SANTA CRUZ BIOTECHNOLOGY, INC.

Fibulin-5 (H-60): sc-30170

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

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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. Nakamura, T., et al. 2002. Fibulin-5/DANCE is essential for elastogenesis *in vivo.* Nature 415: 171-175.
4. Midwood, K.S. and Schwarzbauer, J.E. 2002. Elastic fibers: building bridges between cells and their matrix. Curr. Biol. 12: R279-R281.
5. Schiemann, W.P., 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.
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CHROMOSOMAL LOCATION

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

SOURCE

Fibulin-5 (H-60) is a rabbit polyclonal antibody raised against amino acids 389-448 mapping at the C-terminus of Fibulin-5 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.

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 (H-60) 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), 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).

Fibulin-5 (H-60) 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.

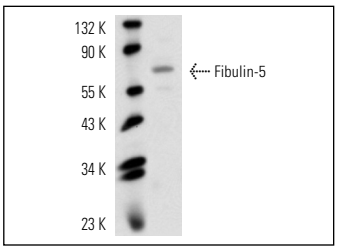
Molecular Weight of Fibulin-5: 66 kDa.

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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Fibulin-5 (H-60): sc-30170. Western blot analysis of Fibulin-5 expression in mouse heart tissue extract.

SELECT PRODUCT CITATIONS

1. Hirai, Y., et al. 2012. Fibulin-5 protein is reduced in the lung of patients with spontaneous pneumothorax who are under 25 years old. Ann. Thorac. Cardiovasc. Surg. 18: 200-205.

RESEARCH USE

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