

# Vitronectin 65/75 (C-20): sc-7777

## 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 consequent attenuation in binding plasminogen activator inhibitor-1. *FEBS Lett.* 285: 251-256.
4. Bauer, J.S., et al. 1992. Motility of fibronectin receptor-deficient cells on Fibronectin and Vitronectin: collaborative interactions among integrins. *J. Cell Biol.* 116: 477-487.
5. Cherny, R.C., et al. 1993. Site-directed mutagenesis of the arginine-glycine-aspartic acid in Vitronectin abolishes cell adhesion. *J. Biol. Chem.* 268: 9725-9729.
6. Stefansson, S. and Lawrence, D.A. 1996. The serpin PAI-1 inhibits cell migration by blocking integrin  $\alpha$ V $\beta$ 3 binding to Vitronectin. *Nature* 383: 441-443.
7. Rosenblatt, S., et al. 1997. Differential modulation of cell adhesion by interaction between adhesive and counter-adhesive proteins: characterization of the binding of Vitronectin to osteonectin (BM40, SPARC). *Biochem. J.* 324: 311-319.

## CHROMOSOMAL LOCATION

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

## SOURCE

Vitronectin 65/75 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Vitronectin 65 of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-7777 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Vitronectin 65/75 (C-20) is recommended for detection of Vitronectin 65 and Vitronectin 75 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

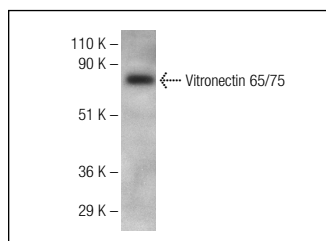
Suitable for use as control antibody for Vitronectin siRNA (h): sc-36820, Vitronectin shRNA Plasmid (h): sc-36820-SH and Vitronectin shRNA (h) Lentiviral Particles: sc-36820-V.

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 or A549 cell lysate: sc-2413.

## DATA



Vitronectin 65/75 (C-20): sc-7777. Western blot analysis of human recombinant Vitronectin 65/75.

## SELECT PRODUCT CITATIONS

1. Guo, P., et al. 2003. Overexpression of vascular endothelial growth factor by MCF7 breast cancer cells promotes estrogen-independent tumor growth *in vivo*. *Cancer Res.* 63: 4684-4691.
2. Lemmers, B., et al. 2007. Essential role for caspase-8 in toll-like receptors and NF $\kappa$ B signaling. *J. Biol. Chem.* 282: 7416-7423.

## RESEARCH USE

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



Try **Vitronectin 65/75 (D-8): sc-74484** or **Vitronectin 65/75 (B-1): sc-74485**, our highly recommended monoclonal alternatives to Vitronectin 65/75 (C-20).