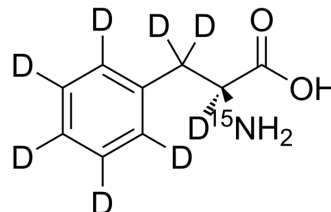


## L-Phenylalanine-<sup>15</sup>N,<sub>8</sub>D

<b>Cat. No.:</b>	HY-N0215S14		
<b>Molecular Formula:</b>	C <sub>9</sub> H <sub>3</sub> D <sub>8</sub> <sup>15</sup> N <sub>2</sub> O <sub>2</sub>		
<b>Molecular Weight:</b>	174.23		
<b>Target:</b>	Calcium Channel; iGluR; Endogenous Metabolite; Isotope-Labeled Compounds		
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling; Metabolic Enzyme/Protease; Others		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 16.67 mg/mL (95.68 mM; ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	5.7395 mL	28.6977 mL	57.3954 mL
	5 mM	1.1479 mL	5.7395 mL	11.4791 mL
	10 mM	0.5740 mL	2.8698 mL	5.7395 mL

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

### BIOLOGICAL ACTIVITY

#### Description

L-Phenylalanine-<sup>15</sup>N,<sub>8</sub>D is the deuterium and <sup>15</sup>N-labeled L-Phenylalanine. L-Phenylalanine ((S)-2-Amino-3-phenylpropionic acid) is an essential amino acid isolated from Escherichia coli. L-Phenylalanine is a α<sub>2δ</sub> subunit of voltage-dependent Ca<sup>2+</sup> channels antagonist with a K<sub>i</sub> of 980 nM. L-phenylalanine is a competitive antagonist for the glycine- and glutamate-binding sites of N-methyl-D-aspartate receptors (NMDARs) (K<sub>B</sub> of 573 μM) and non-NMDARs, respectively. L-Phenylalanine is widely used in the production of food flavors and pharmaceuticals[1][2][3][4].

#### IC<sub>50</sub> & Target

NMDA Receptor

#### 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

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

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