# PRODUCT INFORMATION



## Methysticin

Item No. 20258

CAS Registry No.: 495-85-2

Formal Name: (6R)-6-[(1E)-2-(1,3-benzodioxol-

5-yl)ethenyl]-5,6-dihydro-4-

methoxy-2H-pyran-2-one

Synonyms: Kavatin, (+)-Methysticin,

NSC 112158

MF:  $C_{15}H_{14}O_{5}$ FW: 274.3 **Purity:** ≥98%

 $\lambda_{max}$ : 208, 225, 265, 306 nm UV/Vis.:

A crystalline solid Supplied as:

-20°C Storage: ≥4 years Stability:

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## **Laboratory Procedures**

Methysticin is supplied as a crystalline solid. A stock solution may be made by dissolving the methysticin in the solvent of choice, which should be purged with an inert gas. Methysticin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of methysticin in these solvents is approximately 1, 5, and 2.5 mg/ml, respectively.

Methysticin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, methysticin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Methysticin has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

#### Description

Methysticin is a natural kavalactone from the kava plant, P. methysticum. It enhances the binding of bicuculline methochloride at the  $\gamma$ -aminobutyric acid (GABA) receptor GABA<sub>A</sub> at 0.1  $\mu$ M.<sup>1</sup> Methysticin inhibits the cytochrome P450 (CYP) isoforms CYP2C9 and CYP2D6.2

#### References

- 1. Boonen, G. and Häberlein, H. Influence of genuine kavapyrone enantiomers on the GABA, binding site. Planta Med. 64(6), 504-506 (1998).
- 2. Murray, M. Toxicological actions of plant-derived and anthropogenic methylenedioxyphenyl-substituted chemicals in mammals and insects. J. Toxicol. Environ. Health B. Crit. Rev. 15(6), 365-395 (2012).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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