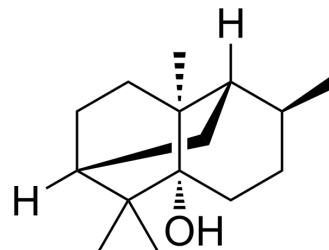


Patchouli alcohol

Cat. No.:	HY-N0207
CAS No.:	5986-55-0
Molecular Formula:	C ₁₅ H ₂₆ O
Molecular Weight:	222.37
Target:	Bacterial
Pathway:	Anti-infection
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 (449.70 mM; Need ultrasonic)
Ethanol : 20 mg/mL (89.94 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	4.4970 mL	22.4850 mL	44.9701 mL
	5 mM	0.8994 mL	4.4970 mL	8.9940 mL
	10 mM	0.4497 mL	2.2485 mL	4.4970 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 6.25 mg/mL (28.11 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 6.25 mg/mL (28.11 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 6.25 mg/mL (28.11 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2 mg/mL (8.99 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2 mg/mL (8.99 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% corn oil
Solubility: ≥ 2 mg/mL (8.99 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Patchouli alcohol is a natural tricyclic sesquiterpene, exhibits anti-Helicobacter pylori, anti-inflammatory and antioxidant

properties^[1].

In Vitro

Patchouli alcohol (5-20 µg/mL; 24 h) not only significantly increases the cell viability and decreased cellular lactate dehydrogenase (LDH) leakage, but also markedly elevates the mitochondrial membrane potential and remarkably attenuated GES-1 cellular apoptosis, thereby protecting gastric epithelial cells against injuries caused by H. pylori. Patchouli alcohol also inhibits the secretions of pro-inflammatory factors, such as MCP-1, TNF-α and IL-6^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay^[1]

Cell Line:	GES-1 cells treated with H. pylori
Concentration:	5 µg/mL, 10 µg/mL, and 20 µg/mL
Incubation Time:	24 h
Result:	Significantly increased the cell viability and decreased cellular lactate dehydrogenase (LDH) leakage.

In Vivo

Patchouli alcohol (5-20 mg/kg; oral administration; for 2 weeks) significantly protects the gastric mucosa from H. pylori-induced damage. Patchouli alcohol effectively attenuates oxidative stress by decreasing contents of intracellular ROS and MDA, and increasing levels of NP-SH, GSH/GSSG. Patchouli alcohol significantly attenuates the secretions of IL-1β, keratinocyte chemoattractant and IL-6^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Five- to six-week-old male C57BL/6 mice injected with H. pylori ^[1]
Dosage:	5, 10, and 20 mg/kg
Administration:	Oral administration; for 2 weeks
Result:	Effectively attenuated oxidative stress by decreasing contents of intracellular reactive oxygen species (ROS) and MDA, and increasing levels of non-protein sulfhydryl (NP-SH), catalase and glutathione (GSH)/glutathione disulphide (GSSG).

CUSTOMER VALIDATION

- Acta Pharmacol Sin. 2022 Jan 28.

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REFERENCES

[1]. Lian DW, et al. Unraveling the Novel Protective Effect of Patchouli Alcohol Against Helicobacter pylori-Induced Gastritis: Insights Into the Molecular Mechanism in vitro and in vivo. Front Pharmacol. 2018 Nov 22;9:1347.

Caution: Product has not been fully validated for medical applications. For research use only.

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