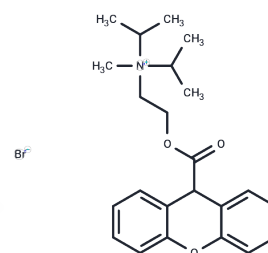


## Proprantheline bromide

## Chemical Properties

CAS No. :	50-34-0
Formula:	C <sub>23</sub> H <sub>30</sub> BrNO <sub>3</sub>
Molecular Weight:	448.4
Storage:	Store under nitrogen Powder: -20°C for 3 years   In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



## Biological Description

Description	Proprantheline bromide (Pro-Banthine) competitively antagonizes acetylcholine activity mediated by muscarinic receptors at neuroeffector sites on smooth muscle and exocrine gland cells. Proprantheline Bromide is the bromide salt form of proprantheline, a quaternary ammonium compound structurally related to belladonna alkaloids. An aspartic acid residue present in the N-terminal portion of the third transmembrane helix of the muscarinic receptor is believed to form an ionic bond with the tertiary or quaternary nitrogen of the antagonist. Antagonism leads to a reduction of exocrine glands secretions and to relax the bronchial muscle and reduce tone and motility of intestinal smooth muscle.
Targets(IC50)	AChR

## Solubility Information

Solubility	H <sub>2</sub> O: 50 mg/mL (111.51 mM), Sonication is recommended. DMSO: 250 mg/mL (557.54 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 (4.46 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

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	1mg	5mg	10mg
1 mM	2.2302 mL	11.1508 mL	22.3015 mL
5 mM	0.446 mL	2.2302 mL	4.4603 mL
10 mM	0.223 mL	1.1151 mL	2.2302 mL
50 mM	0.0446 mL	0.223 mL	0.446 mL

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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

Saitoh H, et al. J Pharmacobiodyn. 1986 Dec; 9(12):1008-14.

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