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Product Information

(+)-Bicuculline

Product Number **B 9130**
Storage Temperature 2-8 °C

Product Description

Molecular Formula: $C_{20}H_{17}NO_6$
Molecular Weight: 367.4
CAS Number: 485-49-4
 pK_a : 4.84¹
Melting point: 215 °C¹
Extinction coefficients: $E^{mm} = 36.7$ (225 nm), 6.39 (296 nm), 5.87 (324 nm) in acidified ethanol¹
Specific rotation: +130.5° (CHCl₃ at 25 °C)¹

This compound is an antagonist of GABA in vertebrate CNS neurons.²

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

Bicuculline is soluble in chloroform (50 mg/ml), benzene, and ethyl acetate, but is sparingly soluble in alcohol and ether.¹ It is also soluble to some degree in DMSO and 0.1 N HCl.

Bicuculline can be converted to a water soluble methiodide form.³

Storage/Stability

Bicuculline is extremely unstable at physiological pH (half-life = 45 minutes at 24 °C in 10 mM Tris-HCl, pH 7.6). It is converted to the less active hydroxyacid bicucine. However, at pH <3, solutions are very stable.³

References

1. The Merck Index, 12th ed., Entry# 1250.
2. Olsen, R. W., et al., Chemical Instability of the GABA Antagonist Bicuculline Under Physiological Conditions. *Brain Res.*, **98(2)**, 383-387 (1975).
3. Pong, S. F., and Graham, L. T. Jr., A Simple Preparation of Bicuculline Methiodide, a Water-soluble GABA Antagonist. *Brain Res.*, **58(1)**, 266-267 (1973).

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