

# VPS39 (C-5): sc-514762

## BACKGROUND

Vacuolar sorting proteins (VPSs) are required for proper trafficking of endocytic and biosynthetic proteins to the vacuole and play an important role in the budding process of cells. VPS39 (vacuolar protein sorting 39), also known as VAM6 or TLP, is an 886 amino acid protein that localizes to the cytoplasm, as well as to the lysosomal and endosomal membrane, and contains one CNH domain. Expressed ubiquitously with highest expression in kidney, heart, lung, brain, placenta and skeletal muscle, VPS39 functions as a homooligomer that is thought to play a role in the clustering and fusion of endosomes and lysosomes. Multiple isoforms of VPS39 exist due to alternative splicing events. The gene encoding VPS39 maps to human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome.

## CHROMOSOMAL LOCATION

Genetic locus: VPS39 (human) mapping to 15q15.1.

## SOURCE

VPS39 (C-5) is a mouse monoclonal antibody raised against amino acids 576-875 mapping at the C-terminus of VPS39 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

VPS39 (C-5) is available conjugated to agarose (sc-514762 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514762 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514762 PE), fluorescein (sc-514762 FITC), Alexa Fluor® 488 (sc-514762 AF488), Alexa Fluor® 546 (sc-514762 AF546), Alexa Fluor® 594 (sc-514762 AF594) or Alexa Fluor® 647 (sc-514762 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514762 AF680) or Alexa Fluor® 790 (sc-514762 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## RESEARCH USE

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

## APPLICATIONS

VPS39 (C-5) is recommended for detection of VPS39 of human origin by Western Blotting (starting dilution 1:100, 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 VPS39 siRNA (h): sc-90114, VPS39 shRNA Plasmid (h): sc-90114-SH and VPS39 shRNA (h) Lentiviral Particles: sc-90114-V.

Molecular Weight (predicted) of VPS39: 102 kDa.

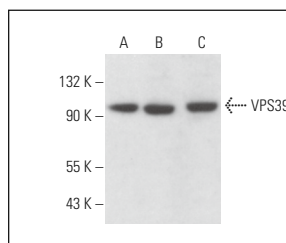
Molecular Weight (observed) of VPS39: 88 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285, Jurkat whole cell lysate: sc-2204 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

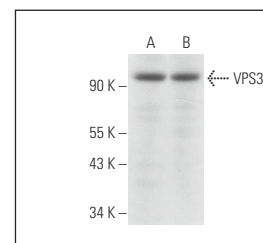
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



VPS39 (C-5): sc-514762. Western blot analysis of VPS39 expression in Jurkat (A), TF-1 (B) and ALL-SIL (C) whole cell lysates.



VPS39 (C-5): sc-514762. Western blot analysis of VPS39 expression in MIA PaCa-2 (A) and NTERA-2 cl.D1 (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Cheng, X., et al. 2017. Pacer mediates the function of class III PI3K and HOPS complexes in autophagosome maturation by engaging Stx17. *Mol. Cell* 65: 1029-1043.e5.
- Sharma, G., et al. 2019. A family of PIKFYVE inhibitors with therapeutic potential against autophagy-dependent cancer cells disrupt multiple events in lysosome homeostasis. *Autophagy* 15: 1694-1718.
- Cheng, X., et al. 2019. Pacer is a mediator of mTORC1 and GSK3-TIP60 signaling in regulation of autophagosome maturation and lipid metabolism. *Mol. Cell* 73: 788-802.e7.
- Oe, Y., et al. 2022. PACSIN1 is indispensable for amphisome-lysosome fusion during basal autophagy and subsets of selective autophagy. *PLoS Genet.* 18: e1010264.
- Schleinitz, A., et al. 2023. Consecutive functions of small GTPases guide HOPS-mediated tethering of late endosomes and lysosomes. *Cell Rep.* 42: 111969.

## 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) for detailed protocols and support products.

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