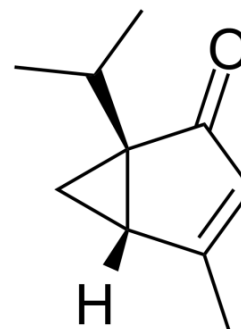


Umbellulone

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



BIOLOGICAL ACTIVITY

Description	Umbellulone is an active constituent of the leaves of <i>Umbellularia californica</i> . Umbellulone stimulates the TRPA1 channel in a subset of peptidergic, nociceptive neurons, activating the trigeminovascular system via this mechanism ^[1] .
IC₅₀ & 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 nociceptive response in a dose-dependent manner in <i>Trpa1</i> ^{+/+} 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.

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

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