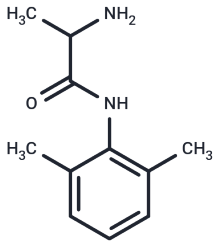
Data Sheet (Cat.No.T9234)

TargetMol

Tocainide hydrochloride

Chemical Properties



CAS No. : 35891-93-1

Formula: C11H17ClN2O

Molecular Weight: 228.72

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Tocainide hydrochloride (2-amino-n-(2,6-dimethylphenyl)propanamide hydrochloride) is a sodium channel blocker. It blocks the sodium channels in the pain-producing foci in the nerve membranes.
Targets(IC50)	Sodium Channel
In vitro	Tocainide hydrochloride effectively suppresses ventricular ectopic activity in unanesthetized dogs with coronary occlusion. Termination of tocainide hydrochloride infusion in both digitalis toxicity and coronary occlusion models results in prompt return of ventricular ectopic activity[1].

Solubility Information

Solubility	DMSO: 60 mg/mL (262.33 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 (8.74 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3722 mL	21.8608 mL	43.7216 mL
5 mM	0.8744 mL	4.3722 mL	8.7443 mL
10 mM	0.4372 mL	2.1861 mL	4.3722 mL
50 mM	0.0874 mL	0.4372 mL	0.8744 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

Alpert JS, et al. Chemistry, pharmacology, antiarrhythmic efficacy and adverse effects of tocainide hydrochloride, an orally active structural analog of lidocaine. Pharmacotherapy. 1983 Nov-Dec;3(6):316-23.
De Luca A,et al.Optimal requirements for high affinity and use-dependent block of skeletal muscle sodium channel by N-benzyl analogs of tocainide-like compounds.Mol Pharmacol. 2003 Oct;64(4):932-45.

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