SANTA CRUZ BIOTECHNOLOGY, INC.

VCPIP1 (C-12): sc-515291

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The Power to Question

BACKGROUND

VCPIP1 (valosin containing protein (p97)/p47 complex interacting protein 1), also known as DUBA3 or VCIP135, is a 1,222 amino acid protein that contains one OTU domain and localizes to the endoplasmic reticulum (ER), as well as to Golgi stacks within the Golgi apparatus. Interacting with VCP (valosin-containing protein) and p47, VCPIP1 functions as a deubiquitinating enzyme that is necessary for post-mitotic golgi stack formation and may also play a role in the VCP-mediated creation of the transitional ER (tER). The gene encoding VCPIP1 maps to human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that maps to chromosome 8.

REFERENCES

1. Uchiyama, K., Jokitalo, E., Kano, F., Murata, M., Zhang, X., Canas, B., Newman, R., Rabouille, C., Pappin, D., Freemont, P. and Kondo, H. 2002. VCIP135, a novel essential factor for p97/p47-mediated membrane fusion, is required for Golgi and ER assembly *in vivo*. J. Cell Biol. 159: 855-866.
2. Ficarro, S., Chertihin, O., Westbrook, V.A., White, F., Jayes, F., Kalab, P., Marto, J.A., Shabanowitz, J., Herr, J.C., Hunt, D.F. and Visconti, P.E. 2003. Phosphoproteome analysis of capacitated human sperm. Evidence of tyrosine phosphorylation of a kinase-anchoring protein 3 and valosin-containing protein/p97 during capacitation. J. Biol. Chem. 278: 11579-11589.
3. Wang, Y., Satoh, A., Warren, G., Meyer, H.H. and Wang, Y. 2004. VCIP135 acts as a deubiquitinating enzyme during p97-p47-mediated reassembly of mitotic Golgi fragments. J. Cell Biol. 164: 973-978.

CHROMOSOMAL LOCATION

Genetic locus: VCPIP1 (human) mapping to 8q13.1; Vcpip1 (mouse) mapping to 1 A2.

SOURCE

VCPIP1 (C-12) is a mouse monoclonal antibody raised against amino acids 84-293 mapping raised against amino acids 84-293 of human VCPIP1 of VCPIP1 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.

VCPIP1 (C-12) is available conjugated to agarose (sc-515291 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515291 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515291 PE), fluorescein (sc-515291 FITC), Alexa Fluor® 488 (sc-515291 AF488), Alexa Fluor® 546 (sc-515291 AF546), Alexa Fluor® 594 (sc-515291 AF594) or Alexa Fluor® 647 (sc-515291 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515291 AF680) or Alexa Fluor® 790 (sc-515291 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

VCPIP1 (C-12) is recommended for detection of VCPIP1 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 VCPIP1 siRNA (h): sc-77549, VCPIP1 siRNA (m): sc-155098, VCPIP1 shRNA Plasmid (h): sc-77549-SH, VCPIP1 shRNA Plasmid (m): sc-155098-SH, VCPIP1 shRNA (h) Lentiviral Particles: sc-77549-V and VCPIP1 shRNA (m) Lentiviral Particles: sc-155098-V.

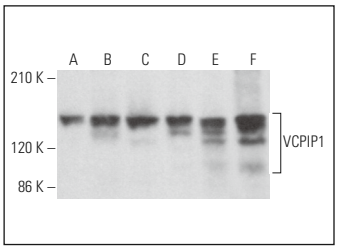
Molecular Weight of VCPIP1: 135 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

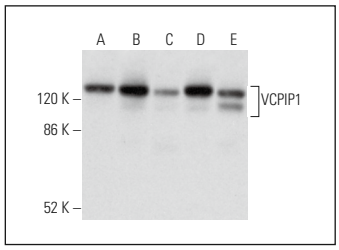
RECOMMENDED SUPPORT REAGENTS

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



VCPIP1 (C-12): sc-515291. Western blot analysis of VCPIP1 expression in MCF7 (**A**), MDA-MB-231 (**B**), Hel.92.1.7 (**C**), NIH/3T3 (**D**) and SP2/0 (**E**) whole cell lysates and rat testis tissue extract (**F**).



VCPIP1 (C-12): sc-515291. Western blot analysis of VCPIP1 expression in K-562 (**A**), MCF7 (**B**), NCI-H460 (**C**), NCI-H1299 (**D**) and HeLa (**E**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Bai, Y., et al. 2023. PTP4A2 promotes lysophagy by dephosphorylation of VCP/p97 at Tyr805. Autophagy 19: 1562-1581.

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.