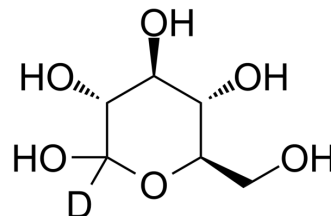


## D-Glucose-d<sub>1</sub>-4

<b>Cat. No.:</b>	HY-B0389S8
<b>CAS No.:</b>	106032-61-5
<b>Molecular Formula:</b>	C <sub>6</sub> H <sub>11</sub> DO <sub>6</sub>
<b>Molecular Weight:</b>	181.16
<b>Target:</b>	Endogenous Metabolite; Isotope-Labeled Compounds
<b>Pathway:</b>	Metabolic Enzyme/Protease; Others
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 50 mg/mL (276.00 mM; Need ultrasonic and warming)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	5.5200 mL	27.5999 mL	55.1998 mL
5 mM	1.1040 mL	5.5200 mL	11.0400 mL
10 mM	0.5520 mL	2.7600 mL	5.5200 mL

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

### BIOLOGICAL ACTIVITY

#### Description

D-Glucose-d-44 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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