SANTA CRUZ BIOTECHNOLOGY, INC.

PhLP (A-8): sc-376918

BACKGROUND

Phosducin-like protein (PhLP, PDCL) is an ethanol-responsive modulator of heterotrimeric G proteins. The protein shares extensive amino acid sequence homology with phosducin (Phd), a phosphoprotein expressed in retina and pineal gland. Both PhLP and Phd regulate G-protein signaling by binding to the β-γ subunits of G proteins. PhLP interacts with G β-γ via a short C-terminal binding site. Additionally, PhLP acts as a substrate for GRK2 phosphorylation at the same C-terminal binding site between residues 195 and 218. PhLPs may participate directly in the regulation of calcium-evoked exocytosis in adrenal medullary chromaffin cells. Glycosylated PhLP regulates opioid receptor function in mouse brain.

REFERENCES

1. Miles, M.F., et al. 1993. Phosducin-like protein: an ethanol-responsive potential modulator of guanine nucleotide-binding protein function. Proc. Natl. Acad. Sci. USA 90: 10831-10835.
2. Schroder, S., et al. 1997. Identification of a C-terminal binding site for G-protein βγ-subunits in phosducin-like protein. FEBS Lett. 401: 243-246.
3. Thibault, C., et al. 1999. Cloning and characterization of the rat and human phosducin-like protein genes: structure, expression and chromosomal localization. Biochim. Biophys. Acta 1444: 346-354.
4. Ruiz-Gomez, A., et al. 2000. Phosphorylation of phosducin and phosducin-like protein by G protein-coupled receptor kinase 2. J. Biol. Chem. 275: 29724-29730.
5. Gensse, M., et al. 2000. Regulation of exocytosis in chromaffin cells by phosducin-like protein, a protein interacting with G protein βγ subunits. FEBS Lett. 480: 184-188.
6. Garzon, J., et al. 2002. Glycosylated phosducin-like protein long regulates opioid receptor function in mouse brain. Neuropharmacology 42: 813-828.

CHROMOSOMAL LOCATION

Genetic locus: PDCL (human) mapping to 9q33.2.

SOURCE

PhLP (A-8) is a mouse monoclonal antibody raised against amino acids 66-175 mapping within an internal region of PhLP 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.

PhLP (A-8) is available conjugated to agarose (sc-376918 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376918 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376918 PE), fluorescein (sc-376918 FITC), Alexa Fluor® 488 (sc-376918 AF488), Alexa Fluor® 546 (sc-376918 AF546), Alexa Fluor® 594 (sc-376918 AF594) or Alexa Fluor® 647 (sc-376918 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376918 AF680) or Alexa Fluor® 790 (sc-376918 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

PhLP (A-8) is recommended for detection of PhLP of 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 PhLP siRNA (h): sc-45420, PhLP shRNA Plasmid (h): sc-45420-SH and PhLP shRNA (h) Lentiviral Particles: sc-45420-V.

Molecular Weight of PhLP short isoform: 29 kDa.

Molecular Weight of PhLP long isoform: 37 kDa.

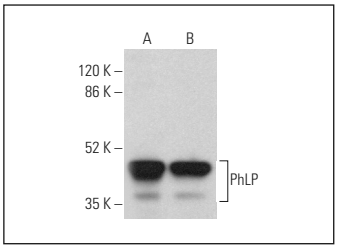
Molecular Weight of PhLP glycosylated long isoform: 45-50/100/150 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, HEK293 whole cell lysate: sc-45136 or PhLP (h4): 293T Lysate: sc-158847.

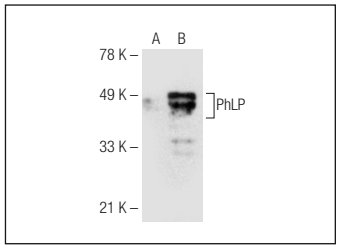
RECOMMENDED SUPPORT REAGENTS

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



PhLP (A-8): sc-376918. Western blot analysis of PhLP expression in IMR-32 (**A**) and HEK293 (**B**) whole cell lysates.



PhLP (A-8): sc-376918. Western blot analysis of PhLP expression in non-transfected: sc-117752 (**A**) and human PhLP transfected: sc-158847 (**B**) 293T 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.