Gastric Lipase (Y-17): sc-50940



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

- Littlewood, J.M., Wolfe, S.P. and Conway, S.P. 2005. Diagnosis and treatment of intestinal malabsorption in cystic fibrosis. Pediatr. Pulmonol. 41: 35-49.
- Mu, H. and Porsgaard, T. 2005. The metabolism of structured triacylglycerols. Prog. Lipid Res. 44: 430-448.
- Mattes, R.D. 2005. Fat taste and lipid metabolism in humans. Physiol. Behav. 86: 691-697.
- Jain, D., Eslami-Varzaneh, F., Takano, A.M., Ayer, U., Umashankar, R., Muller, R. and Klimstra, D.S. 2005. Composite glandular and endocrine tumors of the stomach with pancreatic acinar differentiation. Am. J. Surg. Pathol. 29: 1524-1529.
- Carrière, F. and Laugier, R. 2005. Gastrointestinal lipolysis levels and potential use of Gastric Lipase in insufficiency. Clin. Gastroenterol. Hepatol. 3: 715-716.
- Osaki, N., Meguro, S., Yajima, N., Matsuo, N., Tokimitsu, I. and Shimasaki, H. 2005. Metabolites of dietary triacylglycerol and diacylglycerol during the digestion process in rats. Lipids 40: 281-286.
- Shinchi, H., Takao, S., Maemura, K., Fukukura, Y., Noma, H., Matsuo, Y., Mataki, Y., Mori, S., Iino, S., Ehi, K. and Aikou, T. 2005. Value of magnetic resonance cholangiopancreatography with secretin stimulation in the evaluation of pancreatic exocrine function after pancreaticogastrostomy. J. Hepatobiliary Pancreat. Surg. 11: 50-55.
- 8. Case, C.L., Henniges, F. and Barkin, J.S. 2005. Enzyme content and acid stability of enteric-coated pancreatic enzyme products *in vitro*. Pancreas 30: 180-183.
- 9. Chahinian, H., Snabe, T., Attias, C., Fojan, P., Petersen, S.B. and Carrière, F. 2006. How Gastric Lipase, an interfacial enzyme with a Ser-His-Asp catalytic triad, acts optimally at acidic pH. Biochemistry 45: 993-1001.

CHROMOSOMAL LOCATION

Genetic locus: LIPF (human) mapping to 10q23.31; Lipf (mouse) mapping to 19 C1.

RESEARCH USE

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

SOURCE

Gastric Lipase (Y-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Gastric Lipase of rat origin

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-50940 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Gastric Lipase (Y-17) is recommended for detection of Gastric Lipase 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 Gastric Lipase siRNA (m): sc-60674. Molecular Weight of Gastric Lipase: 43 kDa.

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™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: 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™ Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**