

These results indicate that GTC and EGCg inhibit the platelet aggregation by interfering with the intracellular messenger system, but not by inhibiting the binding of PAF to PAF-receptor on the platelet membrane directly, and suppression of TXB₂ formation by GTC and EGCg may be responsible for inhibitory activities on the platelet aggregation and further on the thrombosis.

[PA3-7] [04/18/2002 (Thr) 14:00 - 17:00 / Hall E]

Action mechanisms of antiestrogenic potentials of Ginkgo biloba extract in human breast cancer cell

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Ginkgo biloba extract (GBE) contain a complex mixture of approximately 300 chemicals. The active ingredients of what is commonly called Ginkgo are extracted from the dried, two-lobed hence, biloba fan-shaped leaves of the Ginkgo biloba tree, which grows in temperate climate. The standard GBE contain in 24% flavonoid glycosides (Ginkgo-flavone glycosides) and 6% terpene lactones (ginkgolides, bilobalide). Therefore, GBE containing 24% flavonoids may reduce the risk of breast cancer, in addition to may reduce the risk of osteoporosis by therapeutic agent of breast cancer. However, little is known about the estrogenic activity of GBE.

In order to evaluate action of GBE as chemopreventive agents in breast cancer, we measured the estrogen antagonistic effect of GBE by using the ER-positive (MCF-7 and T47D) and ER-negative (MDA-MB-231) cell lines. The action mechanisms of GBE on chemopreventive effect were estimated the cross-talk activity by arylhydrocarbon receptor and estrogen receptor through T47D and B(a)P-resistant T47D cells. These results showed that GBE induced weak agonistic and strong antagonistic activity. Weak estrogen effect of GBE was mediated through estrogen receptor. However, its antagonistic activity was not mediated through estrogen receptor. Also, it showed the cross-talk activity mediated estrogen receptor and arylhydrocarbon receptor.

[PA3-8] [04/18/2002 (Thr) 14:00 - 17:00 / Hall E]

Effects of Fractions of *Dendropanax moribifera* Lev. on Alcohol-induced Hepatotoxicity in Rats

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Alcohol is the major cause of the liver disease in Korea. Liver disease induced by alcohol is classified as fatty liver, hepatitis and cirrhosis.

Dendropanax moribifera Lev.(Araliaceae) is one of evergreen trees grown on the Che-ju island and near the seashores of the southern area of Korean peninsula. Traditionally, it is known as a useful natural product to treat hang-over relief, eye disease and jaundice.

So we studied the protective effects of various fractions from the methanol extract of *Dendropanax moribifera* Lev. on the alcohol-induced hepatotoxicity in rats.

Simultaneously administered in Sprague-Dawley rats with alcohol orally, butanol, hexane and chloroform soluble fraction from the methanol extracts were found to inhibit the increase of the serum transaminase activities and alkaline phosphatase activity. Particularly, the serum transaminase activity level was decreased to the normal state in hexane soluble fraction treated rats.

Water and chloroform soluble fraction suppress the generation of malondialdehyde, an index of endogenous lipid peroxidation in liver tissue by 50%.

Comparing with pre-treatment, co-treatment is proved to be more effect.

Therefore, methanol extract of *Dendropanax moribifera* Lev. and its fractions are inferred to be possibly applied to functional beverage, functional food and medicine for liver protection.