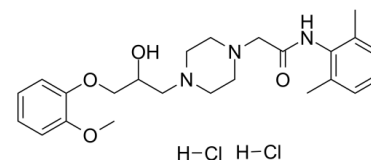


## Data Sheet

<b>Product Name:</b>	Ranolazine (dihydrochloride)
<b>Cat. No.:</b>	CS-1130
<b>CAS No.:</b>	95635-56-6
<b>Molecular Formula:</b>	C <sub>24</sub> H <sub>35</sub> Cl <sub>2</sub> N <sub>3</sub> O <sub>4</sub>
<b>Molecular Weight:</b>	500.46
<b>Target:</b>	Autophagy; Calcium Channel; Sodium Channel
<b>Pathway:</b>	Autophagy; Membrane Transporter/Ion Channel; Neuronal Signaling
<b>Solubility:</b>	DMSO : ≥ 50 mg/mL (99.91 mM); H <sub>2</sub> O : ≥ 50 mg/mL (99.91 mM)



### BIOLOGICAL ACTIVITY:

Ranolazine dihydrochloride (CVT 303 dihydrochloride;RS-43285) is an antianginal agent with antiarrhythmic properties that achieves its effects via a novel mechanism of action (inhibition of the late phase of the inward sodium current), without affecting heart rate or blood pressure (BP). IC<sub>50</sub> value: Target: sodium-dependent calcium channel Ranolazine is currently approved for use in chronic angina. The basis for this use is likely related to inhibition of late sodium channels with resultant beneficial downstream effects. Randomized clinical trials have demonstrated an improvement in exercise capacity and reduction in angina episodes with ranolazine.

### References:

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- [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, Robertson C, Dhalla AK, Belardinelli L. 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. doi: 10.1124/jpet.108.137729. Epub 2008 Mar 5.
- [4]. Shryock JC, Belardinelli L. Inhibition of late sodium current to reduce electrical and mechanical dysfunction of ischaemic myocardium. *Br J Pharmacol*. 2008 Mar;153(6):1128-32. Epub 2007 Dec 10.
- [5]. Zacharowski K, Blackburn B, Thiemermann C. 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]-, hydrochloride (1:2)

### SMILES:

O=C(NC1=C(C)C=CC=C1C)CN2CCN(CC(O)COC3=CC=CC=C3OC)CC2.[H]Cl.[H]Cl

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

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