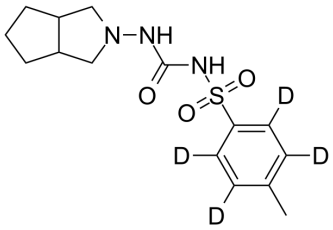
Gliclazide-d4

Cat. No.:	HY-B0753S
CAS No.:	1185039-30-8
Molecular Formula:	$C_{15}H_{17}D_4N_3O_3S$
Molecular Weight:	327.44
Target:	Potassium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	Gliclazide D4 (S1702 D4) is the deuterium labeled Gliclazide. Gliclazide (S1702) is a whole-cell beta-cell ATP-sensitive potassium currents blocker with an IC_{50} of 184 nM. Gliclazide is used as an antidiabetic[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[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;53(2):211-216.

[2]. Shimoyama, T., et al., Gliclazide protects 3T3L1 adipocytes against insulin resistance induced by hydrogen peroxide with restoration of GLUT4 translocation. Metabolism, 2006. 55(6): p. 722-30.

[3]. Lawrence, C.L., et al., Gliclazide produces high-affinity block of KATP channels in mouse isolated pancreatic beta cells but not rat heart or arterial smooth muscle cells. Diabetologia, 2001. 44(8): p. 1019-25.

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

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