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www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 600-401-BM7

GPAT1 Antibody

Overview

Description:	Anti-GPAT1 (RABBIT) Antibody - 600-401-BM7
Item No.:	600-401-BM7
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Glycerol-3-phosphate acyltransferase 1 (GPAT1), one of four known GPAT isoforms, is located on the mitochondrial outer membrane, allowing reciprocal regulation with carnitine palmitoyltransferase-1. It is thought to be critical for the development of hepatic steatosis; steatosis triggered by GPAT1 overexpression leads to hepatic and possibly peripheral insulin resistance. GPAT1 is transcriptionally upregulated by insulin and sterol regulatory element binding protein (SREBP-1) and downregulated by AMP-activated protein kinase. Mice deficient in GPAT1 exhibit decreased triacylglycerol (TAG) in cardiomyocytes even in high-fat diets, suggesting that GPAT1 contributes significantly to TAG accumulation in heart tissue during lipogenic or high fat diets. At least two isoforms of GPAT1 are known to exist.
Synonyms:	GPAT1 Antibody, GPAT, GPAT1, KIAA1560, Glycerol-3-phosphate acyltransferase 1, mitochondrial, GPAT-1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	GPAM
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-GPAT1 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 15 amino acid synthetic peptide near the C-terminus of the human GPAT1.
Purity/Specificity:	Anti-GPAT1 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with GPAT1 from other sources has not been determined.
Relevant Links:	• UniProtKB - Q9HCL2 • GeneID - 57678 • NCBI - NP_065969

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-GPAT1 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 94 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000-1:20,000
IF:	20 µg/mL
IHC:	2.5 µg/mL
WB:	1-2 µg/mL

Formulation

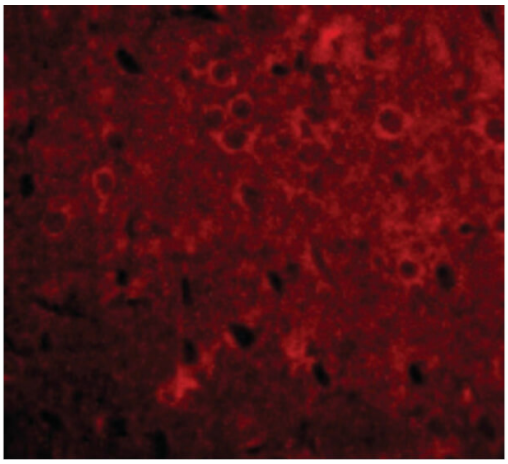
Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

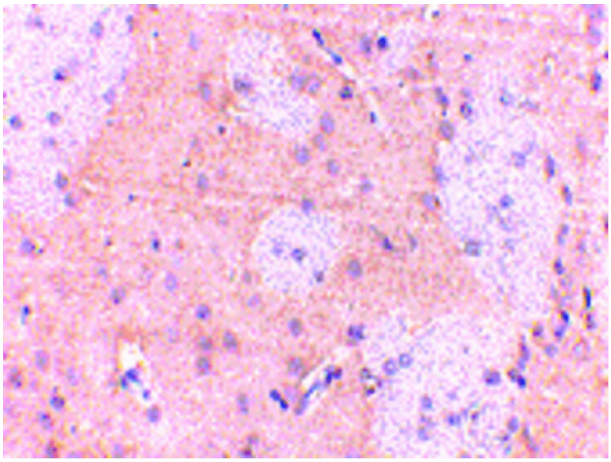
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

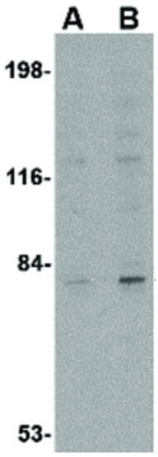
Images



Immunofluorescence Microscopy
Immunofluorescence Microscopy of GPAT1 antibody. Tissue: Rat brain cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: GPAT1 antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Staining: GPAT1 as a red fluorescent signal.



Immunohistochemistry
Immunohistochemistry of GPAT1 antibody. Tissue: Rat brain cells. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: GPAT1 antibody at 2.5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: GPAT1 is nuclear and occasionally cytoplasmic. Staining: GPAT1 as a precipitated red signal with hematoxylin purple nuclear counterstain.



Western Blot

Western Blot of GPAT1 antibody. Lane A: Rat brain tissue lysate at 1 µg/mL. Lane B: Rat brain tissue lysate at 2 µg/mL. Load: 35 µg per lane. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C.
Predicted/Observed size: 93.7 kDa, ~83 kDa for GPAT1.

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