Urinary metanephrines by liquid chromatography tandem spectrometry: Using multiple quantification methods to minimize interferences in a high throughput method

Original Research Article

Pages 3673-3680

Zlatuse D. Clark, Elizabeth L. Frank

We developed and validated a robust LC–MS/MS method. Specificity was enhanced and interferences resolved using a sensitive, high-throughput LC–MS/MS method. This method is suitable for...
3. Development of proteomic tools to study protein adsorption on a biomaterial, titanium grafted with poly(sodium styrene sulfonate)
   Original Research Article
   Pages 3681-3687
   S. Oughlis, S. Lessim, S. Changotade, F. Bollotte, F. Poirier, C. Helary, J.J. Lataillade, V. Migonney, D. Lutomski
   Highlights
   - Chromatography enables study of protein adsorption on p
   - Chromatography and proteomics lead to identify proteins adsorbed on PolyNaSS/titanium surface, modulates adsorption of proteins

4. A sensitive and specific HPLC-MS/MS analysis and preir pharmacokinetic characterization of isoforskolin in beagle dogs
   Original Research Article
   Pages 3688-3693
   Lulu Tian, Yaqin Wang, Yi Ling, Jiajun Yin, Jun Chen, Jianmir Huang
   Highlights
   - The first time to study the pharmacokinetic characterization of isoforskolin in beagle dogs.

5. Measurement of free and total sialic acid by isotopic dilution liquid chromatography tandem mass spectrometry method
   Original Research Article
   Pages 3694-3699
   Abdellah Tebani, Dimitri Schlemmer, Apolline Imbard, Odile R Dominique Porquet, Jean-François Benoist
   Highlights
   - When sialic acid is assayed by reversed-phase LC its shows important ion suppression effects. - We butylated sialic acid separation.
   - Butylated sialic acid allowed a more sensitive
   - Stable isotope of sialic acid was used as an internal standard.

6. Direct analysis of carbohydrates in animal plasma by ion chromatography coupled with mass spectrometry and preamperometric detection for use as a non-invasive diagnostic tool
   Original Research Article
   Pages 3700-3706
   Darja Kolišnik, Andrej Šmidovnik, Petra Jazbec-Križman, Mitja Križman, Mirko Prošek
   Highlights
   - α-Lipoic acid and coenzyme Q_{10} decrease the glucose level.
   - α-Lipoic acid and coenzyme Q_{10} have a positive influence on the lactulose test.
Determination of the new anthelmintic monepantel and its sulfone metabolite in milk and muscle using a UHPLC–MS and QuEChERS method

Original Research Article

Pages 3707-3713

Brian Kinsella, Patrick Byrne, Helen Cantwell, Martin McCormack Furey, Martin Danaher

Show preview | Related articles | Related reference work art

Highlights

► An analytical method was developed for the new anthelmintic monepantel and its sulfone metabolite in goat’s milk and ovine muscle samples. The method was laboratory validated according to the 2002/657/EC guideline.

Improvement and validation of the method using dispersive–liquid microextraction with in situ derivatization followed by gas chromatography–mass spectrometry for the determination of tricyclic antidepressants in human urine samples

Original Research Article

Pages 3714-3720

Rie Ito, Masaru Ushiro, Yuki Takahashi, Koichi Saito, Tetsuo Ookubo, Yusuke Iwasaki, Hiroyuki Nakazawa

Show preview | Related articles | Related reference work art

Highlights

► In situ derivatization-DLLME-GC/MS method was validated for the determination of tricyclic antidepressants in human urine samples. The method was laboratory validated according to the 2002/657/EC guideline.

Pharmacokinetics and tissue distribution of docetaxel by chromatography–mass spectrometry: Evaluation of folate receptor-targeting amphiphilic copolymer modified nanostructured lipid carriers

Original Research Article

Pages 3721-3727

Xu Zhao, Yunli Zhao, Lulu Geng, Xiang Li, Xiaofan Wang, Zhong Liu, Dongkai Wang, Kaishun Bi, Xiaohui Chen

Show preview | Related articles | Related reference work art

Highlights

► Docetaxel-loaded NLC was modified by a novel amphiphilic copolymer. The modified formulation was defined as FA-DTX-NLC. A study was performed to compare the pharmacokinetics and tissue distribution of docetaxel between free docetaxel and FA-DTX-NLC. The modified formulation was defined as FA-DTX-NLC. The modified formulation was defined as FA-DTX-NLC.

Chlorpromazine quantification in human plasma by UPLC electrospray ionization tandem mass spectrometry. Application to a comparative pharmacokinetic study

Original Research Article

Pages 3728-3734

Ney Carter Borges, Vinicius Marcondes Rezende, Jose Marx Santana, Ricardo Pereira Moreira, Roberto Fernandes Moreira, Patricia Moreno, Diego Carter Borges, José Luiz Donato, Rc Agnaldo Moreno

Show preview | Related articles | Related reference work art

Highlights

► Chlorpromazine quantification in human plasma by UPLC electrospray ionization tandem mass spectrometry. The method was validated for in vivo studies. Chlorpromazine quantification in human plasma by UPLC electrospray ionization tandem mass spectrometry. The method was validated for in vivo studies.
Simultaneous determination of tectorigenin, irigenin and irisflorentin in rat plasma and urine by UHPLC–MS/MS: Application to pharmacokinetics

Wei-dong Zhang, Wan-jun Yang, Xiao-juan Wang, Yi Gu, Rui Wang

Highlights

► UPLC–APCI-MS method to quantify chlorpromazine in human blood applied in a relative bioavailability study in order to compare simple dose formulation. ► The chlorpromazine was extracted by simple liquid–liquid extraction. ► This method agrees with the US Food and Drug Administration of high sensitivity, specific, comparative pharmacokinetic assays such as bioequivalence.

Extractive ethoxycarbonylation in high-temperature gas chromatography–mass spectrometry based analysis of estrogens

Ju-Yeon Moon, Se Mi Kang, Myeong Hee Moon, Jongki Hong, Tae Kim, Dae Hoon Jeong, Young Nam Kim, Bong Chul Choi, Man Ho Choi

Highlights

► We developed a sensitive and selective UHPLC–MS/MS method to determine three compounds in rat plasma and urine. ► This method is useful for comparative pharmacokinetic studies in rats. ► The method is useful for the comparison of Belamcandae in clinical research.

Short Communications

The relationship between Candida species charge density and chitosan activity evaluated by ion-exchange chromatography

A. Palmeira-de-Oliveira, L.A. Passarinha, C. Gaspar, R. Palmeira-de-Oliveira, B. Sarmento, J. Martínez-de-Oliveira, C. Pina-Vila, J.A. Queiroz

Anion exchange SPE and liquid chromatography–tandem mass spectrometry in GHB analysis

Albert A. Elian, Jeffery Hackett

http://www.sciencedirect.com/science/journal/15700232/879/31
Quantification of lactose content in human and cow’s milk using UPLC–tandem mass spectrometry

Gerhard Fusch, Arum Choi, Niels Rochow, Christoph Fusch

Highlights

► Quantification of lactose content in cow’s and human milk
► Dilute and shoot method: new method requires only dilution and simple preparation. ► Can be used for a routine purpose. ► Can be used for oligosaccharides such as enzymatic lactose assays.

Quantification of a novel natural antioxidant (UP302) in plasma using ultra-high performance liquid chromatography tandem mass spectrometry

Shuang-Qing Zhang, Ling Zhu, Nie Wen, Min Yu, Yi-Zheng Qi, Zuo-Gang Li, Bo Li

Highlights

► A LC–MS/MS was firstly established for the measurement of UP302. ► The method was fully validated.

Preparative isolation of alkaloids from Dactylicapnos scandens using pH-zone-refining counter-current chromatography by changing the length of the separation column

Xiao Wang, Hongjing Dong, Bin Yang, Dahui Liu, Wenjuan Lu, Luqi Huang

Highlights

► Separation of alkaloids from Dactylicapnos scandens by HPLC. ► Apparatus with an adjustable length of the separation column was used. ► Solvent system was petroleum ether–ethyl acetate–methanol. ► Changing the length of separation column, resolution of the alkaloids was obtained. ► (+) Protopin, (+) corydine, (+) isocorydine, (+) glaucine were obtained.

Analytical characterization and rapid determination of 2-(diphenylmethyl)pyrrolidine in blood and application to internet product

Giorgia De Paoli, Simon D. Brandt, Derrick J. Pounder

Highlights

► 2-(Diphenylmethyl)pyrrolidine (desoxy-D2PM) is sold online. ► Adverse effects associated with its use are increasingly reported.

► The method was validated in whole unpreserved human blood.
Isolation and purification of seven lignans from *Magnolia sprengeri* by high-speed counter-current chromatography

Pages 3775-3779

Yu Sun, Zongyuan Yu, Wenjuan Duan, Lei Fang, Shuangshu Xu, Xiao Wang

**Highlights**

► To purify lignans from *Magnolia sprengeri* Pamp. by HSCC established. ► In the first separation, four compounds were obtained. ► The residues were used for further separation, three compounds were obtained. The method was efficient and rapid for the separation of lignans.