# SANTA CRUZ BIOTECHNOLOGY, INC.

# PLB (N-19): sc-20511



## BACKGROUND

A variety of lipases, including acid lipase in lingual gland or stomach and pancreatic lipase, hydrolyze triacylglycerol to produce monoacylglycerols and free fatty acids in the gastrointestinal tract. A lipid-hydrolyzing enzyme, phospholipase B/lipase (PLB/LIP), associated with intestinal brush border membranes, displays broad lipolytic activities. The sequence of PLB consists of an NH2-signal peptide, four tandem repeats and a hydrophobic domain near the C-terminus. The second repeat is the catalytic domain, and the hydrophobic domain serves as a membrane anchor for PLB. PLB is an intestinal Ca<sup>2+</sup>-independent phospholipase that is highly expressed in the ileum and to a lesser extent in the esophagus and testis. PLB is localized in brush border membranes of the absorptive cells, Paneth cells and acrosomes of spermatid.

## REFERENCES

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- Carriere, F., Barrowman, J.A., Verger, R. and Laugier, R. 1993. Secretion and contribution to lipolysis of gastric and pancreatic lipases during a test meal in humans. Gastroenterology 105: 876-888.
- Takemori, H., Zolotaryov, F.N., Ting, L., Urbain, T., Komatsubara, T., Hatano, O., Okamoto, M. and Tojo, H. 1998. Identification of functional domains of rat intestinal phospholipase B/lipase. Its cDNA cloning, expression, and tissue distribution. J. Biol. Chem. 273: 2222-2231.

## CHROMOSOMAL LOCATION

Genetic locus:Plb1 (mouse) mapping to 5 B1.

## SOURCE

PLB (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PLB of rat origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-20511 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PLB (N-19) is recommended for detection of PLB of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 PLB siRNA (m): sc-152294, PLB shRNA Plasmid (m): sc-152294-SH and PLB shRNA (m) Lentiviral Particles: sc-152294-V.

## **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluores-cence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, \*\*D0 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 or our catalog for detailed protocols and support products.