SANTA CRUZ BIOTECHNOLOGY, INC.

Fibronectin (EP5): sc-8422

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 (EP5) is a mouse monoclonal antibody raised against a T-cell leukemia biopsy of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Fibronectin (EP5) is available conjugated to agarose (sc-8422 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-8422 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-8422 PE), fluorescein (sc-8422 FITC), Alexa Fluor® 488 (sc-8422 AF488), Alexa Fluor® 546 (sc-8422 AF546), Alexa Fluor® 594 (sc-8422 AF594) or Alexa Fluor® 647 (sc-8422 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-8422 AF680) or Alexa Fluor® 790 (sc-8422 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Fibronectin (EP5) 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

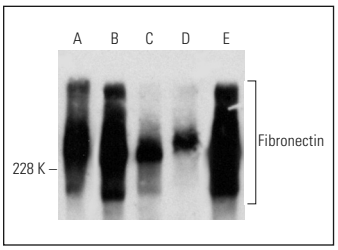
Molecular Weight of Fibronectin: 220 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, CCD-1064Sk cell lysate: sc-2263 or human platelet extract: sc-363773.

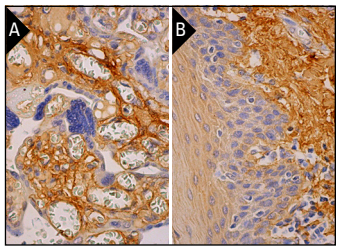
STORAGE

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

DATA



Fibronectin (EP5) HRP: sc-8422 HRP. Direct western blot analysis of Fibronectin expression in Hep G2 (**A**), CCD-1064Sk (**B**), U-87 MG (**C**) and Caki-1 (**D**) whole cell lysates and human platelet extract (**E**).



Fibronectin (EP5): sc-8422. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing staining of extracellular matrix (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing staining of extracellular matrix and cytoplasmic staining of squamous epithelial cells (**B**).

SELECT PRODUCT CITATIONS

1. Hanekamp, E.E., et al. 2003. Consequences of loss of progesterone receptor expression in development of invasive endometrial cancer. Clin. Cancer Res. 9: 4190-4199.
2. Prakoura, N., et al. 2013. Epithelial calreticulin up-regulation promotes profibrotic responses and tubulointerstitial fibrosis development. Am. J. Pathol. 183: 1474-1487.
3. Iwanami, T., et al. 2014. Clinical significance of epithelial-mesenchymal transition-associated markers in malignant pleural mesothelioma. Oncology 86: 109-116.
4. Chen, F., et al. 2015. Nuclear export of smads by RanBP3L regulates bone morphogenetic protein signaling and mesenchymal stem cell differentiation. Mol. Cell. Biol. 35: 1700-1711.
5. Dismuke, W.M., et al. 2016. Mechanism of Fibronectin binding to human trabecular meshwork exosomes and its modulation by dexamethasone. PLoS ONE 11: e0165326.
6. Xu, H., et al. 2017. DACH1 suppresses breast cancer as a negative regulator of CD44. Sci. Rep. 7: 4361.
7. He, Z., et al. 2018. Sumoylation of RORγt regulates TH17 differentiation and thymocyte development. Nat. Commun. 9: 4870.
8. Kumari, R., et al. 2019. Caspase-10 inhibits ATP-citrate lyase-mediated metabolic and epigenetic reprogramming to suppress tumorigenesis. Nat. Commun. 10: 4255.
9. Bhedi, C.D., et al. 2020. Glycolysis regulated transglutaminase 2 activation in cardiopulmonary fibrogenic remodeling. FASEB J. 34: 930-944.

RESEARCH USE

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