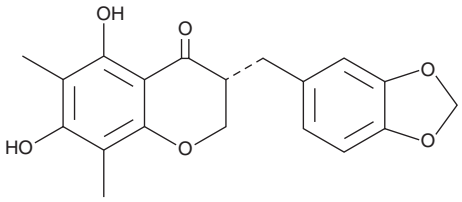
PRODUCT INFORMATION

Methylophiopogonanone A

Item No. 30192

CAS Registry No.:	74805-92-8
Formal Name:	(3R)-3-(1,3-benzodioxol-5-ylmethyl)-2,3-dihydro-5,7-dihydroxy-6,8-dimethyl-4H-1-benzopyran-4-one
MF:	$C_{19}H_{18}O_6$
FW:	342.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 230 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 A is supplied as a crystalline solid. A stock solution may be made by dissolving the methylophiopogonanone A in the solvent of choice, which should be purged with an inert gas. Methylophiopogonanone A is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of methylophiopogonanone A in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Methylophiopogonanone A is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, methylophiopogonanone A should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Methylophiopogonanone A has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Methylophiopogonanone A is a homoisoflavonoid that has been found in *O. japonicus* roots and has diverse biological activities.[1-4] It increases the uptake of rosuvastatin (Item No. 18813) and atorvastatin (Item No. 10493) in HEK293T cells expressing human organic anion transporting polypeptide 1B1 (OATP1B1; EC_{50}s = 11.33 and 6 µM, respectively).[2] Methylophiopogonanone A scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) and ABTS (Item No. 27317) radicals in cell-free assays.[1] *In vivo*, methylophiopogonanone A (10 mg/kg) decreases body weight gain and reduces serum and hepatic lipid levels in a rat model of high-fat diet-induced hyperlipidemia.[3] It also reduces infarct size and myocardial apoptosis in mouse model of ischemia-reperfusion injury induced by transient occlusion of the left anterior descending coronary artery.[4]

References

1. Wang, Y., Liu, F., Liang, Z., *et al. Iran J. Pharm. Res.* **16(1)**, 357-365 (2017).
2. Chen, L., Liu, L., Chen, Y., *et al. Xenobiotica* **49(10)**, 1221-1228 (2019).
3. Li, Z., Wu, Y.Y., and Yu, B.X. *Braz. J. Med. Biol. Res.* **53(3)**, e9201 (2020).
4. He, F., Xu, B.L., Chen, C., *et al. Acta. Pharmacol. Sin.* **37(6)**, 763-771 (2016).

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