

Product Data Sheet

Product Name: Leukotriene C4-d5 methyl ester

Cat. No.: GC47558

Chemical Properties

Cas. No. 73958-10-8

SMILES O=C(OC)CCC[C@H](O)[C@H](SCC(C(NCC(O)=O)=O)NC(CCC(N)C(O)=O)=O)/C=C/C=C/C=C/C\CCCC([2H])([2H])C([2H])([2H])[2H]

Formula C31H44D5N3O9S M.Wt 644.8

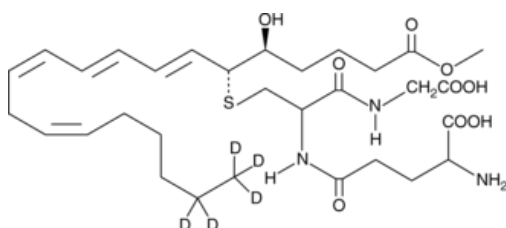
Solubility DMF: 50 mg/ml, DMSO: 50 mg/ml, Ethanol: 1 mg/ml, Ethanol:H2O (95:5): 2 mg/ml, PBS (pH 7.2): 0.1 mg/ml

Storage Store at -80°C

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

Leukotriene C4-d5 (LTC4-d5) methyl ester contains five deuterium atoms at the 19, 19', 20, 20 and 20 positions. It is intended for use as an internal standard for the quantification of LTC4 methyl ester by GC- or LC-mass spectrometry. LTC4 is the parent cysteinyl-leukotriene produced by the LTC4 synthase-catalyzed conjugation of glutathione to LTA4. LTC4 is produced by neutrophils, macrophages, and mast cells, and by transcellular metabolism in platelets.¹ It is one of the constituents of slow-reacting substance of anaphylaxis and exhibits potent smooth muscle contracting activity.² LTC4-induced bronchoconstriction and enhanced vascular permeability

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

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contribute to the pathogenesis of asthma and acute allergic hypersensitivity.^{3,4} The concentration of LTC₄ required to produce marked contractions of lung parenchymal strips and isolated tracheal rings is about 1 nM.⁴ LTC₄ methyl ester is a more lipid soluble form of LTC₄. The biological activity of LTC₄ methyl ester has not been reported.

1. Maclouf, J.A., and Murphy, R.C. Transcellular metabolism of neutrophil-derived leukotriene A₄ by human platelets. A potential cellular source of leukotriene C₄. *Biol. Chem.* 263(1)174-181(1988)
2. Piper, P.J. Formation and actions of leukotrienes *Physiol. Rev.* 64(2)744-761(1984)
3. Samuelsson, B. Leukotrienes: Mediators of immediate hypersensitivity reactions and inflammation *Science* 220(4597)568-575(1983)
4. Lefer, A.M. Leukotrienes as mediators of ischemia and shock *Biochem. Pharmacol.* 35(2)123-127(1986)

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