(1R)-α-Pinene

Cat. No.: HY-Y0739

CAS No.: 7785-70-8

Molecular Formula: $C_{10}H_{16}$

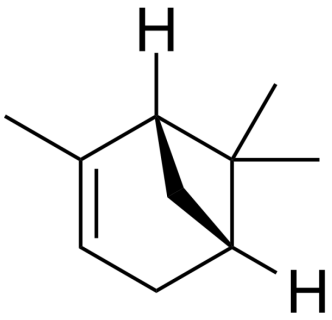
Molecular Weight: 136.23

Target: Bacterial

Pathway: Anti-infection

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (734.05 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	7.3405 mL	36.7026 mL	73.4053 mL
	5 mM	1.4681 mL	7.3405 mL	14.6811 mL
	10 mM	0.7341 mL	3.6703 mL	7.3405 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 (18.35 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (18.35 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (18.35 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(1R)-α-Pinene is a volatile monoterpene with antimicrobial activities. (1R)-α-Pinene reduces Bacillus cereus population growth, and exhibits repellent effects[1][2].

REFERENCES

[1]. David I Yates, et al. Sciadopitys verticillata Resin: Volatile Components and Impact on Plant Pathogenic and Foodborne Bacteria. Molecules. 2019 Oct 19;24(20):3767.

[2]. Aaron T Haselton, et al. Repellency of α-pinene against the house fly, Musca domestica. Phytochemistry. 2015 Sep;117:469-475.

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