

고추(*Capsicum annuum* L.) 잎으로부터 Acyclic Diterpenoids의 분리
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Acyclic Diterpenoids from the Leaves of *Capsicum annuum* L.

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Objectives

Capsicum species are very important plants used worldwide as vegetable foods, spices, and external medicine. A number of studies have been carried out on *C. annuum* fruit, but there are few studies on leaves. *C. annuum* leaves were very familiar to Korean as seasoned vegetable in spring and summer season. Though *C. annuum* leaves were reported as inhibitory effect on anti-complementary activity, anti-mutagenic activity, anti-microbial activity, DPPH scavenging activity, and anti-tyrosinase activity, any phytochemical investigation has not been reported so far. In this study, the authors reported the isolation and identification of three terpenoids from *C. annuum* leaves.

Materials and Methods

The IR spectrum was obtained with a Perkin Elmer Spectrum One FT-IR spectrometer, CaF₂ window in MeOH (Buckinghamshire, England). EI-MS was recorded on a JEOL JMSAX-505-WA. ¹H-NMR (400 MHz) and ¹³C-NMR (100 MHz) spectra were recorded on a Varian Unity Inova AS-400 FT-NMR spectrometer.

The leaves of *C. annuum*. were extracted with 80% aqueous MeOH, and the concentrated extract was partitioned with EtOAc, *n*-BuOH and H₂O, successively. From the EtOAc fraction, three acyclic diterpenoids were isolated through the repeated silica gel and ODS column chromatographies.

Results

From the EtOAc fraction, three acyclic diterpenoids were isolated through the repeated silica gel and ODS column chromatographies. According to the results of physico-chemical data including NMR, MS and IR, the chemical structures of the compounds were determined as *α*-tocopherol (1), phytol (2), and so on.

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