Phellodendrine chloride

Cat. No.: HY-N0735

CAS No.: 104112-82-5

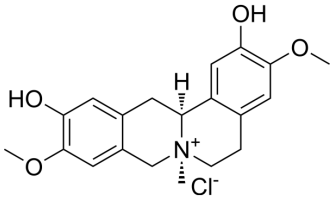
Molecular Formula: $C_{20}H_{24}ClNO_4$

Molecular Weight: 377.86

Target: Autophagy

Pathway: Autophagy

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (132.32 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6465 mL	13.2324 mL	26.4648 mL
	5 mM	0.5293 mL	2.6465 mL	5.2930 mL
	10 mM	0.2646 mL	1.3232 mL	2.6465 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 5 mg/mL (13.23 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 5 mg/mL (13.23 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 5 mg/mL (13.23 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Phellodendrine chloride is a plant alkaloid found in Phellodendron amurense. Phellodendrine chloride suppresses the proliferation of KRAS mutated pancreatic cancer cells through inhibition of nutrients uptake via macropinocytosis [1]. Phellodendrine chloride promotes autophagy by regulating the AMPK/mTOR pathway and reduce the intestinal damage of ulcerative colitis[2].

REFERENCES

[1]. Su S, Wang X, Xi X, et al. Phellodendrine promotes autophagy by regulating the AMPK/mTOR pathway and treats ulcerative colitis. J Cell Mol Med. 2021;25(12):5707-5720.

[2]. Thu PM, et al. Phellodendrine chloride suppresses proliferation of KRAS mutated pancreatic cancer cells through inhibition of nutrients uptake via macropinocytosis. Eur J Pharmacol. 2019 May 5;850:23-34.

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