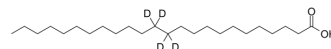


## Lignoceric acid-d<sub>4</sub>-1

<b>Cat. No.:</b>	HY-121883S3		
<b>CAS No.:</b>	1219794-59-8		
<b>Molecular Formula:</b>	C <sub>24</sub> H <sub>44</sub> D <sub>4</sub> O <sub>2</sub>		
<b>Molecular Weight:</b>	372.66		
<b>Target:</b>	Endogenous Metabolite		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

Ethanol : 3.33 mg/mL (8.94 mM; Need ultrasonic)  
 DMSO : 2 mg/mL (5.37 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent	1 mg	5 mg	10 mg
	Concentration	Mass	Mass	Mass
1 mM		2.6834 mL	13.4171 mL	26.8341 mL
5 mM		0.5367 mL	2.6834 mL	5.3668 mL
10 mM		---	---	---

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

### BIOLOGICAL ACTIVITY

#### Description

Lignoceric acid-d<sub>4</sub>-11 is the deuterium labeled Lignoceric acid. Lignoceric acid (Tetracosanoic acid) is a 24-carbon saturated (24:0) fatty acid, which is synthesized in the developing brain. Lignoceric acid is also a by-product of lignin production. Lignoceric acid can be used for Zellweger cerebrohepatorenal syndrome and adrenoleukodystrophy research[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<sup>[1]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. 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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