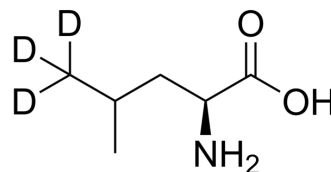


L-Leucine-d₃

Cat. No.:	HY-N0486S9		
CAS No.:	87828-86-2		
Molecular Formula:	C ₆ H ₁₀ D ₃ NO ₂		
Molecular Weight:	134.19		
Target:	mTOR; Endogenous Metabolite		
Pathway:	PI3K/Akt/mTOR; Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 10 mg/mL (74.52 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		7.4521 mL	37.2606 mL	74.5212 mL
	5 mM		1.4904 mL	7.4521 mL	14.9042 mL
	10 mM		0.7452 mL	3.7261 mL	7.4521 mL

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

BIOLOGICAL ACTIVITY

Description

L-Leucine-d₃ is the deuterium labeled L-Leucine. L-Leucine is an essential branched-chain amino acid (BCAA), which activates the mTOR signaling pathway[1].

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]. 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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