Hirsutine

Cat. No.: HY-N2193

CAS No.: 7729-23-9

Molecular Formula: $C_{22}H_{28}N_2O_3$

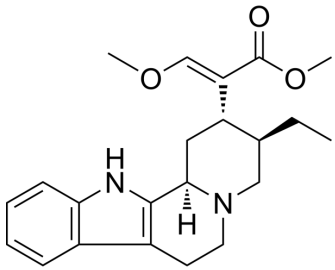
Molecular Weight: 368.47

Target: Apoptosis; Flavivirus; Dengue virus

Pathway: Apoptosis; Anti-infection

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 : 100 mg/mL (271.39 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7139 mL	13.5696 mL	27.1392 mL
	5 mM	0.5428 mL	2.7139 mL	5.4279 mL
	10 mM	0.2714 mL	1.3570 mL	2.7139 mL

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

BIOLOGICAL ACTIVITY

Description

Hirsutine, an indole alkaloid of Uncaria rhynchophylla, exhibits anti-cancer activity. Hirsutine induces apoptosis and is a potent Dengue virus inhibitor exhibiting low cytotoxicity[1][2][3].

In Vitro

Hirsutine remarkably reduces the viability of MCF-7 and MDA-MB-231 cells in a time- and dose-dependent manner with IC_{50} values of 447.79 and 179.06 μM, respectively. In the MDA-MB-231 cells, Hirsutine induces apoptosis and depolarization of MMP, releases Cyt C from mitochondria, and activates caspase 9 and caspase 3[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Hirsutine induces mPTP-dependent apoptosis through ROCK1/PTEN/PI3K/GSK3β pathway in human lung cancer cells[3].

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REFERENCES

[1]. Hishiki T, et al. Hirsutine, an Indole Alkaloid of Uncaria rhynchophylla, Inhibits Late Step in Dengue Virus Lifecycle. Front Microbiol. 2017 Aug 30;8:1674.

[2]. Huang QW, et al. [Hirsutine induces apoptosis of human breast cancer MDA-MB-231 cells through mitochondrial pathway]. Sheng Li Xue Bao. 2018 Feb 25;70(1):40-46.

[3]. Zhang R, et al. Hirsutine induces mPTP-dependent apoptosis through ROCK1/PTEN/PI3K/GSK3β pathway in human lung cancer cells. Cell Death Dis. 2018 May 22;9(6):598.

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