

PRODUCT INFORMATION



(±)5(6)-DiHETE lactone

Item No. 18343

Formal Name: (±)-5,6-dihydroxy-8Z,11Z,14Z,17Z-eicosatetraenoic acid 1,5-lactone

MF: C₂₀H₃₀O₃

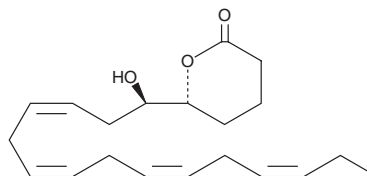
FW: 318.5

Purity: ≥90%

Supplied as: A solution in ethanol

Storage: -20°C

Stability: ≥2 years



NOTE: Relative stereochemistry shown in chemical structure

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

Laboratory Procedures

(±)5(6)-DiHETE lactone 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 ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of (±)5(6)-DiHETE lactone 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 (±)5(6)-DiHETE lactone is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of (±)5(6)-DiHETE lactone in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Eicosapentaenoic acid (EPA; Item No. 90110) is metabolized, in part, through cytochrome P450-catalyzed epoxidation followed by conversion to the vicinal diols by epoxide hydrolases. (±)5(6)-DiHETE (Item No. 10467) is a possible metabolite produced from EPA following epoxidation of the α-5 double bond. (±)5(6)-DiHETE lactone is a 1,5 cyclic ester derived from (±)5(6)-DiHETE. While its biological activity is unknown, the selective capacity of (±)5(6)-DiHETE to form this lactone can be utilized to specifically quantify (±)5(6)-DiHETE in biological samples.¹

Reference

1. Fulton, D., Falck, J.R., McGiff, J.C., *et al.* A method for the determination of 5,6-EET using the lactone as an intermediate in the formation of the diol. *J. Lipid Res.* **39**, 1713-1721 (1998).

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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