

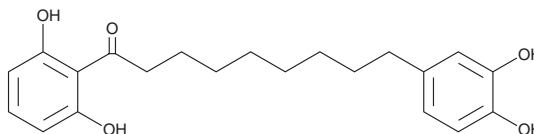
# PRODUCT INFORMATION



## 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:  $\geq 98\%$   
UV/Vis.:  $\lambda_{\max}$ : 223, 272 nm  
Supplied as: A crystalline solid  
Storage:  $-20^{\circ}\text{C}$   
Stability:  $\geq 4$  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.<sup>1-4</sup> It scavenges 59.9% of 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) radicals when used at a concentration of 7  $\mu\text{g}/\text{ml}$ .<sup>1</sup> Malabaricone C is active against *S. aureus*, *B. subtilis*, and *C. albicans* *in vitro* ( $\text{MICs} = 2\text{--}32 \mu\text{g}/\text{ml}$ ).<sup>2</sup> It is cytotoxic to A549, HL-60, and MCF-7 cells ( $\text{IC}_{50}\text{s} = 12.3, 46.1, \text{ and } 10.8 \mu\text{M}$ , respectively).<sup>3</sup> Malabaricone C inhibits sphingomyelin synthase 1 (SMS1) and SMS2 activity in cell lysates ( $\text{IC}_{50}\text{s} = 3 \text{ and } 1.5 \mu\text{M}$ , respectively).<sup>4</sup> 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).

#### 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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