saturation of the first-pass metabolism together with concomitant saturation of hepatic clearance in the metabolism of fenfluramine.

[PA4-2] [04/21/2000 (Fri) 10:30 - 11:30 / [1st Fl, Bldg 3]]

Simple Screening Method of Endocrine Disruptors using spot-test procedure of yeast-based steroid hormone receptor gene transcription assay

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Simple Screening Method of Endocrine Disruptors using Spot-test procedure of Yeast-based Steroid Hormone Receptor gene transcription assay

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A yeast-based steroid hormone receptor gene trascription assay was previously developed for the evaluation of chemicals with endocrine modulating activity by McDonnell's group at Duke University Medical Center, USA. The yeast transformants used in this assay contain the human estrogen, androgen or progesteron receptor along with the appropriate steroid responsive elements upstream of the β-galactosidase reporter gene. The original procedure of the assay comprised the following step: i) Dilution of early mid-log phase culture to an OD600 of 0.03 in selective medium plus CuSO4 to induce receptor production ii) Addition of either steroid or test chemical, followed by overnight incubation with shaking iii) Dilution to OD600 of 0.25 and aliquotes of 100㎕ added to 96-well microtiter plate iv) Addition of equal volume of assay buffer containing 2-nitrophenol-β-D-galactosidase(ONPG) as a substrate for β-galactosidase v) Measurement the change in concentration of orthonitrophenol using a microtiter plate reader. We here report a simple spot-test procedure using X-gal as a substrate for β-galactosidase instead of ONPG. Production and induction of β-galactosidase can be evidenced on plates containg X-gal which released a colored dye when hydrolyzed by β-galactosidase. Effect of the variation of the medium components and oxalyticase application on the response in this spot assay will also be discussed.

[PA4-3] [04/21/2000 (Fri) 10:30 - 11:30 / [1st Fl, Bldg 3]]

Stability Study on DK-35C, a Carbapenem Antibiotics by HPLC : Effects on pH and Time Changes

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Impurity profile study of DK-35C (a carbapenem antibiotics) was conducted by two different methods of HPLC/UV. In Experiment I, Bondapak C18 column and 0.01 M ammonium phosphated buffer with 0.05% triethylamine (pH 6.5)/methanol (85/15, v/v) as mobile phase were used. Parent and its related impurity peaks were monitored for 6 days. In Experiment II, Lichrosorb RP18 column and sodium phosphate buffer (pH 6.5)/methanol (7/3, v/v) as mobile phase were used. Peak areas of DK-35C and its impurity was measured at several different pH values. The result from Experiment I is that DK-35C parent (11.9 min) and four impurity peaks (3.3, 5.8, 10.1, and 19.1 min) were observed and methanol solution of DK-35C showed a rapid degradation after 24 hrs. The maxium wavelength of DK-35C absorption was observed at 300 nm. The results from Experiment II showed