

# Pro-COL1A2 (N-18): sc-8785

## 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.

## REFERENCES

1. Bellamy, G., et al. 1971. Evidence for procollagen, a biosynthetic precursors of collagen. *Proc. Natl. Acad. Sci. USA* 68: 1138-1142.
2. Church, R.L., et al. 1971. Collagen biosynthesis: synthesis and secretion of a high molecular weight collagen precursor (procollagen). *Proc. Natl. Acad. Sci. USA* 68: 2638-2642.

## CHROMOSOMAL LOCATION

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

## SOURCE

Pro-COL1A2 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Procollagen  $\alpha 2$  Type I of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8785 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Pro-COL1A2 (N-18) is recommended for detection of procollagen  $\alpha 2$  Type I of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (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.

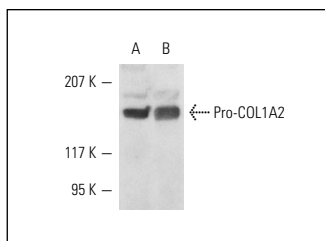
Molecular Weight of Pro-COL1A2: 140-210 kDa.

Positive Controls: Hs68 cell lysate: sc-2230, CCD-1064Sk cell lysate: sc-2263 or A-10 cell lysate: sc-3806.

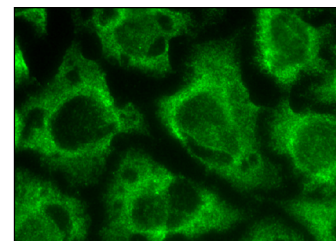
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Pro-COL1A2 (N-18): sc-8785. Western blot analysis of Pro-COL1A2 expression in Hs68 (A) and A-10 (B) whole cell lysates.



Pro-COL1A2 (N-18): sc-8785. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Schultze-Mosgau, S., et al. 2006. Plasminogen activator inhibitor-I-related regulation of procollagen I ( $\alpha 1$  and  $\alpha 2$ ) by antitumor growth factor- $\beta 1$  treatment during radiation-impaired wound healing. *Int. J. Radiat. Oncol. Biol. Phys.* 64: 280-288.
2. Kim, J.N., et al. 2010. Cigarette smoke-induced Egr-1 represses T  $\beta$  R-II expression in human skin dermal fibroblasts. *Toxicology* 275: 29-35.
3. Xu, B., et al. 2012. RhoA/ROCK, cytoskeletal dynamics, and focal adhesion kinase are required for mechanical stretch-induced tenogenic differentiation of human mesenchymal stem cells. *J. Cell. Physiol.* 227: 2722-2729.

## STORAGE

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

## RESEARCH USE

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

**MONOS**  
Satisfaction  
Guaranteed

Try **Pro-COL1A2 (D-6): sc-166572**, our highly recommended monoclonal alternative to Pro-COL1A2 (N-18).