SANTA CRUZ BIOTECHNOLOGY, INC.

fibrillin-3 (P-16): sc-167896



The Power to Question

BACKGROUND

Fibrillin-3 (FBN3) is a 2,809 amino acid protein that belongs to the fibrillin family. Fibrillins are structural components of 10-12 nm extracellular calciumbinding microfibrils, which occur either in association with elastin or in elastin-free bundles. Microfibrils provide long-term force-bearing structural support with uniform small-diameter fibrils. Containing 44 EGF-like domains, as well as 9 TB (TGF-beta binding) domains, fibrillin-3 is predominantly expressed in connective tissues, such as skeletal muscle, tendon, skin, perichondrium and periosteum. Fibrillin-3 is also highly expressed in fetal lung, brain and kidney, but expressed at low levels in prostate, testis, mammary gland, uterus, ovary, placenta, bladder, adrenal gland, thyroid, heart, fetal thymus, fetal liver, liver, and fetal heart. The fibrillin-3 gene contains 66 exons, spans about 85 kb and maps to human chromosome 19p13.2.

REFERENCES

- Mariencheck, M.C., Davis, E.C., Zhang, H., Ramirez, F., Rosenbloom, J., Gibson, M.A., Parks, W.C. and Mecham, R.P. 1995. Fibrillin-1 and fibrillin-2 show temporal and tissue-specific regulation of expression in developing elastic tissues. Connect. Tissue Res. 31: 87-97.
- Lin, G., Tiedemann, K., Vollbrandt, T., Peters, H., Batge, B., Brinckmann, J. and Reinhardt, D.P. 2002. Homo- and heterotypic fibrillin-1 and -2 interactions constitute the basis for the assembly of microfibrils. J. Biol. Chem. 277: 50795-50804.
- 3. Corson, G.M., Charbonneau, N.L., Keene, D.R. and Sakai, L.Y. 2004. Differential expression of fibrillin-3 adds to microfibril variety in human and avian, but not rodent, connective tissues. Genomics 83: 461-472.
- 4. Uyeda, T., Takahashi, T., Eto, S., Sato, T., Xu, G., Kanezaki, R., Toki, T., Yonesaka, S. and Ito, E. 2004. Three novel mutations of the fibrillin-1 gene and ten single nucleotide polymorphisms of the fibrillin-3 gene in Marfan syndrome patients. J. Hum. Genet. 49: 404-407.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608529. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Urbanek, M., Sam, S., Legro, R.S. and Dunaif, A. 2007. Identification of a polycystic ovary syndrome susceptibility variant in fibrillin-3 and association with a metabolic phenotype. J. Clin. Endocrinol. Metab. 92: 4191-4198.
- Prodoehl, M.J., Hatzirodos, N., Irving-Rodgers, H.F., Zhao, Z.Z., Painter, J.N., Hickey, T.E., Gibson, M.A., Rainey, W.E., Carr, B.R., Mason, H.D., Norman, R.J., Montgomery, G.W. and Rodgers, R.J. 2009. Genetic and gene expression analyses of the polycystic ovary syndrome candidate gene fibrillin-3 and other fibrillin family members in human ovaries. Mol. Hum. Reprod. 15: 829-841.
- 8. Nistala, H., Lee-Arteaga, S., Smaldone, S., Siciliano, G., Carta, L., Ono, R.N., Sengle, G., Arteaga-Solis, E., Levasseur, R., Ducy, P., Sakai, L.Y., Karsenty, G. and Ramirez, F. 2010. Fibrillin-1 and -2 differentially modulate endogenous TGF- β and BMP bioavailability during bone formation. J. Cell. Biol. 190: 1107-1121.

CHROMOSOMAL LOCATION

Genetic locus: FBN3 (human) mapping to 19p13.2.

SOURCE

fibrillin-3 (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of fibrillin-3 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-167896 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

fibrillin-3 (P-16) is recommended for detection of fibrillin-3 of 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); non cross-reactive with fibrillin-1 or fibrillin-2.

Suitable for use as control antibody for fibrillin-3 siRNA (h): sc-97083, fibrillin-3 shRNA Plasmid (h): sc-97083-SH and fibrillin-3 shRNA (h) Lentiviral Particles: sc-97083-V.

Molecular Weight of fibrillin-3: 300 kDa.

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) Immunofluo-rescence: 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.

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.