

# Certificate of Analysis

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

**Catalog No.:** 0130

**Batch No.:** 25

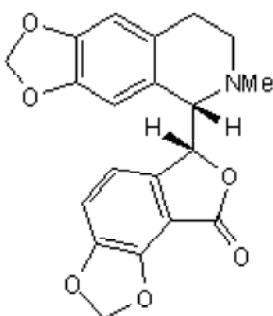
**CAS Number:** 485-49-4

**EC Number:** 207-619-7

**IUPAC Name:** [R-(R\*,S\*)]-6-(5,6,7,8-Tetrahydro-6-methyl-1,3-dioxolo[4,5-g]isoquinolin-5-yl)furo[3,4-e]-1,3-benzodioxol-8(6H)-one

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>20</sub>H<sub>17</sub>NO<sub>6</sub>  
**Batch Molecular Weight:** 367.36  
**Physical Appearance:** Yellow solid  
**Solubility:** DMSO to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.6% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = +134 (Concentration = 1, Solvent = Chloroform)  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	65.39	4.66	3.81
Found	65.4	4.75	3.88

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

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## Product Information

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<b>Product Name:</b>	<b>(+)-Bicuculline</b>	<b>Catalog No.:</b>	<b>0130</b>	<b>25</b>
CAS Number:	485-49-4	EC Number:	207-619-7	
IUPAC Name:	[R-(R*,S*)]-6-(5,6,7,8-Tetrahydro-6-methyl-1,3-dioxolo[4,5-g]isoquinolin-5-yl)furo[3,4-e]-1,3-benzodioxol-8(6H)-one			

### Description:

(+)-Bicuculline is a classical GABA<sub>A</sub> antagonist. Methiodide Salt, Methobromide Salt and Methochloride Salt also available.

### Physical and Chemical Properties:

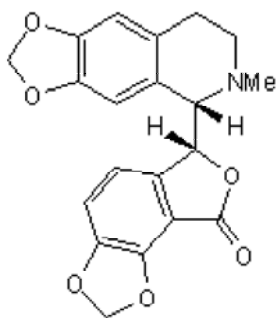
Batch Molecular Formula: C<sub>20</sub>H<sub>17</sub>NO<sub>6</sub>

Batch Molecular Weight: 367.36

Physical Appearance: Yellow solid

**Minimum Purity:** ≥99%

### Batch Molecular Structure:



**Storage:** Store at +4°C

### Solubility & Usage Info:

DMSO to 100 mM

**CAUTION** - Solutions formed with aqueous acid can undergo rapid hydrolysis and should be made up and used within 1 hour.

### 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:

**Sieghart *et al*** (1989) Multiplicity of GABA<sub>A</sub>-benzodiazepine receptors. *TiPS* **10** 407. PMID: 2559519.

**Piredda *et al*** (1985) Intracerebral site of convulsant action of bicuculline. *Life Sci.* **36** 1295. PMID: 3982215.

**Olsen *et al*** (1976) Studies on the neuropharmacological activity of bicuculline and related compounds. *Brain Res.* **102** 283. PMID: 1247886.

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