

Pro-COL1A2 (D-6): sc-166572

BACKGROUND

The extensive family of COL gene products (collagens) is composed of several chain types, including fibril-forming interstitial collagens (Types I, II, III and V) and basement membrane collagens (Type IV), each type containing multiple isoforms. Collagens are fibrous, extracellular matrix proteins with high tensile strength and are the major components of connective tissue, such as tendons and cartilage. All collagens contain a triple helix domain and frequently show lateral self-association in order to form complex connective tissues. Several collagens also play a role in cell adhesion, important for maintaining normal tissue architecture and function.

CHROMOSOMAL LOCATION

Genetic locus: COL1A2 (human) mapping to 7q21.3; Col1a2 (mouse) mapping to 6 A1.

SOURCE

Pro-COL1A2 (D-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 15-50 at the N-terminus of Procollagen α 2 Type I of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Pro-COL1A2 (D-6) is available conjugated to agarose (sc-166572 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166572 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166572 PE), fluorescein (sc-166572 FITC), Alexa Fluor[®] 488 (sc-166572 AF488), Alexa Fluor[®] 546 (sc-166572 AF546), Alexa Fluor[®] 594 (sc-166572 AF594) or Alexa Fluor[®] 647 (sc-166572 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-166572 AF680) or Alexa Fluor[®] 790 (sc-166572 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166572 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Pro-COL1A2 (D-6) is recommended for detection of Pro-COL1A2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for COL1A2 siRNA (h): sc-72156, COL1A2 siRNA (m): sc-43061, COL1A2 shRNA Plasmid (h): sc-72156-SH, COL1A2 shRNA Plasmid (m): sc-43061-SH, COL1A2 shRNA (h) Lentiviral Particles: sc-72156-V and COL1A2 shRNA (m) Lentiviral Particles: sc-43061-V.

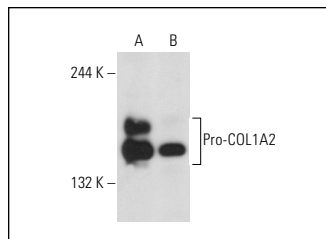
Molecular Weight of Pro-COL1A2: 140-210 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243, Hs68 cell lysate: sc-2230 or CCD-1064Sk cell lysate: sc-2263.

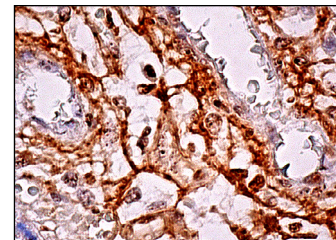
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Pro-COL1A2 (D-6): sc-166572. Western blot analysis of Pro-COL1A2 expression in CCD-1064Sk (A) and 3T3-L1 (B) whole cell lysates.



Pro-COL1A2 (D-6): sc-166572. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing extracellular staining.

SELECT PRODUCT CITATIONS

- Kurundkar, A.R., et al. 2016. The matricellular protein CCN1 enhances TGF- β 1/Smad3-dependent profibrotic signaling in fibroblasts and contributes to fibrogenic responses to lung injury. *FASEB J.* 30: 2135-2150.
- Lu, Y., et al. 2017. Correlations between mitofusin 2 expression in fibroblasts and pelvic organ prolapse: an *in vitro* study. *Chin. Med. J.* 130: 2951-2959.
- Walsh, D.R., et al. 2018. Regional mechanical and biochemical properties of the porcine cortical meninges. *Acta Biomater.* 80: 237-246.
- Hseu, Y.C., et al. 2018. *Trans*-cinnamic acid attenuates UVA-induced photoaging through inhibition of AP-1 activation and induction of Nrf2-mediated antioxidant genes in human skin fibroblasts. *J. Dermatol. Sci.* 90: 123-134.
- Wang, X., et al. 2019. Mitofusin2 regulates the proliferation and function of fibroblasts: the possible mechanisms underlying pelvic organ prolapse development. *Mol. Med. Rep.* 20: 2859-2866.
- Gissi, C., et al. 2020. Extracellular vesicles from rat-bone-marrow mesenchymal stromal/stem cells improve tendon repair in rat Achilles tendon injury model in dose-dependent manner: a pilot study. *PLoS ONE* 15: e0229914.
- Wang, X.Q., et al. 2020. Therapeutic effects of 17 β -estradiol on pelvic organ prolapse by inhibiting Mfn2 expression: an *in vitro* study. *Front. Endocrinol.* 11: 586242.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA