

water. The main separation was performed on a semi-microbore C18 column (250 x 1.5 mm I.D.) using 40% acetonitrile in water. The limit of quantification was 25 ng/ml. The accuracy of the assay was from 96.04% to 115.54% while the intra- and inter-day coefficient of variation of the same concentration range was less than 15%. In the concentration range of 25–2000 ng/ml, and linear regression analysis revealed correlation coefficients > 0.999. Also, we applied the developed method to analyze cilostazol in human plasma.

[PD4-26] [10/18/2002 (Fri) 13:30 – 16:30 / Hall C]

Simultaneous determination of thirteen cosmetic preservatives in skin creams by HPLC–PDA method

Chae KabRyong, Lee SeungKyung, Lee HwaJung, Choi JungHee, Sung JunHyun, Choi YongHoon, Choi JangDuck, Kim KwangSoo, Kim Il, Sho YooSub, Moon ByungWoo

Kyungin Regional Korea Food and Drug Administration

Combination of two or more preservatives are commonly used in cosmetic creams to prevent alteration and degradation of the product formulation, but preservatives are one of the main causes of allergic contact dermatitis from the use of cosmetics.

In this study, HPLC–PDA method for simultaneous determination of the most widely used 13 preservatives in cosmetic cream – benzyl alcohol, phenoxyethanol, sorbic acid, benzoic acid, salicylic acid, chlorphenesin, dehydroacetic acid and methyl-, ethyl-, propyl-, isopropyl-, butyl-, isobutyl paraben – was developed for application to cosmetic skin creams. Chromatography was performed under gradient condition using mixture of water, acetonitrile and phosphoric acid as mobile phase at a flow-rate of 1.0 ml/min and monitored at 220nm. Capcellpak C₁₈(5µm, 250*4.6mm I.D.) was used for the column. An extraction method using 50% acetonitrile with 1% H₃PO₄ was developed and validated in order to apply this chromatographic method to a commercial cosmetic creams.

[PD4-27] [10/18/2002 (Fri) 13:30 – 16:30 / Hall C]

Analysis of DA-6034, a New Flavonoid Derivative in Biological Fluids by Fluorescence Detector

Jang JiMyun^o, Park KyungJin, Lee JongJin, Kim DongGoo, Shim HyunJoo, Son MiWon, Kim DongSung, Kim SoonHoe, Yoo MooHi, Kim WonBae

Research Laboratories, Dong-A Pharmaceutical Co.,Ltd.

A high performance liquid chromatographic method was developed for the determination of DA-6034 in biological fluids using fluorescence detector. The method involved deproteinization of biological sample with the same volume of acetonitrile, 0.2M zinc sulphate, and 0.15M barium hydroxide. The aliquot of supernatant was injected onto Nova-pak C18 column and detected by fluorescence detector. Emission and excitation wavelength of detector were 336nm and 440nm. The detection limit of DA-6034 in plasma was 0.5 ng/ml. The method is precise, specific, accurate and reproducible. Recoveries were higher than 90% and there were no interference from endogenous substances. This method seemed suitable for the pharmacokinetic studies of DA-6034 in plasma.

[PD4-28] [10/18/2002 (Fri) 13:30 – 16:30 / Hall C]

Risk assessment of endocrine disruptors in cosmetics

Lee JeongPyo^o, Choi SangSook, Son KyungHun, Yang SeongJun, Kim ShinOk, Paek OckJin, Cho HyeonSeo, Kim YoungOk

Korea Food and Drug Administration, Department of Drug Evaluation

Dimethyl phthalate(DMP), diethyl phthalate(DEP), di-n-butyl phthalate (DBP), butyl benzyl phthalate(BBP), bis(2-ethylhexyl)phthalate(DEHP) and di-n-octyl phthalate(DOP) in lotions was determined by gas chromatography.