

Certificate of Analysis

Print Date: Feb 7th 2019

Batch No.: 5

Catalog No.: 3074

www.tocris.com

Product Name: (+)-Muscarine iodide

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: $C_9H_{20}INO_2$ Batch Molecular Weight:301.17Physical 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



Product Information

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Description:

Muscarinic acetylcholine receptor agonist; mimics the activity of

acetylcholine.

Physical and Chemical Properties:

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Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

water to 100 mM

CAUTION - This product is hygroscopic and we recommend that it is desiccated upon arrival.

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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. Our standard recommendations are:

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.