

# MFAP3 (B-10): sc-514605

## 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: MFAP3 (human) mapping to 5q33.2; Mfap3 (mouse) mapping to 11 B1.3.

## SOURCE

MFAP3 (B-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 280-301 within a cytoplasmic domain of MFAP3 of human origin.

## PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514605 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

MFAP3 (B-10) is recommended for detection of MFAP3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for MFAP3 siRNA (h): sc-91748, MFAP3 siRNA (m): sc-149401, MFAP3 shRNA Plasmid (h): sc-91748-SH, MFAP3 shRNA Plasmid (m): sc-149401-SH, MFAP3 shRNA (h) Lentiviral Particles: sc-91748-V and MFAP3 shRNA (m) Lentiviral Particles: sc-149401-V.

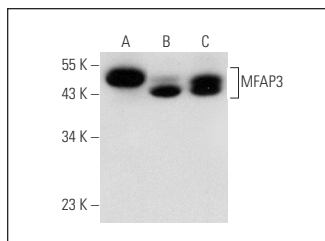
Molecular Weight of MFAP3: 40 kDa.

Positive Controls: mouse brain extract: sc-2253, FHs 173We cell lysate: sc-2417 or JAR cell lysate: sc-2276.

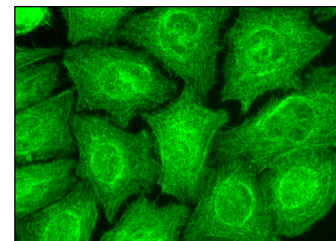
## RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



MFAP3 (B-10): sc-514605. Western blot analysis of MFAP3 expression in mouse brain tissue extract (A) and FHs 173We (B) and JAR (C) whole cell lysates.



MFAP3 (B-10): sc-514605. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

## 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](http://www.scbt.com) for detailed protocols and support products.