SANTA CRUZ BIOTECHNOLOGY, INC.

Matrilin-4 (F-20): sc-27931

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. Wagener, R., et al. 1998. Matrilin-4, a new member of the matrilin family of extracellular matrix proteins. FEBS Lett. 436: 123-127.
2. Wagener, R., et al. 1998. Genomic organisation, alternative splicing and primary structure of human matrilin-4. FEBS Lett. 438: 165-170.
3. Aszodi, A., et al. 1999. Normal skeletal development of mice lacking matrilin 1: redundant function of matrilins in cartilage? Mol. Cell. Biol. 19: 7841-7845.
4. Klatt, A.R., et al. 2001. Molecular structure, processing, and tissue distribution of matrilin-4. J. Biol. Chem. 276: 17267-17275.
5. Wagener, R., et al. 2001. Characterization of the mouse matrilin-4 gene: a 5' antiparallel overlap with the gene encoding the transcription factor RBP-I. Genomics 76: 89-98.
6. Frank, S., et al. 2002. Characterization of the matrilin coiled-coil domains reveals seven novel isoforms. J. Biol. Chem. 277: 19071-19079.

CHROMOSOMAL LOCATION

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

SOURCE

Matrilin-4 (F-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Matrilin-4 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-27931 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.

PROTOCOLS

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

APPLICATIONS

Matrilin-4 (F-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), 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

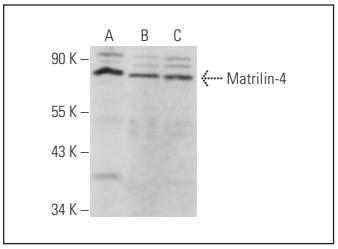
Matrilin-4 (F-20) is also recommended for detection of Matrilin-4 in additional species, including equine, canine, bovine and porcine.

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.

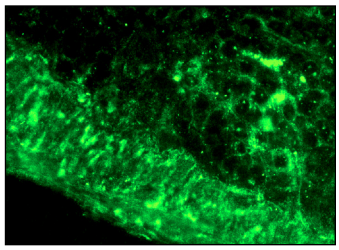
Molecular Weight of Matrilin-4: 68 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HEK293 whole cell lysate: sc-45136 or NIH/3T3 whole cell lysate: sc-2210.

DATA



Matrilin-4 (F-20): sc-27931. Western blot analysis of Matrilin-4 expression in HeLa (**A**), NIH/3T3 (**B**) and HEK293 (**C**) whole cell lysates.



Matrilin-4 (F-20): sc-27931. Immunofluorescence staining of normal mouse intestine frozen section showing extracellular matrix staining.

RESEARCH USE

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