

# VPS11 (C-12): sc-515094



The Power to Question

## 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. VPS11 (vacuolar protein sorting 11), also known as END1, PEP5, RNF108 or PP3476, localizes to the membrane of both the endosome and the lysosome and is the human homolog of yeast Vsp11. Expressed ubiquitously with highest expression in heart, VPS11 is thought to play a role in vesicle-mediated protein trafficking, as well as fusion/docking reactions in late endosomes and lysosomes. VPS11 contains one clathrin repeat and one RING-type zinc finger and shares 24% amino acid identity with its yeast counterpart.

## REFERENCES

1. Wurmser, A.E., et al. 2000. New component of the vacuolar class C-Vps complex couples nucleotide exchange on the Ypt7 GTPase to SNARE-dependent docking and fusion. *J. Cell Biol.* 151: 551-562.
2. Sato, T.K., et al. 2000. Class C Vps protein complex regulates vacuolar SNARE pairing and is required for vesicle docking/fusion. *Mol. Cell* 6: 661-671.
3. Kim, B.Y., et al. 2001. Molecular characterization of mammalian homologues of class C Vps proteins that interact with syntaxin-7. *J. Biol. Chem.* 276: 29393-29402.
4. Peterson, M.R. and Emr, S.D. 2001. The class C Vps complex functions at multiple stages of the vacuolar transport pathway. *Traffic* 2: 476-486.

## CHROMOSOMAL LOCATION

Genetic locus: VPS11 (human) mapping to 11q23.3; Vps11 (mouse) mapping to 9 A5.2.

## SOURCE

VPS11 (C-12) is a mouse monoclonal antibody raised against amino acids 481-780 mapping within an internal region of VPS11 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

VPS11 (C-12) is available conjugated to agarose (sc-515094 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515094 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515094 PE), fluorescein (sc-515094 FITC), Alexa Fluor® 488 (sc-515094 AF488), Alexa Fluor® 546 (sc-515094 AF546), Alexa Fluor® 594 (sc-515094 AF594) or Alexa Fluor® 647 (sc-515094 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515094 AF680) or Alexa Fluor® 790 (sc-515094 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

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

## APPLICATIONS

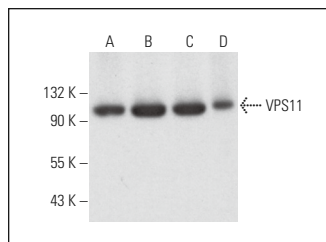
VPS11 (C-12) is recommended for detection of VPS11 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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 VPS11 siRNA (h): sc-76900, VPS11 siRNA (m): sc-76901, VPS11 shRNA Plasmid (h): sc-76900-SH, VPS11 shRNA Plasmid (m): sc-76901-SH, VPS11 shRNA (h) Lentiviral Particles: sc-76900-V and VPS11 shRNA (m) Lentiviral Particles: sc-76901-V.

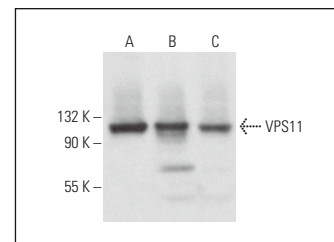
Molecular Weight of VPS11: 108 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

## DATA



VPS11 (C-12): sc-515094. Western blot analysis of VPS11 expression in HeLa nuclear extract (A), K-562 (B) and Jurkat (C) whole cell lysates and human brain tissue extract (D).



VPS11 (C-12): sc-515094. Western blot analysis of VPS11 expression in NAMALWA (A), 3611-RF (B) and SP2/O (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. 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.
2. Shen, Q., et al. 2021. Acetylation of STX17 (syntaxin 17) controls autophagosome maturation. *Autophagy* 17: 1157-1169.
3. Jewett, C.E., et al. 2021. RAB19 directs cortical remodeling and membrane growth for primary ciliogenesis. *Dev. Cell* 56: 325-340.e8.
4. Williams, L.A., et al. 2022. Developing antisense oligonucleotides for a TECPR2 mutation-induced, ultra-rare neurological disorder using patient-derived cellular models. *Mol. Ther. Nucleic Acids* 29: 189-203.
5. Hoffman, H.K., et al. 2023. HOPS-dependent lysosomal fusion controls Rab19 availability for ciliogenesis in polarized epithelial cells. *bioRxiv* 2023.02.07.527563.
6. Jian, F., et al. 2025. Deacetylated SNAP47 recruits HOPS to facilitate autophagosome-lysosome fusion independent of STX17. *Nat. Commun.* 16: 543.

## RESEARCH USE

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