effect (EC_{50} ; 23.9 μM) which is comparable to L-ascorbic acid.

[PD2-15] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

Phenolic Glycosides from the Leaves of Ternstroemia japonica

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Ternstroemia japonica (Theaceae) is widely distributed in Korea, Japan, Taiwan and China. The tree is a useful source of lumber, dye and horticulture. Its fruits have been used as folk medicine in Japan for the treatment of chest pain or numbness. Previously, we have isolated saponins and jacaranone derivatives from the fruits. In our continuous study on the same plant, the leaves of Ternstroemia japonica were extracted with MeOH and the MeOH extract was fractionated with solvents. The n-BuOH soluble fraction was separated by repeated column chromatographies on silica gel and Sephadex LH-20, and further purified by reversed phase HPLC. As a result, four flavonoids (1-4) and three new diphenyl glucosides (5-7) were isolated, together with a known phenyl glucoside (8) . The structures were established on the basis of spectral analysis.

[PD2-16] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

Inhibitory effects of pinosylvin on prostaglandin E_2 and nitric oxide production in lipopolysaccharide-stimulated mouse macrophage cells

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The inhibitors of prostaglandin biosynthesis and nitric oxide production by corresponding inducible isozyme have been considered as potential anti-inflammatory and cancer chemopreventive agents. In our continuous search for cancer chemopreventive agents from natural products, we have evaluated the inhibitory potential of PGE_2 and NO production in lipopolysaccharide (LPS)-induced mouse macrophage RAW 264.7 cells. As a result, pinosylvin (3,5-dihydroxy-trans-stilbene), a stilbenoid, mainly found from the heartwood and leaves of the Pinus sylvestris, showed potential inhibitory activity of LPS-induced PGE_2 and NO production in a dose-dependent manner. Pinosylvin also suppressed the LPS-induced iNOS protein expression. Further study revealed that pinosylvin exhibited antioxidant activity by the DPPH free radical scavenging potential and inhibitory effect of xanthine oxidase activity. In addition, pinosylvin inhibited COX-2 overexpressed human colon cancer cell (HT-29) growth in a time- and dose-dependent manner. These findings suggest that pinosylvin might be a promising candidate for developing cancer chemopreventive agent .

[PD2-17] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

Lignans from the Stem Barks of Kalopanax septemlobus

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As a part of an ongoing collaborative program to discover novel bioactive components of plant origin, the stem barks of Kalopanax septemlobus were extracted with MeOH, and successively partitioned with CH_2Cl_2, EtOAc, BuOH and water. Repeated column chromatographic separation of the CH_2Cl_2 fraction resulted in the isolation of four compounds. Their structures were identified as vladinol E (1), (-)-simulanol {4-[3-hydroxymethyl-5-((E)-3-hydroxypropenyl)-7-methoxy-2,3-dihydrobenzofuran-2-yl]-2,6-dimethoxy-phenol} (2), vladinol F (3), and (±)-secoisolariciresinol (4). This is the first report on the isolation of these compounds from Kalopanax species.

[PD2-18] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

iNOS inhibitory activity of brazilin from Caesalpinia sappan