

Product Name: (+)-Muscarine iodide

Catalog No.: 3074

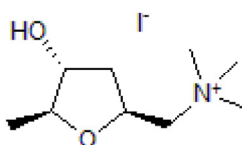
Batch No.: 5

CAS Number: 24570-49-8

IUPAC Name: 2,5-Anhydro-1,4,6-trideoxy-6-(trimethylammonio)-D-ribo-hexitol iodide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₉H₂₀INO₂
Batch Molecular Weight: 301.17
Physical Appearance: White solid
Solubility: water to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	35.89	6.69	4.65
Found	35.97	6.68	4.78

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

(+)-Muscarine iodide is a muscarinic acetylcholine receptor agonist; mimics the activity of acetylcholine.

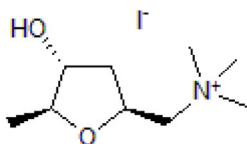
Physical and Chemical Properties:

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Batch Molecular Weight: 301.17

Physical Appearance: White solid

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Storage: Store at -20°C

Solubility & Usage Info:

water to 100 mM

This compound is hygroscopic and may absorb atmospheric moisture during prolonged storage, causing the solid to become sticky and/or collapse into a gel or glass-like form. Although purity is unaffected, it may be difficult to extract the full quantity from the vial. In such a situation, we recommend that solutions are made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Boukouvalas et al (2007) A concise asymmetric synthesis of (+)-muscarine from (S)-γ-hydroxymethyl-γ-butyrolactone. *Tetrahedron Lett.* **48** 2971.

Jin (2003) Muscarine, imidazole, oxazole and thiazole alkaloids. *Nat.Prod.Rep.* **20** 584. PMID: 14700201.

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