

Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@m2stage.hellobio.com



DATASHEET

(+)-Bicuculline

Product overview

Name	(+)-Bicuculline
Cat No	HB0896
Alternative names	BIC
Biological action	Antagonist
Purity	>98%
Description	Prototypic, competitive GABA _A receptor antagonist

Images



Biological Data

Biological description

Prototypic, competitive GABA_A receptor antagonist which displaces GABA from the agonist binding site to prevent receptor activation.

Also acts as a negative allosteric inhibitor of channel opening to inhibit GABA_A receptor activation by anaesthetic agents.

Reversibly and competitively blocks GABA_A receptor mediated currents. Widely used to isolate glutamate receptor mediated EPSCs (excitatory postsynaptic potentials).

Shows convulsant action and induces epilepsy.

Water soluble methiodide, methochloride and methobromide salts also available.

Solubility & Handling

Storage instructions	+4 °C
Solubility overview	Soluble in DMSO (100mM)
Handling	Rapid hydrolysis may occur in solutions made with aqueous acid. You should therefore make and use

Storage instructions

+4 °C
these within 1 hour.

Important

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

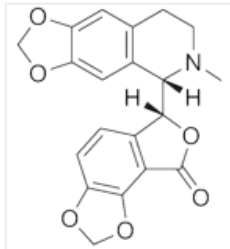
Chemical Data

Chemical name

[R-(*P*^{*},*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(6*H*)-one

Molecular Weight

367.36

Chemical structure**Molecular Formula**

C₂₀H₁₇NO₆

CAS Number

485-49-4

PubChem identifier

10237

SMILES

CN1CCC2=CC3=C(C=C2[C@H]1[C@H]4C5=C(C6=C(C=C5)OCO6)C(=O)O4)OCO3

InChi

InChI=1S/C20H17NO6/c1-21-5-4-10-6-14-15(25-8-24-14)7-12(10)17(21)18-11-2-3-13-19(26-9-23-13)16(11)20(22)27-18/h2-3,6-7,17-18H,4-5,8-9H2,1H3/t17-,18+/m0/s1

InChiKey

IYGYMKDQCDDOMRE-ZWKOTPCHSA-N

MDL number

MFCD00005006

Appearance

Yellow solid

References

Advantages of an antagonist: bicuculline and other GABA antagonists.

Johnston GA (2013) Br J Pharmacol 169(2)

PubMedID

[23425285](#)

Differential effects of iontophoretic in vivo application of the GABA(A)-antagonists bicuculline and gabazine in sensory cortex.

Kurt S *et al* (2006) Hear Res 212(1-2)

PubMedID

[16442250](#)

[Bicuculline inhibits airway remodeling in a murine model of chronic asthma].

Zhu T *et al* (2010) Nan Fang Yi Ke Da Xue Xue Bao 30(4)

PubMedID

[20423862](#)
