

Product Data Sheet

Product Name: (±)10-HDHA

Cat. No.: GC41213

Chemical Properties

Cas. No. 90780-50-0

SMILES CC/C=C\C/C=C\C/C=C\C=C/C(O)C/C=C\C/C=C\CCC(=O)O

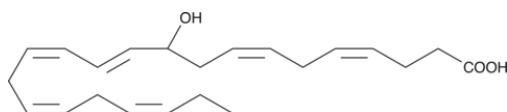
Formula C₂₂H₃₂O₃ M.Wt 344.5

Solubility 0.1 M Na₂CO₃: 2 mg/ml, DMF: Storage Store at -20°C
Miscible, DMSO: Miscible, Ethanol:
Miscible, PBS (pH 7.2): 0.8 mg/ml

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

(±)10-HDHA is an autooxidation product of docosahexaenoic acid (DHA) in vitro.[1][2] It is also produced from incubations of DHA in rat liver, brain, and intestinal microsomes.[3][4][5] (±)10-HDHA is a potential marker of oxidative stress in brain and retina where DHA is an abundant polyunsaturated fatty acid.

Reference:

- [1]. VanRollins, M., and Murphy, R.C. Autooxidation of docosahexaenoic acid: Analysis of ten isomers of hydroxydocosahexaenoate. J. Lipid Res. 25(5), 507-517 (1984).
- [2]. Reynaud, D., Thickitt, C.P., and Pace-Asciak, C.R. Facile preparation and structural determination of monohydroxy derivatives of docosahexaenoic acid (HDoHE) by α-tocopherol-directed autooxidation. Anal. Biochem. 214(1), 165-170 (1993).
- [3]. VanRollins, M., Baker, R.C., Sprecher, H., et al. Oxidation of docosahexaenoic acid by rat liver microsomes. J. Biol. Chem. 259(9), 5776-5783 (1984).

Caution: Product has not been fully validated for medical applications. For research use only.

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- [4]. Yamane, M., Abe, A., and Yamane, S. High-performance liquid chromatography-thermospray mass spectrometry of epoxy polyunsaturated fatty acids and epoxyhydroxy polyunsaturated fatty acids from an incubation mixture of rat tissue homogenate. J. Chromatogr. 652(2), 123-136 (1994).
- [5]. Kim, H.Y., Karanian, J.W., Shingu, T., et al. Stereochemical analysis of hydroxylated docosahexaenoates produced by human platelets and rat brain homogenate. Prostaglandins 40(5), 473-490 (1990).

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