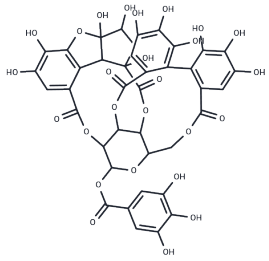
Data Sheet (Cat.No.TN6623)

TargetMol

Phyllanthusiin C

Chemical Properties



CAS No. : 142674-52-0

Formula: C40H30O26

Molecular Weight: 926.65

Storage: Store at low temperature,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	Phyllanthusiin C is a natural compound obtained from Phyllanthus reticulatus leaf red extract with antimicrobial activity and inhibits lipopolysaccharide (LPS)-induced nitric oxide production by IC cells RAW 264.7.
Targets(IC50)	Others
In vitro	This study was designed to obtain the chemical fingerprint and to investigate the effect of Phyllanthus urinaria on telomerase activity and apoptotic pathways in the human nasopharyngeal carcinoma cell line (NPC-BM1). METHODS AND RESULTS: The polyphenol compounds in P. urinaria were investigated by HPLC/MS. Cell viability with the treatment of P. urinaria, gallic acid, ellagic acid, quercetin and cisplatin was detected by MTT assay. TUNEL assay, DNA fragmentation analysis and caspase3 activity were used to confirm apoptotic changes. Telomerase activity was determined using the TRAP assay. RNA isolation and RT-PCR were used to analyze the related genes expression. All experiments on treatments with P. urinaria from 0-3 mg/ml were carried out for 24 h. 5 major compounds including gallic acid, brevifolin carboxylic acid, corilagin, Phyllanthusiin C and ellagic acid were identified as a plant fingerprint by HPLC/MS. With the MTT assay, we demonstrated that P. urinaria, gallic acid and ellagic acid reduce cell viability. The apoptosis features showed DNA fragmentation and increased caspase-3 activity associated with the down-regulation of Bcl-2, but not of Bax, p53, and PCNA (proliferating cell nuclear antigen) in P. urinaria-treated NPC-BM1 cells. Furthermore, treatment of NPC-BM1 cells led to an inhibition of hTERT (human telomerase reverse transcriptase), hTP1 (human telomerase-associated protein 1) and c-myc mRNA expression and to decreased telomerase activity. CONCLUSIONS: This study suggests that P. urinaria induces the death of NPC-BM1 cells in vitro through the induction of apoptosis and inhibited telomerase activity.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.0792 mL	5.3958 mL	10.7916 mL
5 mM	0.2158 mL	1.0792 mL	2.1583 mL
10 mM	0.1079 mL	0.5396 mL	1.0792 mL
50 mM	0.0216 mL	0.1079 mL	0.2158 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

Harvey AL. Natural products in drug discovery. Drug Discov Today. 2008 Oct;13(19-20):894-901.