

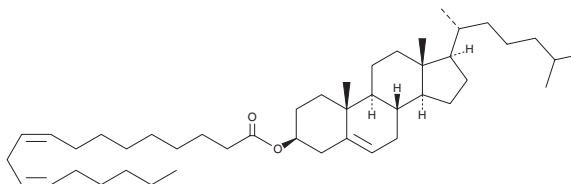
# PRODUCT INFORMATION



## Cholesteryl Linoleate

Item No. 22597

**CAS Registry No.:** 604-33-1  
**Formal Name:** cholest-5-en-3 $\beta$ -ol, 3-[(9Z,12Z)-9,12-octadecadienoate]  
**Synonyms:** 18:2(9,12) CE, CE(18:2), 18:2(9,12) Cholesterol ester, Cholesterol Linoleate, Linoleic Acid cholesteryl ester, NSC 18183  
**MF:** C<sub>45</sub>H<sub>76</sub>O<sub>2</sub>  
**FW:** 649.1  
**Purity:**  $\geq$ 98%  
**UV/Vis.:**  $\lambda_{\text{max}}$ : 232 nm  
**Supplied as:** A waxy crystal  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years



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

### Laboratory Procedures

Cholesteryl linoleate is supplied as a waxy crystal. A stock solution may be made by dissolving the cholesteryl linoleate in the solvent of choice, which should be purged with an inert gas. Cholesteryl linoleate is soluble in the organic solvent chloroform, at a concentration of approximately 10 mg/ml.

### Description

Cholesteryl linoleate is a pro-atherogenic cholesterol ester.<sup>1,2</sup> It has been found in the plasma membrane of macrophages as a component of LDL, where it undergoes oxidation to form cholesteryl linoleate hydroperoxides (Item No. 48001).<sup>1</sup> Cholesteryl linoleate levels are increased in apoB-lipoproteins and positively correlated with hepatic cholesterol levels and the number of atherosclerotic lesions in transgenic mice overexpressing human ABCA1.<sup>2</sup> Lipoprotein levels of cholesteryl linoleate are increased and associated with lipid radical formation in patients with  $\beta$ -thalassemia.<sup>3</sup>

### References

1. Takahashi, Y., Zhu, H., Xu, W., *et al.* Selective uptake and efflux of cholesteryl linoleate in LDL by macrophages expressing 12/15-lipoxygenase. *Biochem. Biophys. Res. Commun.* **338(1)**, 128-135 (2005).
2. Joyce, C.W., Wagner, E.M., Basso, F., *et al.* ABCA1 overexpression in the liver of LDLr-KO mice leads to accumulation of pro-atherogenic lipoproteins and enhanced atherosclerosis. *J. Biol. Chem.* **281(44)**, 33053-33065 (2006).
3. Lerksaipheng, P., Paiboonsukwong, K., Sanvarinda, P., *et al.* Kinetics of lipid radical formation in lipoproteins from  $\beta$ -thalassemia: Implication of cholesteryl esters and  $\alpha$ -tocopherol. *Biomed. Pharmacother.* **154**, 113624 (2022).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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