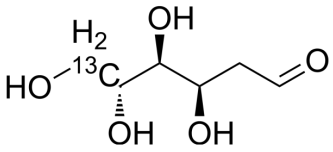
2-Deoxy-D-glucose-^{13}C-1

Cat. No.:	HY-13966S4
CAS No.:	119897-50-6
Molecular Formula:	$C_5{}^{13}CH_{12}O_5$
Molecular Weight:	165.15
Target:	Apoptosis; Hexokinase; HSV; Isotope-Labeled Compounds
Pathway:	Apoptosis; Metabolic Enzyme/Protease; Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	2-Deoxy-D-glucose-^{13}C-1 is the ^{13}C 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

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