

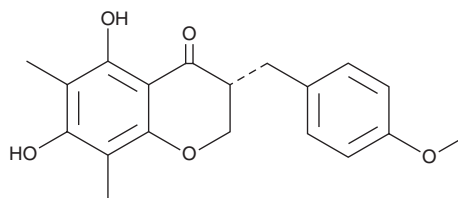
# PRODUCT INFORMATION



## Methylophiopogonanone B

Item No. 30193

CAS Registry No.: 74805-91-7  
Formal Name: (3R)-2,3-dihydro-5,7-dihydroxy-3-[(4-methoxyphenyl)methyl]-6,8-dimethyl-4H-1-benzopyran-4-one  
MF:  $C_{19}H_{20}O_5$   
FW: 328.4  
Purity:  $\geq 95\%$   
UV/Vis.:  $\lambda_{max}$ : 212, 298 nm  
Supplied as: A crystalline solid  
Storage:  $-20^{\circ}\text{C}$   
Stability:  $\geq 4$  years  
Item Origin: Plant/Ophiopogonis radix



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

### Laboratory Procedures

Methylophiopogonanone B is supplied as a crystalline solid. A stock solution may be made by dissolving the methylophiopogonanone B in the solvent of choice, which should be purged with an inert gas. Methylophiopogonanone B is soluble in the organic solvent DMSO at a concentration of approximately 10 mM.

### Description

Methylophiopogonanone B is an isoflavone that has been found in *O. japonicus* and has diverse biological activities.<sup>1-4</sup> It increases Rho activity in normal human epidermal melanocytes (NHMs) when used at a concentration of 1  $\mu\text{M}$ .<sup>1</sup> Methylophiopogonanone B inhibits LPS-induced nitric oxide (NO) production in BV-2 microglia with an  $\text{IC}_{50}$  value of 7.8  $\mu\text{M}$ .<sup>2</sup> It reduces hydrogen peroxide-induced production of reactive oxygen species (ROS), apoptosis, and decreases in superoxide dismutase (SOD) activity in human umbilical vein endothelial cells (HUVECs) when used at concentrations of 40 and 50  $\mu\text{M}$ .<sup>3</sup> It is cytotoxic to SMMC-7721 and HeLa cancer cells ( $\text{IC}_{50}\text{s} = 34.6$  and 6  $\mu\text{g/ml}$ , respectively).<sup>4</sup>

### References

1. Ito, A., Kanamaru, A., and Tada, A. A novel agent, methylophiopogonanone B, promotes Rho activation and tubulin depolymerization. *Mol. Cell. Biochem.* **297**(1-2), 121-129 (2007).
2. Li, N., Zhang, J.-Y., Zeng, K.-W., et al. Anti-inflammatory homoisoflavonoids from the tuberous roots of *Ophiopogon japonicus*. *Fitoterapia* **83**(6), 1042-1045 (2012)
3. Wang, L., Zhou, Y., Qin, Y., et al. Methylophiopogonanone B of radix ophiopogonis protects cell from  $\text{H}_2\text{O}_2$ -induced apoptosis through the NADPH oxidase pathway in HUVECs. *Mol. Med. Rep.* **20**(4), 3691-3700 (2019).
4. Wang, K.-W., Zhang, H., Shen, L.-W., et al. Novel steroidal saponins from *Liriope graminifolia* (Linn.) baker with anti-tumor activities. *Carbohydr. Res.* **346**(2), 253-258 (2011).

#### 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

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#### 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