

Product datasheet for **TA306579**

GPAM Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1 - 2 ug/mL, ICC: 2.5 ug/mL, IF: 20 ug/mL
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	GPAT1 antibody was raised against a 15 amino acid synthetic peptide near the carboxy terminus of the human GPAT1. The immunogen is located within amino acids 730 - 780 of GPAT1.
Formulation:	PBS containing 0.02% sodium azide.
Concentration:	1ug/ul
Purification:	Affinity chromatography purified via peptide column
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	glycerol-3-phosphate acyltransferase, mitochondrial
Database Link:	NP_065969 Entrez Gene 14732 Mouse Entrez Gene 29653 Rat Entrez Gene 57678 Human Q9HCL2



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Background:

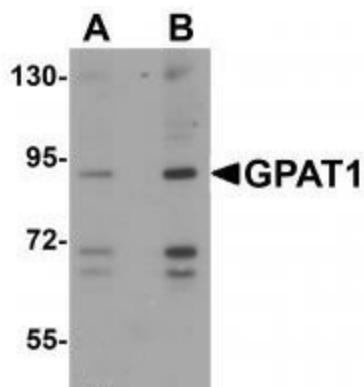
Glycerol-3-phosphate acyltransferase 1 (GPAT1), one of four known GPAT isoforms, is located on the mitochondrial outer membrane, allowing reciprocal regulation with carnitine palmitoyltransferase-1. It is thought to be critical for the development of hepatic steatosis; steatosis triggered by GPAT1 overexpression 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:

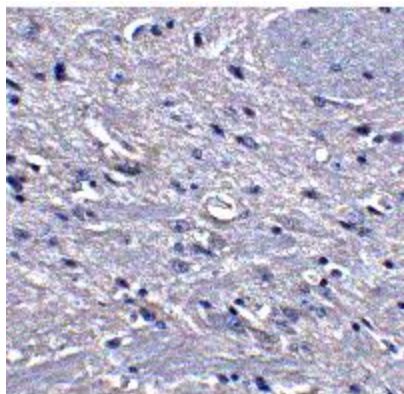
GPAT; GPAT1

Protein Pathways:

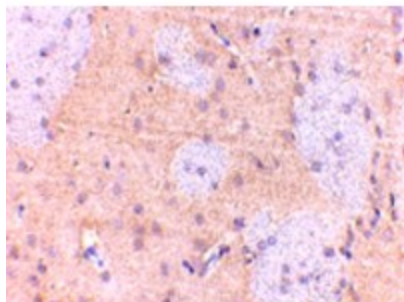
Glycerolipid metabolism, Glycerophospholipid metabolism, Metabolic pathways

Product images:

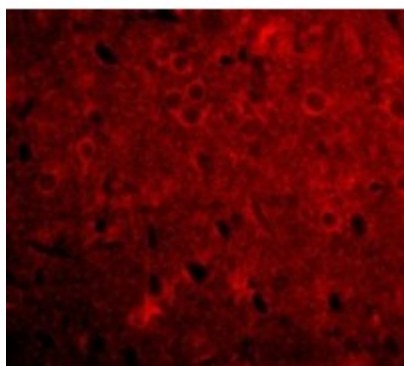
Western blot analysis of GPAT1 in rat brain tissue lysate with GPAT1 antibody at (A) 1 and (B) 2ug/ml.



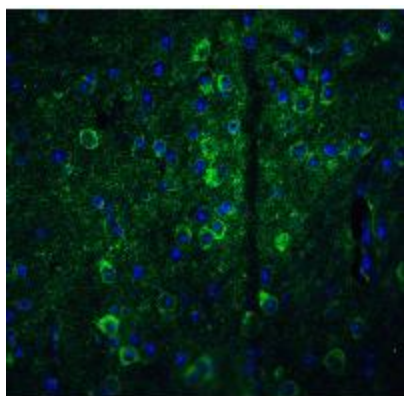
Immunohistochemistry of GPAT1 in mouse brain tissue with GPAT1 antibody at 5ug/ml.



Immunohistochemistry of GPAT1 in rat brain with GPAT1 antibody at 2.5ug/ml.



Immunofluorescence of GPAT1 in Rat Brain tissue with GPAT1 antibody at 20ug/ml.



Immunofluorescence of GPAT1 in mouse brain tissue with GPAT1 antibody at 20ug/ml.