

Product Data Sheet

Product Name: Malabaricone C

Cat. No.: GC46028

Chemical Properties

Cas. No. 63335-25-1

SMILES OC1=C(C(CCCCCCCC2=CC=C(O)C(O)=C2)=O)C(O)=CC=C1

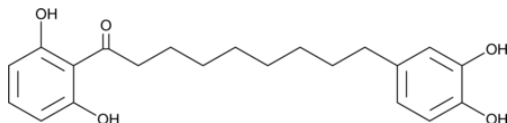
Formula C₂₁H₂₆O₅ M.Wt 358.4

Solubility DMF: 25 mg/ml, DMSO: 20 mg/ml, Ethanol: 10 mg/ml
Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution: ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

Malabaricone C is a diarylnonanoid that has been found in *Myristica* and has diverse biological activities.^{1,2,3,4} It scavenges 59.9% of 2,2-diphenyl-1-picrylhydrazyl radicals when used at a concentration of 7 µg/ml.¹ Malabaricone C is active against *S. aureus*, *B. subtilis*, and *C. albicans* in vitro (MICs = 2-32 µg/ml).² It is cytotoxic to A549, HL-60, and MCF-7 cells (IC₅₀s = 12.3, 46.1, and 10.8 µM, respectively).³ Malabaricone C inhibits sphingomyelin synthase 1 (SMS1) and SMS2 activity in cell lysates (IC₅₀s = 3 and 1.5 µM, respectively).⁴ It decreases body weight gain, hepatic steatosis, and hepatic and plasma triglyceride levels in a mouse model of high-fat diet-induced obesity when administered at a dose of 0.1% in the diet.

[1. Patro, B.S., Bauri, A.K., Mishra, S., et al. Antioxidant activity of *Myristica malabarica* extracts and their constituents. *J. Agric. Food Chem.* 53(17), 6912-6918 (2005).|2. Orabi, K.Y., Mossa, J.S., and El-Ferally, F.S. Isolation and characterization of two antimicrobial agents from mace (*Myristica fragrans*). *J. Nat. Prod.* 54(3), 856-859 (1991).|3. Cuong, T.D., Lim, C.J., Trang, T.T.T., et al. Compounds from the seeds of *Myristica fragrans* and their cytotoxic activity. *Nat. Prod. Sci.* 18(2), 97-

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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101 (2012).|4. Othman, M.A., Yuyama, K., Murai, Y., et al. Malabaricone C as natural sphingomyelin synthase inhibitor against diet-induced obesity and its lipid metabolism in mice. Med. Chem. Lett. 10(8), 1154-1158 (2019).

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