SANTA CRUZ BIOTECHNOLOGY, INC.

Vinexin (G-20): sc-14146

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. Amachi, T., 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.
5. Matsuyama, M., et al. 2005. A novel isoform of Vinexin, Vinexin γ, regulates Sox9 gene expression through activation of MAPK cascade in mouse fetal gonad. Genes Cells 10: 421-434.

CHROMOSOMAL LOCATION

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

SOURCE

Vinexin (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Vinexin of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-14146 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Vinexin (G-20) is recommended for detection of Vinexin of human origin by Western Blotting (starting dilution 1:200, 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.

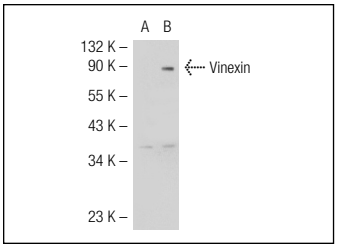
Molecular Weight of Vinexin: 41 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HEK293 whole cell lysate: sc-45136 or Vinexin (h): 293T Lysate: sc-111611.

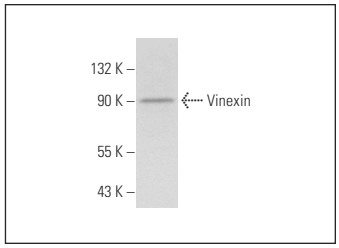
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Vinexin (G-20): sc-14146. Western blot analysis of Vinexin expression in non-transfected: sc-117752 (**A**) and human Vinexin transfected: sc-111611 (**B**) 293T whole cell lysates.



Vinexin (G-20): sc-14146. Western blot analysis of Vinexin expression in HEK293 whole cell lysate.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **Vinexin (D-4): sc-398275**, our highly recommended monoclonal alternative to Vinexin (G-20).