LKT Laboratories, Inc.

Methysticin

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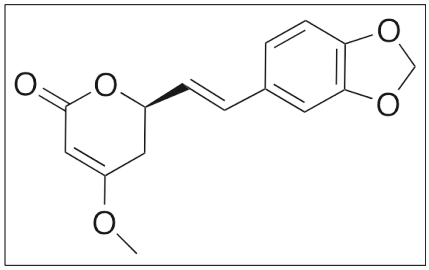
Product Information

Product ID M1679
CAS No. 495-85-2
Chemical Name (6R)-6-[(1E)-2-(1,3-Benzodioxol-5-yl)ethenyl]-5,6- dihydro-4-methoxy -2H-pyran-2-one

Synonym Kavahin, Kavatin



Formula $C_{15}H_{14}O_5$
Formula Wt. 274.27
Melting Point 132-134°C
Purity ≥98%
Solubility Soluble in alcohol, ether or acetone. Practically insoluble in water. Soluble in DMSO (10 mg/mL), hot ethanol (2 mg/mL)
Store Temp -20°C
Ship Temp Ambient

Bulk quanitites available upon request

Product ID	Size
M1679	5 mg
M1679	10 mg

Description Methysticin is a kavalactone originally found in *Piper methysticum* (kava plant). Methysticin exhibits neuroprotective, neuromodulatory, and antifungal activities. Methysticin may also display anti-inflammatory benefit, inhibiting activation of NF-κB in lung adenocarcinoma tissue. Methysticin activates Nrf2 in neurons and astroglia, protecting against amyloid-β (Aβ)-induced neurotoxicity. This compound displays antimicrobial efficacy against species of *Fusarium*, *Trichoderma*, and *Colletotrichum*. Additionally, methysticin inhibits peak amplitude of voltage-gated Na+ channels in hippocampal neurons.

References

Shaik AA, Hermanson DL, Xing C. Identification of methysticin as a potent and non-toxic NF-kappaB inhibitor from kava, potentially responsible for kava's chemopreventive activity. Bioorg Med Chem Lett. 2009 Oct 1;19(19):5732-6. PMID: 19716299.

Wruck CJ, Götz ME, Herdegen T, et al. Kavalactones protect neural cells against amyloid beta peptide-induced neurotoxicity via extracellular signal-regulated kinase 1/2-dependent nuclear factor erythroid 2-related factor 2 activation. Mol Pharmacol. 2008 Jun;73(6):1785-95. PMID: 18334601.

Xuan TD, Elzaawely AA, Fukuta M, et al. Herbicidal and Fungicidal Activities of Lactones in Kava (Piper methysticum). J Agric Food Chem. 2006 Feb 8;54(3):720-5. PMID: 16448174.

Magura EI, Kopanitsa MV, Gleitz J, et al. Kava extract ingredients, (+)-methysticin and (+/-)-kavain inhibit voltage-operated Na (+)-channels in rat CA1 hippocampal neurons. Neuroscience. 1997 Nov;81(2):345-51. Erratum in: Neuroscience 1998 May;84 (1):323. PMID: 9300426.