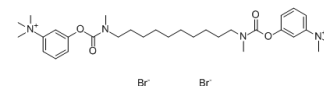


Demecarium Bromide

Cat. No.:	HY-B1626A
CAS No.:	56-94-0
Molecular Formula:	C ₃₂ H ₅₂ Br ₂ N ₄ O ₄
Molecular Weight:	716.59
Target:	AChE
Pathway:	Neuronal Signaling
Storage:	4°C, protect from light



Solvent & Solubility

In Vitro	DMSO : 160 mg/mL (223.28 mM; Need ultrasonic)																			
	Preparing Stock Solutions	<table border="1"> <thead> <tr> <th>Solvent \ Mass Concentration</th> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td>1 mM</td> <td>1.3955 mL</td> <td>6.9775 mL</td> <td>13.9550 mL</td> </tr> <tr> <td>5 mM</td> <td>0.2791 mL</td> <td>1.3955 mL</td> <td>2.7910 mL</td> </tr> <tr> <td>10 mM</td> <td>0.1395 mL</td> <td>0.6977 mL</td> <td>1.3955 mL</td> </tr> </tbody> </table>	Solvent \ Mass Concentration	1 mg	5 mg	10 mg	1 mM	1.3955 mL	6.9775 mL	13.9550 mL	5 mM	0.2791 mL	1.3955 mL	2.7910 mL	10 mM	0.1395 mL	0.6977 mL	1.3955 mL		
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Please refer to the solubility information to select the appropriate solvent.																				
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.67 mg/mL (3.73 mM); Clear solution																			
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.67 mg/mL (3.73 mM); Clear solution																			
	3. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.67 mg/mL (3.73 mM); Clear solution																			

BIOLOGICAL ACTIVITY

Description	Demecarium Bromide (BC-48) is a potent cholinesterase inhibitor, with an apparent affinity (K _{iapp}) of 0.15 μM ^[1] . Demecarium Bromide (BC-48) is used as a glaucoma agent ^[2] .
IC ₅₀ & Target	Kiapp: 0.15 μM (Cholinesterase) ^[1]
In Vivo	Demecarium Bromide (0.125 and 0.5%) causes long-term miosis and decreases intraocular pressure (IOP) in beagles with both normotensive eyes and inherited glaucoma ^[1] .

REFERENCES

[1]. Brown JH, et al. Activation and blockade of cardiac muscarinic receptors by endogenous acetylcholine and cholinesterase inhibitors. *J Pharmacol Exp Ther.* 1982 Oct;223(1):20-4.

[2]. Gum GG, et al. Effect of topically applied demecarium bromide and echothiophate iodide on intraocular pressure and pupil size in beagles with normotensive eyes and beagles with inherited glaucoma. *Am J Vet Res.* 1993 Feb;54(2):287-93.

Caution: Product has not been fully validated for medical applications. For research use only.

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