

Product Data Sheet

Product Name: (±)12-HETE-d8

Cat. No.: GC48738

Chemical Properties

Cas. No. 2525175-25-9

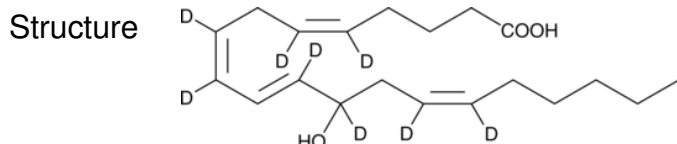
SMILES CCCCC/C([2H])=C([2H])\CC(O)([2H])/C([2H])=C/C([2H])=C([2H])\C/C([2H])=C([2H])\CC(CO)=O

Formula C₂₀H₂₄D₈O₃ M.Wt 328.5

Solubility 0.1 M Na₂CO₃: 2 mg/ml, DMF: Storage -20°C
miscible, DMSO: miscible, Ethanol:
miscible, PBS (pH 7.4): 0.8 mg/ml

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

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



Background

(±)12-HETE-d₈ is intended for use as an internal standard for the quantification of 12-HETE by GC- or LC-MS. (±)12-HETE is formed *via* non-enzymatic oxidation of arachidonic acid.^{1,2} 12(S)- and 12(R)-HETE are formed by 12(S)- and 12(R)-lipoxygenase-mediated oxidation of arachidonic acid, respectively.^{3,4} 12(R)-HETE can also be formed by oxidation of arachidonic acid mediated by cytochrome P450s (CYP450s).⁵

1. Powell, W.S., and Rokach, J. Biosynthesis, biological effects, and receptors of hydroxyeicosatetraenoic acids (HETEs) and oxoeicosatetraenoic acids (oxo-ETEs) derived from arachidonic acid *Biochim. Biophys. Acta* 1851(4):340-355(2014) 2. Derogis, P.B.M.C., Chaves-Filho, A.B., and Miyamoto, S. Characterization of hydroxy and hydroperoxy polyunsaturated fatty acids by mass spectrometry *Bioactive lipids in health and disease* 21-38(2019) 3. Kühn, H., Banthiya, S., and

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

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van Leyen, K. Mammalian lipoxygenases and their biological relevance *Biochim. Biophys. Acta* 1851(4)308-330(2015) 4. B rger, F., Krieg, P., Marks, F., et al. Positional- and stereo-selectivity of fatty acid oxygenation catalysed by mouse (12S)-lipoxygenase isoenzymes *Biochem J.* 348(Pt 2)329-335(2000) 5. Powell, W.S., and Rokach, J. Biosynthesis, biological effects, and receptors of hydroxyeicosatetraenoic acids (HETEs) and oxoeicosatetraenoic acids (oxo-ETEs) derived from arachidonic acid *Biochim. Biophys. Acta* 1851(4)340-355(2015)

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