

# PLRP2 siRNA (m): sc-76175

## 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

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3. 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.
4. 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.
5. Elinson, N., et al. 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<sup>™</sup>. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 604423. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Aoki, J., et al. 2007. Structure and function of extracellular phospholipase A1 belonging to the pancreatic lipase gene family. *Biochimie* 89: 197-204.
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## CHROMOSOMAL LOCATION

Genetic locus: Pnliprp2 (mouse) mapping to 19 D2.

## PRODUCT

PLRP2 siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PLRP2 shRNA Plasmid (m): sc-76175-SH and PLRP2 shRNA (m) Lentiviral Particles: sc-76175-V as alternate gene silencing products.

For independent verification of PLRP2 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-76175A, sc-76175B and sc-76175C.

## STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNases and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

PLRP2 siRNA (m) is recommended for the inhibition of PLRP2 expression in mouse cells.

## SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10  $\mu$ M in 66  $\mu$ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

## GENE EXPRESSION MONITORING

PLRP2 (D-1): sc-376236 is recommended as a control antibody for monitoring of PLRP2 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PLRP2 gene expression knockdown using RT-PCR Primer: PLRP2 (m)-PR: sc-76175-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.