SANTA CRUZ BIOTECHNOLOGY, INC.

Tenomodulin (H-109): sc-98875

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Tenomodulin (TEM), also designated chondromodulin-I-like protein (ChM-1L), myodulin or tendin, acts as an angiogenesis inhibitor. It is a single-pass type II membrane protein that belongs to the chondromodulin family of proteins. The deduced 317 amino acid protein contains an N-terminal transmembrane domain and a putative antiangiogenic domain comprised of 8 cysteines. Human Tenomodulin shares 96% amino acid identity with mouse Tenomodulin, and it shares 65% identity in a 65 amino acid C-terminal stretch with chondromodulin-I. Tenomodulin is expressed in skeletal muscle, eye, whole rib and dense connective tissues, such as epimysium and tendon.

REFERENCES

1. Yamana, K., et al. 2001. Molecular cloning and characterization of ChM-1L, a novel membrane molecule similar to chondromodulin-I. Biochem. Biophys. Res. Commun. 280: 1101-1106.
2. Shukunami, C., et al. 2001. Molecular cloning of Tenomodulin, a novel chondromodulin-I related gene. Biochem. Biophys. Res. Commun. 280: 1323-1327.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300459. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Oshima, Y., et al. 2004. Antiangiogenic action of the C-terminal domain of Tenomodulin that shares homology with chondromodulin I. J. Cell Sci. 117: 2731-2744.

CHROMOSOMAL LOCATION

Genetic locus: TNMD (human) mapping to Xq22.1; Tnmd (mouse) mapping to X E3.

SOURCE

Tenomodulin (H-109) is a rabbit polyclonal antibody raised against amino acids 174-282 mapping within a C-terminal extracellular domain of Tenomodulin 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.

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.

APPLICATIONS

Tenomodulin (H-109) is recommended for detection of Tenomodulin of mouse, rat and human 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), 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).

Tenomodulin (H-109) is also recommended for detection of Tenomodulin in additional species, including equine, canine, bovine and porcine.

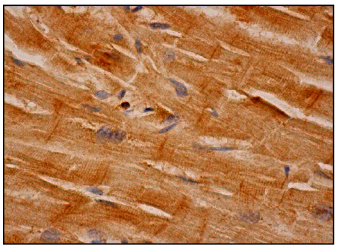
Suitable for use as control antibody for Tenomodulin siRNA (h): sc-61665, Tenomodulin siRNA (m): sc-61666, Tenomodulin shRNA Plasmid (h): sc-61665-SH, Tenomodulin shRNA Plasmid (m): sc-61666-SH, Tenomodulin shRNA (h) Lentiviral Particles: sc-61665-V and Tenomodulin shRNA (m) Lentiviral Particles: sc-61666-V.

Molecular Weight of Tenomodulin: 37.1 kDa.

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Tenomodulin (H-109): sc-98875. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic and intercalated disc staining of myocytes.

SELECT PRODUCT CITATIONS

1. Tong, W.Y., et al. 2012. Functional replication of the tendon tissue microenvironment by a bioimprinted substrate and the support of tenocytic differentiation of mesenchymal stem cells. Biomaterials 33: 7686-7698.