

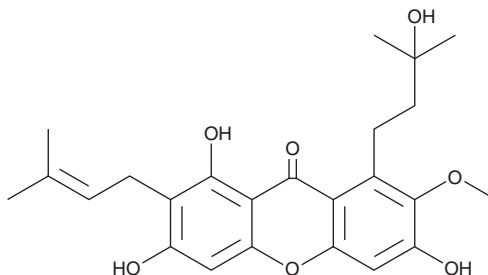
PRODUCT INFORMATION



Garcinone D

Item No. 30906

CAS Registry No.: 107390-08-9
Formal Name: 1,3,6-trihydroxy-8-(3-hydroxy-3-methylbutyl)-7-methoxy-2-(3-methyl-2-buten-1-yl)-9H-xanthen-9-one
MF: $C_{24}H_{28}O_7$
FW: 428.5
Purity: $\geq 95\%$
UV/Vis.: λ_{max} : 244, 318 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 4 years
Item Origin: Plant/*Garcinia mangostana* L.



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Garcinone D is supplied as a crystalline solid. A stock solution may be made by dissolving the garcinone D in the solvent of choice, which should be purged with an inert gas. Garcinone D is soluble in the organic solvent DMSO at a concentration of approximately 100 mg/ml.

Description

Garcinone D is a xanthone that has been found in *G. mangostana* and has diverse biological activities.¹ It increases proliferation of C17.2 neural progenitor cells (NPCs) when used at a concentration of 5 μM , an effect that can be reduced by inhibition of the antioxidative transcription factor nuclear factor erythroid 2-related factor 2 (Nrf2). It increases phosphorylation of STAT3 and cyclin D1 and the protein levels of Nrf2 and heme oxygenase-1 (HO-1) in a concentration-dependent manner. Garcinone D (3 μM) inhibits aggregation of amyloid- β (1-42) (A β 42; Item No. 20574) *in vitro* and inhibits beta-secretase 1 (BACE1) by 62.7% when used at a concentration of 100 μM .² It scavenges peroxynitrite radicals with an IC_{50} value of 26.4 μM .³

References

1. Yang, X., Wang, S., Ouyang, Y., *et al.* Garcinone D, a natural xanthone promotes C17.2 neural stem cell proliferation: Possible involvement of STAT3/Cyclin D1 pathway and Nrf2/HO-1 pathway. *Nuerosci. Lett.* **626**, 6-12 (2016).
2. Wang, S.-N., Li, Q., Jing, M.-H., *et al.* Natural xanthones from *Garcinia mangostana* with multifunctional activities for the therapy of Alzheimer's disease. *Neurochem. Res.* **41**(7), 1806-1817 (2016).
3. Jung, H.-A., Su, B.-N., and Keller, W. Antioxidant xanthones from the pericarp of *Garcinia mangostana* (Mangosteen). *J. Agric. Food Chem.* **54**(6), 2077-2082 (2006).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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