

# Pancreatic Lipase (G-11): sc-393158

## BACKGROUND

The lipase gene family belongs to one of the most robust genetic super-families found in living organisms, which includes esterases and thio-esterases. Members of the AB hydrolase subfamily include Hepatic Lipase (HL), Endothelial Lipase (EL), Lipoprotein Lipase (LPL), Pancreatic Lipase (PL), Gastric Lipase (GL) and LCAT. These family members play a crucial role in the metabolism of lipids. Pancreatic Lipase, also designated pancreatic triacylglycerol acyl hydrolase, is important for dietary fat absorption as it hydrolyses triglycerides into diglycerides, monoglycerides and free fatty acids.

## REFERENCES

1. Lowe, M.E., et al. 1989. Cloning and characterization of human Pancreatic Lipase cDNA. *J. Biol. Chem.* 264: 20042-20048.
2. Winkler, F.K., et al. 1990. Structure of human Pancreatic Lipase. *Nature* 343: 771-774.
3. Yajima, H., et al. 2005. Prevention of diet-induced obesity by dietary isomerized hop extract containing isohumulones, in rodents. *Int. J. Obes.* 29: 991-997.
4. Han, L.K., et al. 2005. Anti-obesity effects of chikusetsusaponins isolated from *Panax japonicus* rhizomes. *BMC Complement. Altern. Med.* 5: 9.
5. Bijvelds, M.J., et al. 2005. Fat absorption in cystic fibrosis mice is impeded by defective lipolysis and post-lipolytic events. *Am. J. Physiol. Gastrointest. Liver Physiol.* 288: G646-G653.
6. Sharma, N., et al. 2005. Screening of some medicinal plants for anti-lipase activity. *J. Ethnopharmacol.* 97: 453-456.
7. Pappan, K.L., et al. 2005. Pancreatic  $\beta$ -cell lipoprotein lipase independently regulates islet glucose metabolism and normal Insulin secretion. *J. Biol. Chem.* 280: 9023-9029.

## CHROMOSOMAL LOCATION

Genetic locus: PNLIP (human) mapping to 10q25.3; Pnlip (mouse) mapping to 19 D2.

## SOURCE

Pancreatic Lipase (G-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 29-47 near the N-terminus of Pancreatic Lipase of rat origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393158 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

Pancreatic Lipase (G-11) is recommended for detection of Pancreatic Lipase of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (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 Pancreatic Lipase siRNA (h): sc-61285, Pancreatic Lipase siRNA (m): sc-61286, Pancreatic Lipase shRNA Plasmid (h): sc-61285-SH, Pancreatic Lipase shRNA Plasmid (m): sc-61286-SH, Pancreatic Lipase shRNA (h) Lentiviral Particles: sc-61285-V and Pancreatic Lipase shRNA (m) Lentiviral Particles: sc-61286-V.

Molecular Weight of Pancreatic Lipase: 51 kDa.

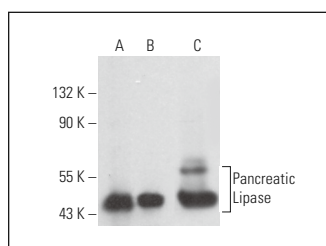
Positive Controls: rat pancreas extract: sc-364806, mouse pancreas extract: sc-364244 or rat liver extract: sc-2395.

## RECOMMENDED SUPPORT REAGENTS

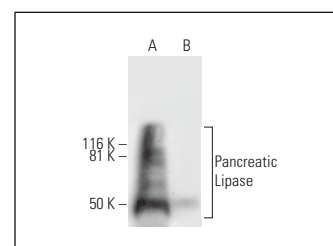
To ensure optimal results, the following support reagents are recommended:

- 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™ 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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Pancreatic Lipase (G-11): sc-393158. Western blot analysis of Pancreatic Lipase expression in rat pancreas (A), mouse pancreas (B) and rat liver (C) tissue extracts.



Pancreatic Lipase (G-11): sc-393158. Western blot analysis of Pancreatic Lipase expression in rat pancreas (A) and human pancreas (B) tissue extracts. Note lack of reactivity with human Pancreatic Lipase in lane B.

## 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.