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ProductInformation

Atropine sulfate salt hydrate

Product Number **A 0257**
Store at Room Temperature

Product Description

Molecular Formula: $C_{34}H_{46}N_2O_6 \bullet H_2SO_4$ (anhydrous)
Molecular Weight: 676.8
CAS Number: 5908-99-6
pK_a: 9.9 (20 °C)[1]
Melting point: 190-194 °C[2]

Atropine is a cholinergic receptor antagonist isolated from *Atropa belladona L., Datura stramonium L.,* and other plants of the *Solanaceae family*.[2] Atropine is a competitive nonselective antagonist at central and perpheral muscarinic acetylcholine receptors.[3,4,5,6] Excitatory junction potentials (e.j. ps.) can be blocked by atropine sulfate or tetrodotoxin, using either at micromolar concentrations. Inhibitory junction potentials are also blocked by tetrodotoxin, but were unaffected by atropine (still at micromolar levels).[7]

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

Atropine sulfate is soluble in water (2,500 mg/ml), alcohol (200 mg/ml), or glycerol (400 mg/ml).[2]

Storage/Stability

Solutions may be stored for several days at 4 °C. Atropine sulfate can be sterilized by autoclaving.

References

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4. Trovero, F., et al., Pharmacological profile of CEB-1957 and atropine toward brain muscarinic receptors and comparative study of their efficacy against sarin poisoning. Toxicol. Appl. Pharmacol.,**150**, 321-327 (1998).
5. Zwart, R., and Vijverberg, H.P., Potentiation and inhibition of neuronal nicotinic receptors by atropine: competitive and noncompetitive effects. Mol. Pharmacol., **52**, 886-895 (1997).
6. Walch, L., et al., Evidence for a M(1) muscarinic receptor on the endothelium of human pulmonary veins. Br. J. Pharmacol., **130**, 73-78 (2000).
7. Goodman and Gilman's The Pharmacological Basis of Therapeutics, 8th ed., Gilman, A. G., et al., eds., McGraw-Hill (New York, NY: 1990), p. 150.
8. Lange's Handbook of Chemistry, 12th ed., Dean, J.A., Ed., McGraw-Hill (New York: 1979), p. 7-397.

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