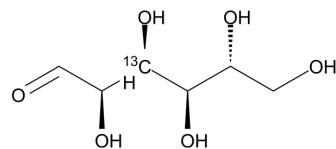


## D-Glucose-<sup>13</sup>C

<b>Cat. No.:</b>	HY-B0389S10
<b>CAS No.:</b>	101615-88-7
<b>Molecular Formula:</b>	C <sub>5</sub> <sup>13</sup> CH <sub>12</sub> O <sub>6</sub>
<b>Molecular Weight:</b>	181.15
<b>Target:</b>	Endogenous Metabolite
<b>Pathway:</b>	Metabolic Enzyme/Protease
<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 : ≥ 100 mg/mL (552.03 mM)  
\* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	5.5203 mL	27.6014 mL	55.2029 mL
	5 mM	1.1041 mL	5.5203 mL	11.0406 mL
	10 mM	0.5520 mL	2.7601 mL	5.5203 mL

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

### BIOLOGICAL ACTIVITY

#### Description

D-Glucose-<sup>13</sup>C is the <sup>13</sup>C 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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