[PA1-1] [10/19/2000 (Thr) 10:00 - 11:00 / [Hall B]]

Compound SY006, Stilbene Derivative as a Potent Inhibitor of Melanin Production

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Traditionally, the Mori cortex has been used for skin whitening purpose. One of the ingredients of Mori cortex that are responsible for the whitening activity is believe to be oxyresveratrol, which belong to the stilbene group. Oxyresveratrol has been reported to have strong tyrosinase inhibitory effects than kojic acid, which is widely used for manufacturing the whitening cosmetics recently. However not much amount of oxyresveratrol in the Mori cortex is limited, and its synthetic approach is not well established. Even in the synthetic aspect, the manufacturing of the whitening ingredient has many difficulties because oxyresveratrol was has to be passed through many synthetic steps. Therefore an attempt to search for alternative materials like stilbene derivatives, which have high bioactivities and can be easily obtained, is warranted. In this work the compound SY 006, which is a stilbene derivative, was synthesized by single step process. The compound 006 exibited inhibitory effects on tyrosinase that is involved in melanin biosynthesis, UV blocking effect, and SOD-like activity. These results suggested that compound SY 006 might be used as a skin whitening agent.

[PA1-2] [10/19/2000 (Thr) 10:00 - 11:00 / [Hall B]]

Doxorubicin inhibits the production of NO by colon tumor cells

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Doxorubicin is an active and broad spectrum chemotherapeutic agent. The relationship between doxorubicin treatment and the enzymatic activity of eNOS is well characterized. However, little is known about the effects of adriamycin on the expression of iNOS. In the present study, we characterized the effects of doxorubicin on nitric oxide (NO) production by colorectal cancer cells, DLD-1. IFN-γincreased the production of NO and pretreatment of doxorubicin inhibited the production of NO in response to IFN-γin a dose dependent manner. The increased expressions of iNOS mRNA and protein by IFN-γwere completely blocked by doxorubicin without affecting the iNOS mRNA stability. However,doxorubicin activated nuclear factor-kB in response to IFN-γ. In summary, doxorubicin inhibited the production of NO by DLD-1 cells which is not linked to well known transcription factor, NF-kB. These data suggest that inhibition of nitric oxide biosynthesis in colon tumor cells by doxorubicin may, at least in part, the efficacy of this antitumor agent.

[PA1-3] [10/19/2000 (Thr) 10:00 - 11:00 / [Hall B]]

Enhanced rate of DNA repair and expression of anti -apoptotic protein in cisplatin-resistant K562 cells

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