

Monoclonal Antibody to Filamin (90 kDa) - Purified

Alternate names: FLNA, FN1, FN2, FN3, FNLB, FNLC

Catalog No.: AM31463PU-N

Quantity: 0.2 mg

Concentration: 0.1 mg/ml (OD280nm)

Background: Filamins are a family of dimeric actin binding proteins that function as structural components of cell adhesion sites. They also serve as a scaffold for subcellular targeting of signaling molecules. The actin binding domain (alpha-actinin domain) is located at the very amino-terminus, followed by as many as 24 tandem repeats of about 96 residues, and the dimerization domain is located at the carboxy-terminal end of the protein. In addition to actin filaments, filamins associate with other structural and signaling molecules such as beta-integrins, Rho/Rac/Cdc42, PKC, and insulin receptor, primarily through their carboxy-terminal half.

Filamin functions as a crosslinking protein forming a flexible link between two actin filaments. It is composed of two identical polypeptide chains each joined to the other at one end, with an actin binding site at the other. It is present in human platelets, lymphocytes, fibroblasts and smooth muscle actin.

Filamin A, the most abundant, and filamin B, less abundant, are widely expressed isoforms, while filamin C is predominantly expressed in muscle. Serine 2152 of filamin A is phosphorylated by PAK1, and this phosphorylation is required for PAK1-mediated actin cytoskeleton reorganization.

Host / Isotype: Mouse / IgG1

Recommended Isotype Controls: SM10P (for use in human samples), AM03095PU-N

Clone: T110

Immunogen: Semi-pure Human Filamin preparation.

Format: **State:** Liquid purified IgG fraction

Purification: Protein A Chromatography

Buffer System: PBS, pH 7.2 containing 0.09% Sodium Azide and 1% BSA

Applications: **Immunoblotting.**

Immunofluorescence.

Immunohistochemistry on Paraffin Sections: Use 1-2 µg/ml on formalin fixed tissue. Citrate/boiling retrieval is recommended when using this antibody on formalin-fixed paraffin-embedded sections.

Positive Control: Skin.

Negative Control: Brain.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

- Specificity:** Recognizes Human and Rabbit Filamin (90 kDa epitope). Immunoblots with the Filamin band (250kDa) from platelet, lymphocyte, fibroblast and smooth muscle preparations. This epitope is located in the C-terminal of the 90kDa fragment produced by calpain cleavage. Immunofluorescence staining on methanol fixed fibroblasts shows strong stress fiber reactivity. Staining is cytoplasmic.
Species: Rabbit, Human.
Other species not tested.
- Storage:** Store the antinbody (in aliquots) at -20°C.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.
- General Readings:** 1. Aakhus, A.M., et al., (1992) "Binding of human platelet glycoprotein Ib and actin to fragments of actin binding protein", Thromb Haemost., 62(2):252-257.