macrophages Raw 264.7. The compound inhibited not only LPS-induced NO production with an IC50 value of 6.5 uM but also TNF and IL-1 productions with IC50 values of 17.2 uM and 10.0 uM, respectively. Benzoxathiol LYR-71 compound inhibited the IL-6 signaling with an IC50 value of 4.3 uM but did not inhibit TNF or IL-1 signaling at all. Therefore, benzoxathiol LYR-71 compound would be benifical for treatment of inflammatory and immune diseases.

[PC1-15] [2003-10-10 09:00 - 13:00 / Grand Ballroom Pre-function]

Anti-inflammatory and Antinociceptive Effects of Methanol Extract from the Fomes fomentarius

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As an attempt to search for bioactive natural products exerting antiinflammatory activity, we have evaluated the anti-inflammatory and antinociceptive activities of the methanol extract from the Fomes fomentarius (MEFF). MEFF (50, 100 mg/kg/day, p.o.) significantly reduced an acute paw edema induced by carrageenan in rats. When analgesic activity was measured by acetic acid-induced writhing test and hot plate test, MEFF showed a dose-dependent inhibition in animal models. In addition, MEFF potently inhibited the LPS-induced production of NO, PGE_2 and TNF-αproduction of macrophages. Consistent with these observations, the expression level of iNOS and COX-2 enzyme was decreased by MEFF in a concentration-dependent manner. These results suggest that methanol extract from the Fomes fomentarius exert anti-inflammatory effects by inhibiting NO and PGE_2 induction.

[PC1-16] [2003-10-10 09:00 - 13:00 / Grand Ballroom Pre-function]

Fast visible dye staining of proteins in one- and two-dimensional sodium dodecyl sulfate-polyacrylamide gels compatible with matrix-assisted laser desorption/ionization-mass spectrometry

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A fast and matrix-assisted laser desorption/ionization-mass spectrometry compatible protein staining method in one- and two-dimensional sodium dodecyl sulfate-polyacrylamide gel electrophoresis is described. It is based on the counterion dye staining method that employs oppositely charged two dyes, Zincon and Ethyl Violet to form an ion-pair complex. It is safe to use since the methanol used previously in staining solution was replaced with ethanol, which is not toxic. The protocol including fixing, staining and quick washing steps can be completed in 1 to 1.5 h depending upon gel thickness. It has the sensitivity comparable with the colloidal Coomassie Brilliant Blue G (CBBG) stain using phosphoric acid as a component of staining solution (4-8 ng). The counterion dye stain does not induce protein modifications like in CBBG stain using trichloroacetic acid and methanol as components of staining solution, which complicates interpretation of peptide mapping data from mass spectrometry. Considering the safety, sensitivity, speed and compatibility with mass spectrometry, the counterion dye stain may be more practical than any other dye-based protein stains for routine proteomic researches.

[PC1-17] [2003-10-10 09:00 - 13:00 / Grand Ballroom Pre-function]

Curcumin Inhibits Phorbol Ester-induced Expression of Cyclooxygenase-2 in Mouse Skin through Suppression of Extracellular Signal-Regulated Protein Kinase Activity and NF-κB Activation

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Recently, there have been considerable efforts to search for naturally occurring substances for the intervention of carcinogenesis. Curcumin, a yellow coloring ingredient of turmeric (Curcuma longa L., Zingiberaceae), has been