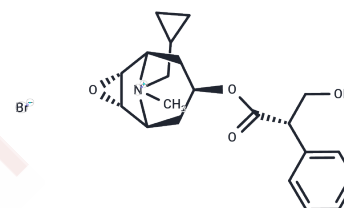


Cimetropium Bromide

Chemical Properties

CAS No. :	51598-60-8
Formula:	C ₂₁ H ₂₈ BrNO ₄
Molecular Weight:	438.36
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	Cimetropium Bromide is a mAChR antagonist used for long-term treatment of irritable bowel syndrome.
Targets(IC50)	AChR
In vitro	Cimetropium reduces the release of labeled acetylcholine (ACh) elicited by electrical field stimulation, particularly when muscarinic autoinhibition is blocked, as observed in superfusion experiments using preparations preloaded with labeled choline [2]. Furthermore, it exhibits a powerful antimuscarinic action by inhibiting the contraction of longitudinal muscle preparations. As a competitive antagonist, Cimetropium Bromide effectively counteracts muscarinic-mediated contractions in isolated colonic preparations from various species, demonstrating affinity values (pA ₂) between 7.41 and 7.82 [1].
In vivo	Cimetropium Bromide (10-100 µg/kg) counteracts colonic motor response to neostigmine administration (ID ₅₀ : 27.9 µg/kg); both tonic and phasic components of contractile response are affected. Cimetropium is a potent inhibitor of large bowel motility evoked by both exogenous and endogenous stimuli when administered intravenously to conscious dogs provided with a colonic Thiry fistula. In a comparable range of doses (3-100µg/kg), the drug inhibits motor activity elicited by intraluminal distension [1].

Solubility Information

Solubility	H ₂ O: 50 mg/mL (114.06 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2812 mL	11.4062 mL	22.8123 mL
5 mM	0.4562 mL	2.2812 mL	4.5625 mL
10 mM	0.2281 mL	1.1406 mL	2.2812 mL
50 mM	0.0456 mL	0.2281 mL	0.4562 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

Identification of orally administered cimetropium bromide in the colon of the rat and its possible local spasmolytic effect.

Saitoh N, et al. Characterization of antimuscarinic effect of cimetropium bromide in guinea pig ileum. J Smooth Muscle Res. 1997 Feb;33(1):1-9.

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