

# VPS35 (H-300): sc-134929

## 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. VPS35 (vacuolar protein sorting 35), also known as MEM3, is the 796 amino acid human homolog of the *S. cerevisiae* Vps35 protein. Localized to the cytoplasm and to the peripheral membrane, VPS35 is an essential component of the retromer complex, which is involved in retrieval of lysosomal enzyme receptors from endosomes to the *trans*-Golgi network. VPS35 is expressed ubiquitously with highest expression in heart, placenta, brain, testes, kidney, colon, ovary and spleen. In addition to its crucial role in the retromer complex, VPS35 is part of a subcomplex that is required to regulate transcytosis of the polymeric immunoglobulin receptor from the basolateral to the apical surface of epithelial cells and hepatocytes.

## REFERENCES

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- Vergés, M., et al. 2004. The mammalian retromer regulates transcytosis of the polymeric immunoglobulin receptor. *Nat. Cell Biol.* 6: 763-769.
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- George, A., et al. 2007. The vacuolar-ATPase inhibitor bafilomycin and mutant VPS35 inhibit canonical Wnt signaling. *Neurobiol. Dis.* 26: 125-133.
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## CHROMOSOMAL LOCATION

Genetic locus: VPS35 (human) mapping to 16q11.2; Vps35 (mouse) mapping to 8 C3.

## SOURCE

VPS35 (H-300) is a rabbit polyclonal antibody raised against amino acids 497-796 mapping at the C-terminus of VPS35 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.

## APPLICATIONS

VPS35 (H-300) is recommended for detection of VPS35 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)], 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).

VPS35 (H-300) is also recommended for detection of VPS35 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for VPS35 siRNA (h): sc-63218, VPS35 siRNA (m): sc-63219, VPS35 shRNA Plasmid (h): sc-63218-SH, VPS35 shRNA Plasmid (m): sc-63219-SH, VPS35 shRNA (h) Lentiviral Particles: sc-63218-V and VPS35 shRNA (m) Lentiviral Particles: sc-63219-V.

Molecular Weight of VPS35: 90 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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](http://www.scbt.com) or our catalog for detailed protocols and support products.