

β -Orcinol Depsidones from the lichen *Usnea* sp

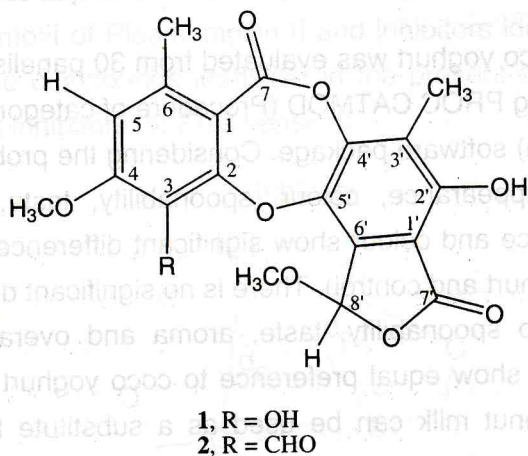
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Usnea sp. described in this study was collected in the Ambewela area. Cleaned and dried *Usnea* sp. was sequentially extracted with hexane followed by CH₂Cl₂ and MeOH. The crude MeOH extract upon silica gel chromatography yielded the depsidone lactones (1) and (2).

Compound (1) had a molecular formula C₁₉H₁₆O₉ determined by HR-EIMS. Using ¹H NMR and HMBC it was possible to identify a β -orcinol moiety for the ring A of the molecule. HMBC data further indicated a second β -orcinol aromatic ring where a γ -lactone moiety was attached to C-1' and C-6'. Furthermore, it was reasonable to construct the seven-membered ring of a depsidone, between the two β -orcinol moieties, as shown. Compound (1) was thus determined to be a new β -orcinol depsidone. Compound (2) exhibited a peak at 400.0793 in HR-EIMS corresponding to an elemental composition of C₂₀H₁₆O₉. ¹H NMR and HMBC clearly established the modified β -orcinol A-ring of the molecule with an aldehyde group at C-3. The HMBC data for the second aromatic ring of compound (2) showed that C-1' through C-6' had a substituent pattern identical to the depsidone (1). Compound (2) was thus determined to be the rare depsidone 8'-O-methylstictic acid.



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