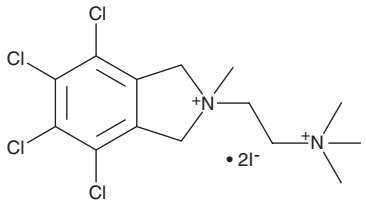
PRODUCT INFORMATION

Chlorisondamine (iodide)

Item No. 20119

CAS Registry No.: 96750-66-2
Formal Name: 4,5,6,7-tetrachloro-2,3-dihydro-2-methyl-2-[2-(trimethylammonio)ethyl]-1H-isoindolium, diiodide
MF: $C_{14}H_{20}Cl_4N_2 \bullet 2I$
FW: 611.9
Purity: ≥98%
UV/Vis.: λ_{max}: 211 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

Chlorisondamine (iodide) is supplied as a crystalline solid. A stock solution may be made by dissolving the chlorisondamine (iodide) in the solvent of choice, which should be purged with an inert gas. Chlorisondamine (iodide) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of chlorisondamine (iodide) in these solvents is approximately 10 mg/ml.

Description

Chlorisondamine is an antagonist of nicotinic acetylcholine receptors (nAChRs; IC_{50} = 1.8 µM in rat striatal synaptosomes) and a ganglion blocker.[1] It decreases dopamine release induced by nicotine (Item Nos. 16535 | 20887) in a dose-dependent manner in rat striatal synaptosomes at concentrations ranging from 0-100 µM. The effect of chlorisondamine is long-lasting, with a 10 mg/kg dose blocking nicotine-induced stimulant activity for at least five weeks.[2] Chlorisondamine (5 µg, i.c.v.) prevents rats from acquiring a (–)-nicotine-induced conditioned taste aversion response, a model of the aversive effects of nicotine.[3] It also inhibits autonomic ganglia, providing approximately 50% inhibition of the contractile response in feline superior cervical ganglion nictitating membrane preparations when administered at a dose of 50 mg/kg.[4]

References

1. el-Bizri, H. and Clarke, P.B. Blockade of nicotinic receptor-mediated release of dopamine from striatal synaptosomes by chlorisondamine and other nicotinic antagonists administered *in vitro*. *Br. J. Pharmacol.* **111(2)**, 406-413 (1994).
2. Clarke, P.B. Chronic central nicotinic blockade after a single administration of the bisquaternary ganglion-blocking drug chlorisondamine. *Br. J. Pharmacol.* **83(2)**, 527-535 (1984).
3. Reavill, C., Stolerman, I.P., Kumar, R., *et al.* Chlorisondamine blocks acquisition of the conditioned taste aversion produced by (-)-nicotine. *Neuropharmacology* **25(9)**, 1067-1069 (1986).
4. Plummer, A.J., Trapold, J.H., Schneider, J.A., *et al.* Ganglionic blockade by a new bisquaternary series, including chlorisondamine dimethochloride. *J. Pharmacol. Exp. Ther.* **115(2)**, 172-184 (1955).

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