

PDCL3 (F-12): sc-107923

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 $\beta\gamma$ 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.
4. Jacob, J., et al. 2004. The C-terminal domain of viral IAP associated factor (cVIAF) is a structural homologue of phosducin: resonance assignments and secondary structure of the C-terminal domain of VIAF. *J. Biomol. NMR* 28: 197-198.
5. Stirling, P.C., et al. 2006. PhLP3 modulates CCT-mediated Actin and tubulin folding via ternary complexes with substrates. *J. Biol. Chem.* 281: 7012-7021.
6. Matuzany-Ruban, A., et al. 2006. Phosducin-like protein levels in leukocytes of patients with major depression and in rat cortex: the effect of chronic treatment with antidepressants. *Psychiatry Res.* 141: 287-294.

CHROMOSOMAL LOCATION

Genetic locus: PDCL3 (human) mapping to 2q11.2; Pcdl3 (mouse) mapping to 1 B.

SOURCE

PDCL3 (F-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PDCL3 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-107923 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PDCL3 (F-12) is recommended for detection of PDCL3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

PDCL3 (F-12) is also recommended for detection of PDCL3 in additional species, including equine and canine.

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.

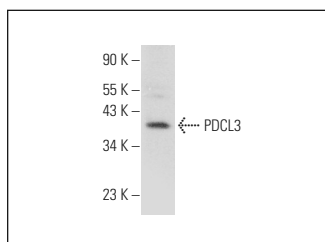
Molecular Weight of PDCL3: 27 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or F9 cell lysate: sc-2245.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PDCL3 (F-12): sc-107923. Western blot analysis of PDCL3 expression in F9 whole cell lysate.

RESEARCH USE

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