VPS37C (P-16): sc-244593



The Power to Question

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. VPS37C (vacuolar protein sorting 37 homolog C) is a 355 amino acid peripheral membrane protein and is a member of the VPS37 family. VPS37C is a component of the ESCRT-I complex, which is known to regulate vesicular trafficking. VPS37B is required for the sorting of endocytic ubiquitinated cargo into multivesicular bodies and may be involved in cell growth and differentiation. VPS37C contains a VPS37 C-terminal domain and is encoded by a gene located on human chromosome 11q12.2. Chromosome 11 comprises approximately 4% of human genomic DNA and is considered a gene and disease association dense chromosome.

REFERENCES

- Stuchell, M.D., et al. 2004. The human endosomal sorting complex required for transport (ESCRT-I) and its role in HIV-1 budding. J. Biol. Chem. 279: 36059-36071.
- Bache, K.G., et al. 2004. The growth-regulatory protein HCRP1/hVps37A is a subunit of mammalian ESCRT-I and mediates receptor down-regulation. Mol. Biol. Cell 15: 4337-4346.
- 3. Eastman, S.W., et al. 2005. Identification of human VPS37C, a component of endosomal sorting complex required for transport-I important for viral budding. J. Biol. Chem. 280: 628-636.
- 4. Gill, D.J., et al. 2007. Structural studies of phosphoinositide 3-kinase-dependent traffic to multivesicular bodies. Biochem. Soc. Symp. 74: 47-57.
- Morita, E., et al. 2007. Identification of human MVB12 proteins as ESCRT-I subunits that function in HIV budding. Cell Host Microbe 2: 41-53.
- 6. Morita, E., et al. 2007. Human ESCRT and ALIX proteins interact with proteins of the midbody and function in cytokinesis. EMBO J. 26: 4215-4227.
- Silvestri, L.S., et al. 2007. Involvement of vacuolar protein sorting pathway in Ebola virus release independent of TSG101 interaction. J. Infect. Dis. 196: S264-S270.
- 8. Chung, H.Y., et al. 2008. NEDD4L overexpression rescues the release and infectivity of human immunodeficiency virus type 1 constructs lacking PTAP and YPXL late domains. J. Virol. 82: 4884-4897.
- Bajorek, M., et al. 2009. Biochemical analyses of human IST1 and its function in cytokinesis. Mol. Biol. Cell 20: 1360-1373.

CHROMOSOMAL LOCATION

Genetic locus: VPS37C (human) mapping to 11q12.2.

SOURCE

VPS37C (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of VPS37C of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-244593 P, ($100 \mu g$ peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VPS37C (P-16) is recommended for detection of VPS37C of human and rat 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); non cross-reactive with other VPS37 family members.

Suitable for use as control antibody for VPS37C siRNA (h): sc-97065, VPS37C shRNA Plasmid (h): sc-97065-SH and VPS37C shRNA (h) Lentiviral Particles: sc-97065-V.

Molecular Weight of VPS37C: 39 kDa.

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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or 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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com