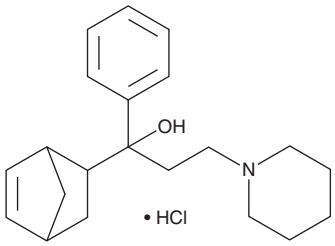
PRODUCT INFORMATION

Biperiden (hydrochloride)

Item No. 23775

CAS Registry No.:	1235-82-1
Formal Name:	α-bicyclo[2.2.1]hept-5-en-2-yl-α-phenyl-1-piperidinepropanol, monohydrochloride
Synonyms:	NSC 84989, NSC 170950
MF:	$C_{21}H_{29}NO \bullet HCl$
FW:	347.9
Purity:	≥95%
UV/Vis.:	λ_{max}: 246 nm
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

Biperiden (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the biperiden (hydrochloride) in the solvent of choice. Biperiden (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of biperiden (hydrochloride) in these solvents is approximately 0.5 mg/ml.

Description

Biperiden is an antagonist of muscarinic acetylcholine receptors (mAChRs; IC_{50}s = 0.48, 6.3, 3.9, 2.4, and 6.3 nM for M_{1-5} receptors, respectively).[1] It increases spontaneous and electrically evoked dopamine release and electrically evoked acetylcholine (ACh) release from rabbit caudate nucleus slices preincubated with dopamine.[2] Biperiden (10 µM) also inhibits NMDA-induced ACh release in rabbit caudate nucleus slices.[3] Biperiden (0.01-1.0 mg/kg) reduces physostigmine-induced tremor in rats.[4] Formulations containing biperiden have been used as an adjuvant treatment for Parkinson's disease.

References

1. Bolden, C., Cusack, B., and Richelson, E. Antagonism by antimuscarinic and neuroleptic compounds at the five cloned human muscarinic cholinergic receptors expressed in Chinese hamster ovary cells. *J. Pharmacol. Exp. Ther.* **260(2)**, 576-580 (1992).
2. Jackisch, R., Huang, H.Y., Reimann, W., *et al.* Effects of the antiparkinsonian drug budipine on neurotransmitter release in central nervous system tissue *in vitro*. *J. Pharmacol. Exp. Ther.* **264(2)**, 889-898 (1993).
3. Jackisch, R., Kruchen, A., Sauermann, W., *et al.* The antiparkinsonian drugs budipine and biperiden are use-dependent (uncompetitive) NMDA receptor antagonists. *Eur. J. Pharmacol.* **264(2)**, 207-211 (1994).
4. Gothóni, P., Lehtinen, M., and Fincke, M. Drugs for Parkinson's disease reduce tremor induced by physostigmine. *Naunyn Schmiedebergs Arch. Pharmacol.* **323(3)**, 205-210 (1983).

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.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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