APC150Mu02 100μg
Active Collagen Type VI Alpha 1 (COL6a1)
Organism Species: *Mus musculus (Mouse)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Ser624~Lys800
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 6.1
Predicted Molecular Mass: 20.8kDa
Accurate Molecular Mass: 21kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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 37ºC 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]

SIGLQNF EIAKDFIIKV IDRLSKDELV
KFEPGQSHAG VVQYSHNQMQ EHVDMRSPNV RNAQDFKEAV KKLQWMAGGT
FTGEALQYTR DRLLPPTQNN RIALVITDGR SDTQRDTTPL SVLCGADIQV
VSVGIKDVFG FVAGSDQLNV ISCQGLSQGR PGISLVKENY AELLDDGFLK

[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, Platelet-derived growth factor subunit A (PDGFA) has been identified as an interactor of COL6A1, thus a binding ELISA assay was conducted to detect the interaction of recombinant human COL6a1 and recombinant human PDGFA. Briefly, COL6a1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to PDGFA-coated microtiter wells and incubated for 2h at 37℃. 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 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 ℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of COL6a1 and PDGFA was shown in Figure 1, and this effect was in a dose dependent manner.

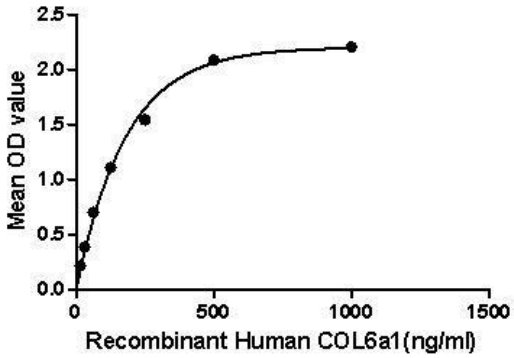

Figure 1. The binding activity of COL6a1 with PDGFA.

[IDENTIFICATION]

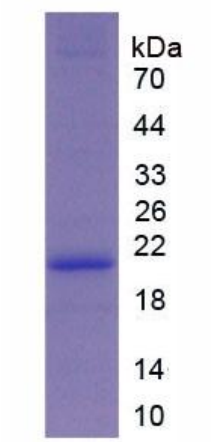

Figure 2. SDS-PAGE

Sample: Active recombinant COL6a1, Mouse

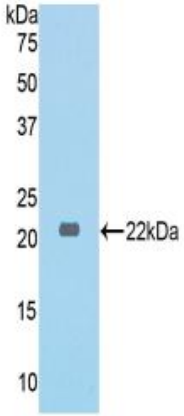

Figure 3. Western Blot

Sample: Recombinant COL6a1, Mouse;

Antibody: Rabbit Anti-Mouse COL6a1 Ab (PAC150Mu02)

[IMPORTANT NOTE]

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.