Human MFAP3L Antibody

Monoclonal Mouse IgG_{2B} Clone # 1059107

Catalog Number: MAB11325

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MFAP3L in direct ELISA.
Source	Monoclonal Mouse IgG_{2B} Clone # 1059107
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human embryonic kidney cell, HEK293-derived human MFAP3L Met1-Met149 Accession # O75121
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

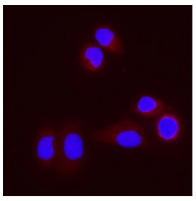
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

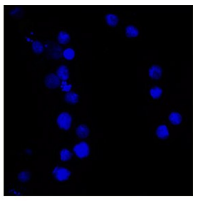
	Recommended Concentration	Sample
Immunocytochemistry	8-25 µg/mL	Immersion fixed RT-4 human urinary bladder transitional cell papilloma cell line (Positive), SK-BR-3 human breast cancer cell line (Positive), HL-60 human acute promyelocytic leukemia cell line (Negative) and THP-1 human acute monocytic leukemia cell line (Negative).

DATA

Immunocytochemistry



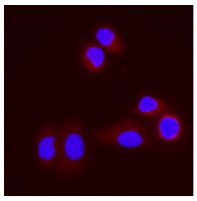
RT-4 (Positive) cells



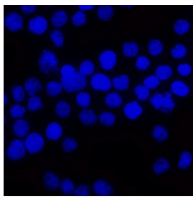
HL-60 (Negative) cells

Detection of MFAP3L in RT-4 (Positive) & HL-60 (Negative). MFAP3L was detected in immersion fixed RT-4 human urinary bladder transitional cell papilloma cell line (Positive) & absent in HL-60 human acute promyelocytic leukemia cell line (Negative) using Mouse Anti-Human MFAP3L Monoclonal Antibody (Catalog # MAB11325) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Immunocytochemistry



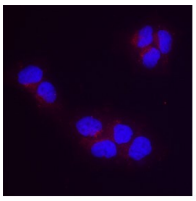
RT-4 (Positive) cells



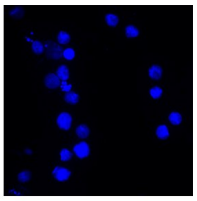
THP-1 (Negative) cells

Detection of MFAP3L in RT-4 (Positive) & THP-1 (Negative). MFAP3L was detected in immersion fixed RT-4 human urinary bladder transitional cell papilloma cell line (Positive) & absent in THP-1 human acute monocytic leukemia cell line (Negative) using Mouse Anti-Human MFAP3L Monoclonal Antibody (Catalog # MAB11325) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Immunocytochemistry



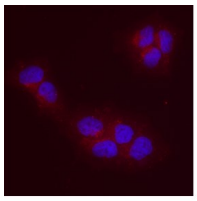
SK-BR-3 (Positive) cells



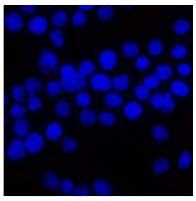
HL-60 (Negative) cells

MFAP3L in SK-BR-3 (Positive) & HL-60 (Negative). MFAP3L was detected in immersion fixed SK-BR-3 human breast cancer cell line (Positive) & absent in HL-60 human acute promyelocytic leukemia cell line (Negative) using Mouse Anti-Human MFAP3L Monoclonal Antibody (Catalog # MAB11325) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Immunocytochemistry



SK-BR-3 (Positive) cells



THP-1 (Negative) cells

MFAP3L in SK-BR-3 (Positive) & THP-1 (Negative). MFAP3L was detected in immersion fixed SK-BR-3 human breast cancer cell line (Positive) & absent in THP-1 human acute monocytic leukemia cell line (Negative) using Mouse Anti-Human MFAP3L Monoclonal Antibody (Catalog # MAB11325) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

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Human MFAP3L Antibody

Monoclonal Mouse IgG_{2B} Clone # 1059107

Catalog Number: MAB11325

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Microbibrillar-Associated Protein 3-Like (MFAP3L), also known as NYD-sp9, is part of the microfibrillar-associated protein family (MFAPs). MFAPs are non-fibrillin, extracellular matrix glycoproteins that interact with fibrillin and were originally characterized in microfibrillar assembly (1,2). In humans, there several subfamily members with varying amino acid (aa) sequence homology and functions (1,2). Among the family, MFAP2 and MFAP5 are more closely related and while MFAP1, 3 and 4 share no structural or sequence homology with MFAP2, MFAP5 or with each other (1,2). Human MFAP3L shows 71% amino acid (aa) sequence homology to MFAP3, but not other MFAPs (3). Mature, human MFAP3L consists of an extracellular domain (ECD) containing N-linked glycosylation sites, a transmembrane domain, and a cytoplasmic domain with a conserved SH2 motif (3). The ECD of human MFAP3L shares 89% and 90% aa sequence identity with mouse and rat MFAP3L, respectively. MFAPs have the unique ability to interact with TGF-β family growth factors, Notch and Notch ligands and multiple elastic fiber proteins, in addition to interacting with fibrillin (1, 2). MFAPs are expressed in a wide variety of tissues and, along with microfibril assembly, they play roles in the regulation of tissue homeostasis, cell survival, and tumor progression (1,2). MFAP3L is often located within colorectal cancer (CRC) cells, which metastasize by activation of the nuclear ERK pathway via MFAP3L phosphorylation (3). Regulation of this MFAP3L activity could have pharmaceutical effects on CRC tumor progression (3).

References:

1. Zhu, S. *et al.* (2020) J Cell Physio. **236**:41.
2. Mecham, R.P. *et al.* (2015) Matrix Biol. **47**:13.
3. Lou, X. *et al.* (2014) BBA. **1842**:1423.

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