Cytotoxic Xanthones from Garcinia penangiana Pierre

Md. Lip Jabit^a, Rozida Khalid^a, Faridah Abas^{a,b}, Khozirah Shaari^{a,c}, Lim Siang Hui^d, Johnson Stanslas^{a,d}, and Nordin H. Lajis^{a,c,*}

- Laboratory of Natural Products, Institute of Bioscience, University Putra Malaysia,
 43400 Serdang, Selangor, Malaysia. Fax: +60389468080. E-mail: nhlajis@ibs.upm.edu.my
 Department of Food Science, Faculty of Food Science and Technology, University Putra Malaysia, 43400 Serdang, Selangor, Malaysia
 - Department of Chemistry, Faculty of Science, University Putra Malaysia, 43400 Serdang, Selangor, Malaysia
 Faculty of Medicine and Health Sciences, University Putra Malaysia, 43400 Serdang,
 - Selangor, Malaysia
 - * Author for correspondence and reprint requests

Z. Naturforsch. **62 c**, 786–792 (2007); received April 17/May 25, 2007

Two new xanthones, characterized as 4-(1,1-dimethylprop-2-enyl)-1,3,5,8-tetrahydroxyxanthone (1) and penangianaxanthone (2), with three known xanthones, cudratricusxanthone H (3), macluraxanthone C (4) and gerontoxanthone C (5), as well as friedelin and stigmasterol were isolated from the leaves of *Garcinia penangiana*. Their structures were elucidated by analysis of spectroscopic data and comparison of the NMR data with the literature ones. Significant cytotoxicity against DU-145, MCF-7 and NCI-H460 cancer cell lines was demonstrated by compounds 1–5, with IC₅₀ values ranging from 3.5 to 72.8 μM.

Key words: Garcinia penangiana, Cytotoxic Activity, Xanthones