fractions of n-hexane and ethyl acetate induced rGH level up to 3.63±1.28 fold ($p<0.01$) and 1.86±0.23 fold ($p<0.05$) of the basal level, respectively. Unfortunately, most the components used above did not induce the release of rGH in the culture. *In vivo* study, T_{max} was 10 min after administration of 10 μg/kg of rGHRH however T_{max} of GR was 30 min and the peak height not significant. Further studies using other natural products are in progress. (supported by a grant, #PF 002201-01, from Plant Diversity Research Center of 21st Century Frontier Research Program, Korea)

Poster Presentations - Field D4. Analytical Chemistry

[PD4-1] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Simultaneous determination of nalbuphine and methamphetamine in drug abuser's urine

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Because people who take more than two drugs have increases, a simple and sensitive method for the simultaneous analysis of amphetamine, methamphetamine and nalbuphine in urine was developed. After alkalinization of the urine samples with 6 N-NaOH, the analytes were extracted using ethyl acetate, derivatized with MSTFA : TSIM : TMCS (= 100 : 2 : 5) prior to gas chromatography-mass spectrometry(GC-MS) analysis with selected ion monitoring. Ions 116, 131, 191 for amphetamine-TMS, 130, 91, 206 for methamphetamine-TMS and 573, 428, 518 for nalbuphine-TMS were selected respectively. The first of the ions listed for each compound were used for quantification. Methoxyphenamine was used as the internal standard. Recoveries were higher than 90% for three drugs and limits of detection were 5, 10 and 20 ng/ml for amphetamine, methamphetamine and nalbuphine, respectively. The cut-off level were set at 250 ng/ml for amphetamine and methamphetamine, and 50 ng/ml for nalbuphine. The method was linear from 50 ng/ml up to 1 μg/ml for all analytes. All of these data recommend the applicability of the method for simultaneous analysis of methamphetamine and nalbuphine in urine samples.

[PD4-2] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Chiral separation of β-agonists after derivatization with a new chiral derivatization agent, GATC

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Several β-agonists were investigated for the possible separation of the enantiomers by reversed-phase high-performance liquid chromatography after derivatization with a new chiral derivatization agent, GATC. The derivatization proceeded quantitatively within 1 h at room temperature. The corresponding diastereomers were well resolved an ODS column with acetonitrile-acetate buffers a mobile phase and monitored at UV 254nm. The optimization of the