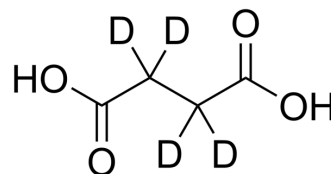


## Succinic-2,2,3,3-d<sub>4</sub> acid

Cat. No.:	HY-N0420S1		
CAS No.:	14493-42-6		
Molecular Formula:	C <sub>4</sub> H <sub>2</sub> D <sub>4</sub> O <sub>4</sub>		
Molecular Weight:	122.11		
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

DMSO : 100 mg/mL (818.93 mM; Need ultrasonic)  
 H<sub>2</sub>O : 30 mg/mL (245.68 mM; Need ultrasonic)  
 H<sub>2</sub>O : 30 mg/mL (245.68 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent	1 mg	5 mg	10 mg
	Concentration	Mass		
1 mM		8.1893 mL	40.9467 mL	81.8934 mL
5 mM		1.6379 mL	8.1893 mL	16.3787 mL
10 mM		0.8189 mL	4.0947 mL	8.1893 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Succinic-2,2,3,3-d<sub>4</sub> acid is the deuterium labeled Succinic acid. Succinic acid is an intermediate product of the tricarboxylic acid cycle, as well as one of fermentation products of anaerobic metabolism.

#### 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.

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

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