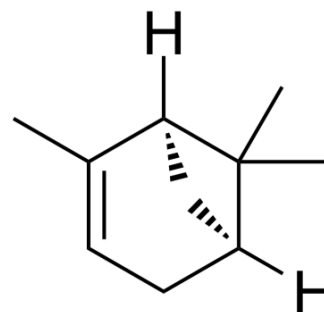


(-)- α -Pinene

Cat. No.:	HY-N0549	
CAS No.:	7785-26-4	
Molecular Formula:	C ₁₀ H ₁₆	
Molecular Weight:	136.23	
Target:	GABA Receptor	
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling	
Storage:	Pure form	-20°C 3 years
		4°C 2 years
	In solvent	-80°C 6 months
		-20°C 1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 60 mg/mL (440.43 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	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: \geq 1 mg/mL (7.34 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: \geq 1 mg/mL (7.34 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: \geq 1 mg/mL (7.34 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	(-)- α -Pinene is a monoterpene and shows sleep enhancing property through a direct binding to GABAA-benzodiazepine (BZD) receptors by acting as a partial modulator at the BZD binding site ^[1] .
In Vitro	(-)- α -pinene enhances the quantity of non-rapid eye movement sleep (NREMS) without affecting the intensity of NREMS by prolonging GABAergic synaptic transmission, acting as a partial modulator of GABAA-BZD receptors and directly binding to the BZD binding site of GABAA receptor ^[1] .

REFERENCES

[1]. Yang H, et al. α -Pinene, a Major Constituent of Pine Tree Oils, Enhances Non-Rapid Eye Movement Sleep in Micethrough GABAA-benzodiazepine Receptors.

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

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