SANTA CRUZ BIOTECHNOLOGY, INC.

# VPS37B (D-4): sc-390144

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. VPS37B (vacuolar protein sorting 37 homolog B), also known as ESCRT-I complex subunit VPS37B, is a 285 amino acid peripheral membrane protein and is a member of the VPS37 family. Expressed in macrophages and lymphocytes, VPS37B is recruited to the endosomal membrane in a VPS4A-dependent fashion. VPS37B 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.

## REFERENCES


1. 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.
2. 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.


## CHROMOSOMAL LOCATION

Genetic locus: VPS37B (human) mapping to 12q24.31; Vps37b (mouse) mapping to 5 F.

## SOURCE

VPS37B (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 235-268 within an internal region of VPS37B of human origin.

## PRODUCT

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

VPS37B (D-4) is available conjugated to agarose (sc-390144 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390144 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390144 PE), fluorescein (sc-390144 FITC), Alexa Fluor® 488 (sc-390144 AF488), Alexa Fluor® 546 (sc-390144 AF546), Alexa Fluor® 594 (sc-390144 AF594) or Alexa Fluor® 647 (sc-390144 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390144 AF680) or Alexa Fluor® 790 (sc-390144 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390144 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

VPS37B (D-4) is recommended for detection of VPS37B 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for VPS37B siRNA (h): sc-95762, VPS37B siRNA (m): sc-155220, VPS37B shRNA Plasmid (h): sc-95762-SH, VPS37B shRNA Plasmid (m): sc-155220-SH, VPS37B shRNA (h) Lentiviral Particles: sc-95762-V and VPS37B shRNA (m) Lentiviral Particles: sc-155220-V.

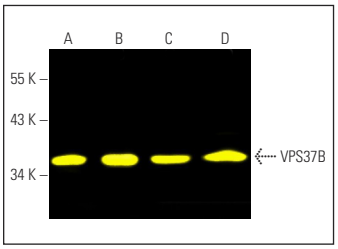
Molecular Weight of VPS37B: 31 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285, A-431 whole cell lysate: sc-2201 or HEL 92.1.7 cell lysate: sc-2270.

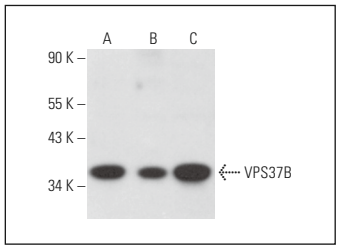
## RECOMMENDED SUPPORT REAGENTS

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.

## DATA




VPS37B (D-4) Alexa Fluor® 488: sc-390144 AF488. Direct fluorescent western blot analysis of VPS37B expression in U266 (**A**), A-431 (**B**), RT-4 (**C**) and HEL 92.1.7 (**D**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214.




VPS37B (D-4): sc-390144. Western blot analysis of VPS37B expression in MIA PaCa-2 (**A**), PC-3 (**B**) and HEL 92.1.7 (**C**) whole cell lysates.

## 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.