

# Fibronectin (Fn-3): sc-53285

## 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: 65-68.
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.

## SOURCE

Fibronectin (Fn-3) is a mouse monoclonal antibody raised against FR5 cells of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

Fibronectin (Fn-3) is recommended for detection of cellular Fibronectin of 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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

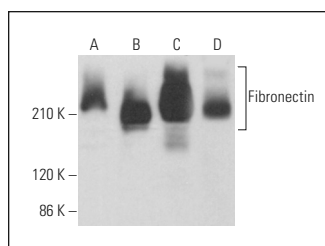
Molecular Weight of Fibronectin: 220 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, CCD-1064Sk cell lysate: sc-2263 or U-87 MG cell lysate: sc-2411.

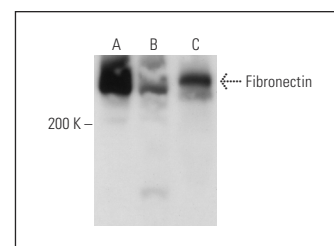
## RECOMMENDED SUPPORT REAGENTS

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.

## DATA



Fibronectin (Fn-3): sc-53285. Western blot analysis of Fibronectin expression in U-87 MG (A), XP12RO (B), Caki-1 (C) and ACHN (D) whole cell lysates.



Fibronectin (Fn-3): sc-53285. Western blot analysis of Fibronectin expression in Hep G2 (A), CCD-1064Sk (B) and human platelet (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Rodríguez-Muñoz, R., et al. 2015. Novel nuclear protein complexes of dystrophin 71 isoforms in rat cultured hippocampal GABAergic and glutamatergic neurons. *PLoS ONE* 10: e0137328.
2. Xi, G., et al. 2016. IGF-I and IGFBP-2 stimulate AMPK activation and autophagy, which are required for osteoblast differentiation. *Endocrinology* 157: 268-281.
3. Yang, L., et al. 2017. 1,25(OH)2D3/VDR attenuates high glucose-induced epithelial-mesenchymal transition in human peritoneal mesothelial cells via the TGFβ/Smad3 pathway. *Mol. Med. Rep.* 15: 2273-2279.
4. Peng, J., et al. 2018. YAP and TAZ mediate steroid-induced alterations in the trabecular meshwork cytoskeleton in human trabecular meshwork cells. *Int. J. Mol. Med.* 41: 164-172.
5. Xi, G., et al. 2020. Estrogen stimulation of Pleiotrophin enhances osteoblast differentiation and maintains bone mass in IGFBP-2 null mice. *Endocrinology* 161: bqz007.

## STORAGE

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



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