
Product Data Sheet

Product Name: Ranolazine-d8

Cat. No.: GC63295

Chemical Properties

Cas. No. 1092804-88-0

Formula $C_{24}H_{25}D_8N_3O_4$ M.Wt 435.59

Solubility Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure **Background**

Ranolazine-d8 (CVT 303-d8) 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.

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].

[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. Antitortadogenic 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.

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

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[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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