

# Vinexin (M-20): sc-14143

## BACKGROUND

Vinexin, also known as SORBS3 or SCAM1, is a cytoskeletal protein that is expressed as three isoforms, designated Vinexin  $\alpha$ ,  $\beta$  and  $\gamma$ . 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 pro-line 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  $\beta$  isoform localizes to the nucleus.

## REFERENCES

1. 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.
2. 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.
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  $\alpha$  regulates the phosphorylation and activity of estrogen receptor  $\alpha$ . *J. Biol. Chem.* 279: 9255-9263.
5. Matsuyama, M., et al. 2005. A novel isoform of Vinexin, Vinexin  $\gamma$ , regulates Sox9 gene expression through activation of MAPK cascade in mouse fetal gonad. *Genes Cells* 10: 421-434.
6. Paternotte, N., et al. 2005. SHIP2 interaction with the cytoskeletal protein Vinexin. *FEBS J.* 272: 6052-6066.

## CHROMOSOMAL LOCATION

Genetic locus: Sorbs3 (mouse) mapping to 14 D2.

## SOURCE

Vinexin (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Vinexin of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-14143 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Vinexin (M-20) is recommended for detection of Vinexin of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

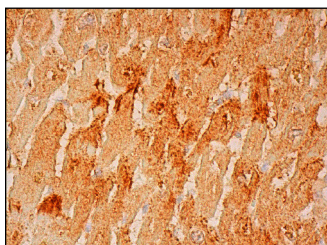
Suitable for use as control antibody for Vinexin siRNA (m): sc-40343, Vinexin shRNA Plasmid (m): sc-40343-SH and Vinexin shRNA (m) Lentiviral Particles: sc-40343-V.

Molecular Weight of Vinexin isoforms  $\alpha/\beta/\gamma$ : 82/37/76 kDa.

## 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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



Vinexin (M-20): sc-14143. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

## 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.