Pilsicainide hydrochloride

Cat. No.: HY-101245

CAS No.: 88069-49-2

Molecular Formula: $C_{17}H_{25}ClN_2O$

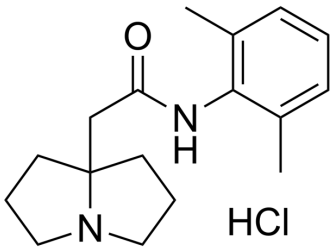
Molecular Weight: 308.85

Target: Sodium Channel

Pathway: Membrane Transporter/Ion Channel

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (161.89 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.2378 mL	16.1891 mL	32.3782 mL
	5 mM	0.6476 mL	3.2378 mL	6.4756 mL
	10 mM	0.3238 mL	1.6189 mL	3.2378 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Pilsicainide hydrochloride (SUN-1165) is an orally active sodium channel blocker and potent class Ic antiarrhythmic agent[1] [2].

In Vitro

Pilsicainide hydrochloride (SUN-1165) (10-200 μg/mL) decreases peak amplitude of the net inward current in a dose-dependent manner with an IC_{50} of 29.2 ± 22.9 μg/mL in levo-thyroxine (T_4)-treated rat atrial cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Pilsicainide hydrochloride (SUN-1165) (2 mg/kg; i.v.; once) decreases the conduction velocity in T_4-treated rat atrium by decreasing the Max dV/dt and net inward current[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Sprague-Dawley (SD) rats weighing from 200 to 220 g, with levo-thyroxine (T_4) treatment[1]
Dosage:	2 mg/kg

Administration:	Bolus injection into right external carotid vein within 2 minutes, once
Result:	Result: the QT interval was significantly elongated at 15 and 60 minutes after administration. P wave and QRS complex durations were significantly shortened. Markedly decreased action potential amplitudes (APA) and Max dV/dt, and significantly lengthened the action potential durations.

REFERENCES

[1]. Yamakawa M, et al. Effect of sodium channel blocker, pilsicainide hydrochloride, on net inward current of atrial myocytes in thyroid hormone toxicosis rats. Thyroid. 2005 Jul;15(7):653-9.

[2]. Plosker GL. Pilsicainide. Drugs. 2010 Mar 5;70(4):455-67.

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