

## Certificate of Analysis

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**Product Name:** (±)-Vesamicol hydrochloride

**Catalog No.:** 0653

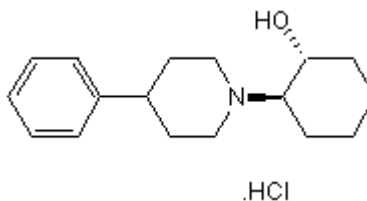
**Batch No.:** 5

**CAS Number:** 120447-62-3

**IUPAC Name:** (±)-*trans*-2-(4-Phenylpiperidinyl)cyclohexanol hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>17</sub>H<sub>25</sub>NO.HCl  
**Batch Molecular Weight:** 295.85  
**Physical Appearance:** White solid  
**Solubility:** ethanol to 20 mM  
DMSO to 50 mM with gentle warming  
**Storage:** Store at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows >99.9% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	69.02	8.86	4.73
Found	69.25	8.86	4.77

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

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**IUPAC Name:** (±)-*trans*-2-(4-Phenylpiperidinyl)cyclohexanol hydrochloride

**Description:**

Inhibitor of acetylcholine transport ( $K_i = 2$  nM). Centrally active following systemic administration in vivo.

**Physical and Chemical Properties:**

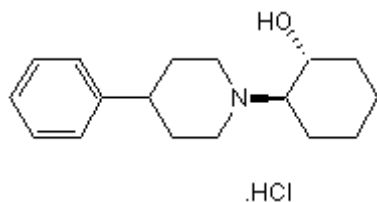
Batch Molecular Formula:  $C_{17}H_{25}NO.HCl$

Batch Molecular Weight: 295.85

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

ethanol to 20 mM

DMSO to 50 mM with gentle warming

**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:**

**Varoqui and Erickson** (1996) Active transport of acetylcholine by the human vesicular acetylcholine transporter. *J.Biol.Chem.* **271** 27229. PMID: 8910293.

**Efange et al** (1997) N-hydroxyalkyl derivatives of 3β-phenyltropane and 1-methylspiro[1*H*-indoline-3,4'-piperidine]: vesamicol analogues with affinity for monoamine transporters. *J.Med.Chem.* **40** 3905. PMID: 9397171.

**Kobayashi et al** (1997) Effects of systemic administration of 2-(4-phenyl-piperidino)-cyclohexanol (vesamicol) and an organophosphate DDVP on the cholinergic system in brain regions of rats. *Brain Res.Bull.* **43** 17. PMID: 9205789.

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