

## **Product** Data Sheet

# D-Phenylalanine-d<sub>5</sub>

Cat. No.: HY-Y0079S

CAS No.: 362049-55-6Molecular Formula:  $C_9H_6D_9NO_2$ Molecular Weight: 170.22

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

 $H_2O: \ge 12.5 \text{ mg/mL} (73.43 \text{ mM})$ 

\* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	5.8748 mL	29.3738 mL	58.7475 mL
	5 mM	1.1750 mL	5.8748 mL	11.7495 mL
	10 mM	0.5875 mL	2.9374 mL	5.8748 mL

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

### **BIOLOGICAL ACTIVITY**

D-Phenylalanine-d<sub>5</sub> is the deuterium labeled D-Phenylalanine. D-Phenylalanine is the synthetic dextro isomer of phenylalanine. D-Phenylalanine inhibits biofilm development of Pseudoalteromonas sp. SC2014[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[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.

2]. Li E, et al. D-Phenylalanine i	inhibits biofilm development of a marine microbe, Pseudoalteromonas sp. SC2014. FEMS Microbiol Lett. 2016 Sep;363(18).	
	Caution: Product has not been fully validated for medical applications. For research use only.	
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