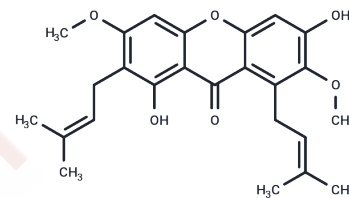


## Beta-mangostin

## Chemical Properties

CAS No. :	20931-37-7
Formula:	C <sub>25</sub> H <sub>28</sub> O <sub>6</sub>
Molecular Weight:	424.49
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years   In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



## Biological Description

Description	Beta-mangostin ( $\beta$ -Mangostin) is a xanthone compound with antibacterial and antimalarial activities. Beta-mangostin present in <i>Cratoxylum arborescens</i> and exhibits antimycobacterial activity against <i>Mycobacterium tuberculosis</i> with an MIC of 6.25 $\mu$ g/mL. Beta-mangostin possesses in vitro antimalarial activity against <i>Plasmodium falciparum</i> , with an IC <sub>50</sub> of 3.00 $\mu$ g/mL. Beta-mangostin has potent anticancer activity against various cancers (such as hepatocellular carcinoma, leukaemic).
Targets(IC50)	Apoptosis, Antibacterial, Parasite
In vitro	Beta-Mangostin induces the intrinsic apoptosis pathway in HL60 cells by generating reactive oxygen species and suppressing the HSP70 gene, coupled with a G0/G1 cell-cycle arrest[2].

## Solubility Information

Solubility	DMSO: 72.5 mg/mL (170.79 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 (4.71 mM), Sonication is recommended. <i>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.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3558 mL	11.7788 mL	23.5577 mL
5 mM	0.4712 mL	2.3558 mL	4.7115 mL
10 mM	0.2356 mL	1.1779 mL	2.3558 mL
50 mM	0.0471 mL	0.2356 mL	0.4712 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

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- Chien-Feng Huang, et al.  $\beta$ -mangostin suppresses human hepatocellular carcinoma cell invasion through inhibition of MMP-2 and MMP-9 expression and activating the ERK and JNK pathways. *Environ Toxicol.* 2017 Nov;32(11):2360-2370.
- Fatima Abdelmutaal Ahmed Omer, et al. Beta-mangostin from *Cratoxylum arborescens* activates the intrinsic apoptosis pathway through reactive oxygen species with downregulation of the HSP70 gene in the HL60 cells associated with a G 0/G 1 cell-cycle arrest. *Tumour Biol.* 2017 Nov;39(11):1010428317731451.
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- Sunit Suksamrarn, et al. Antimycobacterial activity of prenylated xanthenes from the fruits of *Garcinia mangostana*. *Chem Pharm Bull (Tokyo).* 2003 Jul;51(7):857-9.

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