SANTA CRUZ BIOTECHNOLOGY, INC.

PDCL3 (F-4): sc-515739

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PDCL3 (phosducin-like 3), also known as VIAF1 (viral IAP-associated factor 1), VIAF, PHLP3 or HTPHLP, is a widely expressed protein that belongs to the phosducin-like family of proteins. Members of this family contain a conserved C-terminus and were initially thought function as modulators of heterotrimeric G proteins that specifically bound to the βγ subunits of G proteins, thereby neutralizing the subunit and inhibiting G protein-mediated signal transduction. It is now believed that the majority of phosducin-like family members associate with the cytosolic chaperonin complex (CCT) and regulate the folding of proteins. Localizing to the cytoplasm, PDCL3 does not appear to play a role in G protein signaling, but participates in the chaperone-assisted folding of proteins, such as β Tubulin and Actin, that are involved in the regulation of cell cycle progression. More specifically, PDCL3, when associated with CCT, represses the ATPase activity of CCT and ultimately disrupts the folding of the Actin or tubulin substrates.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 6116787. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
2. Blaauw, M., et al. 2003. Phosducin-like proteins in *Dictyostelium discoideum:* implications for the phosducin family of proteins. EMBO J. 22: 5047-5057.
3. Wilkinson, J.C., et al. 2004. VIAF, a conserved inhibitor of apoptosis (IAP)-interacting factor that modulates caspase activation. J. Biol. Chem. 279: 51091-51099.

CHROMOSOMAL LOCATION

Genetic locus: PDCL3 (human) mapping to 2q11.2; Pdcl3 (mouse) mapping to 1 B.

SOURCE

PDCL3 (F-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 181-198 within an internal region of PDCL3 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.

PDCL3 (F-4) is available conjugated to agarose (sc-515739 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515739 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515739 PE), fluorescein (sc-515739 FITC), Alexa Fluor® 488 (sc-515739 AF488), Alexa Fluor® 546 (sc-515739 AF546), Alexa Fluor® 594 (sc-515739 AF594) or Alexa Fluor® 647 (sc-515739 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515739 AF680) or Alexa Fluor® 790 (sc-515739 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

PDCL3 (F-4) is recommended for detection of PDCL3 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 PDCL3 siRNA (h): sc-94814, PDCL3 siRNA (m): sc-152127, PDCL3 shRNA Plasmid (h): sc-94814-SH, PDCL3 shRNA Plasmid (m): sc-152127-SH, PDCL3 shRNA (h) Lentiviral Particles: sc-94814-V and PDCL3 shRNA (m) Lentiviral Particles: sc-152127-V.

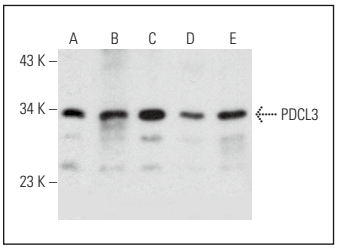
Molecular Weight of PDCL3: 27 kDa.

Positive Controls: I-11.15 whole cell lysate: sc-364370, mouse testis extract: sc-2405 or mouse spleen extract: sc-2391.

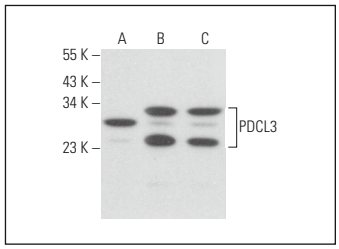
RECOMMENDED SUPPORT REAGENTS

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



PDCL3 (F-4): sc-515739. Western blot analysis of PDCL3 expression in I-11.15 whole cell lysate (**A**) and mouse spleen (**B**), mouse testis (**C**), mouse ovary (**D**) and rat ovary (**E**) tissue extracts.



PDCL3 (F-4): sc-515739. Western blot analysis of PDCL3 expression in H4 (**A**), Neuro-2A (**B**) and EOC 20 (**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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.