

Matrilin-4 (B-1): sc-374652

BACKGROUND

The matrilin family of secreted extracellular matrix proteins is comprised of Matrilin-1 through Matrilin-4. 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

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2. Segat, D., et al. 2000. Expression of Matrilin-1, -2 and -3 in developing mouse limbs and heart. *Matrix Biol.* 19: 649-655.
3. Strusberg, I., et al. 2002. Association analysis of genotypic frequencies of Matrilin-1 gene in patients with osteoarthritis. *Clin. Exp. Rheumatol.* 20: 543-545.
4. 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.
5. 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.
6. 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.

CHROMOSOMAL LOCATION

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

SOURCE

Matrilin-4 (B-1) is a mouse monoclonal antibody raised against amino acids 265-409 mapping within an internal region of Matrilin-4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Matrilin-4 (B-1) is available conjugated to agarose (sc-374652 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374652 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374652 PE), fluorescein (sc-374652 FITC), Alexa Fluor® 488 (sc-374652 AF488), Alexa Fluor® 546 (sc-374652 AF546), Alexa Fluor® 594 (sc-374652 AF594) or Alexa Fluor® 647 (sc-374652 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374652 AF680) or Alexa Fluor® 790 (sc-374652 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Matrilin-4 (B-1) is recommended for detection of Matrilin-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

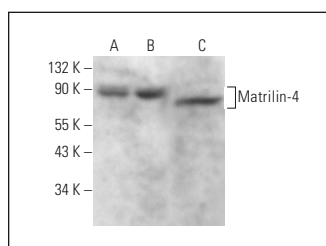
Molecular Weight of Matrilin-4: 68 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, ACHN whole cell lysate: sc-364365 or 3611-RF whole cell lysate: sc-2215.

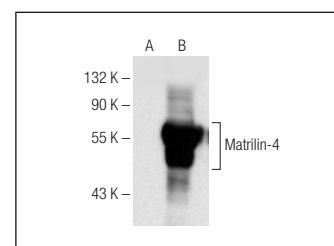
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Matrilin-4 (B-1): sc-374652. Western blot analysis of Matrilin-4 expression in HeLa (A), ACHN (B) and 3611-RF (C) whole cell lysates.



Matrilin-4 (B-1): sc-374652. Western blot analysis of Matrilin-4 expression in non-transfected (A) and human Matrilin-4 transfected (B) HEK293T whole cell lysates.

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.

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