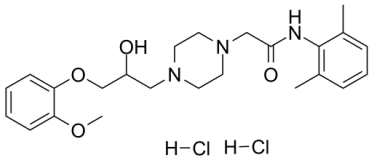
Data Sheet

Product Name:	Ranolazine (dihydrochloride)
Cat. No.:	CS-1130
CAS No.:	95635-56-6
Molecular Formula:	C24H35Cl2N3O4
Molecular Weight:	500.46
Target:	Autophagy; Calcium Channel; Sodium Channel
Pathway:	Autophagy; Membrane Transporter/Ion Channel; Neuronal Signaling
Solubility:	DMSO : ≥ 50 mg/mL (99.91 mM); H2O : ≥ 50 mg/mL (99.91 mM)



BIOLOGICAL ACTIVITY:

Ranolazine dihydrochloride (CVT 303 dihydrochloride) 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 μM and 12 μM, respectively) without affecting heart rate or blood pressure (BP)[1][2]. Ranolazine dihydrochloride is also a partial **fatty acid oxidation** inhibitor[3]. IC50 & Target: IC50: 6 μM (I_{Na}), 12 μM (I_{Kr})[1] **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[3].

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, Robertson C, Dhalla AK, Belardinelli L. 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. doi: 10.1124/jpet.108.137729. Epub 2008 Mar 5.

[3]. 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.

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