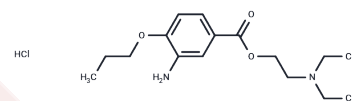


Proparacaine hydrochloride

Chemical Properties

CAS No. :	5875-06-9
Formula:	C ₁₆ H ₂₆ N ₂ O ₃ ·HCl
Molecular Weight:	330.86
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	Proparacaine Hydrochloride is the hydrochloride salt form of proparacaine, a benzoic acid derivative with local anesthetic property. Proparacaine hydrochloride (Proparacaine HCl) stabilizes the neuronal membrane by binding to and inhibiting voltage-gated sodium channels, thereby inhibiting sodium ion influx required for the initiation and conduction of impulses within the neuronal cell, and resulting in a loss of sensation.
Targets(IC50)	Apoptosis,Sodium Channel
In vitro	Proparacaine is more potent and less toxic than cocaine. [1] Proparacaine significantly increases in FHV-1 (P < 0.01), C. felis, and 28S rDNA Ct values when fusidic acid is used. [2]
In vivo	Proparacaine inhibits corneal epithelial migration and adhesion through alteration of the actin cytoskeleton. [3] Proparacaine acts like bupivacaine or lidocaine and produces dose-related spinal blockades of motor function, proprioception and nociception. Intrathecal proxymetacaine also produces longer sensory blockade than motor blockade. [4]

Solubility Information

Solubility	DMSO: 55 mg/mL (166.23 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), H2O: 61 mg/mL (184.37 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 (6.04 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	3.0224 mL	15.1121 mL	30.2243 mL
5 mM	0.6045 mL	3.0224 mL	6.0449 mL
10 mM	0.3022 mL	1.5112 mL	3.0224 mL
50 mM	0.0604 mL	0.3022 mL	0.6045 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

- Grant RL, et al. Exp Eye Res, 1994, 58(4), 469-478.
- Segarra S, et al. Vet Ophthalmol, 2011, Suppl 1, 5-8.
- Dass BA, et al. J Ocul Pharmacol, 1988, 4(3), 187-194.
- Hung CH, et al. Neurosci Lett, 2009, 454(3), 249-253.

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