

Product Data Sheet

Product Name: Arachidonic Acid-d5

Cat. No.: GC46872

Chemical Properties

Cas. No. 123167-26-0

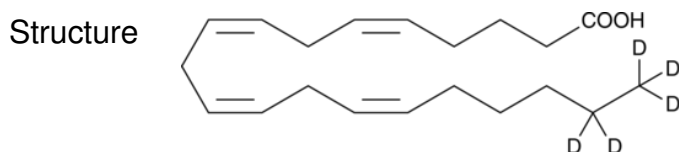
SMILES [2H]C([2H])([2H])C([2H])([2H])CCC/C=C\C/C=C\C/C=C\C/C=C\C/C=C\CCCC(O)=O

Formula C₂₀H₂₇D₅O₂ M.Wt 309.5

Solubility 0.1 M Na₂CO₃: 1 mg/ml, DMF: 50 mg/ml, DMSO: 50 mg/ml, Ethanol: 50 mg/ml
Storage Store at -20°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.



Background

Arachidonic acid-d₅ is intended for use as an internal standard for the quantification of arachidonic acid by GC- or LC-MS. Arachidonic acid is an essential fatty acid and a precursor for all prostaglandins, thromboxanes, and leukotrienes. Virtually all cellular arachidonic acid is esterified in membrane phospholipids where its presence is tightly regulated through multiple interconnected pathways.¹ Free arachidonic acid is a transient, critical substrate for the biosynthesis of eicosanoid second messengers. Receptor-stimulated release, metabolism, and re-uptake of free arachidonate are all important aspects of cell signaling and inflammation.²

1. Nixon, A.B., Greene, D.G., and Wykle, R.L. Comparison of acceptor and donor substrates in the CoA-independent transacylase reaction in human neutrophils. *Biochim. Biophys. Acta.* 1300(3):187-196(1996)
2. Burgoyne, R.D., and Morgan, A. The control of free arachidonic acid levels. *Trends Biochem. Sci.* 15(10):365-366(1990)

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

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