

PLRP2 (H-9): sc-166956

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

- Giller, T., et al. 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.
- Sias, B., et al. 2004. Human pancreatic lipase-related protein 2 is a galactolipase. *Biochemistry* 43: 10138-10148.
- Eydoux, C., et al. 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.
- Reboul, E., et al. 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.
- Elinson, N., et al. 2006. Leptin directly regulates exocrine pancreas lipase and two related proteins in the rat. *Br. J. Nutr.* 96: 691-696.
- 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/>
- Aoki, J., et al. 2007. Structure and function of extracellular phospholipase A1 belonging to the pancreatic lipase gene family. *Biochimie* 89: 197-204.
- Eydoux, C., et al. 2007. Further biochemical characterization of human pancreatic lipase-related protein 2 expressed in yeast cells. *J. Lipid Res.* 48: 1539-1549.

CHROMOSOMAL LOCATION

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

SOURCE

PLRP2 (H-9) is a mouse monoclonal antibody raised against amino acids 398-469 mapping at the C-terminus of PLRP2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PLRP2 (H-9) is recommended for detection of PLRP2 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), immunohistochemistry (including paraffin-embedded sections) (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 PLRP2 siRNA (h): sc-76174, PLRP2 shRNA Plasmid (h): sc-76174-SH and PLRP2 shRNA (h) Lentiviral Particles: sc-76174-V.

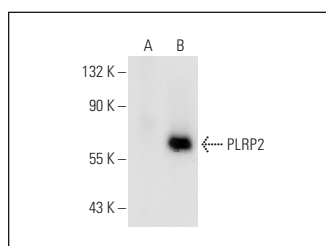
Molecular Weight of PLRP2: 50 kDa.

Positive Controls: PLRP2 (h): 293T Lysate: sc-158870.

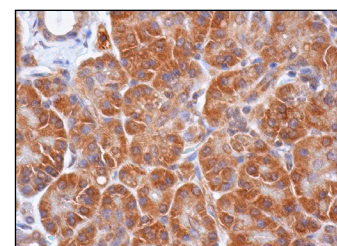
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PLRP2 (H-9): sc-166956. Western blot analysis of PLRP2 expression in non-transfected: sc-117752 (A) and human PLRP2 transfected: sc-158870 (B) 293T whole cell lysates.



PLRP2 (H-9): sc-166956. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells.

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.

PROTOCOLS

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