

Product Data Sheet

Inhibitors

Screening Libraries

Arachidic acid-d₄

Cat. No.: HY-W004260S4
CAS No.: 1219803-69-6

Molecular Formula: $C_{20}H_{36}D_4O_2$ Molecular Weight: 316.56

Target: Endogenous Metabolite; Isotope-Labeled Compounds

Pathway: Metabolic Enzyme/Protease; Others

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

D D O O

BIOLOGICAL ACTIVITY

Description	Arachidic acid-d ₄ is the deuterium labeled Arachidic acid. Arachidonic acid (Icosanoic acid), a long-chain fatty acid, is present in all mammalian cells, typically esterified to membrane phospholipids, and is one of the most abundant polyunsaturated fatty acids present in human tissue[1][2].
In Vitro	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] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Koppová I, et al. Analysis of fatty acid composition of anaerobic rumen fungi. Folia Microbiol (Praha). 2008;53(3):217-20.

[2]. Martin SA, et al. The discovery and early structural studies of arachidonic acid. J Lipid Res. 2016 Jul;57(7):1126-32.

[3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

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

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