Antioxidative Phenolic Compounds from the Cambodian Mushroom Phelinus Linteus

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In continuing search for antioxidative compounds from natural sources, we found an antioxidative activity in the methanolic extract of the Cambodian mushroom *Phelinus Linteus*. After partitioning between $CHCl_3$ and 30% MeOH, the former layer was purified by a series of ODS flash, Shephadex LH-20, silica column chromatography to give two antioxidative phenolic compounds, 4-(3,4-dihydroxyphenyl)-(*E*)-3-buten-2-one (1) and caffeic acid (2). Compounds 1 and 2 like stilbenes or flavonoids with a catechol moiety showed high radical scavenging effect on DPPH radicals with RC_{50} values of 7.9 and 8.7 μg/mL, respectively.

[PD2-34] [04/19/2002 (Fri) 10:00 - 13:00 / Hall E]

An Antioxidative Dimeric C-Glucoside from Ardisia japonica Blume

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In our ongoing researches for bioactive compounds from natural sources, our attentions were focused on potent antioxidants from *Ardisia japonica*. The methanolic extract of the plant was partitioned in accordance with the Kupchan's scheme. Chromatographic purification of the *n*-BuOH layer afforded an unprecedented dimeric *C*-glucoside (1). The molecular formula of 1 was established as $C_{28}H_{30}O_{18}$ by the HRFAB mass and ^{13}C NMR data, indicative of 13 degree of unsaturation. Its structure was elucidated by the interpretation of the NMR spectra and its stereochemistry determined by *J*-coupling constants and NOE experiments. Compound 1 exhibited moderate antioxidative activity with RC_{50} value of 4.6 μg/mL.

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Four Anti-tumor Sesquiterpenes from the Red Alga Laurencia okamurae

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Some halogenated metabolites from marine organisms are believed to play the role of chemical defence substances against marine herbivores. Among the chemical constituents isolated from the red algae in genus *Laurencia* (Ceramiales, Rhodomelaceae) was an unusual tricyclic sesquiterpene named as aplysin. The co-occurrence of brominated and non-brominated aplysins in many natural sources prompted speculation that the debromo-analogues scavenged reactive halogens from the marine environment before they could inflict damage on the host. The aplysins are also believed to act as anti-feedant preventing the predatory advances of other marine organisms. As a part of our continuing searches for anti-tumor agents from Korean marine algae, we found a potent anti-tumor activity in the methanolic extract of *Laurencia okamurae*. We herein report the isolation, structural elucidation, and biogenesis of four aplysin-related sesquiterpenes. Among them, laurinterol (1) showed potent anti-tumor activity against A549, SK-OV-3, SK-MEL-2, XF498, and HT15 with EC_{50} values of 2.6-3.6 μg/mL, respectively.

[PD2-36] [04/19/2002 (Fri) 10:00 - 13:00 / Hall E]