Matrilin-4 (C-20): sc-27933



The Power to Question

BACKGROUND

The matrilin family proteins are secreted extracellular matrix proteins. Matrilin-1 is a homotrimer that binds to collagen and is a component of the extracellular matrix of nonarticular cartilage. It is secreted primarily by chondrocytes in a characteristic spatial, temporal and developmental stage-specific pattern during skeletogenesis. Matrilin-2 is a secreted protein involved in matrix assembly. Matrilin-3 is a secreted protein expressed solely in cartilaginous tissues. It is important in the extracellular matrix of cartilage and in the formation of extracellular filamentous networks. Matrilin-4, expressed in embryonic kidney, lung and placenta, is a secreted protein important to the extracellular matrix of cartilage.

REFERENCES

- 1. Deak, F., et al. 1999. The matrilins: a novel family of oligomeric extracellular matrix proteins. Matrix Biol. 18: 55-64.
- Segat, D., et al. 2000. Expression of matrilin-1, -2 and -3 in developing mouse limbs and heart. Matrix Biol. 19: 649-655.
- Strusberg, I., et al. 2002. Association analysis of genotypic frequencies of matrilin-1 gene in patients with osteoarthritis. Clin. Exp. Rheumatol. 20: 543-545.
- Wiberg, C., et al. 2003. Complexes of matrilin-1 and biglycan or decorin connect collagen VI microfibrils to both collagen II and aggrecan. J. Biol. Chem. 278: 37698-37704.
- Ohno, S., et al. 2003. Immunohistochemical study of matrilin-1 in arthritic articular cartilage of the mandibular condyle. J. Oral Pathol. Med. 32: 237-242.
- Mann, H.H., et al. 2004. Interactions between the cartilage oligomeric matrix protein and matrilins. Implications for matrix assembly and the pathogenesis of chondrodysplasias. J. Biol. Chem. 279: 25294-25298.
- 7. Karcagi, I., et al. 2004. Functional analysis of the regulatory regions of the matrilin-1 gene in transgenic mice reveals modular arrangement of tissue-specific control elements. Matrix Biol. 22: 605-618.
- 8. Hansson, A.S., et al. 2004. Critical role of the major histocompatibility complex and IL-10 in matrilin-1-induced relapsing polychondritis in mice. Arthritis Res. Ther. 6: 484-491.
- 9. Hansson, A.S., et al. 2004. Relapsing polychondritis, induced in mice with matrilin 1, is an antibody- and complement-dependent disease. Am. J. Pathol. 164: 959-966.

CHROMOSOMAL LOCATION

Genetic locus: MATN4 (human) mapping to 20q13.12; Matn4 (mouse) mapping to 2 H3.

SOURCE

Matrilin-4 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Matrilin-4 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-27933 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Matrilin-4 (C-20) is recommended for detection of Matrilin-4 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).

Matrilin-4 (C-20) is also recommended for detection of Matrilin-4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Matrilin-4 siRNA (h): sc-106206, Matrilin-4 siRNA (m): sc-149298, Matrilin-4 shRNA Plasmid (h): sc-106206-SH, Matrilin-4 shRNA Plasmid (m): sc-149298-SH, Matrilin-4 shRNA (h) Lentiviral Particles: sc-106206-V and Matrilin-4 shRNA (m) Lentiviral Particles: sc-149298-V.

Molecular Weight of Matrilin-4: 68 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.



Try Matrilin-4 (F-2): sc-374653 or Matrilin-4 (B-1): sc-374652, our highly recommended monoclonal alternatives to Matrilin-4 (C-20).