Data Sheet (Cat.No.T10990)

TargetMol

Dehydrocorydaline chloride

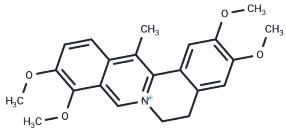
Chemical Properties

CAS No. : 10605-03-5

Formula: C22H24ClNO4

Molecular Weight: 401.88

Storage: 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	Dehydrocorydaline chloride (13-Methylpalmatine chloride) is an alkaloid exhibiting anti-inflammatory and anti-cancer activities and can enhance the activation of p38 MAPK.
Targets(IC50)	Bcl-2 Family,Caspase,Parasite,Autophagy,p38 MAPK,PARP
In vitro	Treatment of C2C12 myoblasts with 500 nM dehydrocorydrine increased the expression of muscle-specific proteins (including MyoD, myogenin, and myosin heavy chain), and enhanced p38 MAPK activation and the interaction between MyoD and E protein. Additionally, dehydrohydroxyproline restored defects in differentiation-induced p38 MAPK activation and differentiation of myoblasts caused by Cdo. Dehydrohydroxyproline significantly inhibited MCF-7 cell proliferation in a dose-dependent manner, reversible by the caspase-8 inhibitor Z-IETD-FMK. It also increased DNA fragmentation without affecting ΔΨm, elevated Bax protein levels, decreased Bcl-2 protein levels, and induced caspase-7 and -8 activation and PARP cleavage, without affecting caspase-9. These findings suggest that dehydrohydroxyproline inhibits MCF-7 cell proliferation by inducing apoptosis through Bax/Bcl-2 regulation, caspase activation, and PARP cleavage.
In vivo	Dehydrocobaltate (3.6, 6 or 10 mg/kg, intraperitoneal injection) showed a dose-dependent anti-nociceptive effect in the acetic acid-induced writhing test and significantly reduced formalin-induced mice Pain reaction. In the formalin test, dehydrocorydrine can reduce the expression of caspase 6 (CASP6), TNF-α, IL-1β and IL-6 proteins in the spinal cord. It was confirmed that dehydroyanhusine has an analgesic effect on mice.

Solubility Information

Solubility	DMSO: 24 mg/mL (59.72 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.98 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4883 mL	12.4415 mL	24.883 mL
5 mM	0.4977 mL	2.4883 mL	4.9766 mL
10 mM	0.2488 mL	1.2442 mL	2.4883 mL
50 mM	0.0498 mL	0.2488 mL	0.4977 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

Yoo M, et al. Dehydrocorydaline promotes myogenic differentiation via p38 MAPK activation. Mol Med Rep. 2016 Oct;14(4):3029-36.
Yin ZY, et al. Antinociceptive effects of dehydrocorydaline in mouse models of inflammatory pain involve the opioid receptor and inflammatory cytokines. Sci Rep. 2016 Jun 7;6:27129
Xu Z, et al. Dehydrocorydaline inhibits breast cancer cells proliferation by inducing apoptosis in MCF-7 cells. Am J Chin Med. 2012;40(1):177-85.