Certificate of Analysis

Product Name: **(-)-Bicuculline methochloride** **Catalog No.: 0131** **Batch No.: 36**

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: $C_{21}H_{20}ClNO_6.1½H_2O$

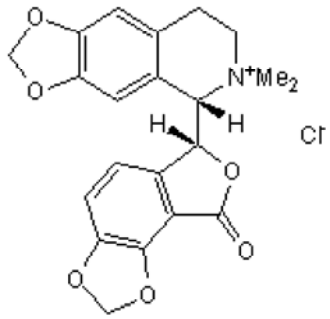
Batch Molecular Weight: 444.87

Physical Appearance: Off 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_f = 0.46 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])

HPLC: Shows >99.9% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	56.7	5.21	3.15
Found	56.59	5.21	3.22

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

Product Information

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Description:

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

Physical and Chemical Properties:

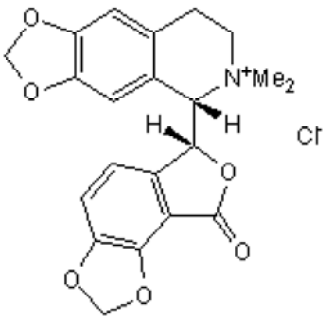
Batch Molecular Formula: $C_{21}H_{20}ClNO_6.1½H_2O$

Batch Molecular Weight: 444.87

Physical Appearance: Off 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.