alpha-Asarone

Cat. No.: HY-N0700

CAS No.: 2883-98-9

Molecular Formula: $C_{12}H_{16}O_3$

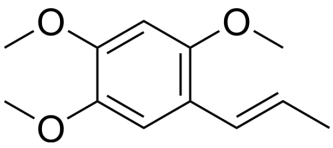
Molecular Weight: 208.25

Target: GABA Receptor

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (480.19 mM; Need ultrasonic)

H_2O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.8019 mL	24.0096 mL	48.0192 mL
5 mM	0.9604 mL	4.8019 mL	9.6038 mL
10 mM	0.4802 mL	2.4010 mL	4.8019 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 (12.00 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (12.00 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (12.00 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

alpha-Asarone (α-Asarone) is one of the main psychoactive compounds, and possesses an antidepressant-like activity in mice.

In Vitro

The results indicated that α-asarone significantly attenuated the LPS-stimulated increase in neuroinflammatory responses and suppressed pro-inflammatory cytokine production in BV-2 cells. Mechanistic study revealed that alpha-Asarone (α-Asarone) inhibited the LPS-stimulated activation via regulation of nuclear factor kappa-B by blocking degradation of

	inhibitor kappa B-alpha signaling in BV-2 microglial cells[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	The present results reveal that the acute treatment of alpha-Asarone (α-Asarone) elicited biphasic responses on immobility such that the duration of the immobility time is significantly reduced at lower doses (15 and 20 mg/kg, i.p.) but increased at higher doses (50 and 100 mg/kg, i.p.) in the TST. Besides, alpha-Asarone (α-Asarone) at higher doses (50 and 100 mg/kg, i.p.) significantly decreased the spontaneous locomotor activity[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Ranjithkumar Chellian, et al. Biphasic Effects of α-Asarone on Immobility in the Tail Suspension Test: Evidence for the Involvement of the Noradrenergic and Serotonergic Systems in Its Antidepressant-Like Activity. Front Pharmacol. 2016; 7: 72.

[2]. Byung-Wook Kim, et al. α-Asarone attenuates microglia-mediated neuroinflammation by inhibiting NF kappa B activation and mitigates MPTP-induced behavioral deficits in a mouse model of Parkinson's disease. Neuropharmacology, Volume 97, October 2015, Pages 46–57

[3]. Hye-Jung Park, et al. Effect of α-asarone on angiogenesis and matrix metalloproteinase. Environmental Toxicology and Pharmacology, Volume 39, Issue 3, May 2015, Pages 1107–1114

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