

Product Name: (-)-Bicuculline methiodide

Catalog No.: 2503

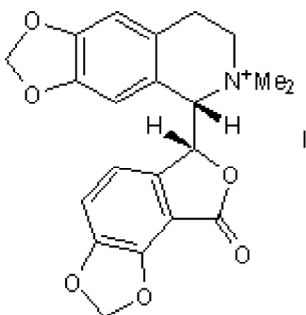
Batch No.: 12

CAS Number: 40709-69-1

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 iodide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₂₀INO₆
Batch Molecular Weight: 509.3
Physical Appearance: Yellow solid
Solubility: water to 20 mM
DMSO to 50 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	49.53	3.96	2.75
Found	48.83	4.08	2.73

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

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Description:

(-)-Bicuculline methiodide is a methiodide form of classical GABA_A receptor antagonist (+)-bicuculline. More water-soluble and stable. Non-GABA receptor-mediated actions reported, including actions on calcium-dependent potassium channels. Methobromide Salt and Methochloride Salt also available.

Physical and Chemical Properties:

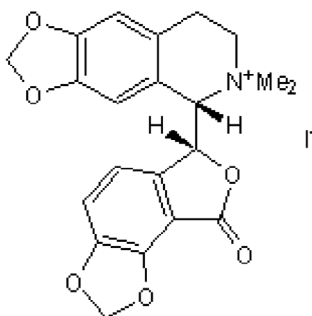
Batch Molecular Formula: C₂₁H₂₀INO₆

Batch Molecular Weight: 509.3

Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Chan et al (2006) Blockade of GABA(A) receptors in the ventromedial hypothalamus further stimulates glucagon and sympathoadrenal but not the hypothalamo-pituitary-adrenal response to hypoglycemia. *Diabetes* **55** 1080. PMID: 16567532.

Kurt et al (2006) Differential effects of iontophoretic in vivo application of the GABA_A-antagonists bicuculline and gabazine in sensory cortex. *Hear.Res.* **212** 224. PMID: 16442250.

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

Storage: Store at RT

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 20 mM

DMSO to 50 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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.

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