

PhLP (h4): 293T Lysate: sc-158847

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 $\beta\gamma$ subunits of G proteins. PhLP interacts with $G_{\beta\gamma}$ via a short C-terminal binding site. Additionally, PhLP acts as a substrate for GRK 2 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., Barhite, S., Sganga, M. and Elliott, M. 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., Bluml, K., Dees, C. and Lohse, M.J. 1997. Identification of a C-terminal binding site for G protein $\beta\gamma$ subunits in phosducin-like protein. *FEBS Lett.* 401: 243-246.
3. Thibault, C., Feng Wang, J., Charnas, R., Mirel, D., Barhite, S. and Miles, M.F. 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., Humrich, J., Murga, C., Quitterer, U., Lohse, M.J. and Mayor, F., Jr. 2000. Phosphorylation of phosducin and phosducin-like protein by G protein-coupled receptor kinase 2. *J. Biol. Chem.* 275: 29724-29730.
5. Gensse, M., Vitale, N., Chasserot-Golaz, S. and Bader, M.F. 2000. Regulation of exocytosis in chromaffin cells by phosducin-like protein, a protein interacting with G protein $\beta\gamma$ subunits. *FEBS Lett.* 480: 184-188.
6. Garzon, J., Rodriguez-Diaz, M., Lopez-Fando, A., Garcia-Espana, A. and Sanchez-Blazquez, P. 2002. Glycosylated phosducin-like protein long regulates opioid receptor function in mouse brain. *Neuropharmacology* 42: 813-828.
7. LocusLink Report (LocusID: 5082). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

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

PRODUCT

PhLP (h4): 293T Lysate represents a lysate of human PhLP transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

PhLP (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive PhLP antibodies. Recommended use: 10-20 μ l per lane.

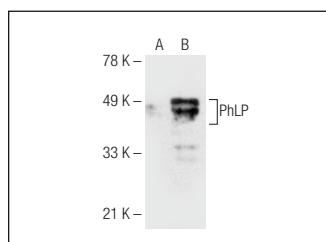
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PhLP (A-8): sc-376918 is recommended as a positive control antibody for Western Blot analysis of enhanced human PhLP expression in PhLP transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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.

DATA



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.

PROTOCOLS

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