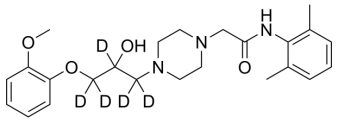
Ranolazine-d5

Cat. No.:	HY-B0280S
CAS No.:	1092804-87-9
Molecular Formula:	$C_{24}H_{28}D_5N_3O_4$
Molecular Weight:	432.57
Target:	Calcium Channel; Sodium Channel; Isotope-Labeled Compounds
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Ranolazine-d_5 is the deuterium labeled Ranolazine. Ranolazine (CVT 303) is an anti-angina drug that achieves its effects by inhibiting the late phase of inward sodium current (INa and IKr with IC50 values of 6 μM and 12 μM, respectively) without affecting heart rate or blood pressure (BP)[1][2]. Ranolazine is also a partial fatty acid oxidation (FAO) inhibitor[3]. Antianginal agent.
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]. Keating GM. Ranolazine: a review of its use as add-on therapy in patients with chronic stable angina pectoris. Drugs. 2013 Jan;73(1):55-73.

[3]. Wang WQ, et al. Antitorsadogenic effects of ({+/-})-N-(2,6-dimethyl-phenyl)-(4[2-hydroxy-3-(2-methoxyphenoxy)propyl]-1-piperazine (ranolazine) in anesthetized rabbits. J Pharmacol Exp Ther. 2008 Jun;325(3):875-81.

[4]. Zacharowski K, et al. Ranolazine, a partial fatty acid oxidation inhibitor, reduces myocardial infarct size and cardiac troponin T release in the rat. Eur J Pharmacol. 2001 Apr 20;418(1-2):105-10.

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