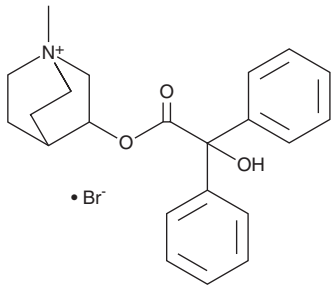
PRODUCT INFORMATION

Clidinium (bromide)

Item No. 21428

CAS Registry No.: 3485-62-9
Formal Name: 3-[(2-hydroxy-2,2-diphenylacetyl)oxy]-1-methyl-1-azoniabicyclo[2.2.2]octane, monobromide
Synonym: Ro 2-3773
MF: $C_{22}H_{26}NO_3 \bullet Br$
FW: 432.4
Purity: ≥98%
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

Clidinium (bromide) is supplied as a crystalline solid. A stock solution may be made by dissolving the clidinium (bromide) in the solvent of choice, which should be purged with an inert gas. Clidinium (bromide) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of clidinium (bromide) in these solvents is approximately 10 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 clidinium (bromide) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of clidinium (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

Clidinium is a gastrointestinal muscarinic receptor antagonist (K_i = 3 nM against [^{3}H]quinuclidinyl benzilate binding in rat colonic enterocytes).[1] Administration of clidinium, at a dose of 1 mg/kg, slows intestinal transit and induces constipation in mice.[2] This clidinium-induced constipation induces serum hyperammonemia and decreases clonic, myoclonic, and tonic seizure thresholds in a murine pentylenetetrazole-induced epilepsy model.

References

1. Zimmerman, T.W. and Binder, H.J. Muscarinic receptors on rat isolated colonic epithelial cells. A correlation between inhibition of [^{3}H]quinuclidinyl benzilate binding and alteration in ion transport. *Gastroenterology* **83(6)**, 1244-1251 (1982).
2. Moezi, L., Pirsalami, F., and Inaloo, S. Constipation enhances the propensity to seizure in pentylenetetrazole-induced seizure models of mice. *Epilepsy Behav.* **44**, 200-206 (2015).

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