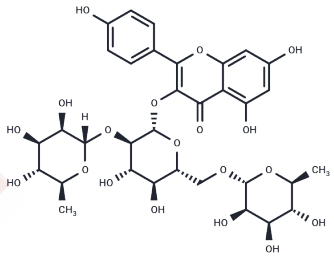
Data Sheet (Cat.No.TN1513)

TargetMol

Clitorin

Chemical Properties



CAS No. : 55804-74-5

Formula: C33H40O19

Molecular Weight: 740.66

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	Clitorin has free radical scavenging property. It shows significant interactions with CD38, it may have anti-hyperglycemic potential.
Targets(IC50)	EGFR,Acetyl-CoA Carboxylase,HMG-CoA Reductase,AMPK,Antifection,Fatty Acid Synthase,Cytochromes P450,PKC,PPAR
In vitro	Antiplasmodial activity of extracts was confirmed and the active fractions in the extract were identified by HPLC-based activity profiling, a gradient HPLC fractionation of a single injection of the extract, followed by offline bioassay of the obtained microfractions. For preparative isolation of compounds, an alkaloidal fraction was obtained via adsorption on cationic ion exchange resin. Active compounds were purified by HPLC-MS and MPLC-ELSD. Structures were established by HR-ESI-MS and NMR spectroscopy. For compounds 5 and 7 absolute configuration was confirmed by comparison of experimental and calculated electronic circular dichroism (ECD) spectroscopy data, and by X-ray crystallography. Compounds were tested for bioactivity in vitro against four parasites (Trypanosoma brucei rhodesiense, Trypanosoma cruzi, Leishmania donovani, and Plasmodium falciparum), and in the Plasmodium berghei mouse model. Profiling indicated flavonoids and alkaloids in the active time windows. A total of nine compounds were isolated. Four were known flavonols--manghaslin, Clitorin, rutin, and nicotiflorin. Five compounds isolated from the alkaloidal fraction were piperidine alkaloids. Compounds 5 and 6 were inactive carpamic acid and methyl carpamate, while three alkaloids 7-9 showed high antiplasmodial activity and low cytotoxicity. When tested in the Plasmodium berghei mouse model, carpaine (7) did not increase the survival time of animals.

Solubility Information

Solubility	DMSO: 150 mg/mL (202.52 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: 2 mg/mL (2.7 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	1.3501 mL	6.7507 mL	13.5015 mL
5 mM	0.270 mL	1.3501 mL	2.7003 mL
10 mM	0.135 mL	0.6751 mL	1.3501 mL
50 mM	0.027 mL	0.135 mL	0.270 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

HPLC-based activity profiling for antiplasmodial compounds in the traditional Indonesian medicinal plant Carica papaya L.J Ethnopharmacol. 2014 Aug 8;155(1):426-34.