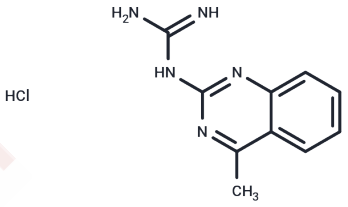
Data Sheet (Cat.No.T8617)

TargetMol

GMQ hydrochloride

Chemical Properties



CAS No. : 5361-15-9

Formula: C10H12ClN5

Molecular Weight: 237.69

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	GMQ hydrochloride (NSC-403387 hydrochloride) is a potent and selective acid-sensing ion channel (ASIC) modulator. It activates ASIC3 channels under neutral pH and blocks acid-induced maximal peak current.
Targets(IC50)	Others,Sodium Channel
In vitro	Addition of GMQ to pituitary GH3 cells raised the amplitude of Ca2+-activated K+ currents (IK(Ca)), which was reversed by verruculogen or PF1022A, but not by TRAM-39.? Under inside-out current recordings, addition of GMQ into bath enhanced the probability of large-conductance Ca2+-activated K+ (BKCa) channels with an EC50 value of 0.95 M. The activation curve of BKCa channels during exposure to GMQ shifted to a lower depolarized potential, with no change in the gating charge of the curve;? however, there was a reduction of free energy for channel activation in its presence.?As cells were exposed to GMQ, the amplitude of ion currents were suppressed, including delayed rectifying K+ current, voltage-gated Na+ and L-type Ca2+ currents.?In Rolf B1.T olfactory sensory neuron, addition of GMQ was able to induce inward current and to suppress peak INa.

Solubility Information

Solubility	DMSO: 2.38 mg/mL (10.01 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.2072 mL	21.0358 mL	42.0716 mL
5 mM	0.8414 mL	4.2072 mL	8.4143 mL
10 mM	0.4207 mL	2.1036 mL	4.2072 mL
50 mM	0.0841 mL	0.4207 mL	0.8414 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

So, Edmund, Cheung,et al. Multiple regulatory actions of 2-guanidine-4-methylquinazoline (GMQ), an agonist of acid-sensing ion channel type 3, on ionic currents in pituitary GH(3) cells and in olfactory sensory (Rolf B1.T) neurons[J]. Biochemical Pharmacology, 2018.