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PCAT1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9310b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q8NF37
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24843
Calculated MW	59151
Antigen Region	506-534

Additional Information

Gene ID	79888
Other Names	Lysophosphatidylcholine acyltransferase 1, LPC acyltransferase 1, LPCAT-1, LysoPC acyltransferase 1, 1-acylglycerophosphocholine O-acyltransferase, 1-alkylglycerophosphocholine O-acetyltransferase, Acetyl-CoA:lyso-platelet-activating factor acetyltransferase, Acetyl-CoA:lyso-PAF acetyltransferase, Lyso-PAF acetyltransferase, LysoPAFAT, Acyltransferase-like 2, Phosphonoformate immuno-associated protein 3, LPCAT1, AYTL2, PFAAP3
Target/Specificity	This PCAT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 506-534 amino acids from the C-terminal region of human PCAT1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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	PCAT1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LPCAT1
Synonyms	AYTL2, PFAAP3
Function	Exhibits acyltransferase activity (PubMed: 18156367, PubMed:21498505). Exhibits acetyltransferase activity (By similarity). Activity is calcium-independent (By similarity). Catalyzes the conversion of lysophosphatidylcholine (1-acyl-sn-glycero-3- phosphocholine or LPC) into phosphatidylcholine (1,2-diacyl-sn-glycero- 3-phosphocholine or PC) (PubMed:18156367, PubMed:21498505). Catalyzes the conversion 1-acyl-sn-glycerol-3-phosphate (lysophosphatidic acid or LPA) into 1,2-diacyl-sn-glycerol-3-phosphate (phosphatidic acid or PA) by incorporating an acyl moiety at the sn-2 position of the glycerol backbone (By similarity). Displays a clear preference for saturated fatty acyl-CoAs, and 1-myristoyl or 1-palmitoyl LPC as acyl donors and acceptors, respectively (By similarity). Involved in platelet- activating factor (PAF) biosynthesis by catalyzing the conversion of the PAF precursor, 1-O-alkyl-sn-glycero-3-phosphocholine (lyso-PAF) into 1-O-alkyl-2-acetyl-sn-glycero-3-phosphocholine (PAF) (By similarity). May synthesize phosphatidylcholine in pulmonary surfactant, thereby playing a pivotal role in respiratory physiology (By similarity). Involved in the regulation of lipid droplet number and size (PubMed:25491198).
Cellular Location	Endoplasmic reticulum membrane; Single-pass type II membrane protein. Golgi apparatus membrane {ECO:0000250|UniProtKB:Q3TFD2}; Single-pass type II membrane protein. Cell membrane; Single-pass type II membrane protein. Lipid droplet. Note=May adopt a monotopic topology when embedded in the lipid monolayer of the lipid droplet, with both termini exposed to the cytoplasm.
Tissue Location	Erythrocytes..

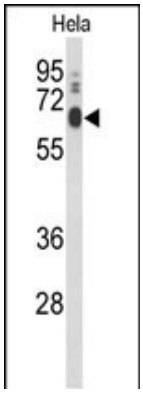
Background

PCAT1 acyltransferase (LPCAT; EC 2.3.1.23) catalyzes the conversion of LPC to hosphatidylcholine (PC) in the remodeling pathway of PC biosynthesis.

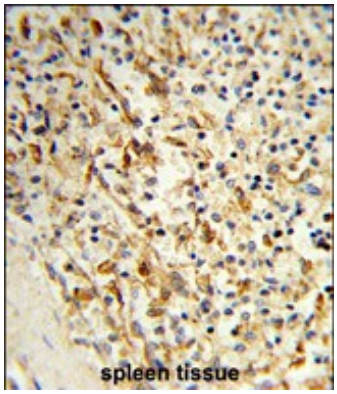
References

Harayama,T., et.al., J. Lipid Res. 50 (9), 1824-1831 (2009)
Mansilla,F., et.al., J. Mol. Med. 87 (1), 85-97 (2009)

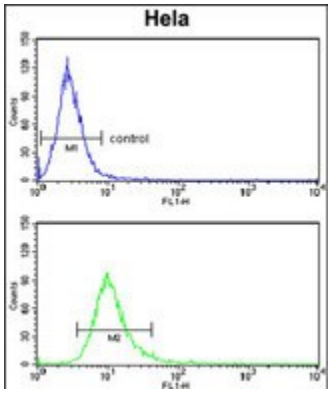
Images



Western blot analysis of PCAT1 Antibody (C-term) (Cat.#AP9310b) in Hela cell line lysates (35ug/lane). PCAT1 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human spleen tissue reacted with PCAT1 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



PCAT1 Antibody (C-term) (Cat. #AP9310b) flow cytometry analysis of Hela cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.