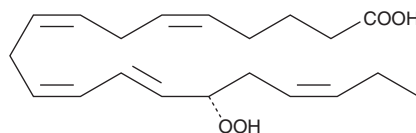


PRODUCT INFORMATION

15(S)-HpEPE

Item No. 42710

CAS Registry No.: 125992-60-1
Formal Name: 15S-hydroperoxy-5Z,8Z,11Z,13E,17Z-eicosapentaenoic acid
MF: $C_{20}H_{30}O_4$
FW: 334.5
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 236 nm
Supplied as: A solution in ethanol
Storage: $-80^{\circ}C$
Stability: ≥ 2 years



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

Laboratory Procedures

15(S)-HpEPE 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. 15(S)-HpEPE is miscible in these solvents.

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 15(S)-HpEPE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 15(S)-HpEPE in PBS, pH 7.2, is approximately 0.8 mg/ml. For greater aqueous solubility, 15(S)-HpEPE can be directly dissolved in 0.1 M Na_2CO_3 (solubility of 2 mg/ml) and then diluted with PBS (pH 7.2) to achieve the desired concentration or pH. 15(S)-HpEPE is highly unstable in aqueous solutions. We recommend that aqueous solutions of 15(S)-HpEPE be kept on ice and used as soon as possible, preferably within 15 minutes.

Description

15(S)-HpEPE is an active metabolite of the ω -3 fatty acid eicosapentaenoic acid (EPA; Item Nos. 90110 | 90110.1 | 21908).¹ It is formed from EPA by 15-lipoxygenase (15-LO). 15(S)-HpEPE (0.01, 0.3, and 1 μM) inhibits IL-1 β -induced increases in the levels of COX-2 in human pulmonary microvascular endothelial cells (HPMECs).²

References

1. Jin, J., Boeglin, W.E., and Brash, A.R. Analysis of 12/15-lipoxygenase metabolism of EPA and DHA with special attention to authentication of docosatrienes. *J. Lipid Res.* **62**, 100088 (2021).
2. Ait-Said, F., Elalamy, I., Werts, C., et al. Inhibition by eicosapentaenoic acid of IL-1 β -induced PGHS-2 expression in human microvascular endothelial cells: Involvement of lipoxygenase-derived metabolites and p38 MAPK pathway. *Biochim. Biophys. Acta* **1631**(1), 77-84 (2003).

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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