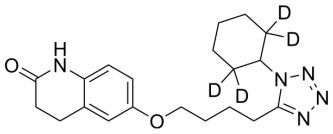
Cilostazol-d_4

Cat. No.:	HY-17464S1
CAS No.:	1215541-47-1
Molecular Formula:	$C_{20}H_{23}D_4N_5O_2$
Molecular Weight:	373.49
Target:	Phosphodiesterase (PDE); Autophagy; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Autophagy; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Cilostazol-d_4 is deuterium labeled Cilostazol. Cilostazol (OPC 13013) is a potent and selective inhibitor of phosphodiesterase (PDE) 3A, the isoform of PDE 3 in the cardiovascular system, with an IC50 of 0.2 μM[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;53(2):211-216.

[2]. Minami N, et al. Inhibition of shear stress-induced platelet aggregation by cilostazol, a specific inhibitor of cGMP-inhibited phosphodiesterase, in vitro and ex vivo. Life Sci. 1997;61(25):PL 383-9.

[3]. Saito S, et al. Cilostazol attenuates hepatic stellate cell activation and protects mice against carbon tetrachloride-induced liver fibrosis. Hepatol Res. 2013 Apr 19.

[4]. Schr?r K. The pharmacology of cilostazol. Diabetes Obes Metab. 2002 Mar;4 Suppl 2:S14-9.

[5]. Ye YL,et al. Cilostazol, a phosphodiesterase 3 inhibitor, protects mice against acute and late ischemic brain injuries.Eur J Pharmacol. 2007 Feb 14;557(1):23-31. Epub 2006 Nov 10.

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