



VPS16 (m): 293T Lysate: sc-127767

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. The VPS proteins are highly conserved in mammal, yeast and *Drosophila*. VPS16 (vacuolar protein sorting 16) is a 839 amino acid protein that localizes to the cytoplasmic side of membranes and is ubiquitously expressed. Existing as a component of the Class C VPS protein complex along with VPS11, VPS18 and VPS33, VPS16 is thought to play a role in membrane docking/fusion reactions of late endosomes/lysosomes and may also participate in vesicle-mediated protein trafficking to lysosomal compartments. Mutations in the gene encoding VPS16 may disrupt trafficking to lysosomes and lysosome-related organelles that can potentially cause multiple diseases, including Hermansky-Pudlak syndrome.

REFERENCES

1. Horazdovsky, B.F. and Emr, S.D. 1993. The VPS16 gene product associates with a sedimentable protein complex and is essential for vacuolar protein sorting in yeast. *J. Biol. Chem.* 268: 4953-4962.
2. Sato, T.K., Rehling, P., Peterson, M.R. and Emr, S.D. 2000. Class C Vps protein complex regulates vacuolar SNARE pairing and is required for vesicle docking/fusion. *Mol. Cell* 6: 661-671.
3. Huizing, M., Didier, A., Walenta, J., Anikster, Y., Gahl, W.A. and Krämer, H. 2001. Molecular cloning and characterization of human VPS18, VPS 11, VPS16, and VPS33. *Gene* 264: 241-247.
4. Kim, B.Y., Ueda, M., Kominami, E., Akagawa, K., Kohsaka, S. and Akazawa, C. 2003. Identification of mouse Vps16 and biochemical characterization of mammalian class C Vps complex. *Biochem. Biophys. Res. Commun.* 311: 577-582.
5. Kim, B.Y., Ueda, M., Nakamura, Y., Kohsaka, S. and Akazawa, C. 2004. Expression of the mammalian homologue of vacuolar protein sorting 16 (Vps16p) in the mouse and rat brain. *Neurosci. Lett.* 355: 217-220.
6. Pulipparacharuvil, S., Akbar, M.A., Ray, S., Sevrinikov, E.A., Haberman, A.S., Rohrer, J. and Krämer, H. 2005. *Drosophila* Vps16A is required for trafficking to lysosomes and biogenesis of pigment granules. *J. Cell Sci.* 118: 3663-3673.

CHROMOSOMAL LOCATION

Genetic locus: Vps16 (mouse) mapping to 2 F1.

PRODUCT

VPS16 (m): 293T Lysate represents a lysate of mouse VPS16 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.

RESEARCH USE

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

APPLICATIONS

VPS16 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive VPS16 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.

PROTOCOLS

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