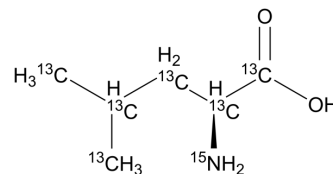


L-Leucine-¹³C₆, ¹⁵N

Cat. No.:	HY-N0486S8	
CAS No.:	202406-52-8	
Molecular Formula:	¹³ C ₆ H ₁₃ ¹⁵ N ₂ O ₂	
Molecular Weight:	138.12	
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 : 6.25 mg/mL (45.25 mM; Need ultrasonic)

PBS (pH 7.2) : ≥ 1 mg/mL (7.24 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	7.2401 mL	36.2004 mL	72.4008 mL
	5 mM	1.4480 mL	7.2401 mL	14.4802 mL
	10 mM	0.7240 mL	3.6200 mL	7.2401 mL

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

BIOLOGICAL ACTIVITY

Description

L-Leucine-¹³C₆, ¹⁵N is the ¹³C- and ¹⁵N-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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