SANTA CRUZ BIOTECHNOLOGY, INC.

VAP-B/C (M-47): sc-98891

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

SNAREs are compartmentally specific, integral membrane proteins that are involved in the fusion of membranes and the transport of intracellular proteins. SNAREs are expressed at high levels in all cell types. VAMP-associated proteins (VAPs) regulate the activity of SNAREs. VAP-B is a 243 amino acid protein, which consists of a conserved N-terminal domain, an α-helical coiled-coil domain and a C-terminal transmembrane domain. VAP-C is a 99 amino acid protein that is a splice variant of VAP-B and retains the N-terminal 70 residues, but lacks both the coiled-coil and the transmembrane domains. Mutations in this "VAP-B/C" gene may result in amyotrophic lateral sclerosis, pinal muscular atrophy, progressive bulbar palsy or primary lateral sclerosis. These are all motor neuron diseases which belong to a group of neurodegenerative disorders involving the upper and/or lower motor neurons.

REFERENCES

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2. Ravichandran, V., Chawla, A. and Roche, P.A. 1996. Identification of a novel syntaxin- and synaptobrevin/SNAP-23, expressed in non-neuronal tissues. J. Biol. Chem. 271: 13300-13303.
3. Nishimura, Y., Hayashi, M., Inada, H. and Tanaka, T. 1999. Molecular cloning and characterization of mammalian homologues of vesicle-associated membrane protein-associated (VAMP-associated) proteins. Biochem. Biophys. Res. Commun. 254: 21-26.
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5. Weir, M.L., Xie, H., Klip, A. and Trimble, W.S. 2001. VAP-A binds promiscuously to both v- and tSNAREs. Biochem. Biophys. Res. Commun. 286: 616-621.

CHROMOSOMAL LOCATION

Genetic locus: VAPB (human) mapping to 20q13.32; Vapb (mouse) mapping to 2 H4.

SOURCE

VAP-B/C (M-47) is a rabbit polyclonal antibody raised against amino acids 124-170 mapping within an internal region of VAP-B/C of mouse origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

VAP-B/C (M-47) is recommended for detection of VAP-B/C of mouse, rat and, to a lesser extent, 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 VAP-B/C siRNA (h): sc-61770, VAP-B/C siRNA (m): sc-61771, VAP-B/C shRNA Plasmid (h): sc-61770-SH, VAP-B/C shRNA Plasmid (m): sc-61771-SH, VAP-B/C shRNA (h) Lentiviral Particles: sc-61770-V and VAP-B/C shRNA (m) Lentiviral Particles: sc-61771-V.

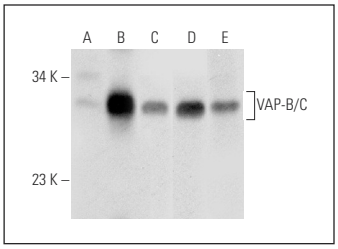
Molecular Weight of VAP-B/C: 27 kDa.

Positive Controls: VAP-B/C (m): 293T Lysate: sc-127757, mouse brain extract: sc-2253 or mouse liver extract: sc-2256.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



VAP-B/C (M-47): sc-98891. Western blot analysis of VAP-B/C expression in non-transfected 293T: sc-117752 (**A**), mouse VAP-B/C transfected 293T: sc-127757 (**B**) and NIH/3T3 (**C**) whole cell lysates and mouse brain (**D**) and mouse liver (**E**) tissue extracts.

RESEARCH USE

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