



Product Information

Product ID R3197

CAS No. 76-66-4

Chemical Name

Synonym Rhynchophylline

Formula $C_{22}H_{28}N_2O_4$

Formula Wt. 384.47

Melting Point

Purity $\geq 98\%$

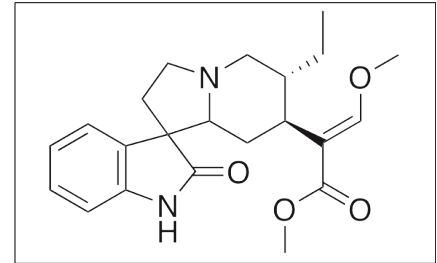
Solubility

Store Temp Ambient

Ship Temp Ambient

Description

Rhynchophylline is an oxyindole alkaloid found in *Uncaria sinensis*. Rhynchophylline displays anti-arrhythmic, antithrombotic, antioxidative, and neuroprotective characteristics. This compound inhibits platelet aggregation, decreases channel activation and peak tail currents of voltage-gated hERG K⁺ channels on myocytes, and decreases Ca²⁺ currents of L-type Ca²⁺ channels. Additionally, rhynchophylline noncompetitively inhibits NMDA receptors and downregulates expression of the NR2B NMDA receptor subunit. As a result of these mechanisms, rhynchophylline protects against glutamate-induced neuronal death and acts as a vasodilator. This compound also decreases presence of superoxide anions and inhibits NF- κ B activation through actions on I κ B kinase, preventing epileptic seizures in vivo.



Bulk quantities available upon request

Product ID	Size
R3197	1 mg
R3197	5 mg
R3197	10 mg
R3197	25 mg

References

Zhou JY, Mo ZX, Zhou SW. Rhynchophylline down-regulates NR2B expression in cortex and hippocampal CA1 area of amphetamine-induced conditioned place preference rat. *Arch Pharm Res.* 2010 Apr;33(4):557-65. PMID: 20422365.

Hsieh CL, Ho TY, Su SY, et al. Uncaria rhynchophylla and Rhynchophylline inhibit c-Jun N-terminal kinase phosphorylation and nuclear factor-kappaB activity in kainic acid-treated rats. *Am J Chin Med.* 2009;37(2):351-60. PMID: 19507277.

Gui L, Li ZW, Du R, et al. Inhibitory effect of rhynchophylline on human ether-a-go-go related gene channel. *Sheng Li Xue Bao.* 2005 Oct 25;57(5):648-52. PMID: 16220205.

Zhang WB, Chen CX, Sim SM, et al. In vitro vasodilator mechanisms of the indole alkaloids rhynchophylline and isorhynchophylline, isolated from the hook of Uncaria rhynchophylla (Miquel). *Naunyn Schmiedeberg Arch Pharmacol.* 2004 Feb;369(2):232-8. PMID: 14668978.

Shi JS, Kenneth HG. Effect of rhynchophylline on apoptosis induced by dopamine in NT2 cells. *Acta Pharmacol Sin.* 2002 May;23(5):445-9. PMID: 11978195.

Shimada Y, Goto H, Itoh T, et al. Evaluation of the protective effects of alkaloids isolated from the hooks and stems of Uncaria sinensis on glutamate-induced neuronal death in cultured cerebellar granule cells from rats. *J Pharm Pharmacol.* 1999 Jun;51(6):715-22. PMID: 10454049.

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