SANTA CRUZ BIOTECHNOLOGY, INC.

Pro-COL1A1 (A-17): sc-25973

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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: COL1A1 (human) mapping to 17q21.33; Col1a1 (mouse) mapping to 11 D.

SOURCE

Pro-COL1A1 (A-17) is an affinity purified goat polyclonal antibody mapping within the C-terminal propeptide of Collagen α1 Type1 precursor of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as agarose conjugate for immunoprecipitation, sc-25973 AC, 500 µg/0.25 ml agarose in 1 ml.

Blocking peptide available for competition studies, sc-25973 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Pro-COL1A1 (A-17) is recommended for detection of Collagen α1 type1 precursor of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with mature Collagen α1 type1.

Pro-COL1A1 (A-17) is also recommended for detection of Collagen α1 type1 precursor in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for COL1A1 siRNA (h): sc-44041, COL1A1 siRNA (m): sc-44044, COL1A1 shRNA Plasmid (h): sc-44041-SH, COL1A1 shRNA Plasmid (m): sc-44044-SH, COL1A1 shRNA (h) Lentiviral Particles: sc-44041-V and COL1A1 shRNA (m) Lentiviral Particles: sc-44044-V.

Molecular Weight of Pro-COL1A1 precursor: 140-210 kDa.

Positive Controls: Hs68 cell lysate: sc-2230.

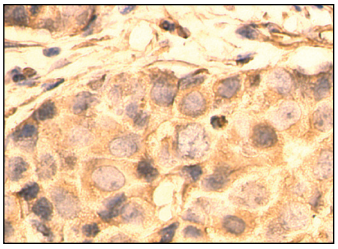
STORAGE

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.

DATA



Pro-COL1A1 (A-17): sc-25973. Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast carcinoma tissue showing cytoplasmic and extracellular localization.

SELECT PRODUCT CITATIONS

1. Yamashita, M., et al. 2010. Morphological and extracellular matrix changes following vocal fold injury in mice. Cells Tissues Organs 192: 262-271.
2. Apone, F., et al. 2010. A mixture of peptides and sugars derived from plant cell walls increases plant defense responses to stress and attenuates ageing-associated molecular changes in cultured skin cells. J. Biotechnol. 145: 367-376.
3. Tito, A., et al. 2011. A tomato stem cell extract, containing antioxidant compounds and metal chelating factors, protects skin cells from heavy metal-induced damages. Int. J. Cosmet. Sci. 33: 543-552.
4. Buono, S., et al. 2012. Biological activities of dermatological interest by the water extract of the microalga *Botryococcus braunii*. Arch. Dermatol. Res. 304: 755-764.
5. Cieslik, K.A., et al. 2013. Aberrant differentiation of fibroblast progenitors contributes to fibrosis in the aged murine heart: role of elevated circulating Insulin levels. FASEB J. 27: 1761-1771.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.