β-Elemonic acid

Cat. No.: HY-N2454

CAS No.: 28282-25-9

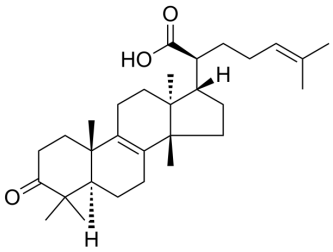
Molecular Formula: $C_{30}H_{46}O_3$

Molecular Weight: 454.68

Target: Apoptosis; Reactive Oxygen Species; COX; Endogenous Metabolite; Prolyl Endopeptidase (PREP)

Pathway: Apoptosis; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (54.98 mM; ultrasonic and warming and heat to 60°C)
H_2O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1993 mL	10.9967 mL	21.9935 mL
	5 mM	0.4399 mL	2.1993 mL	4.3987 mL
	10 mM	0.2199 mL	1.0997 mL	2.1993 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (5.50 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

β-Elemonic acid is a triterpene isolated from Boswellia carterii. β-Elemonic acid induces cell apoptosis, reactive oxygen species (ROS) and COX-2 expression and inhibits prolyl endopeptidase. β-Elemonic acid exhibits anticancer and anti-inflammatory effects[1][2].

IC_{50} & Target

COX-2

In Vitro

β-elemonic acid (1, 3, 10, 20 μM; 24 hours) strongly induces human A549 lung cancer cell apoptosis in a dose- and time-dependent manner[1].
β-elemonic acid (1, 3, 10, 20 μM; 24 hours) exerts potent cytotoxic effects on human NSCLC A549 cells in a dose-dependent manner. The IC_{50} value following a 24-h exposure to β-elemonic acid was 6.92 μM[1].
β-elemonic acid (20 μM; 24 hours) results in a cell percentage of 58.01% in the G0/G1 phase[1].
β-elemonic acid (1, 3, 10, 20 μM; 24 hours) inhibits phosphorylation of p42/44, MAPK/JNK and p38 in the A549 cells[1].

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

REFERENCES

[1]. Atta-ur-Rahman, et al. Bioactive constituents from Boswellia papyrifera. J Nat Prod. 2005 Feb;68(2):189-93.

[2]. Wu TT, et al. β-Elemonic acid inhibits the cell proliferation of human lung adenocarcinoma A549 cells: The roleof MAPK, ROS activation and glutathione depletion. Oncol Rep. 2016 Jan;35(1):227-34.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA