

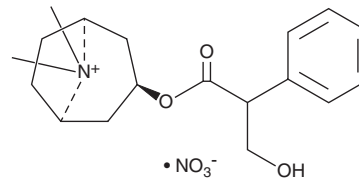
PRODUCT INFORMATION



Methylatropine (nitrate)

Item No. 9002272

CAS Registry No.: 52-88-0
Formal Name: (3-endo)- 3-(3-hydroxy-1-oxo-2-phenylpropoxy)-8,8-dimethyl-8-azoniabicyclo[3.2.1]octane, mononitrate
Synonym: Atropine methyl nitrate
MF: C₁₈H₂₆NO₃ • NO₃
FW: 366.4
Purity: ≥95%
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

Methylatropine (nitrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the methylatropine (nitrate) in the solvent of choice, which should be purged with an inert gas. Methylatropine (nitrate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of methylatropine (nitrate) in these solvents is approximately 30 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 methylatropine (nitrate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of methylatropine (nitrate) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Methylatropine is an antagonist of muscarinic acetylcholine receptors (IC₅₀ = <0.1 nM in a radioligand binding assay using isolated porcine brain membranes) and a derivative of atropine (Item No. 12008).^{1,2} It reduces acetylcholine-induced decreases in blood pressure in rats when administered intravenously with an ED₅₀ value of 5.5 µg/kg.² Methylatropine reduces salivation, induces mydriasis, and increases heart rate in dogs.³

References

- Schmeller, T., Sporer, F., Sauerwein, M., *et al.* Binding of tropane alkaloids to nicotinic and muscarinic acetylcholine receptors. *Pharmazie* **50(7)**, 493-495 (1995).
- Brezenoff, H.E., Xiao, Y.-F., and Vargas, H. A comparison of the central and peripheral antimuscarinic effects of atropine and methylatropine injected systemically and into the cerebral ventricles. *Life Sci.* **42(8)**, 905-911 (1988).
- Albanus, L. Central and peripheral effects of anticholinergic compounds. *Acta Pharmacol. Toxicol. (Copenh)* **28(4)**, 305-326 (1970).

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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