Recombinant Human MFAP3L Fc Chimera

Catalog Number: 10798-MF

DESCRIPTION

Source

Human embryonic kidney cell, HEK293-derived human MFAP3L protein

Human MFAP3L (Lys29-Met149) Accession # O75121.3	IEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	Lys29
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	40 kDa

SPECIFICATIONS

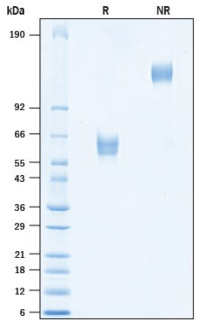
SDS-PAGE	54-66 kDa, under reducing conditions
Activity	Bioassay data are not available.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
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. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

SDS-PAGE



Recombinant Human MFAP3L Fc Chimera Protein SDS-PAGE. 2 µg/lane of Recombinant Human MFAP3L Fc Chimera (Catalog # 10798-MF) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 54-66 kDa and 108-132 kDa, respectively.

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Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475

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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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