VAP-A (H-40): sc-98890



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 protein A (VAP-A) is a SNARE regulator with high levels of expression in the intestine during late embryogenesis and early neonatal development. VAP-A binds to a wide range of SNAREs and fusion-related proteins, including Syntaxin 1A, rBet1, rSec22, α SNAP and NSF. This suggests that VAP-A may play a more general role in SNARE-mediated vesicle traffic between the ER and Golgi in nonpolarized cells. VAP-A also mediates traffic in cell membranes and may play an important role in modulating intestinal smooth muscle cell differentiation. VAP-A and p48 interact to form a stable complex in mammalian cells.

REFERENCES

- Butler, K.L., Sinclair, K.E., Henderson, V.J., McKinney, G., Mesidor, D.A., Katon-Benitez, I. and Weaver, W.L. 1999. The chest radiograph in critically ill surgical patients is inaccurate in predicting ventilator-associated pneumonia. Am. Surg. 65: 805-810.
- 2. 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.
- 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.
- 4. Wyles, J.P., McMaster, C.R. and Ridgway, N.D. 2002. Vesicle-associated membrane protein-associated protein A (VAP-A) interacts with the oxysterol-binding protein to modify export from the endoplasmic reticulum. J. Biol. Chem. 277: 29908-29918.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605703. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 6. Gabetta, V., Trzyna, W., Phiel, C. and McHugh, K.M. 2003. Vesicle-associated protein A is differentially expressed during intestinal smooth muscle cell differentiation. Dev. Dyn. 228: 11-20.
- 7. Ettayebi, K. and Hardy, M.E. 2003. Norwalk virus nonstructural protein p48 forms a complex with the SNARE regulator VAP-A and prevents cell surface expression of vesicular stomatitis virus G protein. J. Virol. 77: 11790-11797.

CHROMOSOMAL LOCATION

Genetic locus: VAPA (human) mapping to 18p11.22; Vapa (mouse) mapping to 17 E1.1.

SOURCE

VAP-A (H-40) is a rabbit polyclonal antibody raised against amino acids 132-170 mapping within an internal region of VAP-A of human origin.

PRODUCT

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

APPLICATIONS

VAP-A (H-40) is recommended for detection of VAP-A of mouse, rat and 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).

VAP-A (H-40) is also recommended for detection of VAP-A in additional species, including canine and bovine.

Suitable for use as control antibody for VAP-A siRNA (h): sc-61768, VAP-A siRNA (m): sc-61769, VAP-A shRNA Plasmid (h): sc-61768-SH, VAP-A shRNA Plasmid (m): sc-61769-SH, VAP-A shRNA (h) Lentiviral Particles: sc-61768-V and VAP-A shRNA (m) Lentiviral Particles: sc-61769-V.

Molecular Weight of VAP-A: 27 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

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.

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.



Try **VAP-A (4C12): sc-293278**, our highly recommended monoclonal alternative to VAP-A (H-40).

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com