

**PCAT1 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP9310b**

**Specification**

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**PCAT1 Antibody (C-term) - Product Information**

Application	FC, IHC-P, WB,E
Primary Accession	<a href="#">Q8NF37</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	59151
Antigen Region	506-534

**PCAT1 Antibody (C-term) - 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**

FC~~1:10~50

IHC-P~~1:50~100

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**

PCAT1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**PCAT1 Antibody (C-term) - 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..

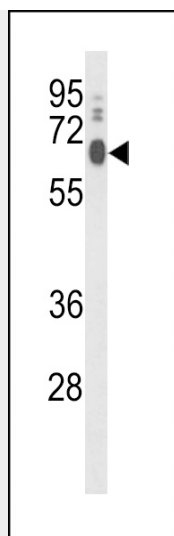
**PCAT1 Antibody (C-term) - Protocols**

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

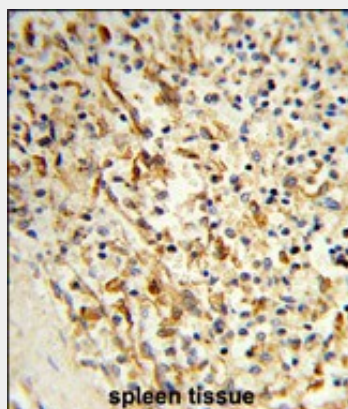
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**PCAT1 Antibody (C-term) - Images**

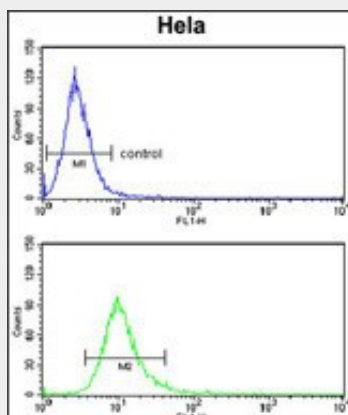




Western blot analysis of PCAT1 Antibody (C-term) (Cat.#AP9310b) in HeLa cell line lysates (35ug/lane). PCAT1 (arrow) was detected using the purified Pab.



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.

#### PCAT1 Antibody (C-term) - Background

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

#### **PCAT1 Antibody (C-term) - 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)