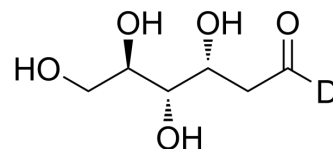


2-Deoxy-D-glucose-d

Cat. No.:	HY-13966S		
CAS No.:	188004-07-1		
Molecular Formula:	C ₆ H ₁₁ DO ₅		
Molecular Weight:	165.16		
Target:	Apoptosis; Hexokinase; HSV; Isotope-Labeled Compounds		
Pathway:	Apoptosis; Metabolic Enzyme/Protease; Anti-infection; Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 250 mg/mL (1513.68 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	6.0547 mL	30.2737 mL	60.5473 mL
	5 mM	1.2109 mL	6.0547 mL	12.1095 mL
	10 mM	0.6055 mL	3.0274 mL	6.0547 mL

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

BIOLOGICAL ACTIVITY

Description

2-Deoxy-D-glucose-d is the deuterium labeled 2-Deoxy-D-glucose. 2-Deoxy-D-glucose is a glucose analog that acts as a competitive inhibitor of glucose metabolism, inhibiting glycolysis via its actions on hexokinase[1][2].

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^[1].

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 Feb;53(2):211-216.

[2]. Zhu Z, et al. 2-Deoxyglucose as an energy restriction mimetic agent: effects on mammary carcinogenesis and on mammary tumor cell growth in vitro. *Cancer Res*. 2005 Aug 1;65(15):7023-30.; Ueyama A, et al. Nonradioisotope assay of glucose uptake activity in r

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

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