

Certificate of Analysis

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Product Name: Scopolamine hydrobromide

Catalog No.: 1414

Batch No.: 8

CAS Number: 114-49-8

EC Number: 204-050-6

IUPAC Name: (α ,S)- α -(Hydroxymethyl)benzeneacetic acid (1 α ,2 β ,4 β ,5 α ,7 β)-9-methyl-3-oxa-9-azatricyclo[3.3.1.0^{2,4}]non-7-yl ester hydrobromide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₂₁NO₄.HBr.1 $\frac{3}{4}$ H₂O

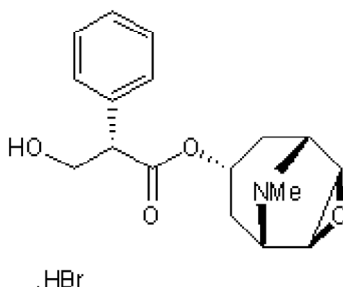
Batch Molecular Weight: 415.79

Physical Appearance: White solid

Solubility: water to 100 mM
DMSO to 50 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.2% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: [α]_D = -26 (Concentration = 5, Solvent = Water)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	49.11	6.18	3.37
Found	48.51	6.22	3.38

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Description:

Scopolamine hydrobromide is a non-selective muscarinic antagonist. Widely used clinically to treat motion sickness.

Physical and Chemical Properties:

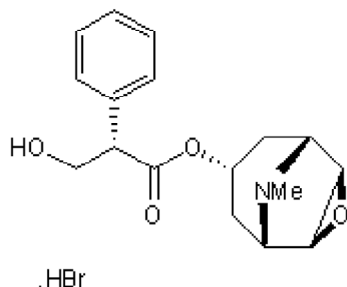
Batch Molecular Formula: C₁₇H₂₁NO₄.HBr.1 $\frac{3}{4}$ H₂O

Batch Molecular Weight: 415.79

Physical Appearance: White solid

Minimum Purity: \geq 98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

water to 100 mM

DMSO to 50 mM

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:

Jones and Shannon (2000) Effects of scopol. in comparison with apomor. and phencyclidine on prepulse inhibition in rats. *Eur.J.Pharmacol.* **391** 105. PMID: 10720641.

Nakao et al (1999) Cerebral blood flow responses to somatosensory stimulation are unaffected by scopol. in unanesthetized rat. *J.Pharmacol.Exp.Ther.* **290** 929. PMID: 10411611.

Parkes (1965) An examination of central actions characteristic of scopolamine: comparison of central and peripheral activity in scopolamine, atr. and some synthetic basic esters. *Psychopharmacologia* **7** 1. PMID: 5830966.

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