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Product Information

Anti-Cellular Fibronectin antibody
Mouse monoclonal
Clone FN-3E2, hybridoma cell culture supernatant

Product Number **SAB4200784**

Product Description

Anti-Cellular Fibronectin antibody, Mouse monoclonal (mouse IgM isotype) is derived from the FN-3E2 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from mice immunized with the antigens released in culture from a breast cancer cell line. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is culture supernatant of hybridoma cells grown in a bioreactor.

Anti-Cellular Fibronectin antibody, Mouse monoclonal specifically recognizes fibronectin in the pericellular extracellular matrix of cells. The antibody reacts with cellular fibronectin of human,[1] mouse,[2] chicken,[3] and rat[4] origin. The antibody does not cross-react with the secreted form of fibronectin found in the blood plasma. The antibody may be used in various immunochemical techniques including immunoblotting (220-260 kDa),[2] immunofluorescence,[1] and immunohistochemistry.[5]

Fibronectin (FN), also known as Cold-insoluble globulin (CIG), is an extracellular matrix 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.[6]

Fibronectin functions both as a regulator of cellular processes and as an important scaffolding protein to maintain and direct tissue organization and ECM composition.[6] 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.[7]

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.[6]

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.[6,8]

Fibronectin is suggested to enhance cell adhesion, spreading and affect the routes of cell migration both *in vivo* and in culture.[9] It has been shown that upon malignant transformation many cells lose most of their surface bound fibronectin.[10]

Reagent

The product is supplied as a culture supernatant solution containing 15 mM sodium azide as a preservative. The product contains fetal calf serum.

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 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

Immunofluorescence: a working dilution of 1:2,000–1:4,000 is recommended using human foreskin fibroblast Hs68 cells.

Note: In order to obtain best results in different techniques and preparations, it is recommended to determine optimal working concentration by titration test.

References

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