

VPS11 (S-38): sc-100893

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 VPS11. 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.
5. Huizing, M., et al. 2001. Molecular cloning and characterization of human VPS18, VPS11, VPS16 and VPS33. *Gene* 264: 241-247.
6. Kim, B.Y., et al. 2003. Identification of mouse VPS16 and biochemical characterization of mammalian class C VPS complex. *Biochem. Biophys. Res. Commun.* 311: 577-582.
7. Palmer, G.E., et al. 2003. *Candida albicans* VPS11 is required for vacuole biogenesis and germ tube formation. *Eukaryotic Cell* 2: 411-421.
8. Yu, J.F., et al. 2006. Reduced expression of VPS11 causes less pigmentation in medaka, *Oryzias latipes*. *Pigment Cell Res.* 19: 628-634.

CHROMOSOMAL LOCATION

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

SOURCE

VPS11 (S-38) is a mouse monoclonal antibody raised against recombinant VPS11 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

VPS11 (S-38) is recommended for detection of VPS11 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)] 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.

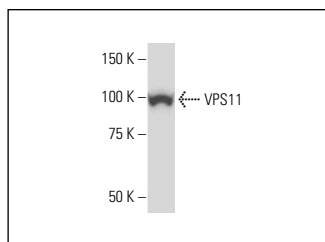
Molecular Weight of VPS11: 108 kDa.

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

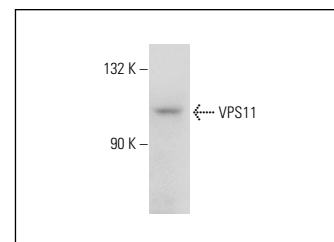
RECOMMENDED SUPPORT REAGENTS

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).

DATA



VPS11 (S-38): sc-100893. Western blot analysis of VPS11 expression in K-562 whole cell lysate.



VPS11 (S-38): sc-100893. Western blot analysis of VPS11 expression in HeLa nuclear extract.

SELECT PRODUCT CITATIONS

1. Zhen, Y. and Li, W. 2015. Impairment of autophagosome-lysosome fusion in the buff mutant mice with the VPS33A^{D251E} mutation. *Autophagy* 11: 1608-1622.
2. Segala, G., et al. 2019. VPS11 and VPS18 of VPS-C membrane traffic complexes are E3 ubiquitin ligases and fine-tune signalling. *Nat. Commun.* 10: 1833.
3. Kehl, A., et al. 2020. A trafficome-wide RNAi screen reveals deployment of early and late secretory host proteins and the entire late endo-/lysosomal vesicle fusion machinery by intracellular *Salmonella*. *PLoS Pathog.* 16: e1008220.

STORAGE

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