



LKT Laboratories, Inc.

(+)-Bicuculline

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Product Information

Product ID B3211

CAS No. 485-49-4

Chemical Name (6R)-6-[(5S)-6-methyl-7,8-dihydro-5H-[1,3]dioxolo[4,5-g]isoquinolin-5-yl]-6H-furo[3,4-g][1,3]benzodioxol-8-one

Synonym d-Bicuculline

Formula C₂₀H₁₇NO₆

Formula Wt. 367.35

Melting Point

Purity ≥98%

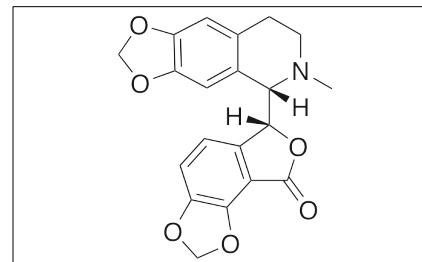
Solubility

Store Temp Ambient

Ship Temp Ambient

Description Bicuculline is a neuromodulatory GABA-A receptor antagonist used to study regional variation of GABA receptors and the role of GABA-A receptors in motor disorders, pain, seizure, nociception, anxiety, and memory. Through its inhibition of GABA-A receptors, bicuculline potentiates activation at NMDA receptors and produces membrane depolarization, inhibiting K⁺ conductance and prolonging Ca²⁺-dependent action potentials in neurons.

Specific rotation +130 (20 D, chloroform c=2)



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
B3211	25 mg	\$81.70
B3211	100 mg	\$153.10
B3211	500 mg	\$561.40

References Dela Peña IJ, Lee HL, Yoon SY, et al. The ethanol extract of *Cirsium japonicum* increased chloride ion influx through stimulating GABA(A) receptor in human neuroblastoma cells and exhibited anxiolytic-like effects in mice. *Drug Discov Ther.* 2013 Feb;7(1):18-23. PMID: 23524939.

Torkaman-Boutorabi A, Soltani S, Oryan S, et al. Involvement of the dorsal hippocampal GABA-A receptors in histamine-induced facilitation of memory in the Morris water maze. *Pharmacol Biochem Behav.* 2013 Apr;105:142-50. PMID: 23438692.

Ionov ID, Roslavtseva LA. Coadministration of bicuculline and NMDA induces paraplegia in the rat. *Brain Res.* 2012 Apr 27;1451:27-33. PMID: 22445063

Ji G, Neugebauer V. Pain-related deactivation of medial prefrontal cortical neurons involves mGluR1 and GABA(A) receptors. *J Neurophysiol.* 2011 Nov;106(5):2642-52. PMID: 21880942.

Costa LG, Doctor SV, Murphy SD. Antinociceptive and hypothermic effects of trimethyltin. *Life Sci.* 1982 Sep 13;31(11):1093-102. PMID: 6890611.

Heyer EJ, Nowak LM, Macdonald RL. Membrane depolarization and prolongation of calcium-dependent action potentials of mouse neurons in cell culture by two convulsants: bicuculline and penicillin. *Brain Res.* 1982 Jan 28;232(1):41-56. PMID: 7055710.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.