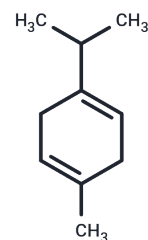


$\gamma$ -Terpinene

## Chemical Properties

CAS No. :	99-85-4
Formula:	C <sub>10</sub> H <sub>16</sub>
Molecular Weight:	136.23
Storage:	Pure form: -20°C for 3 years   In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	$\gamma$ -Terpinene (p-Mentha-1,4-diene) is a monoterpene compound with high antioxidant properties suitable for oral consumption. It displays direct radical scavenging abilities and is known to be a potent antinociceptive agent.
Targets(IC50)	Antioxidant, Antibacterial, Antifungal
In vitro	$\gamma$ -Terpinene ( $\gamma$ -TPN; 12.5, 25mg/kg; p.o.; single dose) significantly reduces the licking time of the stimulated paw in both phases of the test in male Swiss mice (20-30g). $\gamma$ -Terpinene given either systemically (p.o.; 1.56, 3.125, and 6.25mg/kg) or centrally (i.t or i.c.v; 10 and 20 $\mu$ g/site) causes significant inhibition of glutamate-induced nociception in mice[1].

## Solubility Information

Solubility	DMSO: 90 mg/mL (660.65 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (24.22 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
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
50 mM	0.1468 mL	0.7341 mL	1.4681 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Flávia Franceli de Brito Passos, et al. Involvement of Cholinergic and Opioid System in  $\gamma$ -Terpinene-Mediated Antinociception. Evid Based Complement Alternat Med. 2015;2015:829414.

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