

GPAM Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP10150c

Specification

GPAM Antibody (Center) - Product Information

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

GPAM Antibody (Center) - 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 FC~~1:10~50 WB~~1:1000 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.

GPAM Antibody (Center) - Protein Information

Name GPAM (<u>HGNC:24865</u>)



Function Mitochondrial membrane protein that catalyzes the essential first step of biosynthesis of glycerolipids such as triglycerides, phosphatidic acids and lysophosphatidic acids (PubMed:<u>18238778</u>, PubMed:<u>19075029</u>, PubMed:<u>36522428</u>). Esterifies acyl-group from acyl-coenzyme A (acyl-CoA) to the sn-1 position of glycerol-3-phosphate, to produce lysophosphatidic acid (PubMed:<u>18238778</u>). Has a narrow hydrophobic binding cleft that selects for a linear acyl chain (PubMed:<u>36522428</u>). Catalytic activity is higher for substrates with a 16-carbon acyl chain (PubMed:<u>36522428</u>).

Cellular Location

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

GPAM Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

GPAM Antibody (Center) - 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.

GPAM Antibody (Center) - 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].

GPAM Antibody (Center) - 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)