Purdue Bioscience

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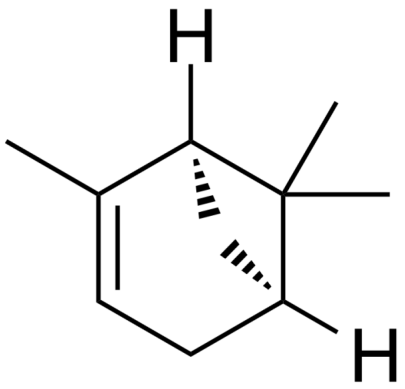
Data Sheet

Product Information

Catalog Number	BP15887
Product Name	(-)-α-Pinene
Description	(1S)-(-)-Alpha-Pinene enhances the quantity of 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.
In vitro	(1S)-(-)-Alpha-Pinene significantly increased the duration of non-rapid eye movement sleep (NREMS) and reduced the sleep latency by oral administration without affecting duration of rapid eye movement sleep and delta activity. (1S)-(-)-Alpha-Pinene potentiated the GABAA receptor-mediated synaptic response by increasing the decay time constant of sIPSCs in hippocampal CA1 pyramidal neurons. These effects of (1S)-(-)-Alpha-Pinene on sleep and inhibitory synaptic response were mimicked by zolpidem, acting as a modulator for GABAA-BZD receptors, and fully antagonized by flumazenil, an antagonist for GABAA-BZD receptor. (1S)-(-)-Alpha-Pinene was found to bind to aromatic residues of α1- and -γ2 subunits of GABAA-BZD receptors in the molecular model.
Synonyms	(1S)-(-)-Alpha-Pinene
CAS No.	7785-26-4
Chemical Formula	C10H16
Molecular Weight	136.238
Solubility	DMSO: 50 mg/mL (367.03 mM), Need ultrasonic
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year

Chemical Structure OR Tested Image	

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