

Short Note



5,9,11-Trihydroxy-2,2-dimethyl-3-(2-methylbut-3en-2-yl)pyrano[2,3-a]xanthen-12(2*H*)-one from the Stem Bark of *Calophyllum tetrapterum* Miq.

Tjitjik Srie Tjahjandarie ^{1,2,*}, Ratih Dewi Saputri¹ and Mulyadi Tanjung¹

- ¹ Natural Products Chemistry Research Group, Organic Chemistry Division, Department of Chemistry, Faculty of Science and Technology, Universitas Airlangga, Surabaya 60115, Indonesia; duffputri@gmail.com (R.D.S.); mulyadi-t@fst.unair.ac.id (M.T.)
- ² Airlangga Health Science Institute, Universitas Airlangga, Surabaya 60115, Indonesia
- * Correspondence: tjitjiktjahjandarie@fst.unair.ac.id; Tel.: +62-31-5936501; Fax: +62-31-5936502

Academic Editor: Ping-Jyun Sung Received: 15 February 2017; Accepted: 18 March 2017; Published: 21 March 2017

Abstract: A new pyranoxanthone namely 5,9,11-trihydroxy-2,2-dimethyl-3-(2-methylbut-3-en-2-yl) pyrano[2,3-a]xanthen-12(2*H*)-one (**1**) was isolated from the stem bark of *Calophyllum tetrapterum* Miq. The structure of compound **1** was determined by means of spectroscopic methods including UV, IR, HRESIMS, 1D and 2D NMR.

Keywords: Calophyllum tetrapterum Miq.; pyranoxanthone; natural product

1. Introduction

The genus *Calophyllum* (Clusiaceae) comprises over 200 species of trees and shrubs native to tropical Asia, East Africa and Australia. This genus is well known to be a rich source of bioactive xanthones [1–4], coumarins [5–7], chromanone acids [8–11], and flavonoids [12]. Some these were reported to exhibit of biological activities including anti-HIV, anticancer, antimalarial and antimicrobial [13,14].

In this paper, we report the chemical constituents of the stem bark of *Calophyllum tetrapterum* Miq. with the isolation of a new pyranoxanthone, *5*,*9*,11-trihydroxy-2,2-dimethyl-3-(2-methylbut-3-en-2-yl) pyrano[2,3-a]xanthen-12(2*H*)-one (Figure 1). The anti-HIV activity of isolated compound from this plant is also reported.

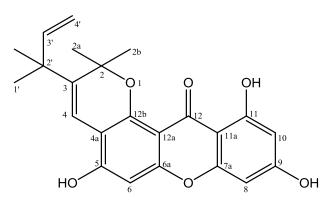


Figure 1. Structures of 5,9,11-trihydroxy-2,2-dimethyl-3-(2-methylbut-3-en-2-yl)pyrano[2,3-a]xanthen-12(2*H*)-one (1).