

Fibulin-5 (S-20): sc-23062

BACKGROUND

Fibulin proteins contribute to normal development of elastic fiber systems in various types of organs that require elasticity, such as vasculature, lung and skin. Fibulin-5 (EVEC, UP50, DANCE) is an integrin-binding extracellular matrix protein that mediates endothelial cell adhesion. Fibulin-5 is also a calcium-dependent elastin-binding protein that scaffolds cells to elastic fibers, thereby preventing elastinopathy in the skin, lung and vasculature. The Arg-Gly-Asp (RGD) motif in Fibulin-5 interacts with cell surface integrins $\alpha v/\beta 3$, $\alpha v/\beta 5$ and $\alpha 9/\beta 1$, serves as an anchorage for elastic fibers to cells, and promotes organization of elastic fibers. The human Fibulin-5 gene maps to chromosome 14q32.12 and encodes a 488 amino acid protein.

REFERENCES

1. Kowal, R.C., et al. 1999. Assignment of Fibulin-5 (FBLN5) to human chromosome 14q31 by *in situ* hybridization and radiation hybrid mapping. *Cytogenet. Cell Genet.* 87: 2-3.
2. Yanagisawa, H., et al. 2002. Fibulin-5 is an elastin-binding protein essential for elastic fibre development *in vivo*. *Nature* 415: 168-171.
3. Midwood, K.S. and Schwarzbauer, J.E. 2002. Elastic fibers: building bridges between cells and their matrix. *Curr. Biol.* 12: R279-281.
4. Nakamura, T., et al. 2002. Fibulin-5/DANCE is essential for elastogenesis *in vivo*. *Nature* 415: 171-175.
5. Schiemann, et al. 2002. Context-specific effects of Fibulin-5 (DANCE/EVEC) on cell proliferation, motility, and invasion. Fibulin-5 is induced by transforming growth factor- β and affects protein kinase cascades. *J. Biol. Chem.* 277: 27367-27377.
6. Loeys, B., et al. 2002. Homozygosity for a missense mutation in Fibulin-5 (FBLN5) results in a severe form of cutis laxa. *Hum. Mol. Genet.* 11: 2113-2118.

CHROMOSOMAL LOCATION

Genetic locus: FBLN5 (human) mapping to 14q32.12; Fbln5 (mouse) mapping to 12 E.

SOURCE

Fibulin-5 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Fibulin-5 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23062 P, (100 μ g 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.

APPLICATIONS

Fibulin-5 (S-20) is recommended for detection of precursor and mature Fibulin-5 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).

Fibulin-5 (S-20) is also recommended for detection of precursor and mature Fibulin-5 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Fibulin-5 siRNA (h): sc-43121, Fibulin-5 siRNA (m): sc-43122, Fibulin-5 shRNA Plasmid (h): sc-43121-SH, Fibulin-5 shRNA Plasmid (m): sc-43122-SH, Fibulin-5 shRNA (h) Lentiviral Particles: sc-43121-V and Fibulin-5 shRNA (m) Lentiviral Particles: sc-43122-V.

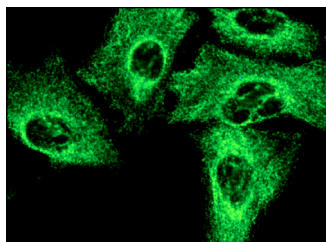
Molecular Weight of Fibulin-5: 66 kDa.

Positive Controls: Mouse heart extract: sc-2254.

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.

DATA



Fibulin-5 (S-20): sc-23062. Immunofluorescence staining of methanol-fixed A549 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Sato, Y., et al. 2008. Fibulin-5 is involved in phlebosclerosis of major portal vein branches associated with elastic fiber deposition in idiopathic portal hypertension. *Hepatol. Res.* 38: 166-173.

RESEARCH USE

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