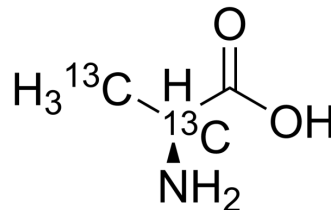


## L-Alanine-<sup>13</sup>C<sub>2</sub>

<b>Cat. No.:</b>	HY-N0229S9
<b>CAS No.:</b>	65163-26-0
<b>Molecular Formula:</b>	C <sup>13</sup> C <sub>2</sub> H <sub>7</sub> NO <sub>2</sub>
<b>Molecular Weight:</b>	91.08
<b>Target:</b>	Endogenous Metabolite
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Storage:</b>	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

H<sub>2</sub>O : 100 mg/mL (1097.94 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	10.9794 mL	54.8968 mL	109.7936 mL
	5 mM	2.1959 mL	10.9794 mL	21.9587 mL
	10 mM	1.0979 mL	5.4897 mL	10.9794 mL

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

### BIOLOGICAL ACTIVITY

#### Description

L-Alanine-<sup>13</sup>C<sub>2</sub> is the <sup>13</sup>C-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<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.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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