## For Research Use Only (-) Pinene



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## Catalog Number: CM08029

产品信息

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CAS号: 7785-26-4 分子式: C<sub>10</sub>H<sub>16</sub>

主要靶点:

Endogenous Metabolite|Antibacterial|Virus Protease|GABA Receptor

主要通路: 代谢|离子通道|神经科学|微生物学

分子量: 136.23 溶解度: DMSO:50 mg/mL (367.03 mM),Sonification is recommended.

(15)-(-)-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. (15)-(-)-Alpha-Pinene potentiated the GABAA receptor-mediated synaptic response by increasing the decay time constant of sIPSCs in hippocampal CA1 pyramidal neurons[1]. These effects of (15)-(-)-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. (15)-(-)-Alpha-Pinene was found to bind to aromatic residues of  $\alpha$  1- and -  $\gamma$  2 subunits of GABAA-BZD receptors in the molecular model[1].

(15)-(-)-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.

Powder: -20°C for 3 years | In solvent: -80°C for 2 years