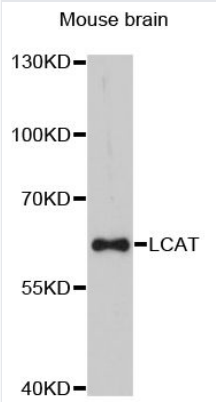
LCAT Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	LCAT, Polyclonal Antibody
Full Product Name	LCAT Polyclonal Antibody
Product Gene Name	anti-LCAT antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Mouse
Purity/Purification	Affinity Purification
Preparation and Storage	Store at -20 degree C. Avoid freeze/thaw cycles.
Molecular Weight	50kDa
OMIM	X04981 Genomic DNA
3D Structure	ModBase 3D Structure for P04180
Immunogen	Recombinant protein of human LCAT
Storage Buffer	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Product Categories/Family for anti-LCAT antibody	Primary antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-LCAT antibody	Western Blot (WB)
Application Notes for anti-LCAT antibody	WB: 1:500 - 1:2000
Related Product Information for anti-LCAT antibody	This gene encodes the extracellular cholesterol esterifying enzyme, lecithin-cholesterol acyltransferase. The esterification of cholesterol is required for cholesterol transport. Mutations in this gene have been found to cause fish-eye disease as well as LCAT deficiency.
Other Notes	Small volumes of anti-LCAT antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for LCAT purchase	MBS9131727 is an antibody targeting LCAT. Also known as LCAT Polyclonal Antibody. Reactive in Mouse. Host: Rabbit.



Western Blot (WB) of anti-LCAT antibody
Western blot analysis of extracts of mouse brain, using LCAT antibody at 1:3000 dilution.Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (MBS128200) at 1:10000 dilution.Lysates/proteins: 25ug per lane.Blocking buffer: 3% nonfat dry milk in TBST.Detection: ECL Basic Kit.Exposure time: 90s.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for LCAT. It may not necessarily be applicable to this product.

NCBI GI #	125993
NCBI GeneID	3931
NCBI Accession #	P04180.1
UniProt Primary Accession #	P04180
UniProt Secondary Accession #	Q53XQ3
UniProt Related Accession #	P04180
NCBI Official Full Name	Phosphatidylcholine-sterol acyltransferase
NCBI Official Synonym Full Names	lecithin-cholesterol acyltransferase
NCBI Official Symbol	LCAT
UniProt Protein Name	Phosphatidylcholine-sterol acyltransferase
UniProt Synonym Protein Names	Lecithin-cholesterol acyltransferase; Phospholipid-cholesterol acyltransferase
Protein Family	Group XV phospholipase
UniProt Gene Name	LCAT
NCBI Protein Information	phosphatidylcholine-sterol acyltransferase

UniProt Comments for LCAT	LCAT: 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). The cholesterol ester is then transported back to the liver. Has a preference for plasma 16:0-18:2 or 18:O-18:2 phosphatidylcholines. 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. Defects in LCAT are the cause of lecithin-cholesterol acyltransferase deficiency (LCATD); also called Norum disease. LCATD is a disorder of lipoprotein metabolism characterized by inadequate esterification of plasmatic cholesterol. Two clinical forms are recognized: familial LCAT deficiency and fish-eye disease. Familial LCAT deficiency is associated with a complete absence of alpha and beta LCAT activities and results in esterification anomalies involving both HDL (alpha-LCAT activity) and LDL (beta-LCAT activity). It causes a typical triad of diffuse corneal opacities, target cell hemolytic anemia, and proteinuria with renal failure. Defects in LCAT are a cause of fish-eye disease (FED); also known as dyslipoproteinemic corneal dystrophy or alpha-LCAT deficiency. FED is due to a partial LCAT deficiency that affects only alpha-LCAT activity. It is characterized by low plasma HDL and corneal opacities due to accumulation of cholesterol deposits in the cornea ('fish-eye'). Belongs to the AB hydrolase superfamily. Lipase family. Protein type: EC 2.3.1.43; Lipid Metabolism - glycerophospholipid; Secreted; Secreted, signal peptide; Transferase Chromosomal Location of Human Ortholog: 16q22.1 Cellular Component: extracellular region; extracellular space Molecular Function: apolipoprotein A-I binding; phosphatidylcholine-sterol O-acyltransferase activity; protein binding Biological Process: cholesterol homeostasis; cholesterol metabolic process; cholesterol transport; lipoprotein metabolic process; phosphatidylcholine biosynthetic process; phosphatidylcholine metabolic process; phospholipid metabolic process; reverse cholesterol transport Disease: Fish-eye Disease; Lecithin:cholesterol Acyltransferase Deficiency
Research Articles on LCAT	**1.** Increased LCAT activity may be associated with increased formation of triglyceride rich lipoproteins, leading to a reduction in LDL particle size and atherosclerosis.
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