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Product Information

Anti-Vinculin FITC antibody, Mouse monoclonal
clone hVIN-1**,** purified from hybridoma cell culture

Product Number **F7053**

Product Description

Anti-Vinculin FITC antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the hVIN-1 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice, immunized with human vinculin, purified from uterus. The conjugate is prepared by conjugation of the antibody purified from hybridoma cell culture to fluorescein isothiocyanate, isomer I (FITC), and then further purified to remove free FITC.

Anti-Vinculin FITC antibody, Mouse monoclonal reacts with vinculin by direct immunofluorescent staining. The antibody detects vinculin at cell-cell and cell-substrate contacts in tissue and methanol/acetone fixed cultured cells of many species. The antibody cross-reacts with smooth muscle metavinculin.

Vinculin is a cytoskeletal protein (~116 kDa) associated with the cytoplasmic faces of both cell-cell and cell-extracellular matrix adherens-type junctions. It functions as one of several interacting proteins involved in anchoring F-actin to the membrane. Vinculin is implicated in the control of adhesion and motility of several cell types.[2-4] The sequences of chicken, nematode and human vinculin have been determined.[1] It has been shown that a sequence of molecular interactions might be involved in the transmembrane assembly of adhesion plaques.[5] In the assembly of adhesion plaques, the β-subunit of integrin binds to talin. Talin binds to vinculin that interacts with α-actinin and intramolecularly with itself. Vinculin also binds α-catenin as well as the vasodilator stimulated phosphoprotein (VASP) in focal contact assembly.[6, 7] Vinculin transiently binds the ARP2/3 complex without colocalization in focal adhesions.[8]

In muscle, vinculin is localized in the fascia adherens of the intercalated disk (cardiac muscle), myotendinous junctions (skeletal muscle), neuromuscular junctions, and the membrane-associated dense bodies of smooth muscle. In many cell types undergoing viral trans-formation, vinculin becomes redistributed to rosettes or podosomes.

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 1% bovine serum albumin (BSA) and 15 mM sodium azide.

Antibody concentration: ~1-3 mg/ml

F/P Molar Ratio: 3-8

Precautions and Disclaimer

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

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For prolonged storage, freeze in working aliquots at −20 °C. Repeated freezing and thawing, or storage in "frost-free" freezers, 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.

Note: Store product protected from light.

Product Profile

Direct immunofluorescence: a minimum working dilution of 1:50 is recommended using methanol/acetone fixed cultured bovine MDBK cells.

Note: In order to obtain the best results in various techniques and preparations, we recommend determining the optimal working dilution by titration.

References

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