

**APC150Hu01 100µg**  
**Active Collagen Type VI Alpha 1 (COL6a1)**  
**Organism Species: *Homo sapiens* (Human)**  
***Instruction manual***

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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13th Edition (Revised in Aug, 2023)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Ala828~Ser1022

**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:** 6.8

**Predicted Molecular Mass:** 22.5kDa

**Accurate Molecular Mass:** 19kDa 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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ADI TILLDGSASV GSHNFDTTKR
FAKRLAERFL TAGRTDPAHD VRVAVVQYSG TGQQRPERAS LQFLQNYTAL
ASAVDAMDFI NDATDVNDAL GYVTRFYREA SSGAAKKRLL LFSDBGNSQGA
TPAAIEKAVQ EAQRAGIEIF VVVVGRQVNE PHIRVLVTGK TAEYDVAYGE
SHLFRVPSYQ ALLRGVFHQT VS
```

## **[ ACTIVITY ]**

Collagen alpha-1(VI) chain (COL6a1) is a protein that in humans, the collagens are a superfamily of proteins that play a role in maintaining the integrity of various tissues. Collagens are extracellular matrix proteins and have a triple-helical domain as their common structural element. Besides, Integrin Alpha V (ITGaV) has been identified as an interactor of COL6A1, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human COL6a1 and recombinant human ITGaV. Briefly, COL6a1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to ITGaV-coated microtiter wells and incubated for 2h at 37 °C . Wells were washed with PBST and incubated for 1h with anti-COL6a1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, 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 µL stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant human COL6a1 and recombinant human ITGaV was shown in Figure 1, the EC50 for this effect is 0.19 ug/mL.

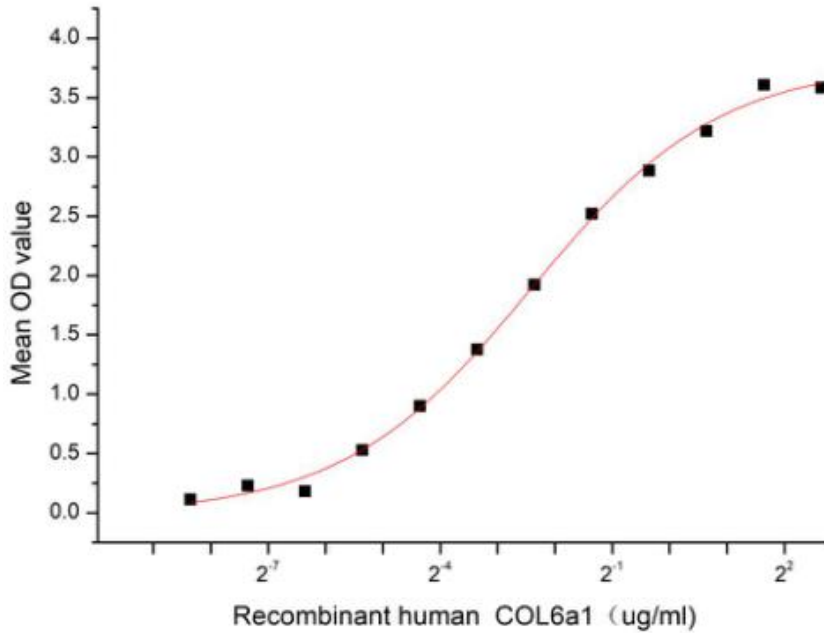


Figure 1. The binding activity of recombinant human COL6a1 and recombinant human ITGaV

**[ IDENTIFICATION ]**

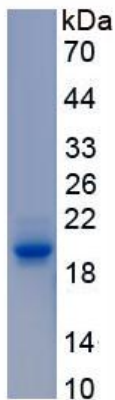


Figure 2. SDS-PAGE

Sample: Active recombinant COL6a1, 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.