# Dihydromethysticin

**Cat. No.:** HY-N0921

**CAS No.:** 19902-91-1

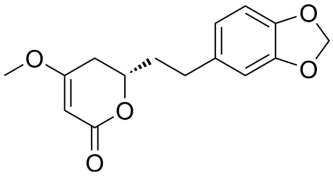
**Molecular Formula:** $C_{15}H_{16}O_5$

**Molecular Weight:** 276.28

**Target:** Cytochrome P450

**Pathway:** Metabolic Enzyme/Protease

**Storage:** 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 100 mg/mL (361.95 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 3.6195 mL | 18.0976 mL | 36.1952 mL |
| | 5 mM | 0.7239 mL | 3.6195 mL | 7.2390 mL |
| | 10 mM | 0.3620 mL | 1.8098 mL | 3.6195 mL |

Please refer to the solubility information to select the appropriate solvent.

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.5 mg/mL (9.05 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.05 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.05 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

Dihydromethysticin is one of the six major kavalactones found in the kava plant; has marked activity on the induction of CYP3A23.

**$IC_{50}$ & Target**

CYP3

## REFERENCES

[1]. Ma Y, et al. Desmethoxyyangonin and dihydromethysticin are two major pharmacological kavalactones with marked activity on the induction of CYP3A23. Drug Metab

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[2]. Walden J, et al. Effects of kawain and dihydromethysticin on field potential changes in the hippocampus. Prog Neuropsychopharmacol Biol Psychiatry. 1997 May;21(4):697-706.

[3]. Sarris J, et al. Kava: a comprehensive review of efficacy, safety, and psychopharmacology. Aust N Z J Psychiatry. 2011 Jan;45(1):27-35.



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