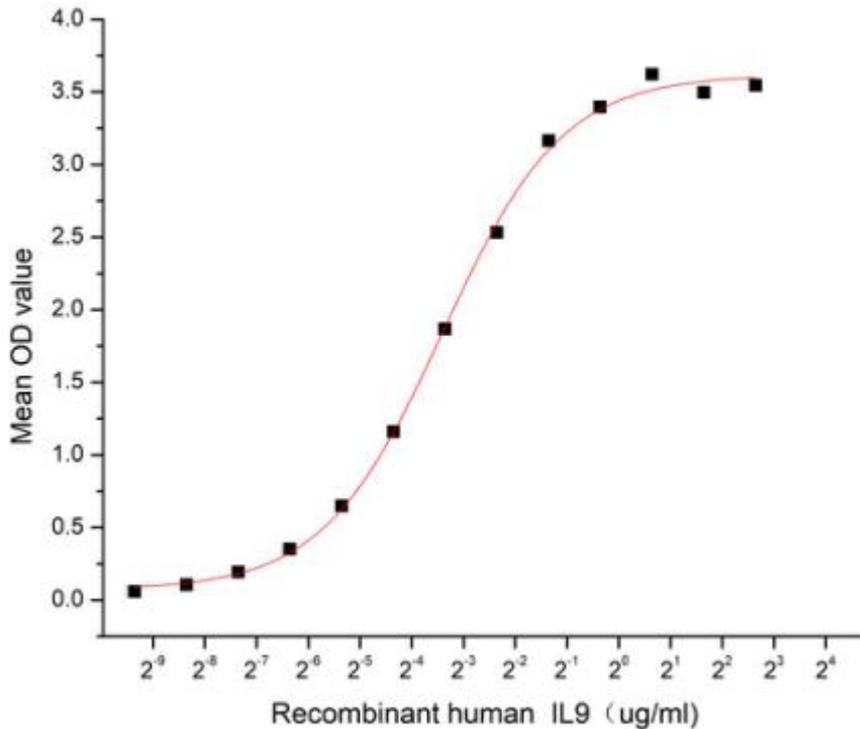


Figure 1. The binding activity of recombinant human IL-9 and recombinant mouse S100A6

[IDENTIFICATION]

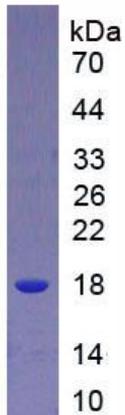


Figure 2. SDS-PAGE

Sample: Active recombinant IL9, Human

Antibody: Rabbit Anti-Human IL9 Ab (PAA081Hu01)

[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.