

Fibronectin (IST-1): sc-59824

BACKGROUND

Fibronectin is an extracellular matrix glycoprotein present on most cell surfaces, in extracellular fluids and in plasma. A high molecular weight heterodimeric protein, it was originally discovered as a protein missing from the surfaces of virus-transformed cells, and it has been shown to be involved in various functions including cell adhesion, cell motility and wound healing. Alternative splicing and glycosylation give rise to several different forms of Fibronectin, some of which exhibit restricted tissue distribution or association with malignancies. It has been shown that myofibroblast phenotype formation correlates with the occurrence of glycosylated Fibronectin and Fibronectin splice variants in Dupuytren's disease.

REFERENCES

1. Akiyama, S.K., et al. 1981. The structure of Fibronectin and its role in cellular adhesion. *J. Supermol. Struct. Cell. Biochem.* 16: 345-348.
2. Ruoslahti, E., et al. 1982. Molecular and biological interactions of Fibronectin. *J. Invest. Dermatol.* 79: 65s-68s.
3. Keen, J., et al. 1984. Monoclonal antibodies that distinguish between human cellular and plasma Fibronectin. *Mol. Biol. Med.* 2: 15-27.
4. Keski-Oja, J., et al. 1987. Fibronectin and viral pathogenesis. *Rev. Infect. Dis.* 9: S404-S411.

CHROMOSOMAL LOCATION

Genetic locus: FN1 (human) mapping to 2q35; Fn1 (mouse) mapping to 1 C3.

SOURCE

Fibronectin (IST-1) is a mouse monoclonal antibody raised against purified Fibronectin isolated from plasma of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Fibronectin (IST-1) is recommended for detection of cellular and plasma Fibronectin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for Fibronectin siRNA (h): sc-29315, Fibronectin siRNA (m): sc-35371, Fibronectin shRNA Plasmid (h): sc-29315-SH, Fibronectin shRNA Plasmid (m): sc-35371-SH, Fibronectin shRNA (h) Lentiviral Particles: sc-29315-V and Fibronectin shRNA (m) Lentiviral Particles: sc-35371-V.

Molecular Weight of Fibronectin: 220 kDa.

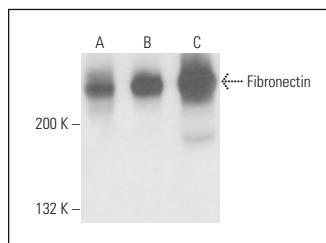
Positive Controls: U-87 MG cell lysate: sc-2411, human platelet extract: sc-363773 or HT-1080 whole cell lysate: sc-364183.

RECOMMENDED SUPPORT REAGENTS

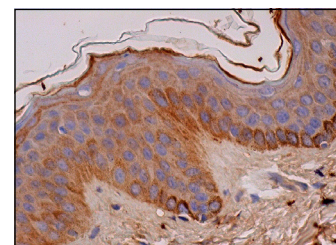
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.
- 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Fibronectin (IST-1): sc-59824. Western blot analysis of Fibronectin expression in U-87 MG (A), HT-1080 (B) whole cell lysates and human platelet extract (C).



Fibronectin (IST-1): sc-59824. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of epidermal cells and extracellular staining of dermal connective tissue.

SELECT PRODUCT CITATIONS

1. Fan, C.S., et al. 2017. Osteopontin-integrin engagement induces HIF-1α-TCF12-mediated endothelial-mesenchymal transition to exacerbate colorectal cancer. *Oncotarget* 9: 4998-5015.
2. Tang, D., et al. 2018. Galectin-1 expression in activated pancreatic satellite cells promotes fibrosis in chronic pancreatitis/pancreatic cancer via the TGF-β1/Smad pathway. *Oncol. Rep.* 39: 1347-1355.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See **Fibronectin (EP5): sc-8422** for Fibronectin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.