

Fibromodulin (N-14): sc-25857

BACKGROUND

Small leucine-rich proteoglycans (SLRPs) such as Decorin, Biglycan, Fibromodulin, and Lumican mediate extracellular matrix organization and are binding partners of TGFbeta. Fibromodulin is a collagen-binding Keratan sulphate proteoglycan that influences adhesion processes of connective tissue, and plays a role in fibrillogenesis by regulating collagen fibril spacing and thickness. The core proteins of SLRPs consist of a central region of leucine-rich repeats flanked by disulfide-linkages of the terminal domains. Fibromodulin is a ubiquitous protein that is most prominent in articular cartilage, tendon, and ligament. The human Fibromodulin gene maps to chromosome 1q32 and encodes a 376 amino acid protein.

REFERENCES

1. Antonsson, P., et al. 1993. Structure and deduced amino acid sequence of the human Fibromodulin gene. *Biochim. Biophys. Acta* 1174: 204-206.
2. Sztrolovics, R., et al. 1994. Localization of the human Fibromodulin gene (FMOD) to chromosome 1q32 and completion of the cDNA sequence. *Genomics* 23: 715-717.
3. Online Mendelian Inheritance in Man, OMIM™. 1995. Johns Hopkins University, Baltimore, MD. MIM Number: 600245. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Roughley, P.J., et al. 1996. Changes with age in the structure of Fibromodulin in human articular cartilage. *Osteoarthr. Cartil.* 4: 153-161.
5. Petri, J.B., et al. 1999. The small proteoglycan Fibromodulin is expressed in mitotic, but not in postmitotic fibroblasts. *Mol. Cell Biol. Res. Commun.* 1: 59-65.
6. Schaefer, L., et al. 2000. Small proteoglycans of normal adult human kidney: distinct expression patterns of Decorin, Biglycan, Fibromodulin, and Lumican. *Kidney Int.* 58: 1557-1568.
7. Schaefer, L., et al. 2001. Small proteoglycans in human diabetic nephropathy: discrepancy between glomerular expression and protein accumulation of Decorin, Biglycan, Lumican, and Fibromodulin. *FASEB J.* 15: 559-561.

CHROMOSOMAL LOCATION

Genetic locus: FMOD (human) mapping to 1q32.

SOURCE

Fibromodulin (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Fibromodulin 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-25857 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

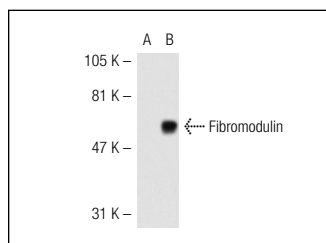
Fibromodulin (N-14) is recommended for detection of Fibromodulin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Fibromodulin siRNA (h): sc-40995, Fibromodulin shRNA Plasmid (h): sc-40995-SH and Fibromodulin shRNA (h) Lentiviral Particles: sc-40995-V.

Molecular Weight of Fibromodulin: 67 kDa.

Positive Controls: Fibromodulin (h): 293T Lysate: sc-114267.

DATA



Fibromodulin (N-14): sc-25857. Western blot analysis of Fibromodulin expression in non-transfected: sc-117752 (A) and human Fibromodulin transfected: sc-114267 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Lin, C.S., et al. 2007. Increased expression of extracellular matrix proteins in rapid atrial pacing-induced atrial fibrillation. *Heart Rhythm* 4: 938-949.

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 **Fibromodulin (H-11): sc-166406** or **Fibromodulin (E-12): sc-166498**, our highly recommended monoclonal alternatives to Fibromodulin (N-14).