

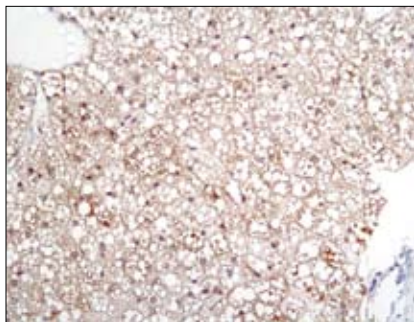
ATGL Blocking Peptide

✓ 100 µg
(100 sections)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.



Immunohistochemical analysis of paraffin-embedded mouse brown fat using ATGL (30A4) Rabbit mAb #2439 in the presence of control peptide (left) or ATGL Blocking Peptide (right).

Description: This peptide is used to block ATGL (30A4) Rabbit mAb #2439 reactivity in immunohistochemistry protocols.

Background: Triglycerides form an important energy store in many living organisms. Adipose tissue serves as the primary storage depot for triglycerides in mammals. Lipolytic enzymes mobilize triglycerides during periods of starvation to provide organisms with necessary energy. Hormone-sensitive lipase (HSL), the first identified lipolytic enzyme, hydrolyzes triglycerides in mammalian adipose tissues (1-3). Additional lipolytic enzymes, including adipose triglyceride lipase (ATGL), have also been discovered. The primary function of ATGL is to catalyze the hydrolysis of the first ester bond of lipid molecules. This enzyme may provide diglyceride substrates for HSL hydrolysis. ATGL is abundantly expressed in murine white and brown adipose tissue, and is highly substrate specific (4). ATGL was independently identified as desnutrin (5) and the TG-hydrolyase inducible phospholipase-A2-ζ (6).

Quality Control: The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry. The peptide blocks ATGL (30A4) Rabbit mAb #2439 by immunohistochemistry.

Directions for Use: For immunohistochemistry, add twice the volume of peptide as volume of antibody used in 100 µl total volume. Incubate for a minimum of 30 minutes prior to adding the entire volume to the slide. Recommended antibody dilutions can be found on the relevant product data sheet.

Background References:

- (1) Holm, C. et al. (1988) *Science* 241, 1503–1506.
- (2) Degerman, E. et al. (1990) *Proc. Natl. Acad. Sci. USA* 87, 533–537.
- (3) Anthonsen, M.W. et al. (1998) *J. Biol. Chem.* 273, 215–221.
- (4) Zimmermann, R. et al. (2004) *Science* 306, 1383–1386.
- (5) Villena, J.A. et al. (2004) *J. Biol. Chem.* 279, 47066–47075.
- (6) Jenkins, C.M. et al. (2004) *J. Biol. Chem.* 279, 48968–48975.

Storage: Supplied in 20 mM potassium phosphate (pH 7.0), 50 mM NaCl, 0.1 mM EDTA, 1 mg/ml BSA and 5% glycerol. Store at -20°C.

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