

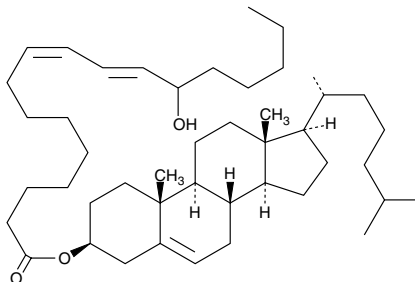
# Product Information



## (±)13-HODE cholesteryl ester

Item No. 38601

<b>Formal Name:</b>	(±)-13-hydroxy-9Z,11E-octadecadienoic acid, cholesteryl ester
<b>MF:</b>	C <sub>45</sub> H <sub>76</sub> O <sub>3</sub>
<b>FW:</b>	665.1
<b>Purity:</b>	≥98%
<b>Stability:</b>	≥1 year at -20°C
<b>Supplied as:</b>	A solution in ethanol
<b>UV/Vis.:</b>	λ <sub>max</sub> : 234 nm ε: 23,000



### Laboratory Procedures

For long term storage, we suggest that (±)13-HODE cholesteryl ester be stored as supplied at -20°C. It should be stable for at least one year.

(±)13-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 (±)13-HODE cholesteryl ester in these solvents is approximately 50 mg/ml.

(±)13-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 (±)13-HODE cholesteryl ester on ice and use within 12 hours of preparation. We do not recommend storing the aqueous solution for more than one day.

(±)13-HODE cholesteryl ester was originally extracted from atherosclerotic lesions<sup>1</sup> and shown to be produced by Cu<sup>2+</sup>-catalyzed oxidation of LDL.<sup>2</sup> Later studies determined that 15-lipoxygenase from rabbit reticulocytes and human monocytes were able to metabolize cholesteryl linoleate, a major component of LDL, to 13-HODE cholesteryl ester.<sup>3,4</sup>

### References

- Brooks, C.J.W., Harland, W.A., Steel, G., *et al.* Lipids of human atheroma: Isolation of hydroxyoctadecadienoic acids from advanced aortal lesions. *Biochim. Biophys. Acta* **202**, 563-566 (1970).
- 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**, 1043-1050 (1990).
- Belkner, J., Wiesner, R., Kühn, H., *et al.* The oxygenation of cholesterol esters by the reticulocyte lipoxygenase. *FEBS Lett.* **279**, 110-114 (1991).
- Folcik, V.A. and Cathcart, M.K. Predominance of esterified hydroperoxy-linoleic acid in human monocyte-oxidized LDL. *J. Lipid Res.* **35**, 1570-1582 (1994).

### Related Products

(±)13-HODE - Item No. 38600 • 13(R)-HODE cholesteryl ester - Item No. 38606 • 13(S)-HODE cholesteryl ester - Item No. 38611

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**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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