Galanthamine hydrobromide

**Product Name:** Galanthamine hydrobromide
**Catalog No.:** 0686
**Batch No.:** 9

**CAS Number:** 1953-04-4
**EC Number:** 217-780-5
**IUPAC Name:** 4a,5,9,10,11,12-Hexahydro-3-methoxy-11-methyl-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol hydrobromide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** \( \text{C}_{17}\text{H}_{21}\text{NO}_{3}\text{.HBr} \)

**Batch Molecular Weight:** 368.27

**Physical Appearance:** White crystalline solid

**Solubility:** DMSO to 20 mM with gentle warming

**Storage:** Store at RT

**Batch Molecular Structure:**

![Molecular Structure Diagram]

### 2. ANALYTICAL DATA

**HPLC:** Shows 99.6% purity

**\(^1\text{H NMR:}\)** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Optical Rotation:** \([\alpha]_D = -96\) (Concentration = 0.2, Solvent = Water)

**Microanalysis:**

<table>
<thead>
<tr>
<th>Element</th>
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<tbody>
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</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
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**Description:**
Long-acting, centrally active acetylcholinesterase inhibitor (IC$_{50}$ = 410 nM) and allosteric potentiator at neuronal nicotinic ACh receptors. Prevents β-amyloid-induced apoptosis in SH-SY5Y and bovine chromaffin cells. Long-term administration reduces amyloid precursor protein deposition and neurodegeneration in a mouse model of Alzheimer's disease.

**Physical and Chemical Properties:**
- **Batch Molecular Formula:** C$_{17}$H$_{21}$NO$_3$.HBr
- **Batch Molecular Weight:** 368.27
- **Physical Appearance:** White crystalline solid
- **Minimum Purity:** >99%

**Storage:** Store at RT

**Solubility & Usage Info:**
- DMSO to 20 mM with gentle warming
- Water to 20 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. 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 aliquotted 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:**