

LPGAT1 Antibody (aa49-198) Rabbit Polyclonal Antibody Catalog # ALS16381

Specification

LPGAT1 Antibody (aa49-198) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW Dilution WB, IHC-P, E <u>O92604</u> Human Rabbit Polyclonal 43kDa KDa WB~~1:1000 IHC-P~~N/A E~~N/A

LPGAT1 Antibody (aa49-198) - Additional Information

Gene ID 9926

Other Names Acyl-CoA:lysophosphatidylglycerol acyltransferase 1, 2.3.1.-, LPGAT1, FAM34A, KIAA0205

Target/Specificity Human LPGAT1.

Reconstitution & Storage Store at -20°C for up to one year.

Precautions

LPGAT1 Antibody (aa49-198) is for research use only and not for use in diagnostic or therapeutic procedures.

LPGAT1 Antibody (aa49-198) - 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

LPGAT1 Antibody (aa49-198) - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

LPGAT1 Antibody (aa49-198) - Images



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Human Liver: Formalin-Fixed, Paraffin-Embedded (FFPE) LPGAT1 Antibody (aa49-198) - Background



Lysophoshatidylglycerol (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.

LPGAT1 Antibody (aa49-198) - 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.