SANTA CRUZ BIOTECHNOLOGY, INC.

Vitronectin 65/75 (D-8): sc-74484

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Fibronectin and Vitronectin are extracellular matrix glycoproteins that are present on most cell surfaces, in extracellular fluids, and in plasma. Both Fibronectin and Vitronectin have been shown to be involved in various functions including cell adhesion, cell motility and wound healing. Vitronectin contains an RGD (Arg-Gly-Asp acid) sequence that is present in many cell adhesion ligands. The RGD sequence has been shown to be essential for cell adhesion. Increased expression of Vitronectin, integrins and plasminogen activators has been observed in migrating cells during wound healing. Vitronectin has been shown to enhance smooth cell migration, and PAI-1 has been shown to bind to Vitronectin with high affinity, resulting in the blocking of smooth cell migration. Glycosaminoglycans, proteins involved in the anchoring of Vitronectin to the extracellular matrix, have been shown to stimulate the cleavage of Vitronectin by plasmin. This cleavage reduces the affinity of Vitronectin for PAI-1.

REFERENCES

1. Akiyama, S.K., et al. 1981. The structure of Fibronectin and its role in cellular adhesion. J. Supramol. Struct. Cell. Biochem. 16: 345-348.
2. Ruoslahti, E., et al. 1982. Molecular and biological interactions in Fibronectin. J. Invest. Dermatol. 79: 65-68.
3. Chain, D., et al. 1991. Plasmin cleavage of Vitronectin. Identification of the site and consequenct attenuation in binding plasminogen activator inhibitor-1. FEBS Lett. 285: 251-256.

CHROMOSOMAL LOCATION

Genetic locus: VTN (human) mapping to 17q11.2; Vtn (mouse) mapping to 11 B5.

SOURCE

Vitronectin 65/75 (D-8) is a mouse monoclonal antibody raised against amino acids 1-270 mapping at the N-terminus of Vitronectin 75 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.

Vitronectin 65/75 (D-8) is available conjugated to agarose (sc-74484 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74484 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74484 PE), fluorescein (sc-74484 FITC), Alexa Fluor® 488 (sc-74484 AF488), Alexa Fluor® 546 (sc-74484 AF546), Alexa Fluor® 594 (sc-74484 AF594) or Alexa Fluor® 647 (sc-74484 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-74484 AF680) or Alexa Fluor® 790 (sc-74484 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

Vitronectin 65/75 (D-8) is recommended for detection of Vitronectin 65 and Vitronectin 75 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).

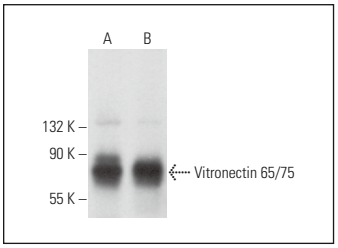
Suitable for use as control antibody for Vitronectin siRNA (h): sc-36820, Vitronectin siRNA (m): sc-36821, Vitronectin siRNA (r): sc-270256, Vitronectin shRNA Plasmid (h): sc-36820-SH, Vitronectin shRNA Plasmid (m): sc-36821-SH, Vitronectin shRNA Plasmid (r): sc-270256-SH, Vitronectin shRNA (h) Lentiviral Particles: sc-36820-V, Vitronectin shRNA (m) Lentiviral Particles: sc-36821-V and Vitronectin shRNA (r) Lentiviral Particles: sc-270256-V.

Molecular Weight of Vitronectin single chain: 75 kDa.

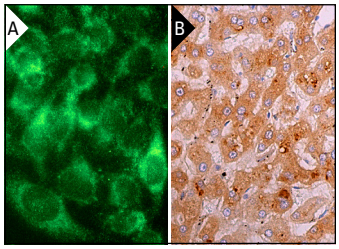
Molecular Weight of Vitronectin cleaved two-chain forms: 65/10 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Caco-2 cell lysate: sc-2262 or HeLa whole cell lysate: sc-2200.

DATA



Vitronectin 65/75 (D-8): sc-74484. Western blot analysis of Vitronectin 65/75 expression in Hep G2 (**A**) and Caco-2 (**B**) whole cell lysates.



Vitronectin 65/75 (D-8): sc-74484. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes (**B**).

SELECT PRODUCT CITATIONS

1. Muerza-Cascante, M.L., et al. 2017. Endosteal-like extracellular matrix expression on melt electrospun written scaffolds. Acta Biomater. 52: 145-158.
2. Shibahara, T., et al. 2023. PDGFRβ-positive cell-mediated post-stroke remodeling of fibronectin and laminin α2 for tissue repair and functional recovery. J. Cereb. Blood Flow Metab. 43: 518-530.
3. Castro-Cordova, P., et al. 2025. *Clostridioides difficile* major toxins remodel the intestinal epithelia, affecting spore adherence/internalization into intestinal tissue and their association with gut vitronectin. bioRxiv. E-published.

RESEARCH USE

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