

Product Data Sheet

Product Name: Ricinine
Cat. No.: GC49485

Chemical Properties

Cas. No. 524-40-3

SMILES N#CC1=C(C=CN(C)C1=O)OC

Formula C₈H₈N₂O₂

M.Wt 164.2

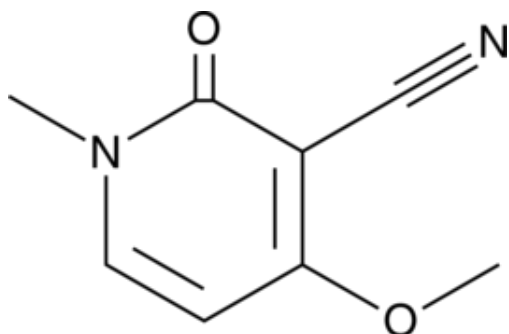
Solubility DMSO: slightly soluble, Methanol: slightly soluble

Storage Store at -20°C, protect from light

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Ricinine is a piperidine alkaloid that has been found in *R. communis* and has diverse biological activities.^{1,2,3,4} It is an inhibitor of acetylcholinesterase (AChE; IC₅₀ = 54.5 µg/ml).² It scavenges ABTS radicals and chelates iron (IC₅₀s = 102.65 and 104.32 µg/ml, respectively). Ricinine is toxic to adult *A. gambiae* when used at a concentration of 0.04 mg/ml in a feeding assay.³ It is also toxic to mice with an intraperitoneal LD₅₀ value of 340 mg/kg but an oral LD₅₀ value of 3,000 mg/kg.¹ It has been used as a biomarker of ricin poisoning.⁴

1. Franke, H., Scholl, R., and Aigner, A. Ricin and Ricinus communis in pharmacology and toxicology-

Caution: Product has not been fully validated for medical applications. For research use only.

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from ancient use and "Papyrus Ebers" to modern perspectives and "poisonous plant of the year 2018" Naunyn Schmiedeberg's Arch. Pharmacol. 392(10)1181-1208(2019) 2. Khan, B.R., Ghous, T., Rasheed, A., et al. Evaluation of anti-acetylcholinesterase activity and antioxidant potential of ricinine (a central nervous system stimulant) isolated from Ricinus communis L.J. Chem. Soc. Pak. 38(2)326-332(2016) 3. Wachira, S.W., Omar, S., Jacob, J.W., et al. Toxicity of six plant extracts and two pyridone alkaloids from Ricinus communis against the malaria vector Anopheles gambiae Parasit. Vectors 7312(2014) 4. Johnson, R.C., Lemire, S.W., Woolfitt, A.R., et al. Quantification of ricinine in rat and human urine: A biomarker for ricin exposure J. Anal. Toxicol. 29(3)149-155(2005)

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