

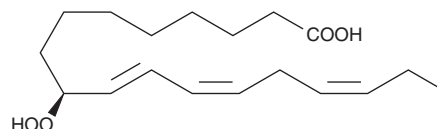
PRODUCT INFORMATION



9(S)-HpOTrE

Item No. 45120

CAS Registry No.: 111004-08-1
Formal Name: 9S-hydroperoxy-10E,12Z,15Z-octadecatrienoic acid
MF: C₁₈H₃₀O₄
FW: 310.4
Purity: ≥98%
UV/Vis.: λ_{max}: 236 nm
Supplied as: A solution in ethanol
Storage: -80°C
Stability: ≥2 years



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

Laboratory Procedures

9(S)-HpOTrE is supplied as a solution in ethanol. To change the solvent, 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(S)-HpOTrE 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)-HpOTrE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 9(S)-HpOTrE in PBS, pH 7.2, is approximately 1 mg/ml. 9(S)-HpOTrE is highly unstable in aqueous solutions. We recommend that aqueous solutions of 9(S)-HpOTrE be kept on ice and used as soon as possible, preferably within 15 minutes.

Description

9(S)-HpOTrE is a monohydroperoxy polyunsaturated fatty acid produced by the action of 5(S)-lipoxygenase on α-linolenic acid.¹ It can be further metabolized to colnelenic acid by a divinyl ether synthase activity found in garlic and potato microsomal fractions.^{2,3} 9(S)-HpOTrE also serves as a substrate for further oxidation by both soybean and potato lipoxygenases, resulting in the 9,16-dihydroperoxy acid.^{4,5} The suicide inactivation of lipoxygenases when 9(S)-HpOTrE is used as a substrate is thought to occur *via* formation of an unstable epoxide.^{6,7}

References

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4. Sok, D. and Kim, M.R. *Arch. Biochem. Biophys.* **277**, 86-93 (1990).
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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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