SANTA CRUZ BIOTECHNOLOGY, INC.

VPS37A (G-3): sc-376978

SANTA CRUZ BIOTECHNOLOGY

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. VPS37A (vacuolar protein sorting 37 homolog A), also known as HCRP1 or PQBP2, is a 397 amino acid protein that contains one VPS37 C-terminal domain and localizes to the nucleus, as well as to the peripheral membrane and the late endosome membrane. Expressed in a variety of tissues with higher levels in liver, VPS37A functions as a component of the multi-protein ESCRT-I (endosomal sorting complex required for transport I) complex and plays a role in vesicular trafficking and protein sorting, as well as cell growth and differentiation. Multiple isoforms of VPS37A exist due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: VPS37A (human) mapping to 8p22; Vps37a (mouse) mapping to 8 A4.

SOURCE

VPS37A (G-3) is a mouse monoclonal antibody raised against amino acids 81-380 mapping within an internal region of VPS37A of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

VPS37A (G-3) is available conjugated to agarose (sc-376978 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376978 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376978 PE), fluorescein (sc-376978 FITC), Alexa Fluor® 488 (sc-376978 AF488), Alexa Fluor® 546 (sc-376978 AF546), Alexa Fluor® 594 (sc-376978 AF594) or Alexa Fluor® 647 (sc-376978 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376978 AF680) or Alexa Fluor® 790 (sc-376978 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

VPS37A (G-3) is recommended for detection of VPS37A 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).

Suitable for use as control antibody for VPS37 siRNA (h): sc-61796, VPS37 siRNA (m): sc-61797, VPS37 shRNA Plasmid (h): sc-61796-SH, VPS37 shRNA Plasmid (m): sc-61797-SH, VPS37 shRNA (h) Lentiviral Particles: sc-61796-V and VPS37 shRNA (m) Lentiviral Particles: sc-61797-V.

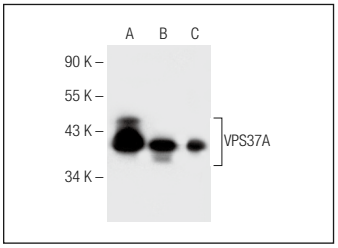
Molecular Weight of VPS37A: 44 kDa.

Positive Controls: MDA-MB-468 nuclear extract, BT-20 nuclear extract or SK-BR-3 nuclear extract: sc-2134.

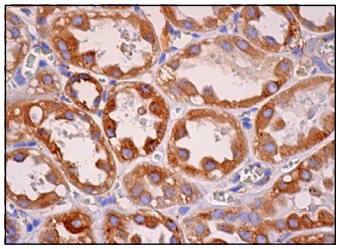
RECOMMENDED SUPPORT REAGENTS

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



VPS37A (G-3): sc-376978. Western blot analysis of VPS37A expression in MDA-MB-468 (**A**), BT-20 (**B**) and SK-BR-3 (**C**) nuclear extracts.



VPS37A (G-3): sc-376978. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

SELECT PRODUCT CITATIONS

1. Xu, J., et al. 2017. HCRP1 downregulation promotes hepatocellular carcinoma cell migration and invasion through the induction of EGFR activation and epithelial-mesenchymal transition. Biomed. Pharmacother. 88: 421-429.
2. Takahashi, Y., et al. 2019. VPS37A directs ESCRT recruitment for phagophore closure. J. Cell Biol. 218: 3336-3354.
3. Tomasich, E., et al. 2021. Loss of HCRP1 leads to upregulation of PD-L1 via Stat3 activation and is of prognostic significance in EGFR-dependent cancer. Transl. Res. 230: 21-33.

STORAGE

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

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.