SANTA CRUZ BIOTECHNOLOGY, INC.

MFAP4 (A-9): sc-398438

SANTA CRUZ BIOTECHNOLOGY

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.

CHROMOSOMAL LOCATION

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

SOURCE

MFAP4 (A-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 19-38 near the N-terminus of MFAP4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MFAP4 (A-9) is available conjugated to agarose (sc-398438 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398438 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398438 PE), fluorescein (sc-398438 FITC), Alexa Fluor® 488 (sc-398438 AF488), Alexa Fluor® 546 (sc-398438 AF546), Alexa Fluor® 594 (sc-398438 AF594) or Alexa Fluor® 647 (sc-398438 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398438 AF680) or Alexa Fluor® 790 (sc-398438 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398438 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

MFAP4 (A-9) is recommended for detection of MFAP4 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 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.

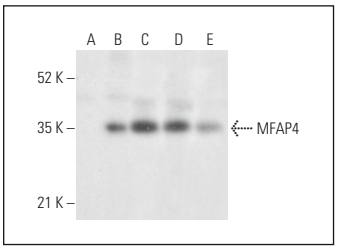
Molecular Weight of MFAP4: 29 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, MFAP4 (h): 293T Lysate: sc-117276 or human lung extract: sc-363767.

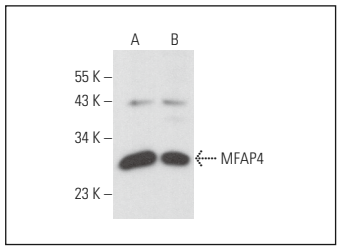
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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



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 and human lung (**C**), human kidney (**D**) and human heart (**E**) tissue extracts.



MFAP4 (A-9): sc-398438. Western blot analysis of MFAP4 expression in Caki-1 (**A**) and IMR-32 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zhang, X., et al. 2019. Increased plasma microfibrillar-associated protein 4 is associated with atrial fibrillation and more advanced left atrial remodelling. Arch. Med. Sci. 15: 632-640.
2. Nayar, S., et al. 2021. A myeloid-stromal niche and gp130 rescue in NOD2-driven Crohn's disease. Nature 593: 275-281.
3. Mun, S., et al. 2022. Transcriptome profile of membrane and extracellular matrix components in ligament-fibroblastic progenitors and cementoblasts differentiated from human periodontal ligament cells. Genes 13: 659.

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 for detailed protocols and support products.