[PD2-26] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

LDL-Antioxidant activity of 6-hydroxyeugenol from *Spiraea blumei*

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Low density lipoprotein (LDL) is the major cholesterol carrier in the blood stream. Also, LDL oxidation has been proposed as an important step in the formation of atherosclerotic lesion. Thus, protection of LDL from oxidation is needed to prevent or to retard the progression of atherosclerosis.
In this study, 6-hydroxyeugenol was isolated from the methanolic extract of the *Spiraea blumei* and the sructure was elucidated by spectroscopic data analysis. We investigated the antioxidant properties of 6-hydroxyeugenol on Cu^{2+}-mediated human LDL oxidation, which was monitored by thiobarbituric acid-reactive substance(TBARS) assay, conjugated diene formation, and electrophoretic mobility and fragmentation of apoB using SDS-PAGE. 6-Hydroxyeugenol exhibited potent LDL-antioxidant activity in the TBARS assay with IC_{50} value of 7.4 μM. Eugenol also exhibited potent LDL-antioxidant activity under the same conditions with an IC_{50} value of 2.2 μM. Probucol(IC_{50} = 3.0 μM) was used as a positive control substance in this assay.

[PD2-27] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Inhibitory activity of diarylheptanoids on farnesyl protein transferase

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Diarylheptanoids [curcumin (1), demethoxycurcumin (2), bisdemethoxycurcumin (3), bisdimethoxymethylcurcumin (4), and 1,2-dihydrobis(de-O-methyl)curcumin (5)] were isolated from the methanolic extract of Curcuma longa L. and A new cyclic diarylheptanoiid (6) and a known compound 7 were isolated from fruits of Alnus japonica S. Diarylheptanoids (1-3) inhibited farnesyl protein transferase (FPTase) with an IC50 of 29-50 uM. The other compounds very mildly inhibited FPTase, therefore, the inhibitory activity on FPTase very much depends on the structure of diarylheptanoids. The isolated FPTase inhibitors also inhibited the proliferation of ras-transformed cell lines with a GI50 of 8-15 ug/mL.

[PD2-28] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

A new phlorotannin from the brown alga *Ecklonia stolonifera*

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Ecklonia stolonifera Okamura is a member of the family Laminariaceae, belonging to the order Laminariales. Previously we reported that the methanolic extract of the brown alga *E. stolonifera*