

VPS26 (m): 293T Lysate: sc-124576

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., Fu, G., Wu, J.S., Zhang, Q.H., Zhou, J., Kan, L.X., Huang, Q.H., He, K.L., Gu, B.W., Han, Z.G., Shen, Y., Gu, J., Yu, Y.P., Xu, S.H., Wang, Y.X., Chen, S.J. and Chen, Z. 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., de la Luz Sierra, M., Bafford, R., Lesniak, M.A., Barr, V.A. and Taylor, S.I. 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. Verges, M., Luton, F., Gruber, C., Tiemann, F., Reinders, L.G., Huang, L., Burlingame, A.L., Haft, C.R. and Mostov, K.E. 2004. The mammalian retromer regulates transcytosis of the polymeric immunoglobulin receptor. *Nat. Cell Biol.* 6: 763-769.
5. Kerr, M.C., Bennetts, J.S., Simpson, F., Thomas, E.C., Flegg, C., Gleeson, P.A., Wicking, C. and Teasdale, R.D. 2005. A novel mammalian retromer component, VPS26B. *Traffic* 6: 991-1001.
6. Shi, H., Rojas, R., Bonifacino, J.S. and Hurley, J.H. 2006. The retromer subunit VPS26 has an arrestin fold and binds VPS35 through its C-terminal domain. *Nat. Struct. Mol. Biol.* 13: 540-548.
7. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 605506. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
8. Rojas, R., Kametaka, S., Haft, C.R. and Bonifacino, J.S. 2007. Interchangeable but essential functions of SNX1 and SNX2 in the association of retromer with endosomes and the trafficking of mannose 6-phosphate receptors. *Mol. Cell. Biol.* 27: 1112-1124.

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.

CHROMOSOMAL LOCATION

Genetic locus: Vps26a (mouse) mapping to 10 B4.

PRODUCT

VPS26 (m): 293T Lysate represents a lysate of mouse VPS26 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

VPS26 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive VPS26 antibodies. Recommended use: 10-20 µl per lane.

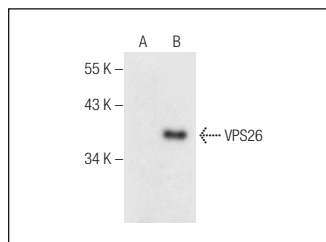
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

VPS26 (E-3): sc-390304 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse VPS26 expression in VPS26 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



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.

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.