

COL22A1 (S-17): sc-87648

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

- Bateman, J.F., Lalande, S.R. and Ramshaw, J.A.M. 1996. Collagen Superfamily. In Comper, W.D., ed. Extracellular Matrix, Volume 2: Molecular Components and Interactions. Amsterdam: Harwood Academic Publishers, 22-67.
- McCarthy, J.B., Vachhani, B. and Iida, J. 1996. Cell adhesion to collagenous matrices. *Biopolymers* 40: 371-381.
- Engel, J. 1997. Versatile collagens in invertebrates. *Science* 277: 1785-1786.
- Cremer, M.A., Rosloniec, E.F. and Kang, A.H. 1998. The cartilage collagens: a review of their structure, organization, and role in the pathogenesis of experimental arthritis in animals and in human rheumatic disease. *J. Mol. Med.* 76: 275-288.
- Boskey, A.L., Wright, T.M. and Blank, R.D. 1999. Collagen and bone strength. *J. Bone Miner. Res.* 14: 330-335.
- Alberio, L. and Dale, G.L. 1999. Platelet-collagen interactions: membrane receptors and intracellular signaling pathways. *Eur. J. Clin. Invest.* 29: 1066-1076.

CHROMOSOMAL LOCATION

Genetic locus: COL22A1 (human) mapping to 8q24.23; Col22a1 (mouse) mapping to 15 D3.

SOURCE

COL22A1 (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Collagen Type XXII of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-87648 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

COL22A1 (S-17) is recommended for detection of Collagen Type XXII 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

COL22A1 (S-17) is also recommended for detection of Collagen Type XXII in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for COL22A1 siRNA (h): sc-77503, COL22A1 siRNA (m): sc-142463, COL22A1 shRNA Plasmid (h): sc-77503-SH, COL22A1 shRNA Plasmid (m): sc-142463-SH, COL22A1 shRNA (h) Lentiviral Particles: sc-77503-V and COL22A1 shRNA (m) Lentiviral Particles: sc-142463-V.

Molecular Weight of COL22A1: 131 kDa.

Positive Controls: 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) 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.

RESEARCH USE

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

PROTOCOLS

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