SANTA CRUZ BIOTECHNOLOGY, INC.

Gastric Lipase (B-2): sc-398343

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The lipase gene family belongs to one of the most robust genetic superfamilies found in living organisms, which includes esterases and thioesterases. The AB hydrolase subfamily plays a crucial role in the metabolism of lipids. Members of this family include Hepatic Lipase (HL), Endothelial Lipase (EL), Lipoprotein Lipase (LPL), Pancreatic Lipase (PL), Gastric Lipase (GL), LCAT and Lysosomal Acid Lipase (LAL). Gastric Lipase is a 379-amino acid protein that is highly homologus to LAL and is involved in the digestion of dietary triglycerides in the gastrointestinal tract, especially in individuals with pancreatic lipase deficiencies. Gastric Lipase is secreted by the fundic mucosa of the stomach and, under acidic pH conditions, it hydrolyzes the ester bonds of triglycerides.

REFERENCES

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2. Mu, H., et al. 2005. The metabolism of structured triacylglycerols. Prog. Lipid Res. 44: 430-448.
3. Mattes, R.D. 2005. Fat taste and lipid metabolism in humans. Physiol. Behav. 86: 691-697.
4. Jain, D., et al. 2005. Composite glandular and endocrine tumors of the stomach with pancreatic acinar differentiation. Am. J. Surg. Pathol. 29: 1524-1529.
5. Carrière, F. and Laugier, R. 2005. Gastrointestinal lipolysis levels and potential use of Gastric Lipase in insufficiency. Clin. Gastroenterol. Hepatol. 3: 715-716.
6. Osaki, N., et al. 2005. Metabolites of dietary triacylglycerol and diacylglycerol during the digestion process in rats. Lipids 40: 281-286.
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CHROMOSOMAL LOCATION

Genetic locus: LIPF (human) mapping to 10q23.31.

SOURCE

Gastric Lipase (B-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 301-326 near the C-terminus of Gastric Lipase of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398343 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Gastric Lipase (B-2) is recommended for detection of Gastric Lipase 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Gastric Lipase siRNA (h): sc-60673, Gastric Lipase shRNA Plasmid (h): sc-60673-SH and Gastric Lipase shRNA (h) Lentiviral Particles: sc-60673-V.

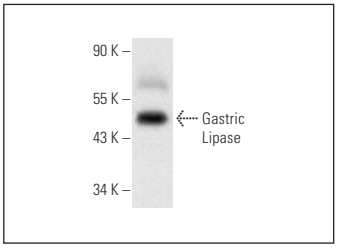
Molecular Weight of Gastric Lipase: 43 kDa.

Positive Controls: human stomach extract: sc-363780.

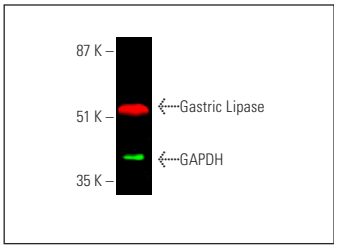
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGλ BP-HRP: sc-516132 or m-IgGλ BP-HRP (Cruz Marker): sc-516132-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-IgGλ BP-FITC: sc-516185 or m-IgGλ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Gastric Lipase (B-2): sc-398343. Western blot analysis of Gastric Lipase expression in human stomach tissue extract.



Simultaneous near-infrared western blot analysis of Gastric Lipase expression, detected with Gastric Lipase (B-2): sc-398343 and m-IgGλ BP-CFL 790: sc-516195 and GAPDH expression, detected with GAPDH (H-12): sc-166574 and m-IgGκ BP-CFL 680: sc-516180 in human stomach tissue extract.

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.