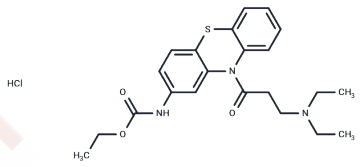
Data Sheet (Cat.No.T11239)

TargetMol

Ethacizine hydrochloride

Chemical Properties



CAS No. : 57530-40-2

Formula: C22H28ClN3O3S

Molecular Weight: 449.99

Storage: Store at low temperature
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	Ethacizine hydrochloride (NIK-244) has antiarrhythmic activity, and its effects are related to cardiac activity and can be used to study arrhythmias and myocardial infarction.
Targets(IC50)	Sodium Channel
In vivo	Injecting Ethacizine hydrochloride (1-300 ug) directly into the SA node shows negative chronotropic, negative inotropic, and coronary vasodilator effects, as observed in PM preparations[2].

Solubility Information

Solubility	DMSO: 80 mg/mL (177.78 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: 3.3 mg/mL (7.33 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	2.2223 mL	11.1114 mL	22.2227 mL
5 mM	0.4445 mL	2.2223 mL	4.4445 mL
10 mM	0.2222 mL	1.1111 mL	2.2223 mL
50 mM	0.0444 mL	0.2222 mL	0.4445 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

Satoh H, et al. An electrophysiological comparison of a novel class Ic antiarrhythmic agent, NIK-244 (ethacizin) and flecainide in canine ventricular muscle.Br J Pharmacol. 1989 Nov;98(3):827-32.Med Chem. 2019 Nov 6:115132.
Sugiyama A, et al. Comparison of cardiovascular effects of a novel class Ic antiarrhythmic agent, NIK-244, with those of flecainide in isolated canine heart preparations cross-circulated with a donor dog.Jpn J Pharmacol. 1991 May;56(1):1-12.