

# Fibronectin (IST-9): sc-59826

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Fibronectin (IST-9) is a mouse monoclonal antibody raised against a region in the ED-A domain of cellular Fibronectin 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.

Fibronectin (IST-9) is available conjugated to agarose (sc-59826 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-59826 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-59826 PE), fluorescein (sc-59826 FITC), Alexa Fluor<sup>®</sup> 488 (sc-59826 AF488), Alexa Fluor<sup>®</sup> 546 (sc-59826 AF546), Alexa Fluor<sup>®</sup> 594 (sc-59826 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-59826 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-59826 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-59826 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

Fibronectin (IST-9) is recommended for detection of cellular Fibronectin of mouse, rat, human, porcine and canine 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.

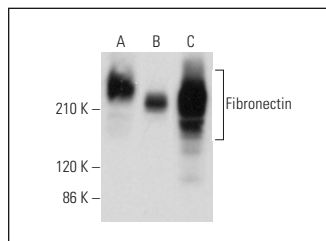
Molecular Weight of Fibronectin: 220 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, A-10 cell lysate: sc-3806 or XP12RO whole cell lysate: sc-364364.

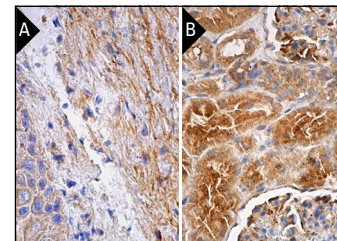
## STORAGE

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

## DATA



Fibronectin (IST-9): sc-59826. Western blot analysis of Fibronectin expression in Caki-1 (A), XP12RO (B) and A-10 (C) whole cell lysates.



Fibronectin (IST-9): sc-59826. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing connective tissue and cytoplasmic staining of epidermal cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in glomeruli and tubules (B).

## SELECT PRODUCT CITATIONS

- Huang, L., et al. 2008. Protein kinase C $\epsilon$  mediates polymeric Fibronectin assembly on the surface of blood-borne rat breast cancer cells to promote pulmonary metastasis. *J. Biol. Chem.* 283: 7616-7627.
- Griol-Charhbili, V., et al. 2011. Epidermal growth factor receptor mediates the vascular dysfunction but not the remodeling induced by aldosterone/salt. *Hypertension* 57: 238-244.
- Preobrazhenska, O., et al. 2012. Regional heterogeneity in murine lung fibroblasts from normal mice or mice exposed once to cigarette smoke. *PLoS ONE* 7: e39761.
- Zhu, Y., et al. 2013. Klotho suppresses tumor progression via inhibiting PI3K/Akt/GSK3 $\beta$ /Snail signaling in renal cell carcinoma. *Cancer Sci.* 104: 663-671.
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- Mana, G., et al. 2016. PPFIA1 drives active  $\alpha$ 5 $\beta$ 1 Integrin recycling and controls Fibronectin fibrillogenesis and vascular morphogenesis. *Nat. Commun.* 7: 13546.
- Chen, H.C., et al. 2017. Synergistic targeting of breast cancer stem-like cells by human  $\gamma$  $\delta$  T cells and CD8<sup>+</sup> T cells. *Immunol. Cell Biol.* 95: 620-629.
- Blache, U., et al. 2018. Notch-inducing hydrogels reveal a perivascular switch of mesenchymal stem cell fate. *EMBO Rep.* 19: e45964.
- Sun, S., et al. 2019. Gentic acid prevents the transition from pressure overload-induced cardiac hypertrophy to heart failure. *Sci. Rep.* 9: 3018.

## RESEARCH USE

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