Materials and Methods

General experimental procedures

The compound was characterized using spectroscopic data, including $^1$H, $^{13}$C NMR, and HRMS and was compared with previously published data [1]. An ACQUITY UPLC™ system (Waters Corporation, Milford, MA, USA), equipped with a binary solvent delivery manager and a photodiode array (PDA) was used for ultra-performance liquid chromatography (UPLC) analysis. High-resolution mass spectrometry (HRMS) analysis was performed using a UPLC quadrupole time-of-flight mass spectrometer (UPLC-QTOF-MS) equipped with an electrospray ionization (ESI) interface (Waters Q-TOF PremierTM, Waters Corporation). Nuclear magnetic resonance (NMR) analysis was carried out using a Fourier Transform (FT)-NMR spectrometer (JEOL ECZ500R; JEOL Ltd., Tokyo, Japan) for 1D spectra ($^1$H NMR and $^{13}$C NMR).

Plant material and preparation of Lindera erythrocarpa fruit

The fruit of L. erythrocarpa was resamping from Jeju Island, Southern Korea in October 2013 (by Dr. Jin-Hyub Paik). The collected raw materials were deposited in the Herbarium of the Korea Research Institute of Bioscience & Biotechnology (KRIBB, KRIB 0000372). The target compounds were isolated from dried fruits of L. erythrocarpa, as previously described [1]. Briefly, the extracts (770.0 g, yield 15.4%) were fractionated on a silica gel column (10 × 90 cm, JEO prep 60, 40-63 μm, 2.3 kg) and eluted using hexane-ethyl acetate mixtures (20:1→15:1→10:1→8:1→6:1→4:1→2:1→1:1) to give 10 pooled fractions. Fraction 6 was subjected to high-performance liquid chromatography (HPLC) using a reversed-phase
column (YMC-Pack ODS-AQ-HG, 10 mm) and was eluted with a 70% MeOH isocratic system (flow: 100 mL/min, 55.0 min) by seven repeated sample injections (500 mg/8 mL methanol dilutions) to isolate methyl linderone (2.5 g).

**Methyl linderone**

The characteristics of methyl linderone were as follows: pale-yellow crystals; UV (MeOH) $\lambda_{max}$ nm 240, 352; $^1$H NMR (400 MHz, CDCl$_3$) $\delta$ 7.92 (1H, d, $J = 16.0$ Hz, H-α), 7.59 (2H, dd, $J = 7.8$, 2.1 Hz, H-2, 6), 7.50 (1H, d, $J = 16.0$ Hz, H-β), 7.36 (3H, m, H-3, 4, 5), 4.17 (6H, 2′,3′-OMe), 4.08 (β′-OMe); $^{13}$C NMR (100 MHz, CDCl$_3$) 60.0 (2′,3′-OMe), 64.3 (β′-OMe), 109.4 (C-5′), 121.2 (C-α), 128.3 (C-2, 6), 128.9 (C-3, 5), 130.0 (C-β), 135.6 (C-1), 141.2 (C-4), 147.8 (C-3′), 149.0 (C-2′), 165.4 (C-β′), 184.7 (C-1′), 187.2 (C-4′), HRESIMS $m/z$ [M+H]$^+$ 301.1064, (calculated for C$_{17}$H$_{17}$O$_5$, 301.1076).

![Figure S1. $^1$H-NMR (400 MHz, CDCl$_3$) spectrum of methyl linderone](image-url)
Figure S2. $^{13}$C-NMR (100 MHz, CDCl$_3$) spectrum of methyl linderone

Figure S3. UV, MS$^2$, MS, and HR-ESI-MS data for methyl linderone
Figure S4. HPLC-DAD spectrum of isolated methyl linderone

Acknowledgements

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Reference