

# Certificate of Analysis

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**Product Name:** (-)-Bicuculline methochloride

**Catalog No.:** 0131

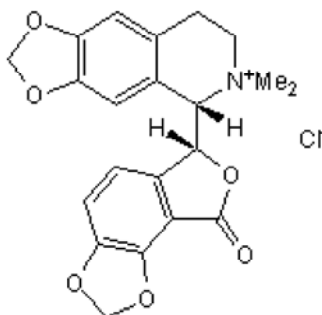
**Batch No.:** 35

**CAS Number:** 38641-83-7

**IUPAC Name:** [R-(R\*,S\*)]-5-(6,8-Dihydro-8-oxofuro[3,4-e]-1,3-benzodioxol-6-yl)-5,6,7,8-tetrahydro-6,6-dimethyl-1,3-dioxolo[4,5-g]isoquinolinium chloride

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>21</sub>H<sub>20</sub>ClNO<sub>6</sub>·2½H<sub>2</sub>O  
**Batch Molecular Weight:** 458.38  
**Physical Appearance:** White solid  
**Solubility:** water to 100 mM  
 phosphate buffered saline to 100 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.47 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])  
**HPLC:** Shows 99.9% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	55.03	5.39	3.06
Found	54.91	5.27	3.14

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

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## Product Information

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### Description:

Methochloride salt of (+)-bicuculline. Water soluble and more stable than bicuculline. Non-GABA receptor-mediated actions reported. Methiodide Salt and Methobromide Salt also available.

### Physical and Chemical Properties:

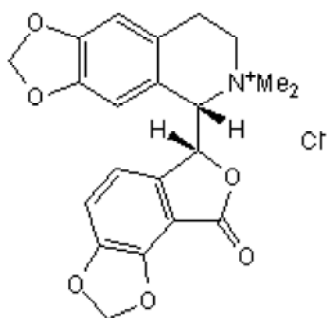
Batch Molecular Formula: C<sub>21</sub>H<sub>20</sub>ClNO<sub>6</sub>·2¼H<sub>2</sub>O

Batch Molecular Weight: 458.38

Physical Appearance: White solid

**Minimum Purity:** ≥99%

### Batch Molecular Structure:



**Storage:** Store at RT

### Solubility & Usage Info:

water to 100 mM

phosphate buffered saline 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:

**Seutin and Johnson** (1999) Recent advances in the pharmacology of quaternary salts of bicuculline. *TiPS* **20** 268. PMID: 10390643.

**Seutin et al** (1997) Evidence for a non-GABAergic action of quaternary salts of bicuculline on DArgic neurones. *Neuropharmacology* **36** 1653. PMID: 9517436.

**Kemp et al** (1986) Quantitative evaluation of the potencies of GABA-receptor agonists and antagonists using the rat hippocampal slice preparation. *Br.J.Pharmacol.* **87** 677. PMID: 3011168.

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