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Determination of 27 phenolic compounds in human urine by LC-MS/MS with online SPE system

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Several phenolic compounds exposed to us in daily life are toxic. Xenobiotic substances are classified as endocrine disruptors with negative effect on the hormonal system. To assess the content of exposure to these chemicals in human, the accurate and efficient monitoring of extent of contaminants is desirable. This study describes a simple and sensitive analytical method for 27 phenolic compounds and their metabolites including bisphenol-F and bisphenol-S using high-performance liquid chromatography tandem mass spectrometry coupled with online solid phase extraction (online SPE) system. Particularly, bisphenol-F and bisphenol-S are alternatives to bisphenol-A as a raw material of plastic. This study will show the simplicity and validation result of this method which is being able to efficiently analyze a large number of human urine samples to assess the human exposure to phenolic compounds.

Biography

Yoon Jae Cho completed PhD from Pusan National University, Korea. He is the Scientific Officer of Ministry of Food and Drug Safety, Korea. He has been working in the field of development of analytical method for veterinary drug residues in livestock and fishery products using LC-MS/MS for the past five years, and he is currently involved in field of human biomonitoring for hazard assessment of harmful substances.

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