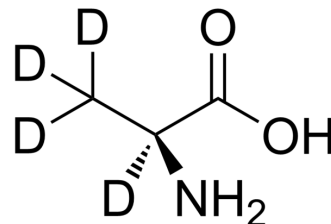


L-Alanine-d₄

Cat. No.:	HY-N0229S3		
CAS No.:	18806-29-6		
Molecular Formula:	C ₃ H ₃ D ₄ NO ₂		
Molecular Weight:	93.12		
Target:	Endogenous Metabolite		
Pathway:	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 : ≥ 125 mg/mL (1342.35 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent	1 mg	5 mg	10 mg
	Concentration			
	1 mM	10.7388 mL	53.6942 mL	107.3883 mL
	5 mM	2.1478 mL	10.7388 mL	21.4777 mL
	10 mM	1.0739 mL	5.3694 mL	10.7388 mL

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

BIOLOGICAL ACTIVITY

Description

L-Alanine-d₄ is the 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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