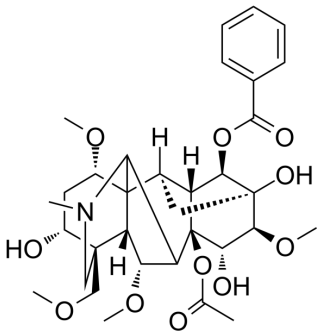
Mesaconitine

Cat. No.:	HY-N0724		
CAS No.:	2752-64-9		
Molecular Formula:	$C_{33}H_{45}NO_{11}$		
Molecular Weight:	631.71		
Target:	TNF Receptor		
Pathway:	Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 4.62 mg/mL (7.31 mM; Need ultrasonic)
DMSO : < 1 mg/mL (insoluble or slightly soluble)
H_2O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.5830 mL	7.9150 mL	15.8300 mL
	5 mM	0.3166 mL	1.5830 mL	3.1660 mL
	10 mM	---	---	---

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

BIOLOGICAL ACTIVITY

Description

Mesaconitine is the main active component of genus aconitum plants.IC50 value:Target: in vitro: In HUVECs, 30 microM mesaconitine increased the [Ca(2+)](i) level in the presence of extracellular CaCl(2) and NaCl, and the response was inhibited by KBR7943. Mesaconitine increased intracellular Na(+) concentration level in HUVECs. The [Ca(2+)](i) response by mesaconitine was inhibited by 100 microM D-tubocurarine [1]. Mesaconitine at 30 microM inhibited 3 microM phenylephrine-induced contraction in the endothelium-intact, but not endothelium-denuded, aortic rings [2]. MA promoted the alpha-MT-induced decrease in NE levels in hippocampus, medulla oblongata plus pons and spinal cord [3].

CUSTOMER VALIDATION

- Xenobiotica. 2021 Jan 5;1-13.

- Research Square Preprint. 2021 Feb.

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REFERENCES

[1]. Ogura J, et al. Mesaconitine-induced relaxation in rat aorta: role of Na+/Ca2+ exchangers in endothelial cells. Eur J Pharmacol. 2004 Jan 12;483(2-3):139-46.

[2]. Mitamura M, et al. Mesaconitine-induced relaxation in rat aorta: involvement of Ca2+ influx and nitric-oxide synthase in the endothelium. Eur J Pharmacol. 2002 Feb 2;436(3):217-25.

[3]. Murayama M, et al. Mechanism of analgesic action of mesaconitine. I. Relationship between analgesic effect and central monoamines or opiate receptors. Eur J Pharmacol. 1984 May 18;101(1-2):29-36.

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