3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-Vinculin antibody, Mouse monoclonal
clone VIN-11-5, purified from hybridoma cell culture

Product Number **SAB4200729**

Product Description

Anti-Vinculin antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the VIN-11-5 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with smooth muscle vinculin from chicken gizzard[1]. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti-Vinculin antibody recognizes Vinculin from human, rat, mouse, bovine[1], dog, monkey, hamster, chicken and guinea pig[2] origin. Monoclonal Anti-Vinculin is recommended to use in various immunochemical assays, including Immunoblot (~120 kDa), Immunofluorescence[1], Immunohistochemistry[2] and Immunoprecipitation[3].

Vinculin protein, also known as Metavinculin (MV) and VLC, is highly conserved scaffolding protein localized to focal adhesions and adherens junctions[4]. At adhesion sites, Vinculin mediates the recruitment of several binding partners and is a crucial regulator of cellular responses to tensional forces by mediating the link between actin cytoskeleton to transmembrane receptors[5]. Metavinculin (150 kDa), a splice variant of Vinculin, is co-expressed with Vinculin in muscle tissues[6]. These proteins are localized to the cell membrane, the I-band in the sarcomere and to the intercalated discs[7].

Vinculin's most studied function is its ability to bind and anchor the F-actin to the membrane. Vinculin has been implicated in the control of adhesion, cell morphology and motility and muscle function[8-10]. At high concentrations, Vinculin can undergo oligomerization and may be involved in the transmembrane assembly of adhesion plaques, however its functional role is not completely understood[5,11]. In relation to cell adhesion and motility function, Vinculin is considered to have a crucial effect on tumor cells ability to invade tissues and hence to metastasize. Thus, it is suggested to be implicated in diagnosis of cancer progression and metastasis prognosis[12].

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at –20 °C. For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.125–0.25 μg/ml is recommended using mouse myoblast C2C12 cell extract.

Immunofluorescence: a working concentration of 5–10 μg/ml is recommended using Hela cells.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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