

VAMP-3 (N-12): sc-18208

BACKGROUND

Vesicle-associated membrane proteins, known as VAMPs, also designated synaptobrevins, include VAMP-1, VAMP-2, VAMP-3 (cellubrevin), and synaptotagmin, a protein that may function as an inhibitor of exocytosis. VAMP proteins are vesicular factors that are important components of the machinery controlling docking and/or fusion of secretory vesicles with their target membrane. Synaptosomal-associated proteins, known as SNAPs, including α - and γ -SNAP, are cytoplasmic proteins that bind to a membrane receptor complex composed of VAMP, SNAP 25 and syntaxin. Pancreatic β -cells express VAMP-2 and VAMP-3, and either one or both of these proteins selectively control Ca^{2+} -mediated Insulin secretion. In addition, VAMP-2 and VAMP-3 are expressed on GLUT4-containing vesicle membranes isolated from 3T3-L1 adipocytes and are important components of the Insulin-dependent translocation of GLUT4 to the cell surface in adipocytes.

CHROMOSOMAL LOCATION

Genetic locus: VAMP3 (human) mapping to 1p36.23; Vamp3 (mouse) mapping to 4 E2.

SOURCE

VAMP-3 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of VAMP-3 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-18208 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

VAMP-3 (N-12) is recommended for detection of VAMP-3 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), 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 VAMP-3 siRNA (h): sc-41338, VAMP-3 siRNA (m): sc-41339, VAMP-3 shRNA Plasmid (h): sc-41338-SH, VAMP-3 shRNA Plasmid (m): sc-41339-SH, VAMP-3 shRNA (h) Lentiviral Particles: sc-41338-V and VAMP-3 shRNA (m) Lentiviral Particles: sc-41339-V.

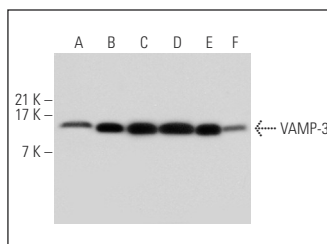
Molecular Weight of VAMP-3: 11 kDa.

Positive Controls: mouse lung extract: sc-2390, mouse testis extract: sc-2405 or HeLa whole cell lysate: sc-2200.

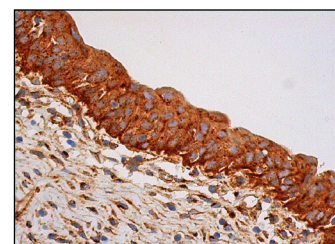
RECOMMENDED SECONDARY REAGENTS

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

DATA



VAMP-3 (N-12): sc-18208. Western blot analysis of VAMP-3 expression in mouse lung (A) and mouse testis (B) tissue extracts and HeLa (C), HEK293 (D), MCF7 (E) and Jurkat (F) whole cell lysates.



VAMP-3 (N-12): sc-18208. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic staining of urothelial cells.

SELECT PRODUCT CITATIONS

1. Mothet, J.P., et al. 2005. Glutamate receptor activation triggers a calcium-dependent and SNARE protein-dependent release of the gliotransmitter D-serine. *Proc. Natl. Acad. Sci. USA* 102: 5606-5611.
2. Han, C., et al. 2009. Human SCAMP5, a novel secretory carrier membrane protein, facilitates calcium-triggered cytokine secretion by interaction with SNARE machinery. *J. Immunol.* 182: 2986-2996.
3. Hager, H.A., et al. 2010. Identification of a novel Bves function: regulation of vesicular transport. *EMBO J.* 29: 532-545.
4. Zemskov, E.A., et al. 2011. Unconventional secretion of tissue transglutaminase involves phospholipid-dependent delivery into recycling endosomes. *PLoS ONE* 6: e19414.

RESEARCH USE

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



Try **VAMP-3 (E-10): sc-514843** or **VAMP-3 (k2A2): sc-136162**, our highly recommended monoclonal alternatives to VAMP-3 (N-12).