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Anti-LCAT Antibody

Catalog # ABO11275

Product Information

Application	WB
Primary Accession	P04180
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Phosphatidylcholine-sterol acyltransferase(LCAT) detection. Tested with WB in Human;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3931
Other Names	Phosphatidylcholine-sterol acyltransferase, 2.3.1.43, Lecithin-cholesterol acyltransferase, Phospholipid-cholesterol acyltransferase, LCAT
Calculated MW	49578
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Rat
Subcellular Localization	Phosphatidylcholine-sterol acyltransferase
Tissue Specificity	49578 MW
Source	Eukaryota
Protein Name	Secreted . Secreted into blood plasma. Produced in astrocytes and secreted into cerebral spinal fluid (CSF).
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human LCAT(300-313aa RDFQRFFADLHFEE), different from the related rat sequence by two amino acids, and from the mouse sequence by three amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also

be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

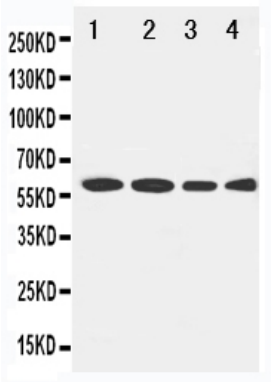
Name	LCAT
Function	Central enzyme in the extracellular metabolism of plasma lipoproteins. Synthesized mainly in the liver and secreted into plasma where it converts cholesterol and phosphatidylcholines (lecithins) to cholesteryl esters and lysophosphatidylcholines on the surface of high and low density 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:O-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

Background

LCAT(Lecithin: Cholesterol Acyltransferase), is an enzyme that converts free cholesterol into cholesteryl ester. Azoulay et al.(1987) used a cDNA clone corresponding to LCAT to assign the locus to 16q22 through the analysis of DNA from somatic cell hybrids and in situ hybridization. LCAT plays an important role in lipoprotein metabolism, especially in the process termed reverse cholesterol transport" The enzyme is synthesized in the liver and circulates in blood plasma as a complex with components of high density lipoprotein(HDL). Cholesterol from peripheral cells is transferred to HDL particles

Images

Anti-LCAT antibody, ABO11275, Western blottingLane 1: Rat Brain Tissue LysateLane 2: U87 Cell LysateLane 3: HELA Cell LysateLane 4: SMMC Cell Lysate



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.