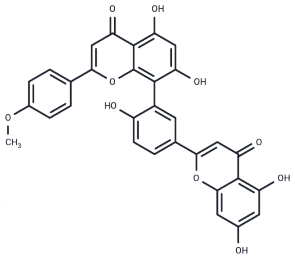
Data Sheet (Cat.No.TQ0134)

TargetMol

Podocarpusflavone A

Chemical Properties



CAS No. : 22136-74-9

Formula: C31H20O10

Molecular Weight: 552.48

Storage: Keep away from direct sunlight,Keep away from moisture
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	Podocarpusflavone A is a DNA topoisomerase I inhibitor with moderate anti-proliferative activity that induces cell apoptosis in MCF-7.
Targets(IC50)	Apoptosis,STAT,Topoisomerase
In vitro	Podocarpusflavone A showed significant inhibition against KB, DLD, HEp-2, MCF-7 tumour cell lines (ED50 4.56-16.24 μg/mL). It induced cell apoptosis in MCF-7 mainly via sub-G1/S phase arrest. PF (40 ug/mL, 24 hours) induced a significant increase in cell death and growth arrest in the S phase by about 10-fold compared to the control group; [1]Podocarpusflavone A (0,5,10,20 μM) treatment of four melanoma cell lines (A375, Malme-3M, SK-MEL-1, and SK-MEL5) for 24 h significantly inhibited p-STAT3 levels, but not total STAT3 protein levels, in all cell lines tested. In addition, a dose-dependent inhibition of p-STAT3 expression was observed in both A375 and SK-MEL-1 cells and the IC50 values were approximately 10 μM for both A375 and SK-MEL-1 cells.[2]
In vivo	Podocarpusflavone A was administered daily to A375 cell-derived xenograft mice (20, 40 mg/kg, po, for 21 days), and Podocarpusflavone A significantly suppressed tumor size and weight in xenograft mice. [2]

Solubility Information

Solubility	DMSO: 40 mg/mL (72.4 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (1.81 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.810 mL	9.0501 mL	18.1002 mL
5 mM	0.362 mL	1.810 mL	3.620 mL
10 mM	0.181 mL	0.905 mL	1.810 mL
50 mM	0.0362 mL	0.181 mL	0.362 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

Pen-Ho Yeh et al. Naturally Occurring Cytotoxic [3′→8″]-Biflavonoids from Podocarpus nakaii J Tradit Complement Med. 2012 Jul;2(3):220-6.
Meng H, et al. Podocarpusflavone A inhibits cell growth of skin cutaneous melanoma by suppressing STAT3 signaling. J Dermatol Sci. 2020 Dec;100(3):201-208.
Abdul-Rahman AM, et al. Multi-target action of Garcinia livingstonei extract and secondary metabolites against fatty acid synthase, α-glucosidase, and xanthine oxidase. Saudi Pharm J. 2023 Oct;31(10):101762.