Human MFAP3 Alexa Fluor® 750-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 1059143

Catalog Number: FAB113251S

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MFAP3L in direct ELISA.
Source	Monoclonal Mouse IgG_{2B} Clone # 1059143
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human embryonic kidney cell, HEK293-derived human MFAP3L Met1-Met149 Accession # O75121
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.*

Flow Cytometry	Titration recommended for optimal concentration with starting range of 0.1-1 µg/1 million cells. Sample used for this experiment was HEK293 cells transfected with hMFAP-3L and eGFP.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

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.

PRODUCT SPECIFIC NOTICES

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