Umbellulone

Cat. No.: HY-135013

CAS No.: 546-78-1

Molecular Formula: $C_{10}H_{14}O$

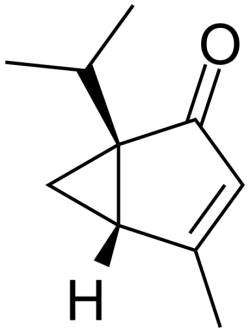
Molecular Weight: 150.22

Target: TRP Channel

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage:

Pure form	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (1664.23 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	6.6569 mL	33.2845 mL	66.5690 mL
	5 mM	1.3314 mL	6.6569 mL	13.3138 mL
	10 mM	0.6657 mL	3.3285 mL	6.6569 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Umbellulone is an active constituent of the leaves of Umbellularia californica. Umbellulone stimulates the TRPA1 channel in a subset of peptidergic, nociceptive neurons, activating the trigeminovascular system via this mechanism[1].

IC_{50} & Target

TRPA1 channel[1]

In Vitro

Umbellulone, from μM to sub-mM concentrations, selectively stimulates transient receptor potential ankyrin 1-expressing HEK293 cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Umbellulone (50–250 nM/5ul) causes an acute nocioceptive response in a dose-dependent manner in $Trpa1^{+/+}$ mice[1].

Umbellulone (150 μg/kg; intravenous or intranasal) do not affect systemic blood pressure[1].

Umbellulone (30-150 μg/kg; i.v.) increases meningeal blood flow in a dose-dependent manner[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Sprague-Dawley rats (male, 250 g)[1]

Dosage:	30 μg/kg, 75 μg/kg, 150 μg/kg
Administration:	Intravenously
Result:	Increased meningeal blood flow in a dose-dependent manner.

REFERENCES

[1]. Nassini R, et al. The 'headache tree' via umbellulone and TRPA1 activates the trigeminovascular system. Brain. 2012 Feb;135(Pt 2):376-90.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA