

vinculin (C-20): sc-7648

BACKGROUND

Focal adhesions were identified as areas within the plasma membrane of tissue culture cells that adhere tightly to the underlying substrate. *In vivo*, these regions are involved in the adhesion of cells to the extracellular matrix. Paxillin and vinculin are cytoskeletal, focal adhesion proteins that are components of a protein complex, which links the actin network to the plasma membrane. Vinculin binding sites have been identified on other cytoskeletal proteins, including talin and α -actinin. In addition, vinculin, talin and α -actinin each contain actin binding sites. Expression of vinculin and talin were shown to be affected by the level of actin expression. α -actinin has been shown to link actin to integrins in the plasma membrane through interactions with the vinculin and talin complex or by a direct interaction with integrin.

CHROMOSOMAL LOCATION

Genetic locus: VCL (human) mapping to 10q22.2; Vcl (mouse) mapping to 14 A3.

SOURCE

vinculin (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of vinculin of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-7648 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

vinculin (C-20) is recommended for detection of vinculin of mouse, rat, human and *Xenopus laevis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

vinculin (C-20) is also recommended for detection of vinculin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for vinculin siRNA (h): sc-29524, vinculin siRNA (m): sc-36819, vinculin shRNA Plasmid (h): sc-29524-SH, vinculin shRNA Plasmid (m): sc-36819-SH, vinculin shRNA (h) Lentiviral Particles: sc-29524-V and vinculin shRNA (m) Lentiviral Particles: sc-36819-V.

Molecular Weight of vinculin: 117 kDa.

Positive Controls: HISM cell lysate: sc-2229, HeLa whole cell lysate: sc-2200 or vinculin (h): 293T Lysate: sc-113822.

RESEARCH USE

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

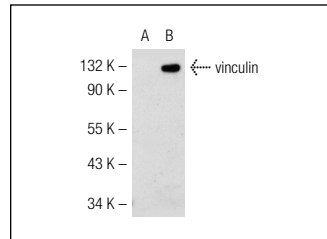
PROTOCOLS

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

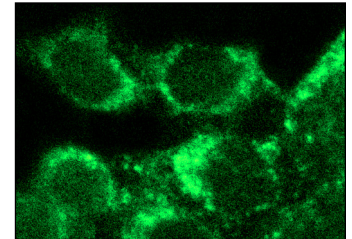
STORAGE

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

DATA



vinculin (C-20): sc-7648. Western blot analysis of vinculin expression in non-transfected: sc-117752 (A) and human vinculin transfected: sc-113822 (B) 293T whole cell lysates.



vinculin (C-20): sc-7648. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Kyaw, M., et al. 2004. Src and Cas are essentially but differentially involved in Angiotensin II-stimulated migration of vascular smooth muscle cells via extracellular signal-regulated kinase 1/2 and c-Jun NH₂-terminal kinase activation. *Mol. Pharmacol.* 65: 832-841.
2. Gentleman, E., et al. 2006. Development of ligament-like structural organization and properties in cell-seeded collagen scaffolds *in vitro*. *Ann. Biomed. Eng.* 34: 726-736.
3. Sanchez, A.M., et al. 2010. Estrogen receptor- α promotes breast cancer cell motility and invasion via focal adhesion kinase and N-WASP. *Mol. Endocrinol.* 24: 2114-2125.
4. Fu, X.D., et al. 2010. Progesterone receptor enhances breast cancer cell motility and invasion via extranuclear activation of focal adhesion kinase. *Endocr. Relat. Cancer* 17: 431-443.
5. Xu, B.J., et al. 2010. Quantitative analysis of the secretome of TGF- β signaling-deficient mammary fibroblasts. *Proteomics* 10: 2458-2470.
6. Rocchiccioli, S., et al. 2012. Proteomics changes in adhesion molecules: a driving force for vascular smooth muscle cell phenotypic switch. *Mol. Biosyst.* 8: 1052-1059.


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Try **vinculin (7F9): sc-73614** or **vinculin (H-10): sc-25336**, our highly recommended monoclonal alternatives to vinculin (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **vinculin (7F9): sc-73614**.