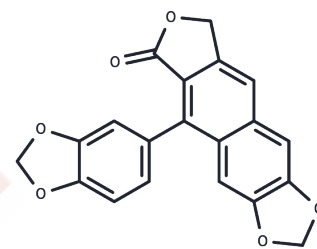


Taiwanin C

Chemical Properties

CAS No. :	14944-34-4
Formula:	C ₂₀ H ₁₂ O ₆
Molecular Weight:	348.31
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Taiwanin C is a compound extracted from the Taiwan plant <i>Cryptocarya chinensis</i> , which belongs to the lignan class of compounds and has many biological activities such as anti-inflammatory, antioxidant and anticancer. The Taiwanin C can inhibit the production of inflammatory mediators and oxidative stress in cells.
Targets(IC50)	Antioxidant, Immunology/Inflammation related
In vitro	Taiwanin C (1-60μM, 24h) demonstrated a dose-dependent inhibition of cell viability specifically in T28 cells, while it had no impact on the normal N28 cells. Treatment with Taiwanin C dose-dependently suppressed the migration ability of T28 cells, as assessed by wound healing and migration assays. Additionally, Taiwanin C decreased the levels of β-catenin, as well as its downstream metastatic proteins Tbx3 and cMyc. Furthermore, Taiwanin C hindered the nuclear accumulation of β-catenin and facilitated its degradation through a pathway involving proteasomes. Moreover, Taiwanin C enhanced the activity of GSK-3β and reduced the levels of phosphorylated (p-ser9) GSK-3β, thereby inactivating the Wnt signaling pathway. In summary, Taiwanin C impeded the cell migration effects of T28 cells by activating GSK-3β, which led to enhanced protein degradation and reduced nuclear accumulation of β-catenin.[1]
In vivo	Taiwanin C (20 mg/kg/d, 30 mg/kg/d, 15d; injected) showed effective anti_x0002_tumor activity in nude mice models.[1]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.871 mL	14.355 mL	28.7101 mL
5 mM	0.5742 mL	2.871 mL	5.742 mL
10 mM	0.2871 mL	1.4355 mL	2.871 mL
50 mM	0.0574 mL	0.2871 mL	0.5742 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

Hsieh CH, et al. Down-regulation of β -catenin and the associated migration ability by Taiwanin C in arecoline and 4-NQO-induced oral cancer cells via GSK-3 β activation. *Mol Carcinog.* 2017;56(3):1055-1067.

Ban HS, et al. Inhibition of prostaglandin E(2) production by taiwanin C isolated from the root of *Acanthopanax chiisanensis* and the mechanism of action. *Biochem Pharmacol.* 2002;64(9):1345-1354.

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