

Sephadex LH-20 column chromatography of ethyl acetate and n-butanol fractions yielded six phenolic compounds. Phenolic compounds were elucidated as 3, 4-dihydroxy benzoic acid, quercetin, quercetin 3-O-β-D-galactoside, quercetin 3-O-β-L-rhamnoside, kaempferol 3-O-β-L-rhamnoside and hesperidin by spectral analysis.

[PD2-47] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Four New Neuroprotective Phenylpropanoid Esters of Rhamnose Isolated from *Scrophularia buergeriana* Roots

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Four new phenylpropanoid esters of rhamnose, buergerisides A₁, B₁, B₂ and C₁ were isolated from roots of *Scrophularia buergeriana* MIQ. (Scrophulariaceae). In addition, six known phenylpropanoids were authenticated as: (*E*)-cinnamic acid, (*E*)-*p*-methoxycinnamic acid, (*E*)-*p*-methoxycinnamic acid methyl ester, (*E*)-*p*-coumaric acid, (*E*)-caffeic acid, (*E*)-ferulic acid, and a phenylalcohol, 2-(3-hydroxy-4-methoxyphenyl)ethanol. These ten phenylpropanoids including the four newly-reported compounds, all attenuated glutamate-induced neurotoxicity when added to primary cultures of rat cortical cells in a dose-dependent manner. These results demonstrate that phenylpropanoids isolated from *S. buergeriana* may exert significant protective effects against glutamate-induced neurodegeneration in primary cultures of cortical neurons.

[PD2-48] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Flavonoids from the leaves of *Salix hallaisanensis*

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For the investigation medicinal resources for salix species, the studies were carried out to evaluate the pharmaco-constituents in the leaves of *Salix hallaisanensis* (salicaceae) which have been used as anti-inflammation, analgesic, and diuretic agents in Korean folk medicine.

Eight flavonoids; three diosmetin glycosides, three quercetin glycosides, one luteolin glycoside, and one kaempferol glycoside were isolated by column chromatographic separating using Diaion HP-20, ODS gel, MCI gel, and sephadex LH-20. The structure of these compound were elucidated by physico-chemical evidence (¹H-NMR, ¹³C-NMR, IR, and FAB-MASS).

[PD2-49] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Pharmacognostical Studies on the Ha Go Cho

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"Ha Go Cho (夏枯草)" is one of Chinese crude drugs used mainly as a diuretic. With regard to the botanical origin of "Ha Go Cho", it was reported by Su et al. that those from China was originated in the fruited spica of *Prunella vulgaris* L. of Labiatae. It was, however, for the herba or spica of *Prunella vulgaris* L. var. *ilacina* Nakai from Korea. According to survey of markets in Korea, most of the materials collected in the markets were seemed to be originated in *Prunella* plant, while some, were seemed to be *Thesium* plant of Santalaceae.

To clarify the botanical origin of "Ha Go Cho", the anatomical characteristics of *Prunella vulgaris* L. var. *lilacina* Nakai and *Thesium chinese* Turcz. were studied. As a result, it was clarified that "Ha Go Cho" from Korea was the herba of spica of *Prunella vulgaris* var. *lilacina*, and some was the herba of *Thesium chinese*.

[PD2-50] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Dibenzylbutyrolactone lignans from *Torreya nucifera* Protect Cultured Rat Cortical Neurons from Glutamate-Induced Excitotoxicity

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In the course of our search for neuroprotective compounds against glutamate-induced toxicity from natural sources, a methanolic extract from the barks of *Torreya nucifera* (Taxaceae) exhibited significant neuroprotectivity.

Activity-guided fractionation and further separation using several chromatographic techniques resulted in the isolation of three dibenzylbutyrolactone lignans. By several spectroscopic methods, the structures of isolated lignans were identified to 2-4"-hydroxy-3"-methoxybenzyl-3-3',4'-dimethoxybenzylbutyrolactone (arctigenin), 2-4"-hydroxy-3"-methoxybenzyl-3-3',4',5'-trimethoxybenzylbutyrolactone (traxillagenin) and 2-4"-hydroxy-3"-methoxybenzyl-3-4'-hydroxy-3',5'-dimethoxybenzyl butyrolactone, respectively.

These lignans had significant neuroprotective activity at concentrations ranging from 0.1 μ M to 10.0 μ M on glutamate-induced excitotoxicity in primary cultures of rat cortical cells.

[PD2-51] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Phenolic Compounds of *Phyllanthus ussuriensis*

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The herbaceous species of subgenus *Phyllanthus* are the most widely used medicinal plants in this genus.

For the phytochemical studies *Phyllanthus ussuriensis* (Euphorbiaceae) has been reported on anti hepatitis viral effect.

From the aqueous fraction of methanolic extract, one flavonoid(quercetin-3-O-rutinoside), two phenolic acid(gallic acid, methyl gallate), and two ellagitannin(corilarin, geraniin) were isolated through fractionation and repeated column chromatography using XAD-4, ODS gel, sephadex LH-20.

The structures of these compounds were determined on the basis of IR, FAB-Mass, EI-Mass, ¹H-NMR and ¹³C-NMR spectral data.

[PD2-52] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Leucomentin-5 and -6, Two New Leucomentin derivatives from *Paxillus panuoides*

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