SANTA CRUZ BIOTECHNOLOGY, INC.

COL1A2 (M-80): sc-28654

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.

REFERENCES

1. Bateman, J.F., et al. 1996. Collagen superfamily. In Comper, W.D., ed., Extracellular Matrix, Vol. 2: Molecular Compo-nents and Interactions. Amsterdam: Harwood Academic Publishers, 22-67.
2. McCarthy, J.B., et al. 1996. Cell adhesion to collagenous matrices. Biopolymers 40: 371-381.

CHROMOSOMAL LOCATION

Genetic locus: Col1a2 (mouse) mapping to 6 A1.

SOURCE

COL1A2 (M-80) is a rabbit polyclonal antibody raised against amino acids 1021-1100 mapping within an internal region of Collagen α2 Type I of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

COL1A2 (M-80) is recommended for detection of Collagen α2 Type I of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 (m): sc-43061, COL1A2 shRNA Plasmid (m): sc-43061-SH and COL1A2 shRNA (m) Lentiviral Particles: sc-43061-V.

Molecular Weight of COL1A2 precursor: 130-140 kDa.

Molecular Weight of mature COL1A2: 70-90 kDa.

Positive Controls: mouse liver extract: sc-2256, mouse kidney extract: sc-2255 or mouse colon tissue extract: sc-364238.

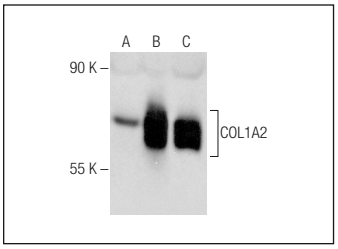
STORAGE

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



COL1A2 (M-80): sc-28654. Western blot analysis of COL1A2 expression in mouse colon (**A**), mouse liver (**B**) and mouse kidney (**C**) tissue extracts.

SELECT PRODUCT CITATIONS

1. Dal Pra, I., et al. 2005. *De novo* engineering of reticular connective tissue *in vivo* by silk fibroin nonwoven materials. Biomaterials 26: 1987-1999.
2. Lantz, R.C., et al. 2009. In utero and postnatal exposure to arsenic alters pulmonary structure and function. Toxicol. Appl. Pharmacol. 235: 105-113.
3. Bozec, A., et al. 2010. Fra-2/AP-1 controls bone formation by regulating osteoblast differentiation and collagen production. J. Cell Biol. 190: 1093-1106.
4. Tagaya, M., et al. 2011. Detection of interfacial phenomena with osteoblast-like cell adhesion on hydroxyapatite and oxidized polystyrene by the quartz crystal microbalance with dissipation. Langmuir 27: 7635-7644.
5. Chen, W., et al. 2013. Collagen-specific peptide conjugated HDL nanoparticles as MRI contrast agent to evaluate compositional changes in atherosclerotic plaque regression. JACC Cardiovasc. Imaging. 6: 373-384.
6. Zhao, R., et al. 2013. Transdermal siRNA-TGFβ1-337 patch for hypertrophic scar treatment. Matrix Biol. 32: 265-276.

PROTOCOLS

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