SANTA CRUZ BIOTECHNOLOGY, INC.

MFAP4 (N-14): sc-160513

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The Power to Question

BACKGROUND

Microfibrils are an important component of the extracellular matrix of many tissues and can either associate with or without elastin. Several microfibril associated proteins (MFAPs) have been cloned, including MFAP1, MFAP3 and MFAP4. The MFAP1 and MFAP3 genes are localized near the fibrillin genes FBN1 and FBN2, respectively. Mutations in FBN1 are linked to Marfan syndrome. Mutations in FBN2 have been linked to congenital contractural arachnodactyly. This suggests roles for MFAP1 and MFAP3 in heritable diseases affecting microfibrils. Deletion of MFAP4 was found in 30 of 31 patients with Smith-Magenis syndrome (SMS), a clinically recognizable multiple congenital anomaly/mental retardation syndrome.

REFERENCES

1. Yeh, H., et al. 1994. Structure of the human gene encoding the associated microfibrillar protein (MFAP1) and localization to chromosome 15q15-q21. Genomics 23: 443-449.
2. Abrams, W.R., et al. 1995. Molecular cloning of the microfibrillar protein MFAP3 and assignment of the gene to human chromosome 5q32-q33.2. Genomics 26: 47-54.
3. Zhao, Z., et al. 1995. The gene for a human microfibril-associated glycoprotein is commonly deleted in Smith-Magenis syndrome patients. Hum. Mol. Genet. 4: 589-597.
4. Liu, W., et al. 1997. The gene for microfibril-associated protein-1 (MFAP1) is located several megabases centromeric to FBN1 and is not mutated in Marfan syndrome. Hum. Genet. 99: 578-584.
5. Lausen, M., et al. 1999. Microfibril-associated protein 4 is present in lung washings and binds to the collagen region of lung surfactant protein D. J. Biol. Chem. 274: 32234-32240.
6. Schlosser, A., et al. 2006. Microfibril-associated protein 4 binds to surfactant protein A (SP-A) and colocalizes with SP-A in the extracellular matrix of the lung. Scand. J. Immunol. 64: 104-116.

CHROMOSOMAL LOCATION

Genetic locus: MFAP4 (human) mapping to 17p11.2; Mfap4 (mouse) mapping to 11 B2.

SOURCE

MFAP4 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MFAP4 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-160513 P, (100 µg 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

MFAP4 (N-14) is recommended for detection of MFAP4 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); non cross-reactive with MFAP1 or MFAP3.

MFAP4 (N-14) is also recommended for detection of MFAP4 in additional species, including equine.

Suitable for use as control antibody for MFAP4 siRNA (h): sc-94198, MFAP4 siRNA (m): sc-149403, MFAP4 shRNA Plasmid (h): sc-94198-SH, MFAP4 shRNA Plasmid (m): sc-149403-SH, MFAP4 shRNA (h) Lentiviral Particles: sc-94198-V and MFAP4 shRNA (m) Lentiviral Particles: sc-149403-V.

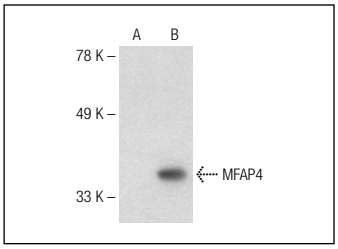
Molecular Weight of MFAP4: 29 kDa.

Positive Controls: MFAP4 (h): 293T Lysate: sc-117276.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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



MFAP4 (N-14): sc-160513. Western blot analysis of MFAP4 expression in non-transfected: sc-117752 (**A**) and human MFAP4 transfected: sc-117276 (**B**) 293T whole cell lysates.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **MFAP4 (A-9): sc-398438**, our highly recommended monoclonal alternative to MFAP4 (N-14).