

**Product Name:** (S)-(+)-Dimethindene maleate

**Catalog No.:** 1425

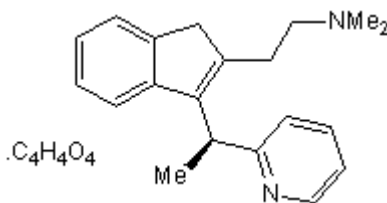
**Batch No.:** 2

CAS Number: 136152-65-3

IUPAC Name: *N,N*-Dimethyl-3-[(1*S*)-1-(2-pyridinyl)ethyl]-1*H*-indene-2-ethanamine maleate

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:**  $C_{20}H_{24}N_2 \cdot C_4H_4O_4 \cdot \frac{1}{4}H_2O$   
**Batch Molecular Weight:** 413  
**Physical Appearance:** White solid  
**Solubility:** water to 100 mM with gentle warming  
DMSO to 100 mM  
**Storage:** Desiccate at RT  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:**  $R_f = 0.5$  (Dichloromethane:Methanol:Ammonia soln. [6:3½:½])  
**Melting Point:** Between 133 - 134°C  
**HPLC:** Shows 100% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Optical Rotation:**  $[\alpha]_D = +133.3$  (Concentration = 1, Solvent = Water)  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	69.8	6.96	6.78
Found	70.07	6.94	6.75

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

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**Description:**

Enantiomer that is a subtype-selective M<sub>2</sub> muscarinic receptor antagonist (pK<sub>i</sub> values are 7.08, 7.78, 6.70 and 7.00 for M<sub>1</sub>, M<sub>2</sub>, M<sub>3</sub> and M<sub>4</sub> receptors respectively). Also H<sub>1</sub> histamine receptor antagonist (pK<sub>i</sub> = 7.48).

**Physical and Chemical Properties:**

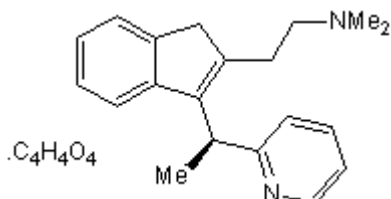
Batch Molecular Formula: C<sub>20</sub>H<sub>24</sub>N<sub>2</sub>·C<sub>4</sub>H<sub>4</sub>O<sub>4</sub>·¼H<sub>2</sub>O

Batch Molecular Weight: 413

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

water to 100 mM with gentle warming  
DMSO to 100 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 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:**

**Pfaff et al** (1995) The (S)-(+)-enantiomer of dimethindene: a novel M<sub>2</sub>-selective muscarinic receptor antagonist. *Eur.J.Pharmacol.* **286** 229. PMID: 8608784.

**Lambrecht et al** (1999) Neuronal soma-dendritic and prejunctional M<sub>1</sub>-M<sub>4</sub> receptors in gastrointestinal and genitourinary smooth muscle. *Life Sci.* **64** 403. PMID: 10069503.

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