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Product Information

Anti-Fibronectin antibody, Mouse monoclonal
clone FN-15, purified from hybridoma cell culture

Product Number **SAB4200760**

Product Description

Anti-Fibronectin antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the FN-15 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from mice immunized with fibronectin isolated from human plasma (GeneID: 2335). 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.

Anti-Fibronectin antibody, Mouse monoclonal specifically recognizes Fibronectin from plasma and in the pericellular extracellular matrix of cultured fibroblasts from human[1-2] and mouse[3] origin. The antibody may be used in various immunochemical techniques including Immunoblotting (~220-260kDa)[1], ELISA, Immunofluorescence[2], Immunohistochemistry[3] and Immunoprecipitation[4].

Fibronectin (FN), also known as Cold-insoluble globulin (CIG), is a multi-domain glycoprotein composed of two nearly identical disulfide-bound polypeptides. It is a ubiquitous and essential component of the extracellular matrix (ECM) and plays a vital role in tissue repair mechanism.[5] Fibronectin functions both as a regulator of cellular processes and as an important scaffolding protein to maintain and direct tissue organization and ECM composition.[5] It is widely expressed by multiple cell types and is critically important in vertebrate development, as demonstrated by the early embryonic lethality of mice with targeted inactivation of the FN1 gene.[6] In vertebrates, two types of Fibronectin are present: soluble plasma Fibronectin and insoluble cellular Fibronectin. The plasma form of Fibronectin is synthesized by hepatocytes, secreted to blood and, upon tissue injury, is incorporated into fibrin clots to exert effects on platelet function and to mediate hemostasis.[5] Cellular Fibronectin is synthesized by many cell types, including fibroblasts, endothelial cells, chondrocytes, synovial cells and myocytes, it is assembled by cells as they migrate into the clot to reconstitute damaged tissue.[5,7]

Fibronectin is suggested to enhance cell adhesion, spreading and affect the routes of cell migration both *in vivo* and in culture.[8] It has been shown that upon malignant transformation many cells lose most of their surface bound fibronectin.[9]

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

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 0.3-0.6 μg/mL is recommended using human fetal fibroblast-like WI-38 cell line extract.

Indirect ELISA: a working concentration of 0.15-0.3 μg/mL is recommended using 5 μg/mL fibronectin from human plasma for coating.

Immunofluorescence: a working concentration of 2.5-5 μg/mL is recommended using human foreskin fibroblast Hs68 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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