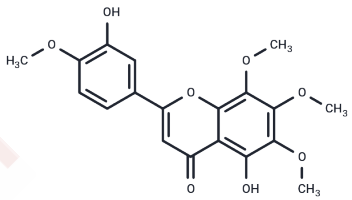
Data Sheet (Cat.No.TN6637)

TargetMol

Gardenin D

Chemical Properties



CAS No. : 29202-00-4

Formula: C19H18O8

Molecular Weight: 374.34

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 D has antioxidant, and antiproliferative activities.
In vitro	METHODS AND RESULTS:In the present study we mined the information on Gardenia lucida (Dikamali) and identified seven polymethoxyflavones from its gum resin. We also investigated its antiproliferative and antioxidant potential. Xanthomicrol (8) found as potent DPPH scavenger (85.86±1.3%) along with strong ferric plummeting ability (53.60 ±2.0 FSE) and reducing potential (1.07±0.01) as compared to ascorbic acid. Gardenin B (5) strongly inhibit biochemical production of nitric oxide (IC50 10.59±0.4μg/mL) followed by 5-Desmethylnobiletin (7) and Gardenin E (10, IC5011.01±0.7-34.53±2. 7μg/mL). Methanol extract, chloroform fraction and Acerosin (11), Gardenin D (9) and Gardenin B (5) exhibited superior antiproliferative activity against lung, breast, colon, hepatic and leukaemia cell lines as well as in keratinocytes (IC50 12.82±0.67-94.63±1. 27μg/mL) whereas other fractions and isolated compounds moderately affect the cell proliferation (21.40±0.12-48.12±0.47%) with least and non-specific interaction against succinate dehydrogenase. Except compound 2, 3, 6, 8 and 11, others were found as a significant inhibitor of ODC (IC50 2.36±0.7-8.53±0.32μg/mL) with respect to DFMO (IC50 10.85±0.28μg/mL). In silico analysis also revealed enervated binding energy (-4.30 to -5.02kcal/mol) and inhibition constant (704.18-210.26μM) wherein 5, 7, 8, 9 and 10 showed specific interaction with the receptor while rest were non-specific. Except butanol fraction and Gardenin E, others were potently inhibited the cathepsin D activity with non-specific interaction and better binding energy (-5.78 to -7.24kcal/mol) and inhibition constant (57.87-4.90μM).

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6714 mL	13.3568 mL	26.7137 mL
5 mM	0.5343 mL	2.6714 mL	5.3427 mL
10 mM	0.2671 mL	1.3357 mL	2.6714 mL
50 mM	0.0534 mL	0.2671 mL	0.5343 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

Characterization of bioactive constituents from the gum resin of Gardenia lucida and its pharmacological potential. Biomed Pharmacother. 2017 Jan;85:444-456.