

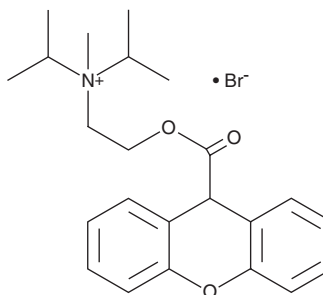
PRODUCT INFORMATION



Proprantheline (bromide)

Item No. 23609

CAS Registry No.: 50-34-0
Formal Name: N-methyl-N-(1-methylethyl)-N-[2-[(9H-xanthen-9-ylcarbonyl)oxy]ethyl]-2-propanaminium, monobromide
Synonym: SC-3171
MF: C₂₃H₃₀NO₃ • Br
FW: 448.4
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Proprantheline (bromide) is supplied as a crystalline solid. A stock solution may be made by dissolving the proprantheline (bromide) in the solvent of choice. Proprantheline (bromide) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of proprantheline (bromide) in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of proprantheline (bromide) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of proprantheline (bromide) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Proprantheline is an anticholinergic agent.¹⁻³ It inhibits contraction of isolated guinea pig ileum induced by acetylcholine (Item No. 23829) and reduces intensity of vagal-stimulated gastric contractions in rats.¹ Proprantheline (5 mg/kg, s.c.) increases gastric pH and prevents pyloric ligation-induced gastric ulcer formation in Shay rats.² It also inhibits basal and pentagastrin-, but not histamine-, stimulated gastric secretion in a rhesus monkey model of chronic gastric fistula.³ Formulations containing proprantheline have been used to treat stomach and intestinal spasms associated with irritable bowel syndrome.

References

1. Aarsen, P.N. and Noordwijk, J.V. The effect of atropine, proprantheline and poldine on the vagally stimulated gastric motility and the histamine-stimulated acid gastric secretion in the rat. *Br. J. Pharmacol. Chemother.* **17(1)**, 41-50 (1961).
2. Kowalewski, K., MacKenzie, W.C., Shnitka, T.K., et al. Protective action of pro-banthine (SC-3171) on experimental gastric ulcers of rats. *Can. Med. Assoc. J.* **71(5)**, 477-482 (1954).
3. Dajani, E.Z., Callison, D.A., and Bianchi, R.G. Gastric antisecretory effects of proprantheline bromide and metiamide in rhesus monkeys. *Arch. Int. Pharmacodyn. Ther.* **234(1)**, 107-117 (1978).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM