

# COL19A1 (H-51): sc-68433

## 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 sphincter 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 inter-ruptions 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  $\alpha$  1(XVI). *J. Biol. Chem.* 269: 18549-18557.
2. Inoguchi, K., et al. 1995. The mRNA for  $\alpha$  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  $\alpha$  1(XII) collagen (COL12A1),  $\alpha$  1(IX) collagen (COL9A1), and  $\alpha$  1(XIX) collagen (COL19A1) to human chromosome 6q12-q13. *Genomics* 41: 236-242.
4. Sumiyoshi, H., et al. 1997. Ubiquitous expression of the  $\alpha$ 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 (H-51) is a rabbit polyclonal antibody raised against amino acids 1005-1056 mapping near the C-terminus of Collagen Type XIX 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.

## APPLICATIONS

COL19A1 (H-51) 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), 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 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.

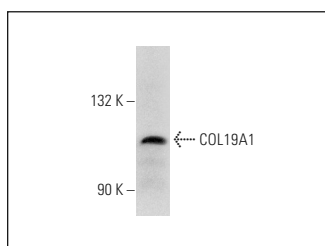
Molecular Weight of COL19A1: 115 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



COL19A1 (H-51): sc-68433. Western blot analysis of COL19A1 expression in HeLa whole cell lysate.

## 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.