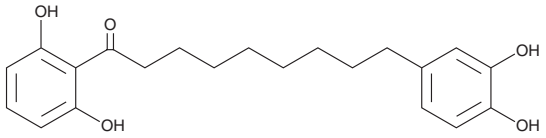
PRODUCT INFORMATION

Malabaricone C

Item No. 29741

CAS Registry No.:	63335-25-1
Formal Name:	1-(2,6-dihydroxyphenyl)-9-(3,4-dihydroxyphenyl)-1-nonanone
Synonym:	NSC 287968
MF:	$C_{21}H_{26}O_5$
FW:	358.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 223, 272 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Myristica malabarica*



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

Laboratory Procedures

Malabaricone C is supplied as a crystalline solid. A stock solution may be made by dissolving the malabaricone C in the solvent of choice, which should be purged with an inert gas. Malabaricone C is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of malabaricone C in these solvents is approximately 10, 20, and 25 mg/ml, respectively.

Description

Malabaricone C is a diarylnonanoid that has been found in *Myristica* and has diverse biological activities.[1-4] It scavenges 59.9% of 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) 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 (IC_{50}s = 12.3, 46.1, and 10.8 µM, respectively).[3] Malabaricone C inhibits sphingomyelin synthase 1 (SMS1) and SMS2 activity in cell lysates (IC_{50}s = 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.

References

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-Feraly, 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),** 97-101 (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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