

VPS18 (m2): 293T Lysate: sc-127770

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

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2. 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.
3. 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.
4. 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/>
5. 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.
6. Yogosawa, 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.
7. Yogosawa, S., et al. 2006. Monoubiquitylation of GGA3 by hVPS18 regulates its ubiquitin-binding ability. *Biochem. Biophys. Res. Commun.* 350: 82-90.

CHROMOSOMAL LOCATION

Genetic locus: Vps18 (mouse) mapping to 2 E5.

PRODUCT

VPS18 (m): 293T Lysate represents a lysate of mouse VPS18 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

VPS18 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive VPS18 antibodies. Recommended use: 10-20 µl per lane.

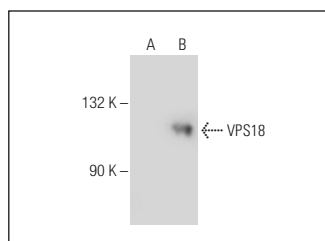
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

VPS18 (237.1): sc-100890 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse VPS18 expression in VPS18 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



VPS18 (237.1): sc-100890. Western blot analysis of VPS18 expression in non-transfected: sc-117752 (A) and mouse VPS18 transfected: sc-127770 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.