

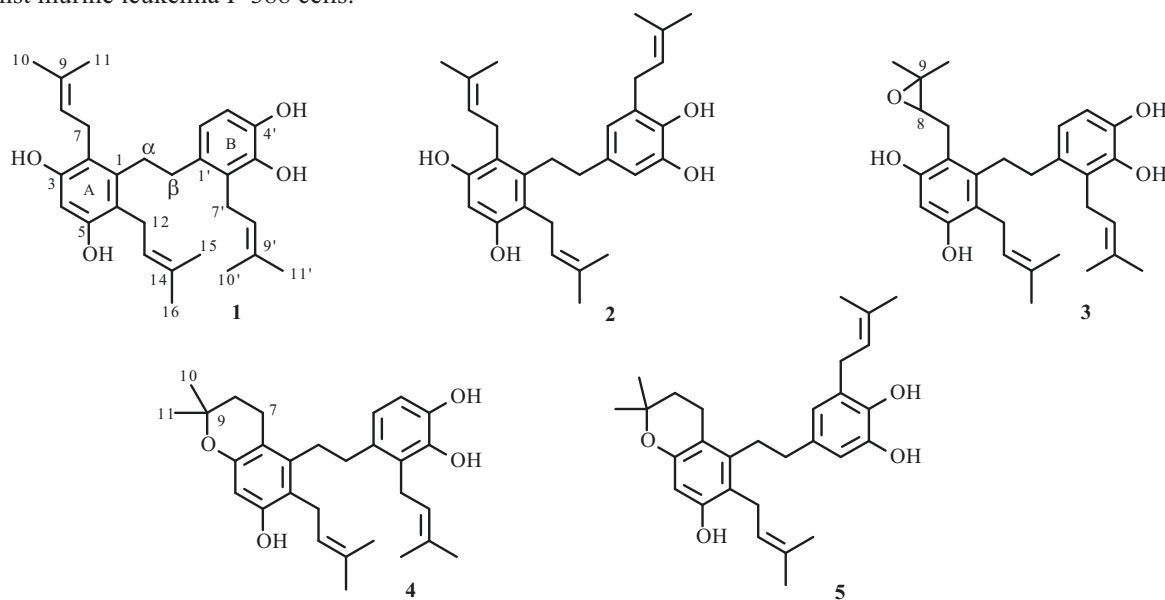
PRENYLATED DIHYDROSTILBENES FROM *Macaranga rubiginosa*

Mulyadi Tanjung,¹ Euis H. Hakim,² and Yana M. Syah^{2*}

Phytochemical isolation of the methanol extract of *Macaranga rubiginosa* leaves afforded five prenylated dihydrostilbenes. Two of them were known dihydrostilbenes laevifolins A (1) and B (2), while the other three were new compounds, trivially named macarubiginosins A–C (3–5). The structures of the new compounds were elucidated based on their UV, 1D and 2D NMR, and HR-ESI-MS spectral data. Compounds 1–5 were tested for their cytotoxicity against P-388 cells, showing that compound 1 was the most active with IC_{50} 4.3 μ M.

Keywords: macarubiginosins A–C, laevifolins A and B, prenylated dihydrostilbenes, *Macaranga rubiginosa*, Euphorbiaceae, cytotoxicity, P-388 cells.

Macaranga is a large genus of Euphorbiaceae (ca. 260 species) distributed in the tropical region of Africa, India, South East Asia, and Pacific islands [1]. The species of this genus are important plants found in the secondary forests of Kalimantan and Sumatra Islands of Indonesia [2, 3]. Our interest in the phytochemistry of *Macaranga* species is motivated by the fact that they contain flavonoid and stilbene derivatives bearing various terpenyl groups, including prenyl, geranyl, farnesyl, and labdanyl groups [4]. Recently, we reported our phytochemical investigation of some *Macaranga* plants growing in Kalimantan Island [5–9]. As further work on Indonesian *Macaranga*, in this paper we report the presence of prenylated derivatives of dihydrostilbenes, trivially named macarubiginosins A–C (3–5), from the leaf extract of *Macaranga rubiginosa* Ridl. collected from Sumatra Island. Along with these compounds, two known prenylated dihydrostilbens, laevifolins A and B (1, 2), were also isolated. As a preliminary biological test, this paper also briefly describes the cytotoxic properties of compounds 1–5 against murine leukemia P-388 cells.



1) Chemistry Department, Airlangga University, Jalan Darmawangsa Dalam, 60222, Surabaya, Indonesia; 2) Natural Products Chemistry Research Group, Organic Chemistry Division, Bandung Institute of Technology, Jalan Ganesha 10, 40132, Bandung, Indonesia, e-mail: yana@chem.itb.ac.id. Published in *Khimiya Prirodnikh Soedinenii*, No. 2, March–April, 2017, pp. 184–187. Original article submitted September 22, 2015.