SANTA CRUZ BIOTECHNOLOGY, INC.

Vinexin (D-4): sc-398275

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Vinexin, also known as SORBS3 or SCAM1, is a cytoskeletal protein that is expressed as three isoforms, designated Vinexin α, β and γ. Suggested to play pivotal roles in cell adhesion, cytoskeletal organization and cell signaling, Vinexin isoforms function to promote up-regulation of Actin stress fiber formation as well as activation of the JNK pathway in response to EGF stimulation. Vinexin contains three SH3 domains and one sorbin homology (SoHo) domain and binds to vinculin through its first two SH3 domains at the proline rich region of vinculin, and to SOS (guanine nucleotide exchange factor of RAS and RAC) through its third SH3 domain. Vinexin is expressed in a variety of tissues including placenta, heart, liver, brain, pancreas and skeletal muscle with localization at focal adhesion sites, cell-cell junctions and cell-extracellular matrix junctions. The β isoform localizes to the nucleus.

REFERENCES

1. Kioka, N., et al. 1999. Vinexin: a novel vinculin-binding protein with multiple SH3 domains enhances Actin cytoskeletal organization. J. Cell Biol. 144: 59-69.
2. Akamatsu, M., et al. 1999. Vinexin forms a signaling complex with Sos and modulates epidermal growth factor-induced c-Jun N-terminal kinase/stress-activated protein kinase activities. J. Biol. Chem. 274: 35933-35937.
3. Kioka, N., et al. 2002. Vinexin, CAP/ponsin, ArgBP2: a novel adaptor protein family regulating cytoskeletal organization and signal transduction. Cell Struct. Funct. 27: 1-7.
4. Tujague, M., et al. 2004. The focal adhesion protein Vinexin α regulates the phosphorylation and activity of estrogen receptor α. J. Biol. Chem. 279: 9255-9263.

CHROMOSOMAL LOCATION

Genetic locus: SORBS3 (human) mapping to 8p21.3.

SOURCE

Vinexin (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 206-243 within an internal region of Vinexin of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Vinexin (D-4) is available conjugated to agarose (sc-398275 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398275 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398275 PE), fluorescein (sc-398275 FITC), Alexa Fluor® 488 (sc-398275 AF488), Alexa Fluor® 546 (sc-398275 AF546), Alexa Fluor® 594 (sc-398275 AF594) or Alexa Fluor® 647 (sc-398275 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398275 AF680) or Alexa Fluor® 790 (sc-398275 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398275 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Vinexin (D-4) is recommended for detection of Vinexin 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Vinexin siRNA (h): sc-40342, Vinexin shRNA Plasmid (h): sc-40342-SH and Vinexin shRNA (h) Lentiviral Particles: sc-40342-V.

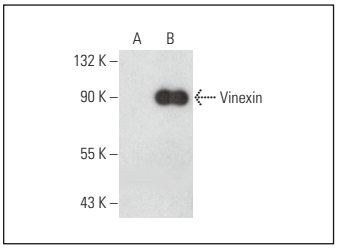
Molecular Weight of Vinexin: 82/37/76 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or Vinexin (h): 293T Lysate: sc-111611.

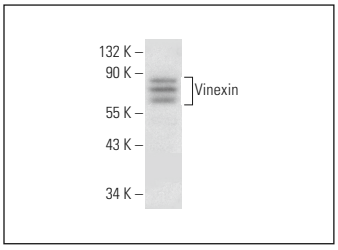
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Vinexin (D-4): sc-398275. Western blot analysis of Vinexin expression in non-transfected: sc-117752 (**A**) and human Vinexin transfected: sc-111611 (**B**) 293T whole cell lysates.



Vinexin (D-4): sc-398275. Western blot analysis of Vinexin expression in Hep G2 whole cell lysate.

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.