
Product Data Sheet

Product Name: Rubiadin-1-methyl ether

Cat. No.: GC60331

Chemical Properties

Cas. No. 7460-43-7

SMILES O=C1C2=C(C=CC=C2)C(C3=CC(O)=C(C)C(OC)=C13)=OFormula $C_{16}H_{12}O_4$

M.Wt

268.26

Solubility DMSO : ≥ 125 mg/mL (465.97 mM)

Storage

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

Rubiadin-1 methyl ether is an anthraquinone that has been found in *Heterophyllaea pustulata* and has diverse biological activities.^{1,2,3,4} It generates superoxide radicals in isolated human neutrophils and monocytes when used at a concentration of 20 μ g/ml, an effect that can be enhanced by UV radiation.¹ Rubiadin-1 methyl ether (0.1, 1, and 10 μ M) inhibits M-CSF- and RANKL-induced differentiation of osteoclasts.² It inhibits *C. tropicalis* biofilm formation (MIC = 31.3 μ g/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

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]. 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- κ B 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*

Caution: Product has not been fully validated for medical applications. For research use only.

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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)

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