

VPS26 (E-3): sc-390304

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. VPS26 (vacuolar protein sorting 26), also known as VPS26A, HB58 or PEP8A, is a 327 amino acid protein that localizes to both the cytoplasm and to the endosomal membrane and exists as a component of the multi-subunit retromer complex. Specifically, the retromer complex relies on a variety of proteins, including VPS26, VPS26B and VPS35, all of which are responsible for the retrograde transport of proteins from endosomes to the *trans*-Golgi network. VPS26 is expressed at high levels in heart, liver, kidney, placenta and skeletal muscle, where it plays an important role in protein trafficking. Multiple isoforms of VPS26 exist due to alternative splicing events.

REFERENCES

1. Mao, M., et al. 1998. Identification of genes expressed in human CD34⁺ hematopoietic stem/progenitor cells by expressed sequence tags and efficient full-length cDNA cloning. *Proc. Natl. Acad. Sci. USA* 95: 8175-8180.
2. Haft, C.R., et al. 2000. Human orthologs of yeast vacuolar protein sorting proteins VPS26, 29, and 35: assembly into multimeric complexes. *Mol. Biol. Cell* 11: 4105-4116.
3. Reddy, J.V. and Seaman, M.N. 2001. VPS26p, a component of retromer, directs the interactions of VPS35p in endosome-to-Golgi retrieval. *Mol. Biol. Cell* 12: 3242-3256.
4. Vergés, M., et al. 2004. The mammalian retromer regulates transcytosis of the polymeric immunoglobulin receptor. *Nat. Cell Biol.* 6: 763-769.
5. Kerr, M.C., et al. 2005. A novel mammalian retromer component, VPS26B. *Traffic* 6: 991-1001.
6. Shi, H., et al. 2006. The retromer subunit VPS26 has an arrestin fold and binds VPS35 through its C-terminal domain. *Nat. Struct. Mol. Biol.* 13: 540-548.

CHROMOSOMAL LOCATION

Genetic locus: VPS26A (human) mapping to 10q22.1; Vps26a (mouse) mapping to 10 B4.

SOURCE

VPS26 (E-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 81-117 within an internal region of VPS26 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-390304 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

VPS26 (E-3) is recommended for detection of VPS26 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

VPS26 (E-3) is also recommended for detection of VPS26 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for VPS26 siRNA (h): sc-63220, VPS26 siRNA (m): sc-63221, VPS26 shRNA Plasmid (h): sc-63220-SH, VPS26 shRNA Plasmid (m): sc-63221-SH, VPS26 shRNA (h) Lentiviral Particles: sc-63220-V and VPS26 shRNA (m) Lentiviral Particles: sc-63221-V.

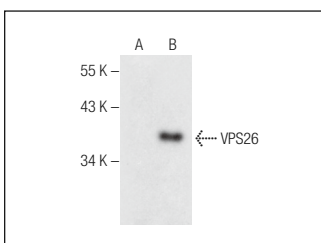
Molecular Weight of VPS26: 38 kDa.

Positive Controls: VPS26 (m): 293T Lysate: sc-124576.

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 L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



VPS26 (E-3): sc-390304. Western blot analysis of VPS26 expression in non-transfected: sc-117752 (A) and mouse VPS26 transfected: sc-124576 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Chae, C.W., et al. 2022. High glucose-mediated VPS26A down-regulation dysregulates neuronal amyloid precursor protein processing and Tau phosphorylation. *Br. J. Pharmacol.* 179: 3934-3950.

STORAGE

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