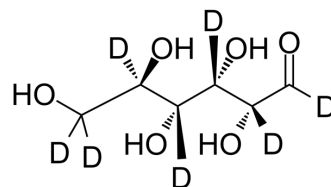


## D-Glucose-d<sub>7</sub>

<b>Cat. No.:</b>	HY-B0389S6		
<b>CAS No.:</b>	66034-51-3		
<b>Molecular Formula:</b>	C <sub>6</sub> H <sub>3</sub> D <sub>7</sub> O <sub>6</sub>		
<b>Molecular Weight:</b>	187.2		
<b>Target:</b>	Endogenous Metabolite; Isotope-Labeled Compounds		
<b>Pathway:</b>	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 : 50 mg/mL (267.09 mM; Need ultrasonic and warming)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	5.3419 mL	26.7094 mL	53.4188 mL
	5 mM	1.0684 mL	5.3419 mL	10.6838 mL
	10 mM	0.5342 mL	2.6709 mL	5.3419 mL

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

### BIOLOGICAL ACTIVITY

#### Description

D-Glucose-d<sub>7</sub> is the deuterium labeled D-Glucose. D-Glucose (Glucose), a monosaccharide, is an important carbohydrate in biology. D-Glucose is a carbohydrate sweetener and critical components of the general metabolism, and serve as critical signaling molecules in relation to both cellular metabolic status and biotic and abiotic stress response[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.**

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