

Product Data Sheet

Product Name: Linoleic acid-d5

Cat. No.: GC71859

Chemical Properties

Cas. No. 1169764-58-2

Formula $C_{18}H_{27}D_5O_2$ M.Wt 285.48

Solubility DMSO : 100 mg/mL (350.29 mM; Need ultrasonic; Hygroscopic DMSO has a significant impact on the solubility of product, please use newly opened DMSO); 0.1 M NaOH : 8.33 mg/mL (29.18 mM; ultrasonic and warming and adjust pH to 11 with NaOH and heat to 60°C)

Storage Solution, -20°C, 2 years

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.

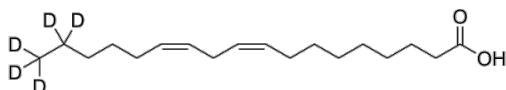
Caution: Product has not been fully validated for medical applications. For research use only.

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Structure



Background

Linoleic Acid-d5 is the deuterium labeled Linoleic acid. Linoleic acid is a common polyunsaturated (PUFA) found in plant-based oils, nuts and seeds. Linoleic acid is a part of membrane phospholipids, and functions as a structural component to maintain a certain level of membrane fluidity of the transdermal water barrier of the epidermis. Linoleic acid induces red blood cells and hemoglobin damage via oxidative mechanism.

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].

References:

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019;53(2):211-216.
- [2]. Jay Whelan. Linoleic Acid. *Adv Nutr*. 2013 May; 4(3): 311–312.

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