

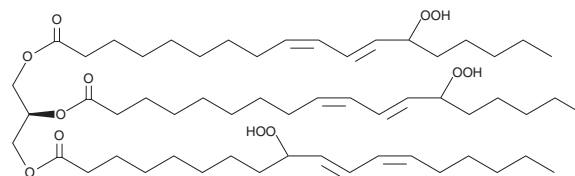
# Product Information



## Linolein Hydroperoxides

Item No. 89430

**Purity:** ≥98% (A mixture of 132 isomers)  
**Stability:** ≥2 years at -80°C  
**Supplied as:** A solution in ethanol



(only one isomer shown)

### Laboratory Procedures

For long term storage, we suggest that linolein hydroperoxides be stored as supplied at -80°C. It should be stable for at least two years.

Linolein hydroperoxides are 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 dimethyl formamide purged with an inert gas can be used. Linolein hydroperoxides are miscible in DMF.

Linolein hydroperoxides are sparingly soluble in aqueous buffers. An ethanolic solution of linolein hydroperoxides at 0.1 mg/ml can be diluted with PBS (pH 7.2) up to 10 times resulting in a colloidal suspension. The suspension should be kept at room temperature and used within 10 minutes or else the compound will decompose. Cooling the liquid will separate the compound from the bulk of the liquid.

Linolein hydroperoxides are a mixture of 132 possible isomers of mono-, di-, and tri-hydroperoxides produced from the autoxidation of trilinolein. Autoxidation of linoleic acid containing triglycerides (i.e., trilinolein) in vivo could result in the formation of these hydroperoxides. Unlike the free fatty acid hydroperoxides of linoleic acid (e.g., 13-HpODE), linolein hydroperoxides are not readily reduced in human plasma in vitro.<sup>1</sup> Circulating linolein hydroperoxides could contribute to the pathophysiology of atherosclerosis.

### Reference

1. Frei, B., Stocker, R., and Ames, B.N. Antioxidant defenses and lipid peroxidation in human blood plasma. *Proc. Natl. Acad. Sci. USA* **85**, 9748-9752 (1988).

### Related Products

(±)9-HODE - Item No. 38400 • (±)9-HODE cholesteryl ester - Item No. 38401 • (±)13-HODE - Item No. 38600 • (±)13-HODE cholesteryl ester - Item No. 38601 • Cholesteryl Linoleate Hydroperoxides - Item No. 48001 • Hydroxy Linoleins - Item No. 89420

**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.

#### WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery**.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

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Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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