

COL19A1 (N-15): sc-68644

BACKGROUND

Collagen Type XIX is an 1,142 amino acid protein encoded by the human gene COL19A1. Collagen Type XIX belongs to the fibril-associated collagens with interrupted helices (FACIT) family. Collagen Type XIX is thought to act as a cross-bridge between collagen fibrils and other extracellular matrix molecules. Collagen Type XIX is also believed to be involved in skeletal myogenesis in the developing esophagus. It may also play a role in organization of the pericellular matrix or the sphincteric smooth muscle. Collagen Type XIX is normally found as an oligomer, the subunits being disulfide-linked. Expression of Collagen Type XIX is mainly localized to vascular, neuronal, mesenchymal and some epithelial basement membrane zones in umbilical cord. Numerous interruptions in the Collagen Type XIX triple helix may make this molecule either elastic or flexible. Collagen Type XIX also contains one TSP N-terminal (TSPN) domain.

REFERENCES

1. Myers, J.C., et al. 1994. The triple-helical region of human Type XIX Collagen consists of multiple collagenous subdomains and exhibits limited sequence homology to α 1(XVI). *J. Biol. Chem.* 269: 18549-18557.
2. Inoguchi, K., et al. 1995. The mRNA for α 1(XIX) Collagen chain, a new member of FACITs, contains a long unusual 3' untranslated region and displays many unique splicing variants. *J. Biochem.* 117: 137-146.
3. Gerecke, D.R., et al. 1997. Complete primary structure of two splice variants of Collagen XII, and assignment of α 1(XII) Collagen (COL12A1), α 1(IX) Collagen (COL9A1), and α 1(XIX) Collagen (COL19A1) to human chromosome 6q12-q13. *Genomics* 41: 236-242.
4. Sumiyoshi, H., et al. 1997. Ubiquitous expression of the α 1(XIX) Collagen gene (Col19a1) during mouse embryogenesis becomes restricted to a few tissues in the adult organism. *J. Biol. Chem.* 272: 17104-17111.
5. Khaleduzzaman, M., et al. 1998. Structure of the human Type XIX Collagen (COL19A1) gene, which suggests it has arisen from an ancestor gene of the FACIT family. *Genomics* 45: 304-312.
6. Myers, J.C., et al. 2003. Type XIX Collagen purified from human umbilical cord is characterized by multiple sharp kinks delineating collagenous subdomains and by intermolecular aggregates via globular, disulfide-linked, and heparin-binding amino-termini. *J. Biol. Chem.* 278: 32047-32057.
7. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. *Science* 314: 268-274.

CHROMOSOMAL LOCATION

Genetic locus: COL19A1 (human) mapping to 6q13; Col19a1 (mouse) mapping to 1 A5.

SOURCE

COL19A1 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Collagen Type XIX of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-68644 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COL19A1 (N-15) is recommended for detection of Collagen Type XIX 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).

COL19A1 (N-15) is also recommended for detection of Collagen Type XIX in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for COL19A1 siRNA (h): sc-72960, COL19A1 siRNA (m): sc-72961, COL19A1 shRNA Plasmid (h): sc-72960-SH, COL19A1 shRNA Plasmid (m): sc-72961-SH, COL19A1 shRNA (h) Lentiviral Particles: sc-72960-V and COL19A1 shRNA (m) Lentiviral Particles: sc-72961-V.

Molecular Weight of COL19A1: 115 kDa.

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.

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.

PROTOCOLS

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