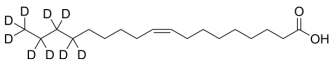
Oleic acid-d_9

Cat. No.: HY-N1446S5

CAS No.: 2687960-84-3

Molecular Formula: $C_{18}H_{25}D_9O_2$

Molecular Weight: 291.52



Target: Apoptosis; Na+/K+ ATPase; Endogenous Metabolite

Pathway: Apoptosis; Membrane Transporter/Ion Channel; Metabolic Enzyme/Protease

Storage:

Pure form	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month

SOLVENT & SOLUBILITY

In Vitro

Ethanol : 100 mg/mL (343.03 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.4303 mL	17.1515 mL	34.3030 mL
	5 mM	0.6861 mL	3.4303 mL	6.8606 mL
	10 mM	0.3430 mL	1.7151 mL	3.4303 mL

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

BIOLOGICAL ACTIVITY

Description

Oleic acid-d_9 is deuterium labeled Oleic acid. Oleic acid is an abundant monounsaturated fatty acid. Oleic acid is a Na+/K+ ATPase activator[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[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Jack-Hays MG, et al. Activation of Na+/K(+)-ATPase by fatty acids, acylglycerols, and related amphiphiles: structure-activity relationship. Biochim Biophys Acta. 1996 Feb 21;1279(1):43-8.

[2]. Li S, et al. High metastaticgastric and breast cancer cells consume oleic acid in an AMPK dependent manner. PLoS One. 2014 May 13;9(5):e97330.

[3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-223.

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