

Fibronectin (2755-8): sc-69681

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 (2755-8) is a mouse monoclonal antibody raised against a T cell leukemia biopsy 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 (2755-8) is recommended for detection of 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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.

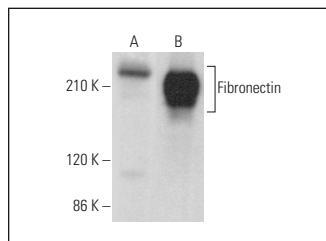
Molecular Weight of Fibronectin: 220 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HT-1080 whole cell lysate: sc-364183 or XP12R0 whole cell lysate: sc-2224.

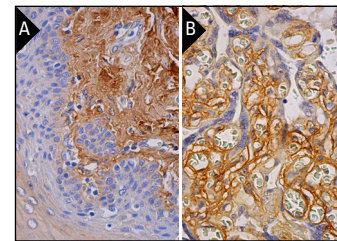
STORAGE

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

DATA



Fibronectin (2755-8): sc-69681. Western blot analysis of Fibronectin expression in HT-1080 (A) and XP12R0 (B) whole cell lysates.



Fibronectin (2755-8): sc-69681. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing staining of extracellular matrix and cytoplasmic staining of squamous epithelial cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing staining of extracellular matrix (B).

SELECT PRODUCT CITATIONS

1. Guo, Q., et al. 2012. A new candidate substrate for cell-matrix adhesion study: the acellular human amniotic matrix. *J. Biomed. Biotechnol.* 2012: 306083.
2. Kang, H.M., et al. 2017. Phytosphingosine exhibits an anti-epithelial-mesenchymal transition function by the inhibition of EGFR signaling in human breast cancer cells. *Oncotarget* 8: 77794-77808.
3. Ling, L., et al. 2018. High glucose induces podocyte epithelial-to-mesenchymal transition by demethylation mediated enhancement of MMP9 expression. *Mol. Med. Rep.* 17: 5642-5651.
4. Zeng, Z., et al. 2018. Cancer-derived exosomal miR-25-3p promotes pre-metastatic niche formation by inducing vascular permeability and angiogenesis. *Nat. Commun.* 9: 5395.
5. Shi, K., et al. 2019. Clinicopathological and prognostic values of Fibronectin and integrin $\alpha_v\beta_3$ expression in primary osteosarcoma. *World J. Surg. Oncol.* 17: 23.
6. Huang, J., et al. 2019. Aligned topography mediated cell elongation reverses pathological phenotype of *in vitro* cultured keloid fibroblasts. *J. Biomed. Mater. Res. A* 107: 1366-1378.
7. Sheta, R., et al. 2019. The polypeptide GALNT6 displays redundant functions upon suppression of its closest homolog GALNT3 in mediating aberrant O-glycosylation, associated with ovarian cancer progression. *Int. J. Mol. Sci.* 20: 2264.
8. Rocha, S., et al. 2019. Gastric cancer extracellular vesicles tune the migration and invasion of epithelial and mesenchymal cells in a histotype-dependent manner. *Int. J. Mol. Sci.* 20: 2608.

RESEARCH USE

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