

# VAMP-4 (D-2): sc-365332



The Power to Question

## BACKGROUND

Vesicle-associated membrane protein 4 (VAMP-4) belongs to a subfamily of the large SNARE family. VAMP-4 is distributed mainly in tubular and vesicular membranes of the *trans*-Golgi network, particularly in heart, brain and testis, but is found in almost all tissues. VAMP-4 interacts with small synaptic vesicles and Clathrin-coated vesicles, participating in intracellular trafficking of secreted and membrane-associated proteins. It forms a complex with the TGN-trafficking protein syntaxin 6. VAMP-4 contains a dileucine motif which binds to the adaptor protein-1 (AP-1) subunit  $\mu$ -1a. Phosphorylation-dependent binding of the molecule PACS-1 to AP-1 modulates the attachment of AP-1 to VAMP-4. VAMP-4 may contribute to risk for suicide attempt, possibly through alterations in neural conduction.

## CHROMOSOMAL LOCATION

Genetic locus: VAMP4 (human) mapping to 1q24.3; Vamp4 (mouse) mapping to 1 H2.1.

## SOURCE

VAMP-4 (D-2) is a mouse monoclonal antibody raised against amino acids 61-125 mapping within an internal region of VAMP-4 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

VAMP-4 (D-2) is available conjugated to agarose (sc-365332 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365332 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365332 PE), fluorescein (sc-365332 FITC), Alexa Fluor® 488 (sc-365332 AF488), Alexa Fluor® 546 (sc-365332 AF546), Alexa Fluor® 594 (sc-365332 AF594) or Alexa Fluor® 647 (sc-365332 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365332 AF680) or Alexa Fluor® 790 (sc-365332 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

VAMP-4 (D-2) is recommended for detection of VAMP-4 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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-4 siRNA (h): sc-61766, VAMP-4 siRNA (m): sc-61767, VAMP-4 shRNA Plasmid (h): sc-61766-SH, VAMP-4 shRNA Plasmid (m): sc-61767-SH, VAMP-4 shRNA (h) Lentiviral Particles: sc-61766-V and VAMP-4 shRNA (m) Lentiviral Particles: sc-61767-V.

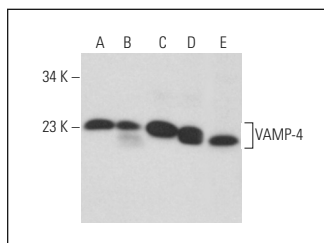
Molecular Weight of VAMP-4: 10 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, U-87 MG cell lysate: sc-2411 or SK-BR-3 cell lysate: sc-2218.

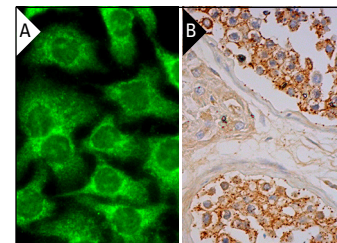
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



VAMP-4 (D-2): sc-365332. Western blot analysis of VAMP-4 expression in Hep G2 (A), U-87 MG (B), SK-BR-3 (C), Neuro-2A (D) and C6 (E) whole cell lysates.



VAMP-4 (D-2): sc-365332. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic staining of cells in seminiferous ducts and Leydig cells (B).

## SELECT PRODUCT CITATIONS

- Young, P.A., et al. 2018. Long-chain acyl-CoA synthetase 1 interacts with key proteins that activate and direct fatty acids into niche hepatic pathways. *J. Biol. Chem.* 293: 16724-16740.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.