Human Fibulin 5/DANCE Alexa Fluor® 405-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 293904

Catalog Number: FAB3095V

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Fibulin 5/DANCE in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG_1 Clone # 293904
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Fibulin 5/DANCE Gln24-Phe448 Accession # Q9UBX5
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% 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.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

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

Fibulin 5, also known as DANCE and EVEC, is a secreted 55 kDa matricellular glycoprotein that plays an important role in elastic fiber network assembly and angiogenesis (1). Mature human Fibulin 5 contains an N-terminal EGF-like domain with an RGD motif, a 44 amino acid (aa) spacer region, five more tandem EGF-like domains, and a 115 aa Fibulin-like C-terminal region (2, 3). Mature human Fibulin 5 shares 95% aa sequence identity with mouse and rat Fibulin 5. Fibulin 5 is expressed by smooth muscle cells and endothelial cells of the developing vasculature as well as by migrating neural crest cells and lung interstitial fibroblasts (2-4). It is down-regulated in the adult vasculature but is re-expressed at aortic branching points, in the uterus, and at sites of mechanical or atherosclerotic injury (2, 3, 5). The RGD motif of Fibulin 5 binds to several cell surface Integrins including αVβ3, αVβ5, α9β1, α4β1, and α5β1 (2, 6, 7). The calcium-dependent binding of Fibulin 5 to elastic fibers serves to anchor cells to the extracellular matrix (8). Fibulin 5 promotes elastic fiber assembly and maturation by organizing Tropoelastin, LTBP-2, and the crosslinking lysyl oxidase-like enzymes LOXL1, 2, and 4 along Fibrillin microfibrils (6, 9-11). In aged mice with decreased tissue elasticity, proteolytic removal of the N-terminal EGF-like domain prevents Fibulin 5 from interacting with Fibrillin-1 microfibrils (10). Fibulin 5 functions as an angiogenesis inhibitor by inhibiting vascular smooth muscle proliferation and migration and by limiting vascular sprouting (5, 12). Fibulin 5 is down-regulated in many malignancies (15). When experimentally re-expressed, however, Fibulin 5 enhances tumor cell invasiveness and cooperates with TGF-β in initiating and promoting epithelial-mesenchymal transition (EMT) (13, 15). Defects in Fibulin 5 expression or function can result in a loss of connective tissue integrity, cardiac elasticity, and ability to remodel the vasculature after injury (8, 5, 14).

PRODUCT SPECIFIC NOTICES

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