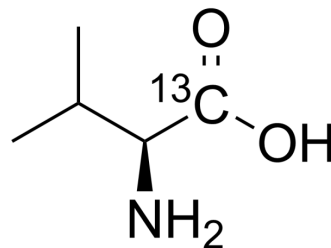


## L-Valine-1-<sup>13</sup>C

<b>Cat. No.:</b>	HY-N0717S4
<b>CAS No.:</b>	81201-85-6
<b>Molecular Formula:</b>	C <sub>4</sub> <sup>13</sup> CH <sub>11</sub> NO <sub>2</sub>
<b>Molecular Weight:</b>	118.14
<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 : 20 mg/mL (169.29 mM; Need ultrasonic)  
H<sub>2</sub>O : 20 mg/mL (169.29 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	8.4645 mL	42.3227 mL	84.6453 mL
	5 mM	1.6929 mL	8.4645 mL	16.9291 mL
	10 mM	0.8465 mL	4.2323 mL	8.4645 mL

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

### BIOLOGICAL ACTIVITY

#### Description

L-Valine-1-<sup>13</sup>C is the <sup>13</sup>C-labeled L-Valine. L-Valine is one of 20 proteinogenic amino acids. L-Valine is an essential amino acid[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<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.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA