

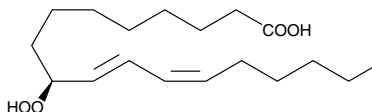
# Product Information



## 9(S)-HpODE

Item No. 48410

**CAS Registry No.:** 29774-12-7  
**Formal Name:** 9S-hydroperoxy-10E,12Z-octadecadienoic acid  
**MF:** C<sub>18</sub>H<sub>32</sub>O<sub>4</sub>  
**FW:** 312.4  
**Purity:** ≥98%  
**Stability:** ≥6 months at -80°C  
**Supplied as:** A solution in ethanol  
**UV/Vis:** λ<sub>max</sub>: 234 nm ε: 23,000



### Laboratory Procedures

For long term storage, we suggest that 9(S)-HpODE be stored as supplied at -80°C. It should be stable for at least six months.

9(S)-HpODE 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 or dimethyl formamide purged with an inert gas can be used. The solubility of 9(S)-HpODE in these solvents is approximately 50 mg/ml.

Further dilutions of the stock 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. If an organic solvent-free solution of 9(S)-HpODE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 9(S)-HpODE in PBS (pH 7.2) is approximately 1 mg/ml. 9(S)-HpODE is highly unstable in aqueous solutions. We recommend that 9(S)-HpODE diluted in aqueous solution be used as soon as possible, preferably within 15 minutes.

9(S)-HpODE is produced by the action of arachidonate 5-lipoxygenase on linoleic acid. It can be further metabolized by potato hydroperoxide dehydratase to colneleic acid.<sup>1,2</sup>

### References

- Galliard, T. and Phillips, D.R. The enzymic conversion of linoleic acid into 9-(nona-1',3'-dienoxy)non-8-enoic acid, a novel unsaturated ether derivative isolated from homogenates of *Solanum tuberosum* tubers. *Biochem. J.* **129**, 743-753 (1972).
- Fahlstadius, P. and Hamberg, M. Stereospecific removal of the *pro-R* hydrogen at C-8 of (9S)-hydroperoxy octadecadienoic acid in the biosynthesis of colneleic acid. *J. Chem. Soc. Perkin Trans. 1*, 2027-2030 (1990).

### Related Products

(±)-HpODE - Item No. 10705 • 9(S)-HODE - Item No. 38410 • 5-Lipoxygenase (potato) - Item No. 60400 • Linoleic Acid - Item No. 90150

**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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