

Product Data Sheet

Product Name: Hirsutine

Cat. No.: GC36229

Chemical Properties

Cas. No. 7729-23-9

SMILES O=C(OC)/C([C@H])([C@H](CN1CC2)CC)C[C@]1([H])C3=C2C(C=CC=C4)=C4N3)=C/O
C

Formula $C_{22}H_{28}N_2O_3$ M.Wt 368.47

Solubility DMSO : 100 mg/mL (271.39 mM; Storage Store at -20°C
Need ultrasonic)

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

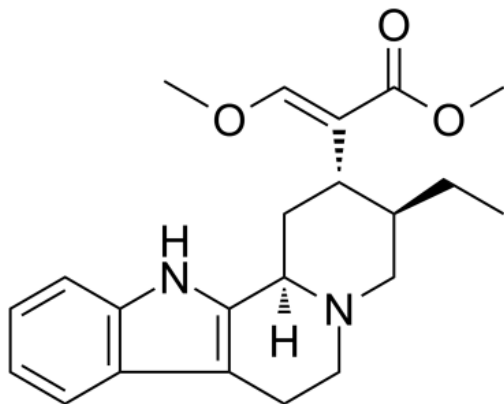
Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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Structure



Background

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].

Hirsutine remarkably reduces the viability of MCF-7 and MDA-MB-231 cells in a time- and dose-dependent manner with IC₅₀ values of 447.79 and 179.06 μ M, 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].

Hirsutine induces mPTP-dependent apoptosis through ROCK1/PTEN/PI3K/GSK3 β pathway in human lung cancer cells[3].

[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].

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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/GSK3 β pathway in human lung cancer cells. Cell Death Dis. 2018 May 22;9(6):598.

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