

## Collagen Type VI Alpha 1 (COL6a1) Active Protein | COL6a1 active protein

Active Collagen Type VI Alpha 1 (COL6a1)

CATALOG #  
**AAA149257**

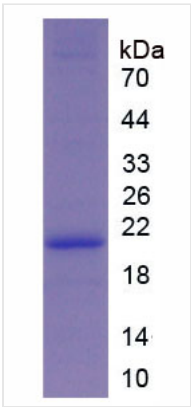
APPLICATIONS  
**Activity Assay, Cell Culture**

### PRODUCT SYNONYMS

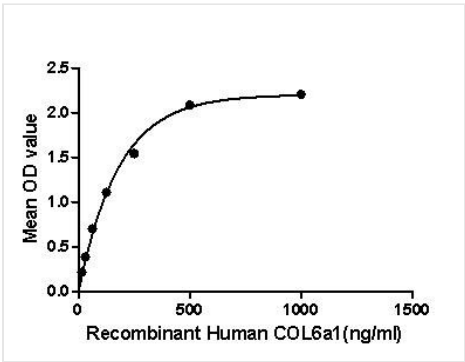
Collagen Type VI Alpha 1 (COL6a1); Active Collagen Type VI Alpha 1 (COL6a1); COL6-A1; OPLL; Collagen Alpha-1(VI)chain; COL6a1 active protein

### PRODUCT SPECIFICATIONS

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purity/Purification                               | > 95%                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Form/Format                                       | Freeze-Dried Powder; 20mM Tris, 150mM NaCl, pH8.0, Containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.                                                                                                                                                                                                                                                                                                                                               |
| Sequence Positions                                | Ser624~Lys800                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Sequence Length                                   | 1025                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Applicable Applications for COL6a1 active protein | Activity Assay, Cell Culture                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Species                                           | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Tag                                               | N-terminal His-Tag                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Isoelectric Point                                 | 6.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Subcellular Location                              | Secreted, Extracellular Matrix                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Reconstitution                                    | Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.                                                                                                                                                                                                                                                                                                                                                                      |
| Preparation and Storage                           | Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles.<br>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 degree 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. |



SDS-PAGE



Activity

Figure. The binding activity of COL6a1 with PDGFA. 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 degree 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 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50uL 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.

ADDITIONAL INFORMATION

|                                                     |                                                                                 |
|-----------------------------------------------------|---------------------------------------------------------------------------------|
| Product Categories/Family for COL6a1 active protein | Metabolic pathway; Developmental science; Nutrition metabolism; Bone metabolism |
|-----------------------------------------------------|---------------------------------------------------------------------------------|

NCBI AND UNIPROT INFORMATION

|                                  |                                             |
|----------------------------------|---------------------------------------------|
| NCBI GI #                        | 6753484                                     |
| NCBI GeneID                      | 12833                                       |
| NCBI Accession #                 | NP_034063.1                                 |
| NCBI GenBank Nucleotide #        | NM_009933.4                                 |
| UniProt Accession #              | Q04857                                      |
| Molecular Weight                 | Predicted MW: 20.8kDa<br>Accurate MW: 21kDa |
| NCBI Official Full Name          | collagen alpha-1(VI) chain                  |
| NCBI Official Synonym Full Names | collagen, type VI, alpha 1                  |
| NCBI Official Symbol             | Col6a1                                      |
| NCBI Official Synonym Symbols    | Col6a-1; AI747156                           |
| NCBI Protein Information         | collagen alpha-1(VI) chain                  |
| UniProt Protein Name             | Collagen alpha-1(VI) chain                  |
| UniProt Gene Name                | Col6a1                                      |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

