10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

LCLT1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5723b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q6UWP7
Other Accession	Q3UN02, NP_872357.2
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB27045
Calculated MW	48920
Antigen Region	296-324

Additional Information

Gene ID	253558
Other Names	Lysocardiolipin acyltransferase 1, 231-, 1-acylglycerol-3-phosphate O-acyltransferase 8, 1-AGP acyltransferase 8, 1-AGPAT 8, Acyl-CoA:lysocardiolipin acyltransferase 1, LCLAT1, AGPAT8, ALCAT1, LYCAT
Target/Specificity	This LCLT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 296-324 amino acids of human LCLT1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	LCLT1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LCLAT1
Synonyms	AGPAT8 {ECO:0000303|PubMed:16620771}, AL
Function	Exhibits acyl-CoA:lysocardiolipin acyltransferase (ALCAT) activity; catalyzes

	the reacylation of lyso-cardiolipin to cardiolipin (CL), a key step in CL remodeling (By similarity). Recognizes both monolysocardiolipin and dilysocardiolipin as substrates with a preference for linoleoyl-CoA and oleoyl-CoA as acyl donors (By similarity). Also exhibits 1-acyl-sn-glycerol-3-phosphate acyltransferase activity (AGPAT) activity; converts 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 (PubMed:16620771). Possesses both lysophosphatidylinositol acyltransferase (LPIAT) and lysophosphatidylglycerol acyltransferase (LPGAT) activities (PubMed:19075029). Required for establishment of the hematopoietic and endothelial lineages (By similarity).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein
Tissue Location	Expressed at higher level in heart, kidney and pancreas than in brain, spleen, liver, lung, small intestine and placenta.

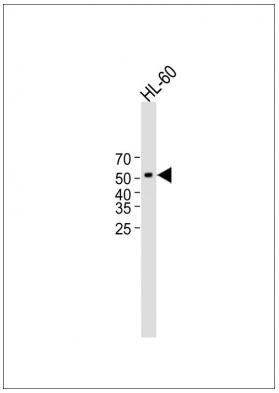
Background

Acyl-CoA:lysocardiolipin acyltransferase. Possesses both lysophosphatidylinositol acyltransferase (LPIAT) and lysophosphatidylglycerol acyltransferase (LPGAT) activities. Recognizes both monolysocardiolipin and dilysocardiolipin as substrates with a preference for linoleoyl-CoA and oleoyl-CoA as acyl donors. Acts as a remodeling enzyme for cardiolipin, a major membrane polyglycerophospholipid. Converts lysophosphatidic acid (LPA) into phosphatidic acid (PA) with a relatively low activity. Required for establishment of the hematopoietic and endothelial lineages.

References

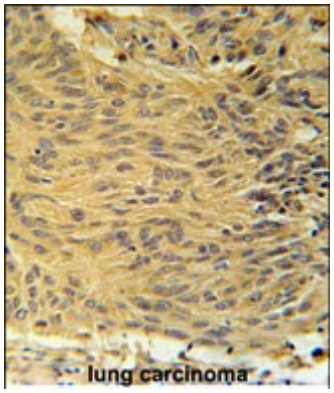
Zhao, Y., et al. J. Lipid Res. 50(5):945-956(2009)
Wang, C., et al. Blood 110(10):3601-3609(2007)
Agarwal, A.K., et al. Arch. Biochem. Biophys. 449 (1-2), 64-76 (2006)

Images



All lanes : Anti-LCLT1 Antibody (C-term) at 1:500 dilution Lane 1:HL-60 cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 49kDa Blocking/Dilution buffer: 5% NFDM/TBST.

LCLT1 Antibody (C-term) (Cat. #AP5723b) immunohistochemistry analysis in formalin fixed and paraffin embedded human lung carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the LCLT1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



Citations

- The prognostic value of the GPAT/AGPAT gene family in hepatocellular carcinoma and its role in the tumor immune microenvironment
- Label-free quantitative proteomic analysis of right ventricular remodeling in infant Tetralogy of Fallot patients.