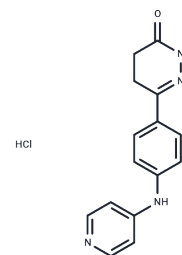


Senazodan hydrochloride

Chemical Properties

CAS No. :	98326-33-1
Formula:	C ₁₅ H ₁₅ ClN ₄ O
Molecular Weight:	302.76
Storage:	Keep away from moisture Pure form: -20°C for 3 years In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Senazodan hydrochloride (Senazodan HCl) is a Ca ²⁺ sensitizer and phosphodiesterase 3 (PDE3) inhibitor used in the study of cardiovascular diseases.
Targets(IC50)	PDE
In vitro	<p>Senazodan hydrochloride appears to modulate actin-myosin cross-bridge dynamics and promote myosin ATPase activity [1].</p> <p>Senazodan hydrochloride increases tonogenesis in a concentration-dependent manner while enhancing the binding capacity of calcium ions (Ca²⁺) to myofilaments as well as purified cardiac troponin C. The binding capacity of calcium ions to myofilaments is also enhanced by Senazodan hydrochloride. In addition, cenazolone hydrochloride improves contractile properties of guinea pig papillary muscle by inhibiting phosphodiesterase III (PDE III) [2].</p> <p>Senazodan hydrochloride attenuated the contractile response induced by norepinephrine (NE) on the superior mesenteric artery (SMA) after hemorrhagic shock over the concentration range of 0.1 nM to 0.1 mM, which was significantly reduced compared to normal controls. 0.01 mM Senazodan hydrochloride pretreatment was able to inhibit the contraction of angiotensin II (Ang II) in guinea pigs. The effect of angiotensin II (Ang II) was significantly shifted to the right of the calcium concentration-response curve, which was more prominent in the Ang II group compared to the Ang II group alone. [3]</p>
In vivo	<p>0.1 to 2.0 mg/kg Senazodan hydrochloride infused through a femoral vein catheter reduces the antihypertensive effect of norepinephrine (NE). [3]</p> <p>Intravenous infusion of 0.1 mg/kg Senazodan hydrochloride significantly elevated left ventricular systolic pressure (LVSP), myocardial contractility (IP), myocardial contractility (MC), and left ventricular output (Lo) without significant changes in heart rate. Meanwhile, left ventricular end-diastolic pressure (LVEDP) was significantly decreased. [4]</p>

Solubility Information

A DRUG SCREENING EXPERT

Solubility	DMSO: 50 mg/mL (165.15 mM),Sonication is recommended. H2O: 20 mg/mL (66.06 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.61 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3029 mL	16.5147 mL	33.0295 mL
5 mM	0.6606 mL	3.3029 mL	6.6059 mL
10 mM	0.3303 mL	1.6515 mL	3.3029 mL
50 mM	0.0661 mL	0.3303 mL	0.6606 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Lehtonen LA, et al. Pharmacokinetics and pharmacodynamics of intravenous inotropic agents. Clin Pharmacokinet. 2004;43(3):187-203.

Erhardt L. An emerging role for calcium sensitisation in the treatment of heart failure. Expert Opin Investig Drugs. 2005 Jun;14(6):659-70.

Yang G, et al. Effects of MCI-154 on vascular reactivity and its mechanisms after hemorrhagic shock in rats. J Cardiovasc Pharmacol. 2006 Jun;47(6):751-7.

Ming MJ, et al. Effects of MCI-154, a calcium sensitizer, on cardiac dysfunction in endotoxic shock in rabbits. Shock. 2000 Jun;13(6):459-63.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481