

Gardenin B

Chemical Properties

CAS No. : 2798-20-1

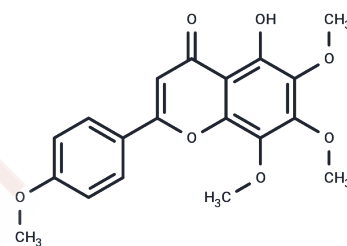
Formula: C₁₉H₁₈O₇

Molecular Weight: 358.34

Keep away from direct sunlight

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	Gardenin B exhibits superior antiproliferative activity against lung, breast, colon, hepatic and leukaemia cell lines as well as in keratinocytes .
Targets(IC50)	Apoptosis,Caspase,NO Synthase,Cysteine Protease,DUB,ROS
In vitro	Here we investigated the antiproliferative activity of the flavonoids isolated from <i>Baccharis scandens</i> against human leukemia cell lines and found that the methoxyflavonoid Gardenin B was the most cytotoxic compound against HL-60 and U-937 cells, showing IC50 values between 1.6 and 3.0 μ M, but had no significant cytotoxic effects against quiescent or proliferating human peripheral blood mononuclear cells. These effects on viability were accompanied by the concentration- and time-dependent appearance of apoptosis as evidenced by DNA fragmentation, formation of apoptotic bodies and a sub-G1 ratio increase. Comparative studies with the best-studied bioflavonoid quercetin indicate that Gardenin B is a more cytotoxic and more apoptotic inducer than quercetin. Cell death induced by Gardenin B was associated with: (i) a significant induction of caspase-2, -3, -8 and -9 activities; (ii) cleavage of the initiator caspases (caspase-2, -8 and -9), of the executioner caspase-3, and of poly(ADP-ribose) polymerase; and (iii) a concentration-dependent reactive oxygen species generation[1]

Solubility Information

Solubility	DMSO: 3.59 mg/mL (10.02 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7906 mL	13.9532 mL	27.9065 mL
5 mM	0.5581 mL	2.7906 mL	5.5813 mL
10 mM	0.2791 mL	1.3953 mL	2.7906 mL
50 mM	0.0558 mL	0.2791 mL	0.5581 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

Gardenin B-induced cell death in human leukemia cells involves multiple caspases but is independent of the generation of reactive oxygen species. Chem Biol Interact. 2016 Aug 25;256:220-7.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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