



PITP α (h): 293 Lysate: sc-370851

BACKGROUND

The lipid binding proteins known as phosphatidylinositol transfer proteins (PITP) facilitate the formation of phosphatidylinositol derived second messenger molecules, which are related to the phospholipase C and phosphoinositide 3-kinase pathways. PITP are ubiquitously expressed proteins that transfer phosphatidylinositol (PI) and phosphatidylcholine (PC) between membranes enriched in PI or PC to membranes that are deficient in PI or PC. PITP mobilizes PI from the endoplasmic reticulum and regulates the release of PI from stored vesicles in the Golgi network. In mammalian cells, three smaller forms of soluble PITP are present, designated PITP α , β and retinal degeneration B (rdgB) β . The gene encoding human rdgB β maps to chromosome 11q13, a region that contains several retinopathy loci, which makes the H-rdgB β gene a candidate for several inherited retinal degenerative diseases.

REFERENCES

1. Guo, J. and Yu, F.X. 1997. Cloning and characterization of human homologue of *Drosophila* retinal degeneration B: a candidate gene for degenerative retinal diseases. *Dev. Genet.* 20: 235-245.
2. Monaco, M.E., Alexander, R.J., Snoek, G.T., Moldover, N.H., Wirtz, K.W. and Walden, P.D. 1998. Evidence that mammalian phosphatidylinositol transfer protein regulates phosphatidylcholine metabolism. *Biochem. J.* 335: 175-179.
3. Viscardi, R.M. and Strauss, K.A. 1999. Developmental changes in phosphatidylinositol transfer protein concentration and phospholipid transfer activities in rat type II cells. *Exp. Lung Res.* 25: 561-576.
4. Aikawa, Y., Kuraoka, A., Kondo, H., Kawabuchi, M. and Watanabe, T. 1999. Involvement of PITPnm, a mammalian homologue of *Drosophila* rdgB, in phosphoinositide synthesis on Golgi membranes. *J. Biol. Chem.* 274: 20569-20577.
5. Fullwood, Y., dos Santos, M. and Hsuan, J.J. 1999. Cloning and characterization of a novel human phosphatidylinositol transfer protein, rdgB β . *J. Biol. Chem.* 274: 31553-31558.
6. Cockcroft, S. 1999. Mammalian phosphatidylinositol transfer proteins: emerging roles in signal transduction and vesicular traffic. *Chem. Phys. Lipids* 98: 23-33.
7. Cockcroft, S. 2001. Phosphatidylinositol transfer proteins couple lipid transport to phosphoinositide synthesis. *Semin. Cell Dev. Biol.* 12: 183-191.

CHROMOSOMAL LOCATION

Genetic locus: PITPNA (human) mapping to 17p13.3.

PRODUCT

PITP α (h): 293 Lysate represents a lysate of human PITP α transfected 293 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.

APPLICATIONS

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

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

RESEARCH USE

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

PROTOCOLS

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