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PCAT1 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP9310b

Specification

PCAT1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q8NF37

PCAT1 Antibody (C-term) Blocking Peptide - 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
The synthetic peptide sequence used to generate the antibody AP9310b was selected from the C-term region of human PCAT1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PCAT1 Antibody (C-term) Blocking Peptide - Protein Information

Name LPCAT1

Synonyms AYTL2, PFAAP3

Function
Exhibits acyltransferase activity (PubMed:21498505, PubMed:18156367). 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:<a href="http://www.uniprot.org/citations/21498505"

target="_blank">21498505, PubMed:18156367). 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) Blocking Peptide - Protocols

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

- Blocking Peptides

PCAT1 Antibody (C-term) Blocking Peptide - Images

PCAT1 Antibody (C-term) Blocking Peptide - Background

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

PCAT1 Antibody (C-term) Blocking Peptide - 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)