

# VPS18 (237.1): sc-100890



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. 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

VPS18 (237.1) is a mouse monoclonal antibody raised against recombinant VPS18 of human origin.

## PRODUCT

Each vial contains 50 µg IgG<sub>3</sub> kappa light chain in 0.5 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

VPS18 (237.1) 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), 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 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.

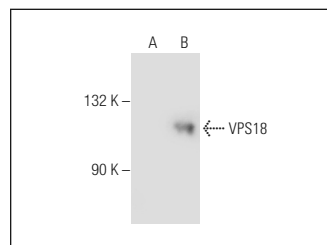
Molecular Weight of VPS18: 110 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211 or VPS18 (m2): 293T Lysate: sc-127770.

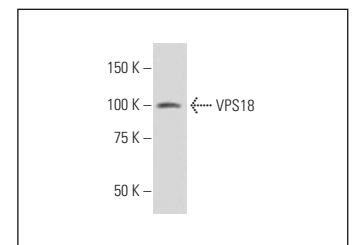
## RECOMMENDED SUPPORT REAGENTS

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



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.



VPS18 (237.1): sc-100890. Western blot analysis of VPS18 expression in RAW 264.7 whole cell lysate.

## SELECT PRODUCT CITATIONS

- Minchenko, O.H., et al. 2005. Overexpression of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase-4 in the human breast and colon malignant tumors. *Biochimie* 87: 1005-1010.
- Bobarykina, A.Y., et al. 2006. Hypoxic regulation of PFKFB-3 and PFKFB-4 gene expression in gastric and pancreatic cancer cell lines and expression of PFKFB genes in gastric cancers. *Acta Biochim. Pol.* 53: 789-799.
- 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.

## 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.