

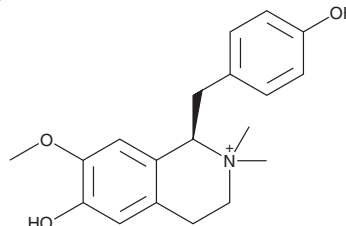
# PRODUCT INFORMATION



## Lotusine

Item No. 35136

**CAS Registry No.:** 6871-67-6  
**Formal Name:** (1R)-1,2,3,4-tetrahydro-6-hydroxy-1-[(4-hydroxyphenyl)methyl]-7-methoxy-2,2-dimethyl-isoquinolinium  
**Synonym:** (-)-Lotusine  
**MF:** C<sub>19</sub>H<sub>24</sub>NO<sub>3</sub>  
**FW:** 314.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 230 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Plant/*Nelumbo nucifera*



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

### Laboratory Procedures

Lotusine is supplied as a solid. A stock solution may be made by dissolving the lotusine in the solvent of choice, which should be purged with an inert gas. Lotusine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of lotusine in these solvents is approximately 3, 10, and 5 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of lotusine can be prepared by directly dissolving the solid in aqueous buffers. The solubility of lotusine in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Lotusine is an alkaloid that has been found in *N. nucifera* and has diverse biological activities.<sup>1-3</sup> It increases the level of cAMP in rat myocardium when used at concentrations ranging from 0.1 to 3 μM and the levels of cGMP in rabbit corpus cavernosum in a concentration-dependent manner.<sup>2</sup> Lotusine prevents lipid peroxidation induced by doxorubicin (Item No. 15007) in H9c2 embryonic rat cardiomyocytes.<sup>1</sup> It also increases left ventricular pressure (LVP), left ventricular end diastolic pressure (LVEDP), and systolic arterial blood pressure (SAP) in anesthetized rats when administered at a dose of 5 mg/kg.<sup>3</sup>

### References

1. Harishkumar, R. and Selvaraj, C.I. Lotusine, an alkaloid from *Nelumbo nucifera* (Gaertn.), attenuates doxorubicin-induced toxicity in embryonically derived H9c2 cells. *In Vitro Cell. Dev. Biol. Anim.* **56(5)**, 367-377 (2020).
2. Zhao, Z., Zhang, Y., Yu, X., et al. Effects of lotusine on cyclic nucleotide levels and contractile function in rat myocardium and rabbit corpus cavernosum. *Zhongguo Yaolixue Yu Dulixue Zazh* **16(3)**, 202-205 (2002).
3. Wang, J., Zhao, Z., Zhang, F., et al. Effect of lotusine on hemodynamics in rat and canine. *Zhongcaoyao* **30(11)**, 838-340 (1999).

#### 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, 12/12/2022

#### 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