

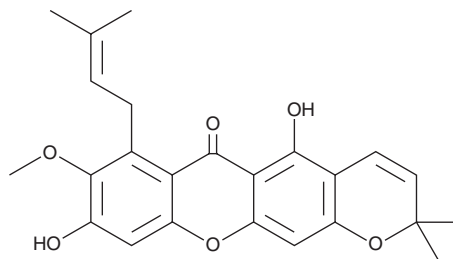
PRODUCT INFORMATION



9-Hydroxycalabaxanthone

Item No. 40277

CAS Registry No.: 35349-68-9
Formal Name: 5,9-dihydroxy-8-methoxy-2,2-dimethyl-7-(3-methyl-2-buten-1-yl)-2H,6H-pyrano[3,2-b]xanthen-6-one
Synonyms: 9-HCX, Mangostanin, Xanthone I
MF: C₂₄H₂₄O₆
FW: 408.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

9-Hydroxycalabaxanthone is supplied as a solid. A stock solution may be made by dissolving the 9-hydroxycalabaxanthone in the solvent of choice, which should be purged with an inert gas. 9-Hydroxycalabaxanthone is soluble in DMSO.

Description

9-Hydroxycalabaxanthone is a xanthone that has been found in *G. mangostana* and has diverse biological activities.¹⁻⁵ It inhibits phosphodiesterase 4D2 (PDE4D2) in a cell-free assay (IC₅₀ = 420 nM).¹ 9-Hydroxycalabaxanthone is cytotoxic to HT-29 colon cancer cells (EC₅₀ = 9.1 μM) and is active against *P. gingivalis*, *S. mutans*, *S. aureus*, *S. epidermidis*, *S. pyogenes*, and *C. acnes*.^{2,3} It is also active against chloroquine-sensitive and -resistant *P. falciparum* (median IC₅₀s = 1.5 and 1.2 μM, respectively) and is synergistic with mefloquine (Item No. 23665) and artesunate (Item No. 11817).⁴ 9-Hydroxycalabaxanthone (5-40 μM) protects against hydrogen peroxide-induced cytotoxicity in HaCaT keratinocytes.⁵

References

1. Liang, J., Huang, Y.-Y., Zhou, Q., et al. Discovery and optimization of α-mangostin derivatives as novel PDE4 inhibitors for the treatment of vascular dementia. *J. Med. Chem.* **63**(6), 3370-3380 (2020).
2. Han, A.-R., Kim, J.-A., Lantvit, D.D., et al. Cytotoxic xanthone constituents of the stem bark of *Garcinia mangostana* (mangosteen). *J. Nat. Prod.* **72**(11), 2028-2031 (2009).
3. Munar-Bestard, M., Rodríguez-Fernández, A., Ramis, J.M., et al. In vitro evaluation of mangostanin as an antimicrobial and biocompatible topical antiseptic for skin and oral tissues. *ACS Pharmacol. Transl. Sci.* **7**(5), 1507-1517 (2024).
4. Chaijaroenkul, W. and Na-Bangchang, K. The in vitro antimalarial interaction of 9-hydroxycalabaxanthone and α-mangostin with mefloquine/artesunate. *Acta Parasitol.* **60**(1), 105-111 (2014).
5. Abate, M., Pagano, C., Masullo, M., et al. Mangostanin, a xanthone derived from *Garcinia mangostana* fruit, exerts protective and reparative effects on oxidative damage in human keratinocytes. *Pharmaceuticals (Basel)* **15**(1), 84 (2022).

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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