

the folkloric society of Korea, we investigated the isolation of hydrophilic constituents. Chlorogenic acid (1), 3,4-di-O-caffeoylquinic acid (2), 5-O-[1-butyl]-3,4-di-O-caffeoylquinic acid (3) were isolated by combination of silica gel- and ODS column chromatography. The structure of 3 was determined by ^1H - ^1H -, ^1H - ^{13}C COSY, HMBC and FAB-MS spectra. Compound 3 has not been isolated before from a natural source.

[PD2-15] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Phytochemical Constituents of *Actinidia arguta*

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The root of *Actinidia arguta* was extracted with methanol and the methanol extract was suspended in H₂O and successively partitioned with n-Hexane, CH₂Cl₂, EtOAc and n-BuOH. The repeated column chromatographic separation of the EtOAc extract resulted in the isolation of two flavonoids (compound 2 and 3) and two triterpenes (compound 1 and 4) and CH₂Cl₂ extract to afford three lignans (compound 5-7). Their structures have been established by spectroscopic methods

[PD2-16] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Antigenotoxic and Antimutagenic Activities of a New Component from the Starfish *Asterina pectinifera*

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>From the butanol fraction of the starfish *Asterina pectinifera* Muller et Troschel (Asteriidae), we have isolated a new component, 5 α -cholest-7-en-3 β -ol. Its antigenotoxic and antimutagenic activities were examined by the SOS chromotest with *Escherichia coli* PQ37 and by Ames test with *Salmonella typhimurium* TA1538, respectively. 5 α -cholest-7-en-3 β -ol showed potent antigenotoxic activity against the mutagens, both MNNG(N-methyl-N'-nitro-N-nitrosoguanidine) and NQO(4-nitroquinoline N-oxide. For 100% of antigenotoxicity, the concentration of the compound applied against MNNG and NQO were 10 μg and 5 μg per reaction tube, respectively. Its antimutagenic activity with *S. typhimurium* TA1538 against the mutagen MNNG was very effective. When its concentrations were varied from 1 μg up to 10 μg dose per plate, the inhibition ratio of revertant CFU(colony forming unit) of TA1538 per plate was increased accordingly, from 25.2% to 99.2%. These results suggest that 5 α -cholest-7-en-3 β -ol possesses antigenotoxic and antimutagenic activity and might be useful as a chemopreventive agent.

[PD2-17] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Phytochemical investigation of node of the lotus rhizome (*Nelumbo nucifera* Gaertn.)

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