# **Product** Data Sheet

## Arachidic acid-d<sub>4</sub>

Molecular Weight:

Cat. No.: HY-W004260S4 CAS No.: 1219803-69-6 Molecular Formula:  $C_{20}H_{36}D_{4}O_{2}$ 

Target: Endogenous Metabolite; Isotope-Labeled Compounds

Pathway: Metabolic Enzyme/Protease; Others

316.56

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

Analysis.

#### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 4.76 mg/mL (15.04 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.1590 mL	15.7948 mL	31.5896 mL
	5 mM	0.6318 mL	3.1590 mL	6.3179 mL
	10 mM	0.3159 mL	1.5795 mL	3.1590 mL

Please refer to the solubility information to select the appropriate solvent.

### **BIOLOGICAL ACTIVITY**

Description Arachidic acid-d<sub>4</sub> 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 De	euterium 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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