

2-Acetoxyverecynarmin C, a New Briarane COX Inhibitory Diterpenoid from *Pennatula aculeata*

Abstract

A new briarane-type diterpenoid, named 2-acetoxyverecynarmin C, was isolated from the methanolic extract of an octocoral, *Pennatula aculeata*, that exhibited cyclooxygenase (COX) inhibitory activity. The structure of the compound was elucidated by ESI-HRMS, 1D and 2D NMR spectroscopy and comparison of the measured spectral data with those reported in the literature. The relative stereochemistry at chiral carbons was established from 2D NOESY experiments. 2-Acetoxyverecynarmin C is a tricyclic compound containing a furan ring at C-7,8 of a briarane skeleton. 2-Acetoxyverecynarmin C showed moderate inhibitory activity in in vitro COX-1 and COX-2 assays.