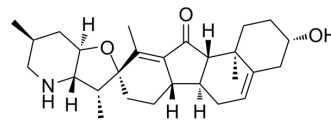


Jervine

Cat. No.:	HY-N0836		
CAS No.:	469-59-0		
Molecular Formula:	C ₂₇ H ₃₉ NO ₃		
Molecular Weight:	425.6		
Target:	Hedgehog; Smo		
Pathway:	Stem Cell/Wnt		
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 : 1 mg/mL (2.35 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.3496 mL	11.7481 mL	23.4962 mL
	5 mM	---	---	---
	10 mM	---	---	---

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

BIOLOGICAL ACTIVITY

Description

Jervine (11-Ketocyclopamine) is a potent Hedgehog (Hh) inhibitor with an IC₅₀ of 500-700 nM^[1]. Jervine is a natural teratogenic steroidal alkaloid from rhizomes of *Veratrum nigrum*. Jervine has anti-inflammatory and antioxidant properties^[2].

IC₅₀ & Target

IC₅₀: 500-700 nM (Hedgehog)^[1]

In Vitro

Jervine (40 μM; 6, 12 and 24 hours) inhibits Akt phosphorylation^[3].
 Jervine (40 μM; 2 hours) inhibits NF-κB activation decreased COX-2 overexpression and induced apoptosis^[3].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.
 Western Blot Analysis^[1]

Cell Line:	HEL and TF1a cells
Concentration:	40 μM

Incubation Time:	6, 12 and 24 hours
Result:	Inhibited Akt phosphorylation.

In Vivo

Jervine (orally; 50-400 mg/kg) exerts 50.4-73.5% anti-inflammatory effects in carrageenan induced paw edema^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Sprague Dawley rats (180-200 g) ^[2]
Dosage:	50, 100, 200 and 400 mg/kg
Administration:	Orally
Result:	Exerted 50.4-73.5% anti-inflammatory effects in carrageenan induced paw edema.

CUSTOMER VALIDATION

- Philos Trans R Soc Lond B Biol Sci. 2023 Nov 20;378(1890):20220248.
- Biochem Biophys Res Commun. 2020 Dec 10;533(3):397-403.

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REFERENCES

- [1]. Williams JA, et al. Identification of a small molecule inhibitor of the hedgehog signaling pathway: effects on basalcell carcinoma-like lesions. Proc Natl Acad Sci U S A. 2003 Apr 15;100(8):4616-21.
- [2]. Dumlu FA, et al. Anti-inflammatory and antioxidant properties of jervine, a steroidal alkaloid from rhizomes of Veratrum album. Phytomedicine. 2019 Mar 1;55:191-199.
- [3]. Ghezali L, et al. Cyclopamine and jervine induce COX-2 overexpression in human erythroleukemia cells but only cyclopamine has a pro-apoptotic effect. Exp Cell Res. 2013 Apr 15;319(7):1043-53.

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

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