

Bioassay-guided fractionation of the EtOH extract of *Torilidis Fructus* furnished two hepatoprotective sesquiterpenes, *torilin* (1) and *torilolone* (2), together with a new 1-hydroxy-torilin (3). Compounds 1 and 2 showed the hepatoprotective effects on tacrine-induced cytotoxicity in human liver-derived Hep G2 cells. The EC<sub>50</sub> values of compounds 1 and 2 were 18.6 and 3.9 μM, respectively. Silybin as a positive control showed the EC<sub>50</sub> value with 69.0 μM.

[PD2-59] [ 10/19/2001 (Fri) 14:00 – 17:00 / Hall D ]

### The anti-inflammatory activity of *Kalopanax pictus* bark extract (III). Anti-inflammatory effects of alkaline hydrolysate from BuOH fraction

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We have reported the active components of *Kalopanax pictus* (KP) extract were monodesmoside saponins from EtOAc fraction. The BuOH fraction which is rich in bidesmoside saponins can afford monodesmoside saponins by alkaline hydrolysis. In the present study we had performed alkaline hydrolysis of BuOH fraction to search what we could obtain more potent anti-inflammatory compounds. The hydrolysates of BuOH fraction was partitioned to EtOAc and BuOH fractions, of which pharmacological assays were performed. The results showed that oral treatment of EtOAc and BuOH fractions of the hydrolysate showed significant inhibition of vascular permeability at a dose of 500 mg/kg in mice and carrageenan-induced paw edema at a dose of 300 mg/kg in rats. The column chromatography of the EtOAc fraction which may be rich in monodesmoside saponins afforded compounds 1, 3 and 4. These compounds were identified as kalopanaxsaponin A, kalopanaxsaponin A methyl ester and kalopanaxsaponin I, respectively. All the compounds showed significant inhibition of vascular permeability at the doses of 60 mg/kg, but only compound 3 exhibited anti-carrageenan activity at a dose of 50 mg/kg.

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### Antihepatotoxic activity and phytochemical study on *Rosa davurica*

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Bromobenzene is a xenobiotic liver toxin that is known to produce centrilobular hepatic necrosis through the formation of reactive epoxides as the toxic intermediates. The methanol extract of the underground parts of *Rosa davurica* reduced the activity of aniline hydroxylase that increased by bromobenzene, while did not affect the activities of aminopyrin N-demethylase and glutathione S-transferase in bromobenzene-induced rats. The extract recovered the activity of epoxide hydrolase decreased by bromobenzene. These results showed that the extract from the underground parts of *R. davurica* has antihepatotoxic activity by reduction of the activity of aniline hydroxylase, an epoxide-producing enzyme along with enhancement of the activity of epoxide hydrolase, an epoxide-removing enzyme in bromobenzene-intoxicated rats. From title plant, gallic acid, methyl gallate, protocatechuic acid, quercetin and rosamultin were isolated and characterized by spectral data