PRODUCT INFORMATION

Picrotoxin
Item No. 20771

CAS Registry No.: 124-87-8
Formal Name: (1aR,2aR,3S,6R,6aS,8aS,8bR,9R)-hexahydro-2a-hydroxy-8b-methyl-9-(1-methylethenyl)-3,6-methano-8H-1,5,7-troloxacyclopenta[iij]cycloprop[a]azulene-4,8(3H)-dione compd. with (1aR,2aR,3S,6R,6aS,8aS,8bR,9S)-hexahydro-2a-hydroxy-9-(1-hydroxy-1-methylethyl)-8b-methyl-3,6-methano-8H-1,5,7-troloxacyclopenta[iij]cycloprop[a]azulene-4,8(3H)-dione
Synonyms: Cocculin, NSC 403139
MF: C_{15}H_{18}O_{7} • C_{15}H_{16}O_{6}
FW: 602.6
Purity: ≥98% (mixture of Picrotin and Picrotoxinin)
Supplied as: A crystalline solid
Storage: -20°C
Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

Laboratory Procedures

Picrotoxin is supplied as a crystalline solid. A stock solution may be made by dissolving the picrotoxin in the solvent of choice. Picrotoxin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of picrotoxin in ethanol is approximately 15 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Picrotoxin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, picrotoxin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Picrotoxin has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Picrotoxin is a natural plant-derived poison that acts as a selective GABA_A receptor antagonist.\textsuperscript{1,2} It is functional \textit{in vivo} and is used to study the role of GABA_A receptors in the central nervous system as well in the periphery.\textsuperscript{3,4} Picrotoxin induces seizures in adult and immature animals and is used to study GABA_A-dependent seizures and drugs that block this pathway.\textsuperscript{5}

References