



Product Information

Product ID K0088
CAS No. 3155-48-4
Chemical Name (6R)-5,6-Dihydro-4-methoxy-6-[(1E)-2-phenyl-ethenyl]-2H-pyran-2-one

Synonym Kavain, Gonosan

Formula C₁₄H₁₄O₃

Formula Wt. 230.26

Melting Point 105-106°C

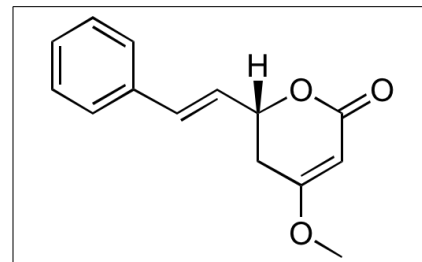
Purity ≥98%

Solubility Soluble in acetone, ether or methanol. Slightly soluble in hexane. Practically insoluble in water.

Store Temp -20°C

Ship Temp Ambient

Description Kawain is a kavalactone originally found in *Piper methysticum* (kava plant). Kawain exhibits neuroprotective, hypnotic, sedative, anxiolytic, antiepileptic/anticonvulsant, antithrombotic, and antifungal activities. Kawain 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*. In animal models, Kawain decreases sleep latency and time awake and increases non-REM sleep time and delta activity during REM sleep. Additionally, kawain binds receptor site 2 and inhibits voltage-gated Na⁺ channels. Kawain also inhibits L-type voltage-gated Ca²⁺ channels. This compound also inhibits arachidonic acid-induced platelet aggregation and COX expression.



Bulk quantities available upon request

Product ID	Size
K0088	1 mg
K0088	5 mg
K0088	10 mg

References Tsutsui R, Shinomiya K, Takeda Y, et al. Hypnotic and sleep quality-enhancing properties of kavain in sleep-disturbed rats. *J Pharmacol Sci.* 2009 Nov;111(3):293-8. PMID: 19881224.

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.

Martin HB, McCallum M, Stofer WD, et al. Kavain attenuates vascular contractility through inhibition of calcium channels. *Planta Med.* 2002 Sep;68(9):784-9. PMID: 12357387.

Friese J, Gleitz J. Kavain, dihydrokavain, and dihydromethysticin non-competitively inhibit the specific binding of [3H]-batrachotoxinin-A 20-α-benzoate to receptor site 2 of voltage-gated Na⁺ channels. *Planta Med.* 1998 Jun;64(5):458-9. PMID: 9690349.

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.

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