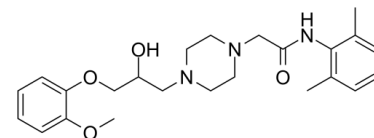


## Data Sheet

<b>Product Name:</b>	Ranolazine
<b>Cat. No.:</b>	CS-2292
<b>CAS No.:</b>	95635-55-5
<b>Molecular Formula:</b>	C <sub>24</sub> H <sub>33</sub> N <sub>3</sub> O <sub>4</sub>
<b>Molecular Weight:</b>	427.54
<b>Target:</b>	Calcium Channel; Sodium Channel
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling
<b>Solubility:</b>	DMSO : 125 mg/mL (292.37 mM; Need ultrasonic)



### BIOLOGICAL ACTIVITY:

Ranolazine (CVT 303) is an anti-angina drug that achieves its effects by inhibiting the late phase of inward **sodium** current ( $I_{Na}$  and  $I_{Kr}$  with  $IC_{50}$  values of 6  $\mu$ M and 12  $\mu$ M, respectively) without affecting heart rate or blood pressure (BP)<sup>[1][2]</sup>. Ranolazine is also a partial **fatty acid oxidation (FAO)** inhibitor<sup>[3]</sup>.  $IC_{50}$  & Target:  $IC_{50}$ : 6  $\mu$ M ( $I_{Na}$ ), 12  $\mu$ M ( $I_{Kr}$ )<sup>[1]</sup> **In Vivo:** Ranolazine (Bolus injection 10 mg/kg and infusion 9.6 mg/kg/h; bolus injection; for 145 minutes; male Wistar rats) treatment significantly reduces infarct size and cardiac troponin T release in rats subjected to left anterior descending coronary artery occlusion-reperfusion<sup>[3]</sup>.

### References:

- [1]. 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.
- [2]. 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.
- [3]. 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.

### CAIndexNames:

1-Piperazineacetamide, N-(2,6-dimethylphenyl)-4-[2-hydroxy-3-(2-methoxyphenoxy)propyl]-

### SMILES:

O=C(NC1=C(C)C=CC=C1C)CN2CCN(CC(O)COC3=CC=CC=C3OC)CC2

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

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA