LCAT Blocking Peptide

PRODUCT OVERVIEW

Product Name	LCAT, Blocking Peptide
Full Product Name	LCAT Peptide
Product Gene Name	LCAT blocking peptide
Form/Format	Lyophilized powder
Preparation and Storage	Add 100ul of sterile PBS. Final peptide concentration is 1 mg/ml in PBS. For longer periods of storage, store at -20 degree C. Avoid repeat freeze-thaw cycles.
Antibody/Peptide Pairs	LCAT peptide (MBS3230945) is used for blocking the activity of LCAT antibody (MBS3205983)
Molecular Weight	48kDa
OMIM	136120
Product Categories/Family for LCAT blocking peptide	Peptide
Applications Tested/Suitable for LCAT blocking peptide	Western Blot (WB)
Related Product Information for LCAT blocking peptide	This is a synthetic peptide designed for use in combination with anti-LCAT antibody made Target Description: LCAT is an extracellular cholesterol esterifying enzyme, lecithin-cholesterol acyltransferase. The esterification of cholesterol is required for cholesterol transport. Mutations in its gene have been found to cause fish-eye disease as well as LCAT deficiency.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 LCAT blocking peptide 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	MBS3230945 is a blocking peptide targeting LCAT. Also known as LCAT Peptide.

ADDITIONAL DETAILS

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

NCBI GI #	4557892
NCBI GeneID	3931
NCBI Accession #	NP_000220
UniProt Primary Accession #	P04180
UniProt Related Accession #	P04180
GenBank Nucleotide #	NM_000229
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
UniProt Entry Name	LCAT_HUMAN
NCBI Protein Information	phosphatidylcholine-sterol acyltransferase
NCBI Summary for LCAT	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. [provided by RefSeq, Jul 2008]
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: Secreted, signal peptide; Secreted; Lipid Metabolism - glycerophospholipid; EC 2.3.1.43; Transferase Chromosomal Location of Human Ortholog: 16q22.1 Cellular Component: extracellular space; extracellular region Molecular Function: apolipoprotein A-I binding; protein binding; phosphatidylcholine-sterol O-acyltransferase activity Biological Process: cholesterol metabolic process; cholesterol homeostasis; reverse cholesterol transport; cholesterol transport; lipoprotein biosynthetic process; phospholipid metabolic process; phosphatidylcholine biosynthetic process; lipoprotein metabolic process Disease: Lecithin:cholesterol Acyltransferase Deficiency; Fish-eye Disease
Research Articles on LCAT	**1.** Plasma LCAT activity was higher in patients with NAFLD.
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