SANTA CRUZ BIOTECHNOLOGY, INC.

MFAP4 (h): 293T Lysate: sc-117276

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.
7. Toyoshima, T., et al. 2008. Differential gene expression of 36-kDa microfibril-associated glycoprotein (MAGP-36/MFAP4) in rat organs. Cell Tissue Res. 332: 271-278.
8. Andersen, D.S. and Tapon, N. 2008. Drosophila MFAP1 is required for pre-mRNA processing and G_2/M progression. J. Biol. Chem. 283: 31256-31267.

CHROMOSOMAL LOCATION

Genetic locus: MFAP4 (human) mapping to 17p11.2.

PRODUCT

MFAP4 (h): 293T Lysate represents a lysate of human MFAP4 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

MFAP4 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive MFAP4 antibodies. Recommended use: 10-20 µl per lane.

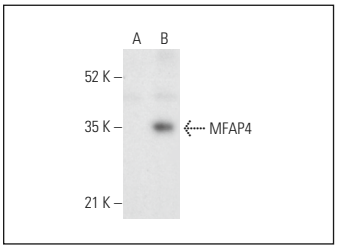
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MFAP4 (A-9): sc-398438 is recommended as a positive control antibody for Western Blot analysis of enhanced human MFAP4 expression in MFAP4 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



MFAP4 (A-9): sc-398438. 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.