

VPS41 (B-10): sc-377046

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. VPS41 (vacuolar protein sorting 41), also known as HVPS41, is an 854 amino acid protein that contains one clathrin repeat and one RING-type zinc finger. Existing as two alternatively spliced isoforms, designated short and long, VPS41 is required for proper vacuolar assembly and vacuolar traffic, playing a role in the formation and fusion of transport vesicles from the Golgi. The gene encoding VPS41 maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to osteogenesis imperfecta, Williams-Beuren syndrome, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

CHROMOSOMAL LOCATION

Genetic locus: VPS41 (human) mapping to 7p14.1; Vps41 (mouse) mapping to 13 A2.

SOURCE

VPS41 (B-10) is a mouse monoclonal antibody raised against amino acids 301-600 mapping within an internal region of VPS41 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

VPS41 (B-10) is recommended for detection of VPS41 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

VPS41 (B-10) is also recommended for detection of VPS41 in additional species, including bovine.

Suitable for use as control antibody for VPS41 siRNA (h): sc-76907, VPS41 siRNA (m): sc-76908, VPS41 shRNA Plasmid (h): sc-76907-SH, VPS41 shRNA Plasmid (m): sc-76908-SH, VPS41 shRNA (h) Lentiviral Particles: sc-76907-V and VPS41 shRNA (m) Lentiviral Particles: sc-76908-V.

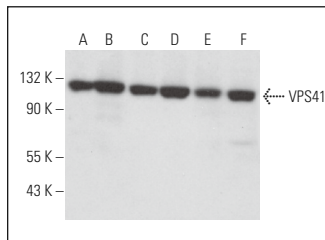
Molecular Weight of VPS41: 99 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Caki-1 cell lysate: sc-2224 or U-87 MG cell lysate: sc-2411.

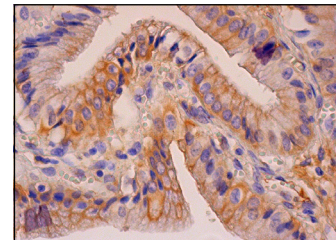
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



VPS41 (B-10): sc-377046. Western blot analysis of VPS41 expression in K-562 (A), Caki-1 (B), U-87 MG (C), NIH/3T3 (D), C6 (E) and Neuro-2A (F) whole cell lysates.



VPS41 (B-10): sc-377046. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic and membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

- Jiang, J., et al. 2020. Regorafenib induces lethal autophagy arrest by stabilizing PSAT1 in glioblastoma. *Autophagy* 16: 106-122.
- Shen, Q., et al. 2021. Acetylation of STX17 (syntaxin 17) controls autophagosome maturation. *Autophagy* 17: 1157-1169.

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.