

LPGAT1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP22020c

Product Information

Application	WB, E
Primary Accession	Q92604
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB55396
Calculated MW	43089

Additional Information

Gene ID	9926
Other Names	Acyl-CoA:lysophosphatidylglycerol acyltransferase 1, 2.3.1.-, LPGAT1, FAM34A, KIAA0205
Target/Specificity	This LPGAT1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 144-177 amino acids from the Central region of human LPGAT1.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
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	LPGAT1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LPGAT1 (HGNC:28985)
Function	Lysophospholipid acyltransferase involved in fatty acyl chain remodeling of glycerophospholipids in the endoplasmic reticulum membrane (By similarity). Selectively catalyzes the transfer and esterification of saturated long-chain fatty acids from acyl-CoA to the sn-1 position of 1-lyso-2-acyl

phosphatidylethanolamines (1-lyso-PE, LPE), with a preference for stearoyl CoA over palmitoyl CoA as acyl donor (PubMed:[36049524](#)). Acts in concert with an unknown phospholipase A1 to convert palmitate phosphatidylethanolamine (PE) species into stearate ones. Provides substrates to the PE methylation pathway, controlling stearate/palmitate composition of PE and phosphatidylcholine (PC) species with an overall impact on de novo hepatic lipid synthesis, body fat content and life span (By similarity). Can acylate lysophosphatidylglycerols (LPG) using various saturated fatty acyl-CoAs as acyl donors (PubMed:[15485873](#)). Can also acylate monoacylglycerols with a preference for 2-monoacylglycerols over 1-monoacylglycerols (By similarity). Has no activity toward lysophosphatidic acids (LPA) (By similarity).

Cellular Location

Endoplasmic reticulum membrane; Multi-pass membrane protein

Tissue Location

Highly expressed in liver and placenta. Also expressed in peripheral blood, lung, kidney and brain. Detected at lower levels in colon. High expression is detected in brain and testis

Background

Lysophosphatidylglycerol (LPG) specific acyltransferase that recognizes various acyl-CoAs and LPGs as substrates but demonstrates a clear preference for long chain saturated fatty acyl-CoAs and oleoyl-CoA as acyl donors. Prefers oleoyl-LPG over palmitoyl-LPG as an acyl receptor and oleoyl-CoA over lauroyl-CoA as an acyl donor.

References

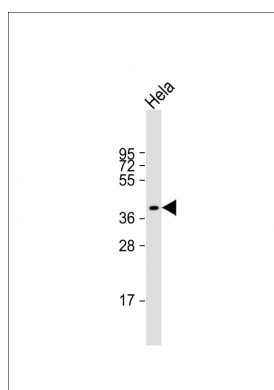
Yang Y.,et al.J. Biol. Chem. 279:55866-55874(2004).

Ji D.,et al.Submitted (FEB-2004) to the EMBL/GenBank/DDBJ databases.

Nagase T.,et al.DNA Res. 3:321-329(1996).

Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.

Images



Anti-LPGAT1 Antibody (Center) at 1:2000 dilution + HeLa whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 43 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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