

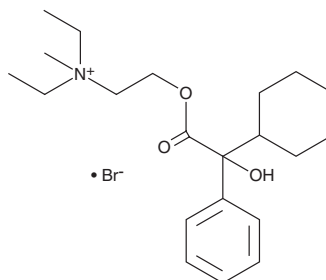
PRODUCT INFORMATION



Oxyphenonium (bromide)

Item No. 23880

CAS Registry No.: 50-10-2
Formal Name: 2-[(2-cyclohexyl-2-hydroxy-2-phenylacetyl)oxy]-N,N-diethyl-N-methyl-ethanaminium, monobromide
Synonym: (±)-Oxyphenonium
MF: C₂₁H₃₄NO₃ • Br
FW: 428.4
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

Oxyphenonium (bromide) is supplied as a crystalline solid. A stock solution may be made by dissolving the oxyphenonium (bromide) in the solvent of choice, which should be purged with an inert gas. Oxyphenonium (bromide) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of oxyphenonium (bromide) in ethanol and DMF is approximately 33 mg/ml and approximately 25 mg/ml in DMSO.

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 oxyphenonium (bromide) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of oxyphenonium (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

Oxyphenonium is an antagonist of muscarinic acetylcholine receptors that binds to muscarinic receptors on isolated guinea pig atria and ileum (K_d s = 0.11 and 0.17 nM, respectively).¹ *In vivo*, oxyphenonium reverses carbaminocholine- and acetylcholine-induced decreases in blood pressure in anesthetized cats (ED_{50} s = 0.591 and 1 µg/kg, respectively).² It decreases rumenal ulcer formation in rats and suppresses insulin-induced gastric secretion in dogs with gastric fistulas.³ Oxyphenonium also prevents form-deprivation myopia (FDM) in a chick model of experimental myopia.⁴ Formulations containing oxyphenonium have been used to treat peptic ulcers.

References

1. Eglen, R.M. and Whiting, R.L. *Br. J. Pharmacol.* **90**(4), 701-707 (1987).
2. Wilimowski, M., Orzechowska, K., Prandota, J., et al. *Arch. Immunol. Ther. Exp. (Warsz.)* **18**(1), 139-142 (1970).
3. Barrett, W.E., Rutledge, R., Plummer, A.J., et al. *J. Pharmacol. Exp. Ther.* **108**(3), 305-316 (1953).
4. Luft, W.A., Ming, Y., and Stell, W.K. *Invest. Ophthalmol. Vis. Sci.* **44**(3), 1330-1338 (2003).

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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