

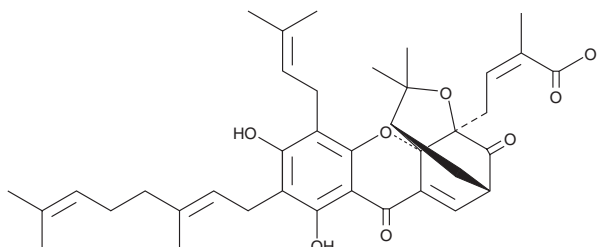
PRODUCT INFORMATION



Gambogenic Acid

Item No. 35638

CAS Registry No.: 173932-75-7
Formal Name: (2Z)-4-[(1R,3aS,5S,12aS)-9-[(2E)-3,7-dimethyl-2,6-octadien-1-yl]-3a,4,5,7-tetrahydro-8,10-dihydroxy-3,3-dimethyl-11-(3-methyl-2-buten-1-yl)-7,13-dioxo-1,5-methano-1H,3H-furo[3,4-d]xanthen-1-yl]-2-methyl-2-butenic acid
MF: C₃₈H₄₆O₈
FW: 630.8
Purity: ≥98%
UV/Vis.: λ_{max}: 213 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Garcinia hanburyi*



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

Laboratory Procedures

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

Description

Gambogenic acid is a xanthone that has been found in *G. hanburyi* and has diverse biological activities.¹⁻⁴ It reduces the proliferation of HeLa cervical cancer and HEL erythroleukemic cells (MICs = 12.5 and 3.13 μg/ml, respectively).¹ Gambogenic acid reduces the proliferation of, and induces apoptosis in, HepG2 hepatocellular carcinoma cells, as well as induces cell cycle arrest at the G₀/G₁ phase in, and decreases migration of, M14 melanoma cells, in a concentration-dependent manner.^{2,3} Oral administration of lipid nanoparticles (LNPs) encapsulating gambogenic acid reduces tumor volume and weight in a 4T1 murine mammary carcinoma model.⁴

References

- Asano, J., Chiba, K., Tada, M., *et al.* Cytotoxic xanthenes from *Garcinia hanburyi*. *Phytochemistry* **41(3)**, 815-820 (1996).
- Yan, F., Wang, M., Li, J., *et al.* Gambogenic acid induced mitochondrial-dependent apoptosis and referred to phospho-Erk1/2 and phospho-p38 MAPK in human hepatoma HepG2 cells. *Environ. Toxicol. Pharmacol.* **33(2)**, 181-190 (2012).
- Li, F., Wang, Y., and Yan, Y. Gambogenic acid induces cell growth inhibition, cell cycle arrest and metastasis inhibition in choroidal melanoma in a dose-dependent manner. *Exp. Ther. Med.* **13(5)**, 2456-2462 (2017).
- Wang, B., Yuan, T., Zha, L., *et al.* Oral delivery of gambogenic acid by functional polydopamine nanoparticles for targeted tumor therapy. *Mol. Pharm.* **18(3)**, 1470-1479 (2021).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 06/02/2023

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM