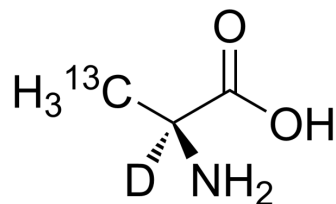


L-Alanine-¹³C,d

Cat. No.:	HY-N0229S4
CAS No.:	160033-81-8
Molecular Formula:	C ₂ ¹³ CH ₆ DNO ₂
Molecular Weight:	91.09
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 50 mg/mL (548.91 mM; Need ultrasonic)
 DMSO : 1 mg/mL (10.98 mM; ultrasonic and warming and heat to 80°C)
 DMSO : 1 mg/mL (10.98 mM; ultrasonic and warming and heat to 80°C)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	10.9782 mL	54.8908 mL	109.7815 mL
	5 mM	2.1956 mL	10.9782 mL	21.9563 mL
	10 mM	1.0978 mL	5.4891 mL	10.9782 mL

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

BIOLOGICAL ACTIVITY

Description

L-Alanine-¹³C,d is the ¹³C- and deuterium labeled L-Alanine. L-Alanine is a non-essential amino acid, involved in sugar and acid metabolism, increases immunity, and provides energy for muscle tissue, brain, and central nervous system.

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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