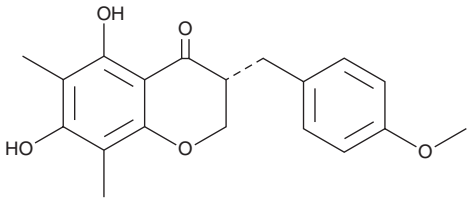
PRODUCT INFORMATION

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:	≥95%
UV/Vis.:	λ_{max}: 212, 298 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥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.[1-4] It increases Rho activity in normal human epidermal melanocytes (NHEMs) when used at a concentration of 1 µM.[1] Methylophiopogonanone B inhibits LPS-induced nitric oxide (NO) production in BV-2 microglia with an IC_{50} value of 7.8 µM.[2] 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 µM.[3] It is cytotoxic to SMMC-7721 and HeLa cancer cells (IC_{50}s = 34.6 and 6 µg/ml, respectively).[4]

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 H_2O_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).

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