

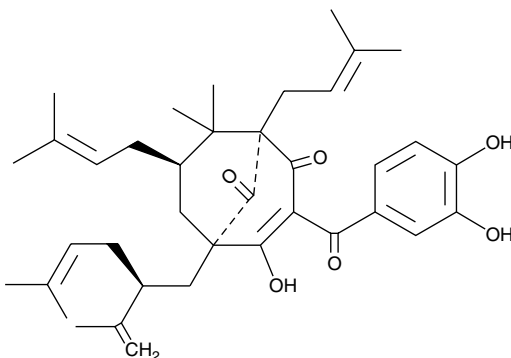
Product Information



Garcinol

Item No. 10566

CAS Registry No.: 78824-30-3
Formal Name: 3-(3,4-dihydroxybenzoyl)-4-hydroxy-8,8-dimethyl-1,7-bis(3-methyl-2-buten-1-yl)-5-[(2S)-5-methyl-2-(1-methylethenyl)-4-hexen-1-yl]-bicyclo[3.3.1]non-3-ene-2,9-dione
Synonym: Camboginol
MF: C₃₈H₅₀O₆
FW: 602.8
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 252, 364 nm



Laboratory Procedures

For long term storage, we suggest that garcinol be stored as supplied at -20°C. It should be stable for at least two years.

Garcinol is supplied as a crystalline solid. A stock solution may be made by dissolving the garcinol in the solvent of choice. Garcinol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of garcinol in these solvents is approximately 20 mg/ml.

Garcinol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, garcinol should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Garcinol has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Garcinol is an inhibitor of the histone acetyltransferases (HATs) p300 and pCAF (IC₅₀ = 7 and 5 μM, respectively).¹ It also inhibits the HAT Gcn5 in *Cryptococcus neoformans*, inducing temperature sensitivity and impairing growth.² A polyisoprenylated benzophenone isolated from *Garcinia indica*, garcinol promotes neurogenesis and *ex vivo* expansion of human hematopoietic stem cells.^{3,4} Moreover, it induces apoptosis in several types of cancer cells and has anti-inflammatory actions.^{5,6}

References

1. Balasubramanyam, K., Altaf, M., Varier, R.A., *et al.* Polyisoprenylated benzophenone, garcinol, a natural histone acetyltransferase inhibitor, represses chromatin transcription and alters global gene expression. *J. Biol. Chem.* **279**(6), 33716-33726 (2004).
2. O'Meara, T.R., Hay, C., Price, M.S., *et al.* *Cryptococcus neoformans* histone acetyltransferase Gcn5 regulates fungal adaptation to the host. *Eukaryot. Cell* **9**(8), 1193-1202 (2010).
3. Weng, M.-S., Liao, C.-H., Yu, S.-Y., Lin, J.-K. Garcinol promotes neurogenesis in rat cortical progenitor cells through the duration of extracellular signal-regulated kinase signaling. *J. Agric. Food Chem.* **59**, 1031-1040 (2011).
4. Nishino, T., Wang, C., Mochizuki-Kashio, M., *et al.* *Ex vivo* expansion of human hematopoietic stem cells by garcinol, a potent inhibitor of histone acetyltransferase. *PLoS One* **6**(9), 1-9 (2011).
5. Prasad, S., Ravindran, J., Sung, B., *et al.* Garcinol potentiates TRAIL-induced apoptosis through modulation of death receptors and antiapoptotic proteins. *Mol. Cancer Ther.* **9**(4), 856-868 (2010).
6. Koerberle, A., Northoff, H., Werz, O. Identification of 5-lipoxygenase and microsomal prostaglandin E₂ synthase-1 as functional targets of the anti-inflammatory and anti-carcinogenic garcinol. *Biochem. Pharmacol.* **77**(9), 1513-1521 (2009).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10566

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com