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Propantheline Bromide

National Cancer Institute

Source

National Cancer Institute. *Propantheline Bromide*. NCI Thesaurus. Code C29383.

The bromide salt form of propantheline, a quaternary ammonium compound structurally related to belladonna alkaloids. Propantheline bromide competitively antagonizes acetylcholine activity mediated by muscarinic receptors at neuroeffector sites on smooth muscle and exocrine gland cells. An aspartic acid residue present in the N-terminal portion of the third trans-membrane 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 bronchial muscle and reduce tone and motility of intestinal smooth muscle.