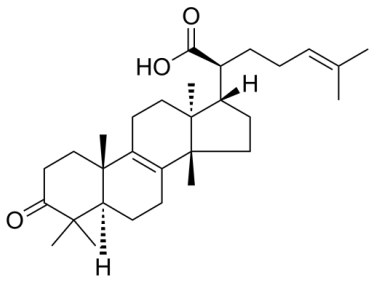
Data Sheet

Product Name:	β-Elemonic acid
Cat. No.:	CS-0022682
CAS No.:	28282-25-9
Molecular Formula:	$C_{30}H_{46}O_3$
Molecular Weight:	454.68
Target:	Apoptosis; COX; Endogenous Metabolite; Prolyl Endopeptidase (PREP); Reactive Oxygen Species
Pathway:	Apoptosis; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB
Solubility:	H2O : < 0.1 mg/mL (insoluble); DMSO : 25 mg/mL (54.98 mM; ultrasonic and warming and heat to 60°C)



BIOLOGICAL ACTIVITY:

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]. **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].

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.

CAIndexNames:

Lanosta-8,24-dien-21-oic acid, 3-oxo-, (13α,14β,17α,20S)-

SMILES:

C[C@@]12C3=C(CC[C@]1([C@@]([C@@H](C(O)=O)CC/C=C(C)/C)([H])CC2)C)[C@@]4([C@@](C(C)(C(CC4)=O)C)([H])CC3)C

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

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