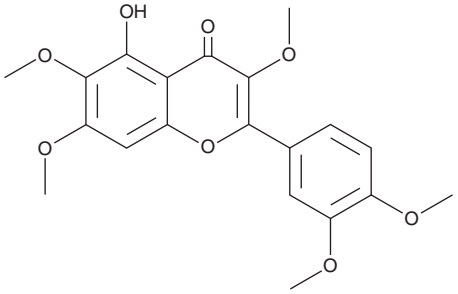
PRODUCT INFORMATION

Artemitin

Item No. 40269

CAS Registry No.:	479-90-3
Formal Name:	2-(3,4-dimethoxyphenyl)-5-hydroxy-3,6,7-trimethoxy-4H-1-benzopyran-4-one
Synonyms:	Artemetin, Artemisetin
MF:	$C_{20}H_{20}O_8$
FW:	388.4
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Synthetic



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

Laboratory Procedures

Artemitin is supplied as a solid. A stock solution may be made by dissolving the artemitin in the solvent of choice, which should be purged with an inert gas. Artemitin is soluble in DMSO and methanol.

Description

Artemitin is a flavonoid that has been found in *A. annua* and has diverse biological activities.[1-5] It scavenges peroxyl radicals in a cell-free assay in a concentration-dependent manner.[1] Artemitin inhibits 5-lipoxygenase (5-LO) with an IC_{50} value of 54.6 µM.[2] It is active against *P. falciparum* (IC_{50} = 26 µM).[3] Artemitin is cytotoxic to HL-60 leukemia cells (IC_{50} = 30.98 µM).[4] *In vivo*, artemitin (0.75 mg/kg) decreases mean arterial blood pressure in normotensive rats, as well as reduces angiotensin I-induced, but not angiotensin II-induced, increases in mean arterial blood pressure in rats.[5]

References

1. Dugas, A.J., Jr., Castañeda-Acosta, J., Bonin, G.C., *et al.* Evaluation of the total peroxyl radical-scavenging capacity of flavonoids: Structure-activity relationships. *J. Nat. Prod.* **63(3),** 327-331 (2000).
2. Choudhary, M.I., Azizuddin, Jalil, S., *et al.* Antiinflammatory and lipoxygenase inhibitory compounds from *Vitex agnus-castus*. *Phytother. Res.* **23(9),** 1336-1339 (2009).
3. Liu, K.C., Yang, S.L., Roberts, M.F., *et al.* Antimalarial activity of *Artemisia annua* flavonoids from whole plants and cell cultures. *Plant Cell Rep.* **11(12),** 637-640 (1992).
4. Ko, W.G., Kang, T.H., Lee, S.J., *et al.* Polymethoxyflavonoids from *Vitex rotundifolia* inhibit proliferation by inducing apoptosis in human myeloid leukemia cells. *Food Chem. Toxicol.* **38(10),** 861-865 (2000).
5. de Souza, P., Gasparotto, A., Jr., Crestani, S., *et al.* Hypotensive mechanism of the extracts and artemetin isolated from *Achillea millefolium* L. (Asteraceae) in rats. *Phytomedicine.* **18(10),** 819-825 (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.

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