

VPS18 (P-15): sc-104758

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. VPS18 (vacuolar protein sorting 18), also known as PEP3 or hVPS18, is a 973 amino acid peripheral membrane protein that localizes to late endosomes and belongs to the VPS family. Expressed ubiquitously with highest expression in heart and lowest expression in lung, VPS18 is thought to play a role in membrane docking reactions of late endosomes and may also function in vesicle-mediated protein trafficking to lysosomal compartments. VPS18 contains one clathrin repeat and one RING-type zinc-finger and exists in a large hetero-oligomeric complex with other VPS proteins, including VPS11 and VPS16. Two isoforms of VPS18 exist due to alternative splicing events.

REFERENCES

- Huizing, M., et al. 2001. Molecular cloning and characterization of human VPS18, VPS11, VPS16 and VPS33. *Gene* 264: 241-247.
- 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.
- Geissenhöner, A., et al. 2001. *Aspergillus nidulans* DigA, a potential homolog of *Saccharomyces cerevisiae* Pep3 (VPS18), is required for nuclear migration, mitochondrial morphology and polarized growth. *Mol. Genet. Genomics* 266: 672-685.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608551. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- 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.
- Yogowasa, S., et al. 2005. Ubiquitylation and degradation of serum-inducible kinase by hVPS18, a RING-H2 type ubiquitin ligase. *J. Biol. Chem.* 280: 41619-41627.

CHROMOSOMAL LOCATION

Genetic locus: VPS18 (human) mapping to 15q15.1; Vps18 (mouse) mapping to 2 E5.

SOURCE

VPS18 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of VPS18 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-104758 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VPS18 (P-15) is recommended for detection of VPS18 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 VPS18 siRNA (h): sc-89965, VPS18 siRNA (m): sc-106696, VPS18 shRNA Plasmid (h): sc-89965-SH, VPS18 shRNA Plasmid (m): sc-106696-SH, VPS18 shRNA (h) Lentiviral Particles: sc-89965-V and VPS18 shRNA (m) Lentiviral Particles: sc-106696-V.

Molecular Weight of VPS18: 110 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211.

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) 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.

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 or our catalog for detailed protocols and support products.


 MONOS
Satisfaction
Guaranteed

Try **VPS18 (237.1): sc-100890**, our highly recommended monoclonal alternative to VPS18 (P-15).