

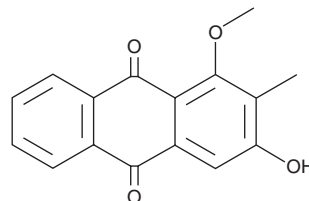
PRODUCT INFORMATION



Rubiadin-1 methyl ether

Item No. 34940

CAS Registry No.:	7460-43-7
Formal Name:	3-hydroxy-1-methoxy-2-methyl-9,10-anthracenedione
Synonyms:	NSC 59063, RBM
MF:	C ₁₆ H ₁₂ O ₄
FW:	268.3
Purity:	≥98%
UV/Vis.:	λ _{max} : 239, 281 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/ <i>Paederia scandens</i>



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

Laboratory Procedures

Rubiadin-1 methyl ether is supplied as a solid. A stock solution may be made by dissolving the rubiadin-1 methyl ether in the solvent of choice, which should be purged with an inert gas. Rubiadin-1 methyl ether is soluble in the organic solvent DMSO.

Description

Rubiadin-1 methyl ether is an anthraquinone that has been found in *Heterophyllaea pustulata* and has diverse biological activities.¹⁻⁴ It generates superoxide radicals in isolated human neutrophils and monocytes when used at a concentration of 20 µg/ml, an effect that can be enhanced by UV radiation.¹ Rubiadin-1 methyl ether (0.1, 1, and 10 µM) inhibits M-CSF- and RANKL-induced differentiation of osteoclasts.² It inhibits *C. tropicalis* biofilm formation (MIC = 31.3 µg/ml for a clinical isolate).³ Rubiadin-1 methyl ether (30 mg/kg) reduces LPS-induced increases in bronchoalveolar fluid (BALF) levels of TNF-α, IL-6, and IFN-γ in a mouse model of acute lung injury.⁴

References

1. Montoya, S.C.N., Comini, L.R., Sarmiento, M., *et al.* Natural anthraquinones probed as Type I and Type II photosensitizers: Singlet oxygen and superoxide anion production. *J. Photochem. Photobiol. B.* **78(1)**, 77-83 (2005).
2. He, Y.-Q., Zhang, Q., Shen, Y., *et al.* Rubiadin-1-methyl ether from *Morinda officinalis* How. Inhibits osteoclastogenesis through blocking RANKL-induced NF-κB pathway. *Biochem. Biophys. Res. Commun.* **506(4)**, 927-931 (2018).
3. Marioni, J., da Silva, M.A., Cabrera, J.L., *et al.* The anthraquinones rubiadin and its 1-methyl ether isolated from *Heterophyllaea pustulata* reduces *Candida tropicalis* biofilms formation. *Phytomedicine* **23(12)**, 1321-1328 (2016).
4. Mohr, E.T.B., Nascimento, M.V.P.D.S., da Rosa, J.S., *et al.* Evidence that the anti-inflammatory effect of rubiadin-1-methyl ether has an immunomodulatory context. *Mediators Inflamm.* 6474168 (2019).

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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