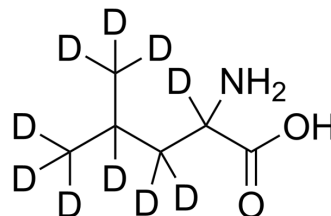


## (±)-Leucine-d<sub>10</sub>

<b>Cat. No.:</b>	HY-B1674S		
<b>CAS No.:</b>	29909-01-1		
<b>Molecular Formula:</b>	C <sub>6</sub> H <sub>3</sub> D <sub>10</sub> NO <sub>2</sub>		
<b>Molecular Weight:</b>	141.23		
<b>Target:</b>	Bacterial; Endogenous Metabolite		
<b>Pathway:</b>	Anti-infection; 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

<b>In Vitro</b>	H <sub>2</sub> O : 12.5 mg/mL (88.51 mM); ultrasonic and warming and heat to 80°C				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	7.0806 mL	35.4032 mL	70.8065 mL
		5 mM	1.4161 mL	7.0806 mL	14.1613 mL
10 mM		0.7081 mL	3.5403 mL	7.0806 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	1. Add each solvent one by one: PBS Solubility: 10 mg/mL (70.81 mM); Clear solution; Need ultrasonic				

### BIOLOGICAL ACTIVITY

<b>Description</b>	(±)-Leucine-d <sub>10</sub> is the deuterium labeled (±)-Leucine. (±)-Leucine (DL-Leucine), an isomer of Leucine, chemosterilant and dietary additive. (±)-Leucine inhibits growth of Escherichia coli HfrH by 92.08% <sup>[1]</sup> .
<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]. 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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