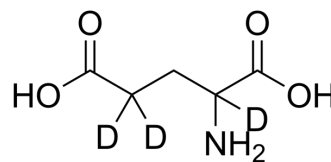


## DL-Glutamic acid-d<sub>3</sub>

<b>Cat. No.:</b>	HY-W041895S1		
<b>CAS No.:</b>	96927-56-9		
<b>Molecular Formula:</b>	C <sub>5</sub> H <sub>6</sub> D <sub>3</sub> NO <sub>4</sub>		
<b>Molecular Weight:</b>	150.15		
<b>Target:</b>	Endogenous Metabolite		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<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 : ≥ 17.86 mg/mL (118.95 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
1 mM			6.6600 mL	33.3000 mL	66.6001 mL
5 mM			1.3320 mL	6.6600 mL	13.3200 mL
10 mM			0.6660 mL	3.3300 mL	6.6600 mL

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

### BIOLOGICAL ACTIVITY

#### Description

DL-Glutamic acid-d<sub>3</sub> is the deuterium labeled DL-Glutamic acid. DL-Glutamic acid is the conjugate acid of Glutamic acid, which acts as a fundamental metabolite. Comparing with the second phase of polymorphs α and β L-Glutamic acid, DL-Glutamic acid presents better stability<sup>[1]</sup>.

#### 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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