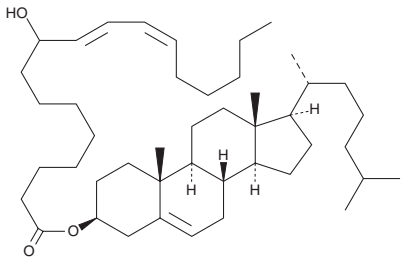
PRODUCT INFORMATION

(±)9-HODE cholesteryl ester

Item No. 38401

CAS Registry No.:	33783-76-5
Formal Name:	(±)-9-hydroxy-10E,12Z-octadecadienoic acid, cholesteryl ester
MF:	$C_{45}H_{76}O_3$
FW:	665.1
Purity:	≥98%
UV/Vis.:	λ_{max}: 234 nm ε: 23,000
Supplied as:	A solution in ethanol
Storage:	-20°C
Stability:	≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(±)9-HODE cholesteryl ester is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of (±)9-HODE cholesteryl ester in these solvents is approximately 50 mg/ml.

(±)9-HODE cholesteryl ester is sparingly soluble (<20 µg/ml in PBS pH 7.2) in aqueous buffers. Therefore, further dilutions of the organic solvent solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Store aqueous solutions of (±)9-HODE cholesteryl ester on ice and use within 12 hours of preparation. Although the aqueous solutions of (±)9-HODE cholesteryl ester may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

Description

(±)9-HODE cholesteryl ester was originally extracted from atherosclerotic lesions[1] and shown to be produced by Cu^{2+}-catalyzed oxidation of LDL.[2] Later studies determined that 15-lipoxygenase from rabbit reticulocytes and human monocytes were able to metabolize cholesteryl linoleate, a major component of LDL, to 9-HODE cholesteryl ester.[3,4]

References

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2. Lenz, M.L., Hughes, H., Mitchell, J.R., *et al.* Lipid hydroperoxy and hydroxy derivatives in copper-catalyzed oxidation of low density lipoprotein. *J. Lipid Res.* **31(6)**, 1043-1050 (1990).
3. Belkner, J., Wiesner, R., Kühn, H., *et al.* The oxygenation of cholesterol esters by the reticulocyte lipoxygenase. *FEBS Lett.* **279(1)**, 110-114 (1991).
4. Folcik, V.A. and Cathcart, M.K. Predominance of esterified hydroperoxy-linoleic acid in human monocyte-oxidized LDL. *J. Lipid Res.* **35(9)**, 1570-1582 (1994).

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