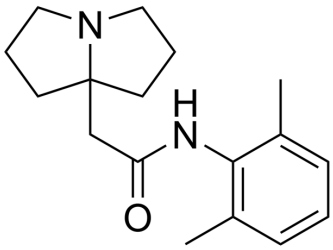
Pilsicainide

Cat. No.:	HY-133715
CAS No.:	88069-67-4
Molecular Formula:	$C_{17}H_{24}N_2O$
Molecular Weight:	272.39
Target:	Sodium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Pilsicainide (SUN 1165 free acid) is a potent sodium channel blocker and potent class Ic antiarrhythmic agent[1][2].
In Vitro	Pilsicainide (SUN 1165 free acid; 10-200 μg/mL) decreases peak amplitude of the net inward current in a dose-dependent manner with an IC_{50} of 29.2 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 (SUN 1165 free acid; 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:	Elongated the QT interval at 15 and 60 minutes after administration. Shortened P wave and QRS complex durations. 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.

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

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