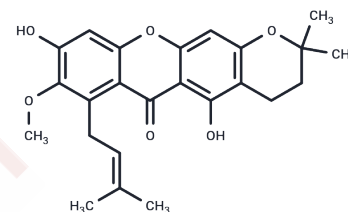


3-Isomangostin

Chemical Properties

CAS No. :	19275-46-8
Formula:	C ₂₄ H ₂₆ O ₆
Molecular Weight:	410.46
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	3-Isomangostin is an acetylcholinesterase selective inhibitor and a potent human aldose reductase inhibitor with an IC ₅₀ of 3.48 μM. 3-Isomangostin has free radical scavenging activity and inhibits MutT homolog 1 (MTH1) with an IC ₅₀ of 52 nM. It shows antiplasmodial activity with an IC ₅₀ values in the range of 4.71-11.40 μM. 3-Isomangostin can be used to develop anticancer agents as well.
Targets(IC ₅₀)	DNA/RNA Synthesis,MTH1
In vitro	Species of Garcinia have been used to combat malaria in traditional African and Asian medicines, including Ayurveda. In the current study, we have identified antiplasmodial benzophenone and xanthone compounds from edible Garcinia species by testing for in vitro inhibitory activity against Plasmodium falciparum. Whole fruits of Garcinia xanthochymus, G. mangostana, G. spicata, and G. livingstonei were extracted and tested for antiplasmodial activity. Garcinia xanthochymus was subjected to bioactivity-guided fractionation to identify active partitions. Purified benzophenones (1-9) and xanthenes (10-18) were then screened in the plasmodial lactate dehydrogenase assay and tested for cytotoxicity against mammalian (Vero) cells. The benzophenones guttiferone E (4), isoxanthochymol (5), and guttiferone H (6), isolated from G. xanthochymus, and the xanthenes α-mangostin (15), β-mangostin (16), and 3-Isomangostin (17), known from G. mangostana, showed antiplasmodial activity with an IC ₅₀ values in the range of 4.71-11.40 μM. Artemisinin and chloroquine were used as positive controls and exhibited an IC ₅₀ values in the range of 0.01-0.24 μM.

Solubility Information

Solubility	Ethanol: 40 mg/mL (97.45 mM),Sonication is recommended. DMSO: 40 mg/mL (97.45 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4363 mL	12.1815 mL	24.3629 mL
5 mM	0.4873 mL	2.4363 mL	4.8726 mL
10 mM	0.2436 mL	1.2181 mL	2.4363 mL
50 mM	0.0487 mL	0.2436 mL	0.4873 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

In vitro antiplasmodial activity of benzophenones and xanthenes from edible fruits of Garcinia species. *Planta Med.* 2014 Jun;80(8-9):676-81.

Health and Wellness Product from Mangosteen (*Garcinia mangostana* L.) Rind: Bioactive Potentials. *International Journal of Biotechnology for Wellness Industries*, 2015, 3(4):111-20.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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