

P450 1B1 by SY-021 was determined. These results suggest that SY-021 is one of the most potent inhibitor of human P450 1 enzymes and may be considered as a good candidate for a cancer chemopreventive agent in human

[PC1-4] [10/17/2002 (Thr) 13:30 – 16:30 / Hall C]

Ceramide analogs inhibit inducible nitric oxide synthase expression and nitric oxide production in interferon-gamma and lipopolysaccharide-stimulated RAW 264.7 macrophages.

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Nitric oxide (NO) production through the inducible nitric-oxide synthase (iNOS) pathway has been implicated in inflammatory diseases and cellular injury. Inhibition of various genes related to inflammation, including iNOS is one of the major roles of well-known anti-inflammatory drugs. In the present study, the effects of ceramide analogs on iNOS expression and NO production were evaluated to investigate how ceramide and its structurally related analogs modulate NO-mediated cellular signals and inflammation. Of ten compounds tested, KY3336 and KY3436 significantly inhibited the NO production in RAW 264.7 murine macrophage cells stimulated with lipopolysaccharides (LPS) and interferon (IFN)-gamma in a dose-dependent manner. Expression of iNOS was also significantly suppressed by these analogs. In conclusion, synthetic ceramide analogs decrease iNOS-dependent NO production in LPS and IFN gamma-stimulated RAW 264.7 macrophages, prompting investigation of its potential use as anti-inflammatory drugs.

[PC1-5] [10/17/2002 (Thr) 13:30 – 16:30 / Hall C]

Environmentally benign, Background-free protein staining in SDS-polyacrylamide gels using an counter ion-dye complex solution.

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Environmentally benign protein staining method in sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE) using both an acidic dye, zincon (ZC) and a basic dye, ethyl violet (EV) is described. It is based on a counter ion-dye staining technique that employs oppositely charged two dyes to form an ion-pair complex. The selective binding of the free dye molecules to proteins in an acidic solution produces bluish violet colored bands. It is a rapid procedure, involving only fixing and staining steps that are completed in 45 min. The sensitivity of this method is 5-10 ng of protein which is four-fold better than that of the conventional Coomassie brilliant blue R-250 (CBBR) staining and is comparable to the sensitivities of the colloidal Coomassie brilliant blue G (CBBG) staining, rapid silver staining and SYPRO fluorescence staining procedures. This staining method can be applied to detect for the trace amount of protein in 2D-PAGE. Compatibility of the counter ion-dye stain with MALDI-TOF MS has been demonstrated. Due to the use of nontoxic solvent, ethanol, high sensitivity and rapidity, this stain may be more practical than any other dye-based stains for routine laboratory purposes.

[PC1-6] [10/17/2002 (Thr) 13:30 – 16:30 / Hall C]

ROLES OF PGE₂ AND 15-DEOXY-Δ^{12, 14} PROSTAGLANDIN J₂ IN ET-18-O-CH₃-INDUCED INFLAMMATORY CELL DEATH

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