

# vinculin (H-10): sc-25336

## 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-10) is a mouse monoclonal antibody raised against amino acids 1-300 of vinculin of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

vinculin (H-10) is available conjugated to agarose (sc-25336 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-25336 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-25336 PE), fluorescein (sc-25336 FITC), Alexa Fluor® 488 (sc-25336 AF488), Alexa Fluor® 546 (sc-25336 AF546), Alexa Fluor® 594 (sc-25336 AF594) or Alexa Fluor® 647 (sc-25336 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-25336 AF680) or Alexa Fluor® 790 (sc-25336 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

vinculin (H-10) is recommended for detection of vinculin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1,000), 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), 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 vinculin siRNA (h): sc-29524, vinculin siRNA (m): sc-36819, vinculin siRNA (r): sc-270542, vinculin shRNA Plasmid (h): sc-29524-SH, vinculin shRNA Plasmid (m): sc-36819-SH, vinculin shRNA Plasmid (r): sc-270542-SH, vinculin shRNA (h) Lentiviral Particles: sc-29524-V, vinculin shRNA (m) Lentiviral Particles: sc-36819-V and vinculin shRNA (r) Lentiviral Particles: sc-270542-V.

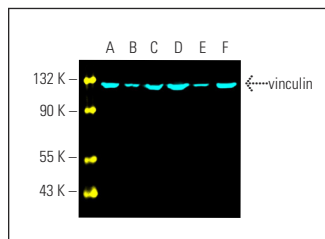
Molecular Weight of vinculin: 117 kDa.

Positive Controls: A-10 cell lysate: sc-3806, Sol8 cell lysate: sc-2249 or K-562 whole cell lysate: sc-2203.

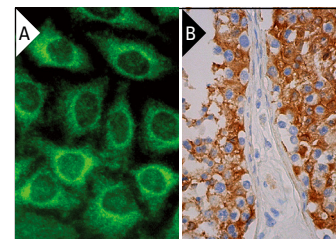
## STORAGE

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

## DATA



vinculin (H-10) Alexa Fluor® 647: sc-25336 AF647. Direct fluorescent western blot analysis of vinculin expression in Sol8 (A), A-10 (B), K-562 (C), PC-3 (D), HEL 92.1.7 (E) and BC<sub>3</sub>H1 (F) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker™ MW Tag-Alexa Fluor® 488: sc-516790.



vinculin (H-10): sc-25336. 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 (B).

## SELECT PRODUCT CITATIONS

- Liu, M., et al. 2005. Gene transfer of vasostatin, a calreticulin fragment, into neuroendocrine tumor cells results in enhanced malignant behavior. *Neuroendocrinology* 82: 1-10.
- Pinette, J.A., et al. 2024. Disruption of nucleotide biosynthesis reprograms mitochondrial metabolism to inhibit adipogenesis. *J. Lipid Res.* 65: 100641.
- Brandt, M.P., et al. 2024. Inhibition of the sterol regulatory element binding protein SREBF-1 overcomes docetaxel resistance in advanced prostate cancer. *Am. J. Pathol.* 194: 2150-2162.
- Wölkart, G., et al. 2024. An adenosinergic positive feedback loop extends pharmacological cardioprotection duration. *Br. J. Pharmacol.* 181: 4920-4936.
- Del Valle-Morales, D., et al. 2024. METTL3 alters capping enzyme expression and its activity on ribosomal proteins. *Sci. Rep.* 14: 27720.
- Schirone, L., et al. 2024. Stenosing Crohn's disease patients display gut autophagy/oxidative stress imbalance. *Sci. Rep.* 14: 27312.
- Santini, L., et al. 2024. FoxO transcription factors actuate the formative pluripotency specific gene expression programme. *Nat. Commun.* 15: 7879.
- Das, A., et al. 2025. Adenylate cyclase 10 promotes brown adipose tissue thermogenesis. *iScience* 28: 111833.
- Hommel, T., et al. 2025. Loss of ERBB2 and ERBB3 receptors impacts epidermal differentiation in mice. *J. Invest. Dermatol.* 145: 204-208.e6.

## RESEARCH USE

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

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