

Product Data Sheet

Product Name: 13-OxoODE

Cat. No.: GC41914

Chemical Properties

Cas. No. 54739-30-9

Chemical Name 13-oxo-9Z,11E-octadecadienoic acid

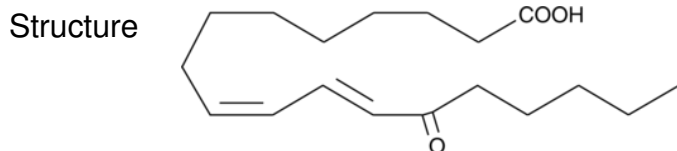
SMILES CCCCC(=O)/C=C\C=C\CCCCCCCC(=O)O

Formula C18H30O3 M.Wt 294.4

Solubility 50 mg/ml in DMF, 50 mg/ml in DMSO, 50 mg/ml in Ethanol Storage Store at -80°C, protect from light

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.



Background

13-oxoODE is produced from 13-HODE by a NAD⁺-dependent dehydrogenase present in rat colonic mucosa.[1] 13-OxoODE stimulates cell proliferation when instilled intrarectally in rats.[2] 13-OxoODE has also been detected in preparations of rabbit reticulocyte plasma and mitochondrial membranes, mostly esterified to phospholipids. Production of 13-oxoODE is putatively linked to the maturation of reticulocytes to erythrocytes through the activity of 15-LO.[3][4]

Reference:

- [1]. Earles, S.M., Bronstein, J.C., Winner, D.L., et al. Metabolism of oxidized linoleic acid: Characterization of 13-hydroxyoctadecadienoic acid dehydrogenase activity from rat colonic tissue. *Biochim. Biophys. Acta* 1081(2), 174-180 (1991).
- [2]. Bull, A.W., and Bronstein, J.C. Production of unsaturated carbonyl compounds during metabolism

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

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of hydroperoxy fatty acids by colonic homogenates. Carcinogenesis 11(10), 1699-1704 (1990).

[3]. Kühn, H., Belkner, J., Wiesner, R., et al. Occurrence of 9- and 13-keto-octadecadienoic acid in biological membranes oxygenated by the reticulocyte lipoxygenase. Arch. Biochem. Biophys. 279(2), 218-224 (1990).

[4]. Kühn, H., Belkner, J., and Wiesner, R. Subcellular distribution of lipoxygenase products in rabbit reticulocyte membranes. Eur. J. Biochem. 191(1), 221-227 (1990).

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