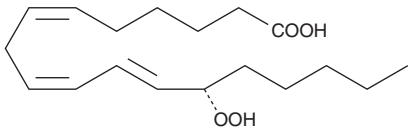
PRODUCT INFORMATION

13(S)-HpOTrE(γ)

Item No. 45210

CAS Registry No.:	121107-97-9
Formal Name:	13S-hydroperoxy-6Z,9Z,11E-octadecatrienoic acid
MF:	$C_{18}H_{30}O_4$
FW:	310.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 236 nm
Supplied as:	A 1 mg/ml 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

13(S)-HpOTrE(γ) 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 13(S)-HpOTrE(γ) 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 13(S)-HpOTrE(γ) is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 13(S)-HpOTrE(γ) in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

13(S)-HpOTrE(γ) is a monohydroxy polyunsaturated fatty acids produced by the action of soybean lipoxygenase-1 (LO-1) on γ-linolenic acid.[1] Further action of soybean LO-1 converts 13(S)-HpOTrE(γ) to all four isomers of 6,13-DiHOTrE.[2] At concentrations greater than 100 µM, 13(S)-HpOTrE(γ) inhibits the activity of soybean LO-1.[3]

References

1. Funk, M.O., Isaac, R., and Porter, N.A. Preparation and purification of lipid hydroperoxides from arachidonic and γ-linolenic acids. *Lipids* **11,** 113-116 (1976).
2. Kim, M.R. and Sok, D.-E. Formation of 6,13-dihydroxyoctadecatrienoic acid isomers from γ-linolenic acid. *Biochem. Biophys. Res. Commun.* **159,** 1154-1160 (1989).
3. Kim, M.R. and Sok, D.-E. Irreversible inhibition of soybean lipoxygenase-1 by hydroperoxy acids as substrates. *Arch. Biochem. Biophys.* **288,** 270-275 (1991).

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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