SANTA CRUZ BIOTECHNOLOGY, INC.

# Vitronectin 65/75 (B-1): sc-74485

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.


## CHROMOSOMAL LOCATION

Genetic locus: VTN (human) mapping to 17q11.2.

## SOURCE

Vitronectin 65/75 (B-1) 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.

## APPLICATIONS

Vitronectin 65/75 (B-1) is recommended for detection of Vitronectin 65 and Vitronectin 75 of 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 shRNA Plasmid (h): sc-36820-SH and Vitronectin shRNA (h) Lentiviral Particles: sc-36820-V.

Molecular Weight of Vitronectin single chain: 75 kDa.

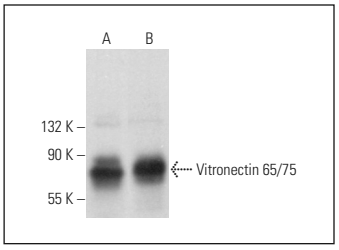
Molecular Weight of Vitronectin cleaved two-chain forms: 65/10 kDa.

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

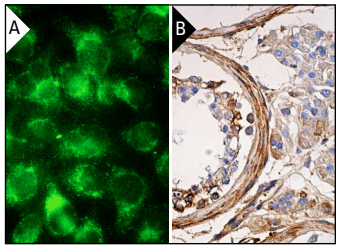
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA




Vitronectin 65/75 (B-1): sc-74485. Western blot analysis of Vitronectin 65/75 expression in Hep G2 (**A**) and Caco-2 (**B**) whole cell lysates.




Vitronectin 65/75 (B-1): sc-74485. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic staining of cells in seminiferous ducts and Leydig cells (**B**).

## SELECT PRODUCT CITATIONS


1. Laperle, A., et al. 2015. α-5 Laminin synthesized by human pluripotent stem cells promotes self-renewal. Stem Cell Rep. 5: 195-206.
2. Greferath, U., et al. 2016. Correlation of histologic features with *in vivo* imaging of reticular pseudodrusen. Ophthalmology 123: 1320-1331.
3. Karatug Kacar, A. and Bolkent, S. 2019. Vitronectin, Fibronectin and epidermal growth factor induce proliferation via the JNK and ERK pathways in Insulinoma INS-1 cells. Cytotechnology 71: 209-217.


## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.