SANTA CRUZ BIOTECHNOLOGY, INC.

VPS26B (K-14): sc-109458



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. VPS26B (vacuolar protein sorting 26 homolog B), also known as Pep8b, is a 336 amino acid peripheral membrane protein that forms a retromer complex with VPS29 and VPS35. Specifically, the retromer complex is responsible for the retrograde transport of proteins from endosomes to the *trans*-Golgi network. VPS26B is highly similar to VPS26A and both have structural homology to the Arrestin family of proteins involved in endocytosis of activated G protein-coupled receptors (GPCRs) at the plasma membrane. VSP26B may be phosphorylated upon DNA damage by ATM or ATR.

REFERENCES

- 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.
- 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.
- 3. Jaillais, Y., Santambrogio, M., Rozier, F., Fobis-Loisy, I., Miège, C. and Gaude, T. 2007. The retromer protein VPS29 links cell polarity and organ initiation in plants. Cell 130: 1057-1070.
- Hierro, A., Rojas, A.L., Rojas, R., Murthy, N., Effantin, G., Kajava, A.V., Steven, A.C., Bonifacino, J.S. and Hurley, J.H. 2007. Functional architecture of the retromer cargo-recognition complex. Nature 449: 1063-1067.
- Kim, E., Lee, J.W., Baek, D.C., Lee, S.R., Kim, M.S., Kim, S.H., Imakawa, K. and Chang, K.T. 2008. Identification of novel retromer complexes in the mouse testis. Biochem. Biophys. Res. Commun. 375: 16-21.
- 6. Bonifacino, J.S. and Hurley, J.H. 2008. Retromer. Curr. Opin. Cell Biol. 20: 427-436.
- Collins, B.M., Norwood, S.J., Kerr, M.C., Mahony, D., Seaman, M.N., Teasdale, R.D. and Owen, D.J. 2008. Structure of VPS26B and mapping of its interaction with the retromer protein complex. Traffic 9: 366-379.
- 8. Collins, B.M. 2008. The structure and function of the retromer protein complex. Traffic 9: 1811-1822.

CHROMOSOMAL LOCATION

Genetic locus: VPS26B (human) mapping to 11q25; Vps26b (mouse) mapping to 9 A4.

SOURCE

VPS26B (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of VPS26B of human origin.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109458 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VPS26B (K-14) is recommended for detection of VPS26B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

VPS26B (K-14) is also recommended for detection of VPS26B in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for VPS26B siRNA (h): sc-96405, VPS26B siRNA (m): sc-155219, VPS26B shRNA Plasmid (h): sc-96405-SH, VPS26B shRNA Plasmid (m): sc-155219-SH, VPS26B shRNA (h) Lentiviral Particles: sc-96405-V and VPS26B shRNA (m) Lentiviral Particles: sc-155219-V.

Molecular Weight of VPS26B: 39 kDa.

Positive Controls: Human platelet whole cell lysate: sc-363773.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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