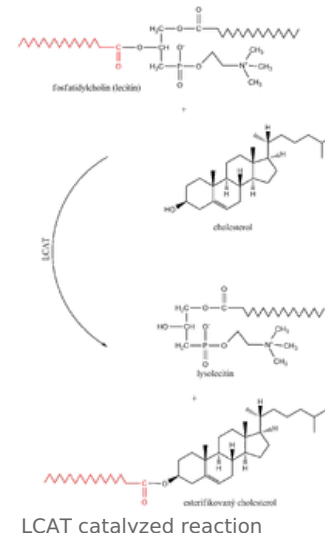


Lecithin cholesterol acyltransferase

Lecithin cholesterol acyltransferase, LCAT (E.C. 2.3.1.43 (<http://www.sbc.s.qmul.ac.uk/iubmb/enzyme/EC2/3/1/43.html>)) plays an important role in the metabolism of lipoproteins HDL and the transport of cholesterol from the tissues to the liver.

It is synthesized in the liver and secreted into the plasma. It binds to the surface of HDL particles. LCAT is *activated* by the effect of apolipoprotein A1, which is also present on the surface of HDL.

It catalyzes the esterification of free cholesterol from tissues with a fatty acid that it obtains from the *sn-2 position of phosphatidylcholines (lecithins) of the HDL envelope*. The resulting cholesterol esters, which are significantly hydrophobic, then enter the hydrophobic environment of the core of HDL particles. LCAT thus participates in the "collection" of cholesterol from the tissues and its transport via HDL to the liver.



Links

Related Articles

- Lipoproteins
- Atherosclerosis
- HDL

References

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