Data Sheet (Cat.No.T212770)

TargetMol

Quinidine methiodide

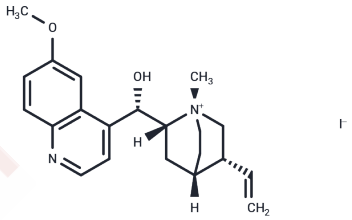
Chemical Properties

CAS No. : 42982-87-6

Formula: C21H27IN2O2

Molecular Weight: 466.36

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	Quinidine methiodide is a quaternized derivative of quinidine and a classical ion channel blocker. Unable to penetrate the blood-brain barrier, it prolongs action potential duration by exclusively blocking voltage-gated sodium and potassium channels on peripheral membranes, acting as a benchmark tool in neuromuscular and cardiovascular electrophysiology research.
Targets(IC50)	Sodium Channel
In vitro	In electrophysiological experiments on squid giant axons, Quinidine methiodide was utilized to characterize internal sites of sodium channels. Studies revealed that the inhibitory effect of this quaternized metabolite is side-dependent, assisting researchers in deciphering the diffusion pathways and binding kinetics of quinidine-like molecules within the channel pore [1].

Solubility Information

Solubility	DMSO: 80.00 mg/mL (171.54 mM),Sonication is recommmended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1443 mL	10.7213 mL	21.4427 mL
5 mM	0.4289 mL	2.1443 mL	4.2885 mL
10 mM	0.2144 mL	1.0721 mL	2.1443 mL
50 mM	0.0429 mL	0.2144 mL	0.4289 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

Artem'ev G A, Rusinov V L, Kopchuk D S, et al. Synthetic approaches to 1, 2, 4-triazolo [5, 1-c][1, 2, 4] triazin-7-ones as basic heterocyclic structures of the antiviral drug Riamilovir (“Triazavirin®”) active against SARS-CoV-2 (COVID-19)[J]. Organic & Biomolecular Chemistry, 2022, 20(9): 1828-1837.

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