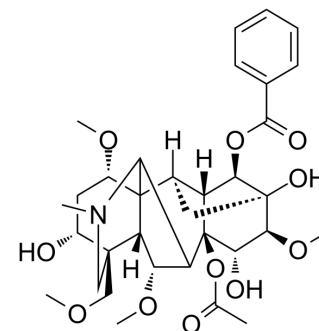


Mesaconitine

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	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 4.62 mg/mL (7.31 mM; Need ultrasonic)
 DMSO : < 1 mg/mL (insoluble or slightly soluble)
 H₂O : < 0.1 mg/mL (insoluble)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	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 [Ca²⁺]_i level in the presence of extracellular CaCl₂ and NaCl, and the response was inhibited by KBR7943. Mesaconitine increased intracellular Na⁺ concentration level in HUVECs. The [Ca²⁺]_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.

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- Research Square Preprint. 2021 Feb.

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REFERENCES

- [1]. Ogura J, et al. Mesoconitine-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. Mesoconitine-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.
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Caution: Product has not been fully validated for medical applications. For research use only.

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