

LCAT Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9868C

Specification

LCAT Antibody (Center) - Product Information

Application	IF, WB, IHC-P, FC,E
Primary Accession	P04180
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	285-313

LCAT Antibody (Center) - Additional Information

Gene ID 3931

Other Names

Phosphatidylcholine-sterol acyltransferase, Lecithin-cholesterol acyltransferase, Phospholipid-cholesterol acyltransferase, LCAT

Target/Specificity

This LCAT antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 285-313 amino acids from the Central region of human LCAT.

Dilution

IF~~1:10~50
WB~~1:1000
IHC-P~~1:10~50
FC~~1:10~50

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

LCAT Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

LCAT Antibody (Center) - Protein Information

Name LCAT

Function Central enzyme in the extracellular metabolism of plasma lipoproteins. Synthesized mainly in the liver and secreted into plasma where it converts cholesterol and phosphatidylcholines (lecithins) to cholesteryl esters and lysophosphatidylcholines on the surface of high and low density lipoproteins (HDLs and LDLs) (PubMed:[10329423](#), PubMed:[19065001](#), PubMed:[26195816](#)). The cholesterol ester is then transported back to the liver. Has a preference for plasma 16:0-18:2 or 18:0-18:2 phosphatidylcholines (PubMed:[8820107](#)). Also produced in the brain by primary astrocytes, and esterifies free cholesterol on nascent APOE-containing lipoproteins secreted from glia and influences cerebral spinal fluid (CSF) APOE- and APOA1 levels. Together with APOE and the cholesterol transporter ABCA1, plays a key role in the maturation of glial-derived, nascent lipoproteins. Required for remodeling high-density lipoprotein particles into their spherical forms (PubMed:[10722751](#)). Catalyzes the hydrolysis of 1-O-alkyl-2-acetyl-sn-glycero-3-phosphocholine (platelet-activating factor or PAF) to 1-O-alkyl-sn-glycero-3-phosphocholine (lyso-PAF) (PubMed:[8016111](#)). Also catalyzes the transfer of the acetate group from PAF to 1-hexadecanoyl-sn-glycero-3-phosphocholine forming lyso-PAF (PubMed:[8016111](#)). Catalyzes the esterification of (24S)-hydroxycholesterol (24(S)OH-C), also known as cerebrosterol to produce 24(S)OH-C monoesters (PubMed:[24620755](#)).

Cellular Location

Secreted. Note=Secreted into blood plasma (PubMed:[10222237](#), PubMed:[3458198](#), PubMed:[8820107](#)) Produced in astrocytes and secreted into cerebral spinal fluid (CSF) (PubMed:[10222237](#)).

Tissue Location

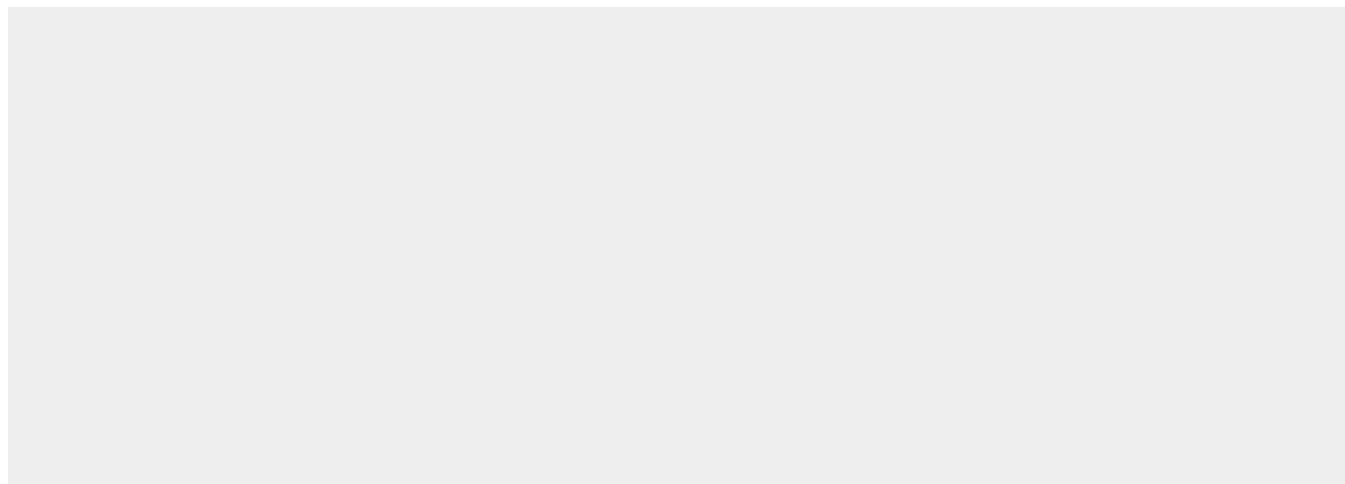
Detected in blood plasma (PubMed:[10222237](#), PubMed:[3458198](#), PubMed:[8820107](#)). Detected in cerebral spinal fluid (at protein level) (PubMed:[10222237](#)). Detected in liver (PubMed:[3458198](#), PubMed:[3797244](#)). Expressed mainly in brain, liver and testes

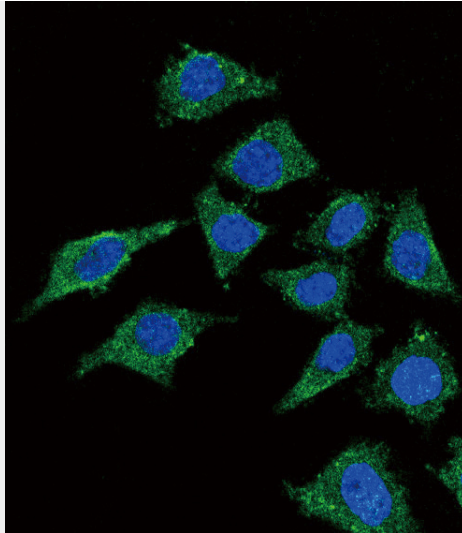
LCAT Antibody (Center) - Protocols

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

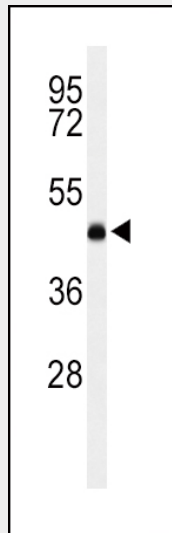
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

LCAT Antibody (Center) - Images

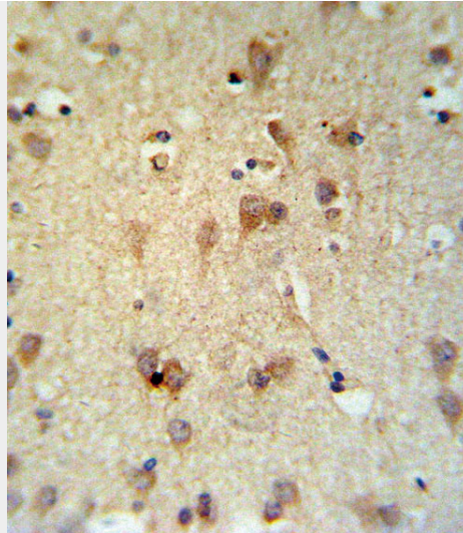




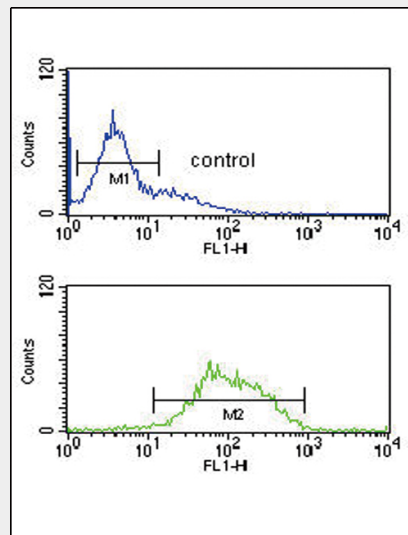
Confocal immunofluorescent analysis of LCAT Antibody (Center) (Cat. #AP9868c) with 293 cell followed by Alexa Fluor[®]488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



Western blot analysis of LCAT Antibody (Center) (Cat. #AP9868c) in K562 cell line lysates (35ug/lane). LCAT (arrow) was detected using the purified Pab.



LCAT Antibody (Center) (Cat. #AP9868c) IHC analysis in formalin fixed and paraffin embedded brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the LCAT Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



LCAT Antibody (Center) (Cat. #AP9868c) flow cytometric analysis of K562 cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

LCAT Antibody (Center) - Background

LCAT encodes the extracellular cholesterol esterifying enzyme, lecithin-cholesterol acyltransferase. The esterification of cholesterol is required for cholesterol transport.

LCAT Antibody (Center) - References

Weissglas-Volkov, D., et al. *Circ Cardiovasc Genet* 3(1):31-38(2010)
 McGeachie, M., et al. *Circulation* 120(24):2448-2454(2009)
 Chen, S.N., et al. *BMC Med. Genet.* 10, 111 (2009) :
 Voora, D., et al. *Circ Cardiovasc Genet* 1(2):100-106(2008)