PRODUCT INFORMATION

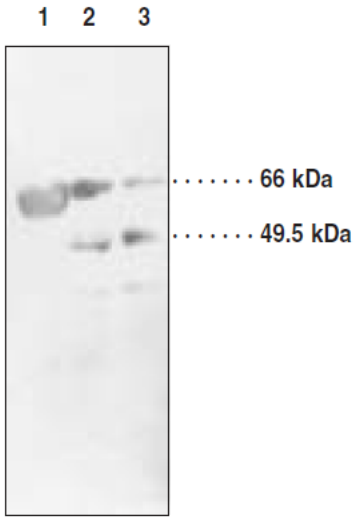
LCAT Polyclonal Antibody

Item No. 10009323

Overview and Properties

Contents:	This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
Synonyms:	Lecithin:Cholesterol Acyltransferase, Phosphatidylcholine-Sterol O-Acyltransferase
Immunogen:	Synthtic peptide from an internal region of human LCAT
Species Reactivity:	(+) Human, mouse, porcine, bovine; other species not tested
Uniprot No.:	P04180
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Host:	Rabbit
Applications:	Western blot (WB); the recommended starting dilution is 1:200 (1 µg/ml). Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: Human plasma (20 µg)
Lane 2: Human plasma minus albumin (10 µg)
Lane 3: Human plasma minus albumin (5 µg)

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Description

Lecithin:cholesterol acyltransferase (LCAT) has both phospholipase and acyltransferase activities. LCAT catalyzes the fatty acid transfer from the *sn*-2 position of phosphatidylcholine (lecithin) to cholesterol and to a lesser degree to other acceptor molecules.[1,2] This enzyme is critical to the process of reverse cholesterol transport or movement of cholesterol esters into high density lipoprotein (HDL) particles from cells.[3] LCAT is abundant in blood-plasma, however it is present in other fluids and tissues such as ovary. This protein may be detected on immunoblot at 49.5 kDa as well as at 66 kDa when fully glycosylated.[4,5] Plasma samples should be diluted prior to electrophoresis and immunoblotting to avoid the band-broadening effect caused by comigration with endogenous albumin.

References

1. Glomset, J.A. Physiological role of lecithin cholesterol acyltransferase. *Am. J. Clin. Nutr.* **23(8)**, 1129-1136 (1970).
2. McLean, J., Fielding, C., Drayna, D., *et al.* Cloning and expression of human lecithin-cholesterol acyltransferase cDNA. *Proc. Natl. Acad. Sci. U.S.A.* **83(8)**, 2335-2339 (1986).
3. Linsel-Nitschke, P. and Tall, A.R. HDL as a target in the treatment of atherosclerotic cardiovascular disease. *Nat. Rev. Drug Discov.* **4(3)**, 193-205 (2005).
4. Marcel, Y.L., Vézina, C.A., Weech, P.K., *et al.* Lecithin: Cholesterol Acyltransferase, a review and immunochemical studies. *Adv. Exp. Med. Biol.* **201**, 163-179 (1986).
5. Chisholm, J.W., Gebre, A.K., and Parks, J.S. Characterzation of C-terminal histidine-tagged human recombinant lecithin:cholesterol acyltransferase. *J. Lipid Res. 40(8)*, 1512-1519 (1999).

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