

# vinculin (H-300): sc-5573

## 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  $\alpha$ -actinin. In addition, vinculin, talin and  $\alpha$ -actinin each contain actin binding sites. Expression of vinculin and talin were shown to be affected by the level of actin expression.  $\alpha$ -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 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of vinculin of human origin.

## PRODUCT

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

## APPLICATIONS

vinculin (H-300) is recommended for detection of vinculin of mouse, rat and 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).

vinculin (H-300) 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, vinculin (h): 293T Lysate: sc-113822 or HeLa whole cell lysate: sc-2200.

## STORAGE

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

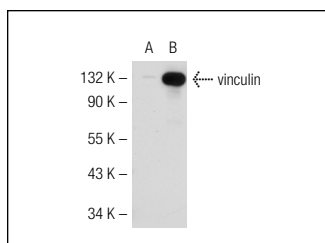
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

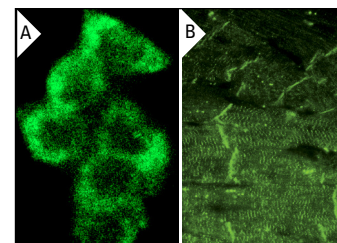
## RESEARCH USE

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

## DATA



vinculin (H-300): sc-5573. Western blot analysis of vinculin expression in non-transfected: sc-117752 (A) and human vinculin transfected: sc-113822 (B) 293T whole cell lysates.



vinculin (H-300): sc-5573. Immunofluorescence staining of methanol-fixed HeLa cells (A) showing cytoplasmic localization and of normal mouse heart frozen section (B) showing cytoplasmic and cell junction staining.

## SELECT PRODUCT CITATIONS

- Ducruet, A.P., et al. 2003. Regulation of Cdc25A half-life in interphase by cyclin-dependent kinase 2 activity. *J. Biol. Chem.* 278: 31838.
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- Petrov, V.V., et al. 2008. TGF- $\beta$ 1-induced cardiac myofibroblasts are non-proliferating functional cells carrying DNA damages. *Exp. Cell Res.* 314: 1480-1494.
- Samarin, J., et al. 2009. Up-regulation of connective tissue growth factor in endothelial cells by the microtubule-destabilizing agent combretastatin A-4. *Mol. Cancer Res.* 7: 180-188.
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- Breyer, J., et al. 2012. Inhibition of Rho kinases increases directional motility of microvascular endothelial cells. *Biochem. Pharmacol.* 83: 616-626.



Try **vinculin (7F9): sc-73614** or **vinculin (H-10): sc-25336**, our highly recommended monoclonal alternatives to vinculin (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **vinculin (7F9): sc-73614**.