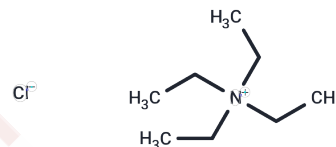


Tetraethylammonium chloride

Chemical Properties

CAS No. :	56-34-8
Formula:	C ₈ H ₂₀ ClN
Molecular Weight:	165.7
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	Tetraethylammonium chloride is a quaternary ammonium compound. It is a non-selective potassium channel blocker. It is a good substrate for organic cation transporter proteins and has antitumor properties.
Targets(IC50)	Potassium Channel
In vitro	Ex vivo guinea pig airway rings, human ASM strips and small peripheral airways in rat lungs slices relaxed in response to niflumic acid following depolarization-induced contraction induced by K(+) channel blockade with tetraethylammonium chloride (TEA).? In isolated human airway smooth muscle cells TEA induce depolarization as measured by a fluorescent indicator or whole cell patch clamp and this depolarization was reversed by niflumic acid[1].

Solubility Information

Solubility	DMSO: 32.5 mg/mL (196.14 mM),Sonication is recommended. H2O: 100 mg/mL (603.5 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 (12.07 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.035 mL	30.175 mL	60.350 mL
5 mM	1.207 mL	6.035 mL	12.070 mL
10 mM	0.6035 mL	3.0175 mL	6.035 mL
50 mM	0.1207 mL	0.6035 mL	1.207 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

Yim P D , George G , Perez-Zoghbi J F , et al. Chloride channel blockers promote relaxation of TEA-induced contraction in airway smooth muscle[J]. Journal of Smooth Muscle Research, 2013, 49:112-124.

Walcher D N , Scott J R , Ekstam F C . EFFECT OF TETRAETHYLAMMONIUM CHLORIDE (ETAMON CHLORIDE) ON MUSCLE SPASM IN POLIOMYELITIS[J]. Pediatrics, 1951, 7(4):524-528.

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