

PLRP2 (h3): 293T Lysate: sc-158870

BACKGROUND

Pancreatic lipase (PNLIP), also designated pancreatic triacylglycerol acylhydrolase, is important for dietary fat absorption, as it hydrolyses triglycerides into diglycerides, monoglycerides and free fatty acids. Pancreatic lipase-related protein 2 (PLRP2) is a 469 amino acid protein with 65% amino acid identity with pancreatic lipase. Similar to pancreatic lipase, PLRP2 is believed to have lipolytic activity that is inhibited by the lipase inhibitor orlistat. PLRP2 catalyzes the reaction of triacylglycerol and water to form diacylglycerol and a carboxylate. Expressed in the pancreas, PLRP2 is a secreted protein that contains one PLAT domain which is thought to be involved in protein-lipid interactions.

REFERENCES

1. Giller, T., Buchwald, P., Blum-Kaelin, D. and Hunziker, W. 1992. Two novel human pancreatic lipase related proteins, hPLRP1 and hPLRP2. Differences in colipase dependence and in lipase activity. *J. Biol. Chem.* 267: 16509-16516.
2. Sias, B., Ferrato, F., Grandval, P., Lafont, D., Boullanger, P., De Caro, A., Leboeuf, B., Verger, R. and Carrière, F. 2004. Human pancreatic lipase-related protein 2 is a galactolipase. *Biochemistry* 43: 10138-10148.
3. Eydoux, C., Aloulou, A., De Caro, J., Grandval, P., Laugier, R., Carrière, F. and De Caro, A. 2006. Human pancreatic lipase-related protein 2: tissular localization along the digestive tract and quantification in pancreatic juice using a specific ELISA. *Biochim. Biophys. Acta* 1760: 1497-1504.
4. Reboul, E., Berton, A., Moussa, M., Kreuzer, C., Crenon, I. and Borel, P. 2006. Pancreatic lipase and pancreatic lipase-related protein 2, but not pancreatic lipase-related protein 1, hydrolyze retinyl palmitate in physiological conditions. *Biochim. Biophys. Acta* 1761: 4-10.
5. Elinson, N., Amichay, D. and Birk, R.Z. 2006. Leptin directly regulates exocrine pancreas lipase and two related proteins in the rat. *Br. J. Nutr.* 96: 691-696.
6. Online Mendelian Inheritance in Man, OMIM[™]. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 604423. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Aoki, J., Inoue, A., Makide, K., Saiki, N. and Arai, H. 2007. Structure and function of extracellular phospholipase A1 belonging to the Pancreatic Lipase gene family. *Biochimie* 89: 197-204.
8. Eydoux, C., De Caro, J., Ferrato, F., Boullanger, P., Lafont, D., Laugier, R., Carrière, F. and De Caro, A. 2007. Further biochemical characterization of human pancreatic lipase-related protein 2 expressed in yeast cells. *J. Lipid Res.* 48: 1539-1549.
9. Eydoux, C., Spinelli, S., Davis, T.L., Walker, J.R., Seitova, A., Dhe-Paganon, S., De Caro, A., Cambillau, C. and Carrière, F. 2008. Structure of human pancreatic lipase-related protein 2 with the lid in an open conformation. *Biochemistry* 47: 9553-9564.

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.

CHROMOSOMAL LOCATION

Genetic locus: PNLIPRP2 (human) mapping to 10q25.3.

PRODUCT

PLRP2 (h3): 293T Lysate represents a lysate of human PLRP2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

PLRP2 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive PLRP2 antibodies. Recommended use: 10-20 µl per lane.

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

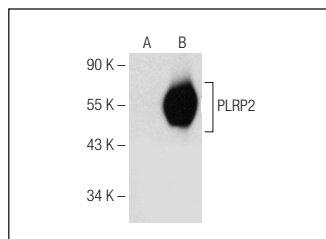
PLRP2 (D-1): sc-376236 is recommended as a positive control antibody for Western Blot analysis of enhanced human PLRP2 expression in PLRP2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-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.

DATA



PLRP2 (D-1): sc-376236. Western blot analysis of PLRP2 expression in non-transfected: sc-117752 (A) and human PLRP2 transfected: sc-158870 (B) 293T whole cell lysates.

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.