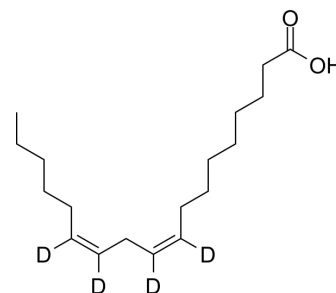


## Linoleic acid-d<sub>4</sub>

<b>Cat. No.:</b>	HY-N0729S
<b>CAS No.:</b>	79050-23-0
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>28</sub> D <sub>4</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	284.47
<b>Target:</b>	Endogenous Metabolite; Isotope-Labeled Compounds
<b>Pathway:</b>	Metabolic Enzyme/Protease; Others
<b>Storage:</b>	Solution, -20°C, 2 years



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (351.53 mM; from Oleic Acid)
	Ethanol : 100 mg/mL (351.53 mM; from Oleic Acid)
	DMF : 100 mg/mL (351.53 mM; from Oleic Acid)
	Ethanol : 100 mg/mL (351.53 mM; from Oleic Acid)
	DMF : 100 mg/mL (351.53 mM; from Oleic Acid)
	DMSO : 100 mg/mL (351.53 mM; from Oleic Acid)
	0.15 M Tris-HCl pH 8.5 : 1 mg/mL (3.52 mM; from Oleic Acid)

### BIOLOGICAL ACTIVITY

<b>Description</b>	Linoleic Acid-d <sub>4</sub> 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 [1][2].
<b>In Vitro</b>	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 <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Jay Whelan. Linoleic Acid. *Adv Nutr.* 2013 May; 4(3): 311–312.
- [2]. Yuan T, et al. Linoleic acid induces red blood cells and hemoglobin damage via oxidative mechanism. *Int J Clin Exp Pathol.* 2015 May 1;8(5):5044-52.
- [3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

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

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