Jervine

Cat. No.: HY-N0836

CAS No.: 469-59-0

Molecular Formula: $C_{27}H_{39}NO_3$

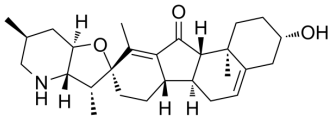
Molecular Weight: 425.6

Target: Hedgehog; Smo

Pathway: Stem Cell/Wnt

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 1 mg/mL (2.35 mM; Need ultrasonic)

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
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 IC_{50} of 500-700 nM[1]. Jervine is a natural teratogenic sterodial alkaloid from rhizomes of Veratrum album. Jervine has anti-inflammatory and antioxidant properties [2].

IC_{50} & 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-jB 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

- Biochem Biophys Res Commun. 2020 Dec 10;533(3):397-403.

See more customer validations on www.MedChemExpress.com

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 sterodial 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.

India Contact:
Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com