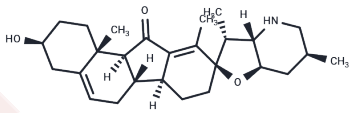
Data Sheet (Cat.No.T3363)

TargetMol

Jervine

Chemical Properties



CAS No. :	469-59-0
Formula:	C27H39NO3
Molecular Weight:	425.60
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years | In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

Biological Description

Description	The biological activity of Jervine (Jerwiny) is mediated via its interaction with the 7 passes transmembrane protein Smoothened. Jervine binds with and inhibits smoothened, which is an integral part of the Hedgehog signaling pathways. With smoothened inhibited, the GLI1 transcription cannot be activated and Hedgehog target genes cannot be transcribed.
Targets(IC50)	Hedgehog/Smoothened,Smo
In vitro	Compared to controls, chondrocyte cultures exposed to 25 μg/ml jervine shows an apparent reduction in cell number but no differences in cellular morphology or relative intensity of alcian blue staining[2].
In vivo	Embryos exposed to jervine develop craniofacial abnormalities related to those found in Shh mutant embryos. The lower jaw of these embryos is severely reduced in size, often leading to loss of the incisors. Treatment of pregnant mice with the hedgehog inhibitor jervine induces jaw defects in the embryos similar to those found in Prx1?/?Prx2?/? embryos. The distal part of the jaw is reduced in size, and both incisors are absent[1].
Cell Research	Cells are grown in Eagle's basal medium supplemented with 10% fetal bovine serum and 0.25 mg/ml gentamicin sulfate. Cells are seeded onto 35-mm tissue culture plates at a density of 1×104 celldplate. The plated cells are incubated for 24 hours prior to treatment in a humidified incubator at 37 "C in an atmosphere of 5% CO2 in air. Drugs are then added: jervine to a final concentration of 5, 10, or 25 μg/ml; retinoic acid at 0.03, 0.30, or 3.0 pg/ml. After a final 48 hours of incubation, media are removed, the cultures are rinsed three times with phosphate-buffered saline (PBS) pH 7.4, and the cells are harvested into 0.5 ml of 0.1% (w/v) trypsin which contained 0.1% EDTA (w/v) in PBS. Each sample is mixed with 9.5 ml Isoton II , and cell numbers are determined by using a Coulter Counter. (Only for Reference)

Solubility Information

Solubility	Chloroform: Soluble, H2O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 4.26 mg/mL (10.01 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3496 mL	11.7481 mL	23.4962 mL
5 mM	0.4699 mL	2.3496 mL	4.6992 mL
10 mM	0.235 mL	1.1748 mL	2.3496 mL
50 mM	0.047 mL	0.235 mL	0.4699 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

ten Berge D, et al. Development. 2001, 128(15):2929-38.
Campbell M, et al. Teratology. 1987, 36(2):235-43.