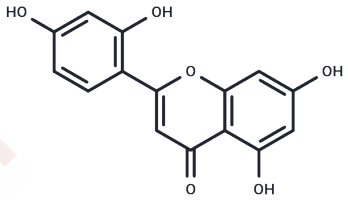
Data Sheet (Cat.No.T72803)

TargetMol

Norartocarpetin

Chemical Properties



CAS No. : 520-30-9

Formula: C15H10O6

Molecular Weight: 286.24

Storage: Keep away from direct sunlight
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	Norartocarpetin is a tyrosinase inhibitor with strong inhibitory activity against tyrosinase (IC_{50} = 0.47 μM). It can be used as an anti-browning agent in food-related research and also shows significant anti-tumor activity against human lung cancer NCI-H460 cells with an IC_{50} of 22 μM. Its anti-proliferative mechanisms mainly include regulating the Ras/Raf/MAPK signaling pathway, inducing mitochondria-dependent apoptosis, arresting the cell cycle at S phase, and inhibiting cell migration and invasion.
Targets(IC50)	Apoptosis,Raf,MAPK,Tyrosinase,Ras
In vitro	Methods: Relevant cells were treated with Norartocarpetin to detect its mushroom tyrosinase inhibitory activity; NCI-H460 and MRC-9 cells were treated with different concentrations of Norartocarpetin for 24-48 h to detect cytotoxicity, signaling pathways, apoptosis, cell cycle, invasion and migration. Results: 1 Norartocarpetin had potent mushroom tyrosinase inhibitory activity with an IC_{50} of 0.47 μM [1]. 2 Norartocarpetin (0-100 μM, 48 h) showed dose-dependent cytotoxicity on NCI-H460 and MRC-9 cells, with IC_{50} values of 22 μM and 85 μM, respectively. 3 Norartocarpetin (0, 11, 22, 44 μM, 24 h) could block the Ras/Raf/MAPK signaling pathway. 4 Norartocarpetin (0, 11, 22, 44 μM, 24 h) could induce apoptosis in human lung cancer NCI-H460 cells. 5 Norartocarpetin (0, 11, 22, 44 μM) could induce cell cycle arrest at the S phase. 6 Norartocarpetin (22 μM, 24 h) could inhibit cell invasion in a dose-dependent manner. 7 Norartocarpetin (0, 11, 22, 44 μM, 24 h) could significantly inhibit cell migration [2].

Solubility Information

Solubility	DMSO: 80 mg/mL (279.49 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4936 mL	17.4679 mL	34.9357 mL
5 mM	0.6987 mL	3.4936 mL	6.9871 mL
10 mM	0.3494 mL	1.7468 mL	3.4936 mL
50 mM	0.0699 mL	0.3494 mL	0.6987 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

Zong-Ping Zheng, et al. Isolation of tyrosinase inhibitors from Artocarpus heterophyllus and use of its extract as antibrowning agent. Mol Nutr Food Res

Ning Guo, et al. Antiproliferative effects of Norartocarpetin isoflavone in human lung carcinoma cells are mediated via targeting Ras/Raf/MAPK signalling pathway,
mitochondrial mediated apoptosis, S-phase cell cycle arrest and suppression of cell migration and invasion. J BUON. 2020 Mar-Apr;25(2):855-861.