SANTA CRUZ BIOTECHNOLOGY, INC.

Fibronectin (A-11): sc-271098

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 (A-11) is a mouse monoclonal antibody raised against amino acids 2087-2386 mapping at the C-terminus of Fibronectin of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Fibronectin (A-11) is available conjugated to agarose (sc-271098 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-271098 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271098 PE), fluorescein (sc-271098 FITC), Alexa Fluor® 488 (sc-271098 AF488), Alexa Fluor® 546 (sc-271098 AF546), Alexa Fluor® 594 (sc-271098 AF594) or Alexa Fluor® 647 (sc-271098 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271098 AF680) or Alexa Fluor® 790 (sc-271098 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

Fibronectin (A-11) is recommended for detection of Fibronectin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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.

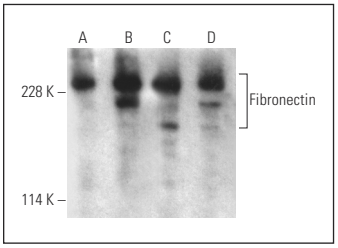
Molecular Weight of Fibronectin isoforms: 220-272 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, U-87 MG cell lysate: sc-2411 or HT-1080 whole cell lysate: sc-364183.

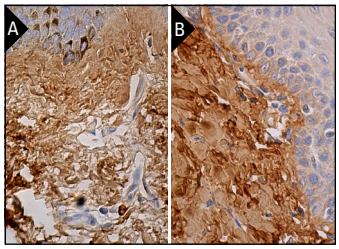
STORAGE

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

DATA



Fibronectin (A-11) HRP: sc-271098 HRP. Direct western blot analysis of Fibronectin expression in Hep G2 (**A**), HT-1080 (**B**), U-87 MG (**C**) and Ca Ski (**D**) whole cell lysates.



Fibronectin (A-11): sc-271098. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing staining of dermal connective tissue (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing staining of extracellular matrix (**B**).

SELECT PRODUCT CITATIONS

1. Veleirinho, B., et al. 2012. Nanofibrous poly(3-hydroxybutyrate-co-3-hydroxyvalerate)/chitosan scaffolds for skin regeneration. Int. J. Biol. Macromol. 51: 343-350.
2. Lambers, C., et al. 2013. The interaction of endothelin-1 and TGFβ1 mediates vascular cell remodeling. PLoS ONE 8: e73399.
3. Chen, J., et al. 2014. Thrombin promotes fibronectin secretion by bone marrow mesenchymal stem cells via the protease-activated receptor mediated signalling pathways. Stem Cell Res. Ther. 5: 36.
4. Wu, X., et al. 2015. Upregulation of extracellular matrix metalloproteinase inducer promotes hypoxia-induced epithelial-mesenchymal transition in esophageal cancer. Mol. Med. Rep. 12: 7419-7424.
5. Yu, Y., et al. 2016. SPARCL1 is a novel predictor of tumor recurrence and survival in hilar cholangiocarcinoma. Tumour Biol. 37: 4159-4167.
6. Chung, B., et al. 2017. Human brain metastatic stroma attracts breast cancer cells via chemokines CXCL16 and CXCL12. NPJ Breast Cancer 3: 6.
7. Goetzke, R., et al. 2018. Does soft really matter? Differentiation of induced pluripotent stem cells into mesenchymal stromal cells is not influenced by soft hydrogels. Biomaterials 156: 147-158.
8. Zhang, J., et al. 2019. Functional cardiac fibroblasts derived from human pluripotent stem cells via second heart field progenitors. Nat. Commun. 10: 2238.
9. Costanzo, M., et al. 2020. Proteomics reveals that methylmalonyl-CoA mutase modulates cell architecture and increases susceptibility to stress. Int. J. Mol. Sci. 21: 4998.

RESEARCH USE

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