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GPAM Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10150c

Product Information

Application	WB, FC, E
Primary Accession	Q9HCL2
Other Accession	NP_065969.3
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22518
Calculated MW	93795
Antigen Region	426-455

Additional Information

Gene ID	57678
Other Names	Glycerol-3-phosphate acyltransferase 1, mitochondrial, GPAT-1, GPAM, GPAT1, KIAA1560
Target/Specificity	This GPAM antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 426-455 amino acids from the Central region of human GPAM.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GPAM Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GPAM (HGNC:24865)
Function	Mitochondrial membrane protein that catalyzes the essential first step of biosynthesis of glycerolipids such as triglycerides, phosphatidic acids and lysophosphatidic acids (PubMed:18238778, PubMed:19075029,

PubMed:36522428). Esterifies acyl-group from acyl- coenzyme A (acyl-CoA) to the sn-1 position of glycerol-3-phosphate, to produce lysophosphatidic acid (PubMed:18238778). Has a narrow hydrophobic binding cleft that selects for a linear acyl chain (PubMed:36522428). Catalytic activity is higher for substrates with a 16-carbon acyl chain (PubMed:36522428).

Cellular Location

Mitochondrion outer membrane; Peripheral membrane protein. Note=Associated with the mitochondrion outer membrane of hepatic cells via a patch of basic residues

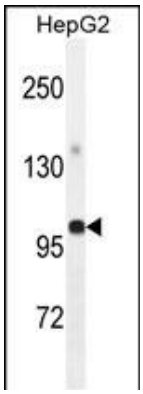
Background

Glycerol-3-phosphate acyltransferase (GPAT; EC 2.3.1.15), which catalyzes the initial and committing step in glycerolipid biosynthesis, is predicted to play a pivotal role in the regulation of cellular triacylglycerol and phospholipid levels. Two mammalian forms of GPAT have been identified on the basis of localization to either the endoplasmic reticulum or mitochondria.[supplied by OMIM].

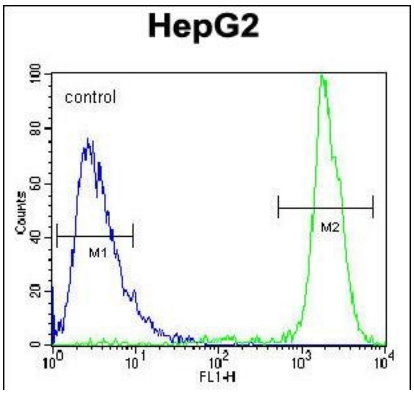
References

Liu, C.Y., et al. Carcinogenesis 31(7):1259-1263(2010)
Reiling, E., et al. Eur. J. Hum. Genet. 17(8):1056-1062(2009)
Lu, Y., et al. J. Lipid Res. 49(12):2582-2589(2008)
Chen, Y.Q., et al. J. Biol. Chem. 283(15):10048-10057(2008)
Grupe, A., et al. Am. J. Hum. Genet. 78(1):78-88(2006)

Images



GPAM Antibody (Center) (Cat. #AP10150c) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the GPAM antibody detected the GPAM protein (arrow).



GPAM Antibody (Center) (Cat. #AP10150c) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.