Data Sheet (Cat.No.T23213)

TargetMol

QX-222 chloride

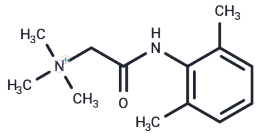
Chemical Properties

CAS No. : 5369-00-6

Formula: C13H21ClN2O

Molecular Weight: 256.77

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	QX-222 chloride (Lidocaine N-Methyl Hydrochloride) is a sodium channel blocker.
Targets(IC50)	Sodium Channel
In vivo	Intravenous infusion administration of 10 mg/kg QX-222 chloride for 7 days reverses spinal nerve ligation (SNL)-induced thermal hypersensitivity and induced antinociception in sham-operated rats[2].

Solubility Information

Solubility	DMSO: 100 mg/mL (389.45 mM),Sonication and heating to 60°C are recommended. H2O: 100 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: 4 mg/mL (15.58 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	3.8945 mL	19.4727 mL	38.9454 mL
5 mM	0.7789 mL	3.8945 mL	7.7891 mL
10 mM	0.3895 mL	1.9473 mL	3.8945 mL
50 mM	0.0779 mL	0.3895 mL	0.7789 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

A Sunami, et al. A critical residue for isoform difference in tetrodotoxin affinity is a molecular determinant of the external access path for local anesthetics in the cardiac sodium channel. Proc Natl Acad Sci U S A. 2000 Feb 29;97 (5):2326-31.

Qingmin Chen, et al. Differential blockade of nerve injury-induced thermal and tactile hypersensitivity by systemically administered brain-penetrating and peripherally restricted local anesthetics. J Pain. 2004 Jun;5(5): 281-9.