

**Product Name:** CGS 9343B

**Catalog No.:** 2255

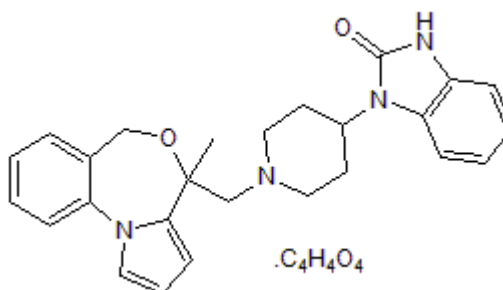
**Batch No.:** 2

CAS Number: 109826-27-9

IUPAC Name: 1,3-Dihydro-1-[1-[(4-methyl-4*H*,6*H*-pyrrolo[1,2-*a*][4,1]benzoxazepin-4-yl)methyl]-4-piperidinyl]-2*H*-benzimidazol-2-one maleate

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{26}H_{28}N_4O_2 \cdot C_4H_4O_4 \cdot \frac{1}{4}H_2O$   
**Batch Molecular Weight:** 549.11  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 50 mM  
ethanol to 10 mM with gentle warming  
**Storage:** Desiccate at RT  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**TLC:**  $R_f = 0.35$  (Dichloromethane:Methanol [9:1])  
**Melting Point:** Between 183 - 185°C  
**HPLC:** Shows >98.4% purity  
<sup>1</sup>H NMR: Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	65.62	5.97	10.2
Found	65.45	5.87	10.12

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**Description:**

Calmodulin antagonist; inhibits calmodulin-stimulated cAMP phosphodiesterase activity with an IC<sub>50</sub> of 3.3 nM. Also prevents estrogen-induced transcription activation by ER, reversibly blocks voltage-activated Na<sup>+</sup>, Ca<sup>2+</sup> and K<sup>+</sup> currents in PC12 cells and inhibits nAChR.

**Physical and Chemical Properties:**

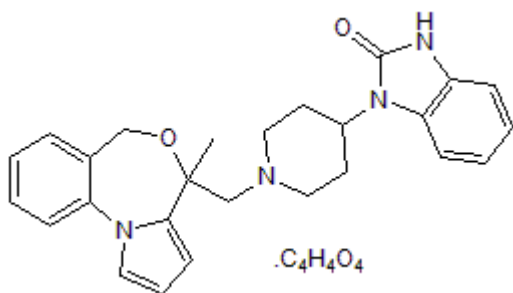
Batch Molecular Formula: C<sub>26</sub>H<sub>28</sub>N<sub>4</sub>O<sub>2</sub>·C<sub>4</sub>H<sub>4</sub>O<sub>4</sub>·¼H<sub>2</sub>O

Batch Molecular Weight: 549.11

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

DMSO to 50 mM

ethanol to 10 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:**

**Norman et al** (1987) CGS 9343B, a novel, potent, and selective inhibitor of Calmodulin activity. *Mol.Pharmacol.* **31** 535. PMID: 3033469.

**Neuhaus and Reber** (1992) Inhibition of membrane currents and rises of intracellular Ca<sup>2+</sup> in PC12 cells by CGS 9343B, a calmodulin inhibitor. *Eur.J.Pharmacol.* **226** 183. PMID: 1379190.

**Li et al** (2003) Calmodulin regulates the transcriptional activity of estrogen receptors. *J.Biol.Chem.* **278** 1195. PMID: 12419798.

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