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Simultaneous analysis of multi residue pesticides method in agricultural commodities by gas chromatography-mass spectrometry

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Ministry of food and drug safety makes an effort in monitoring the contaminated pesticides in commercial agricultural products. The monitoring of pesticides in food is nowadays a major objective in order to get extensive evaluation of food quality and to avoid possible risks to human health. Gas chromatography-mass spectrometry (GC-MS/MS) is rapidly becoming an accepted technique in pesticides for regulatory monitoring purpose. An analytical method for the simultaneous target analysis of 344 pesticides in agricultural products by GC-MS/MS has been developed. We developed an accurate, simple, rapid and simultaneous analytical method of 344 pesticides in agricultural products. The monitoring analysis was aimed to establish for determination of an analytical method for 344 pesticides by GC-MS/MS. Recovery, precision, accuracy, linearity, and limit of quantitation (LOQ) in the analytical method were validated in different matrices. The recoveries obtained at fortified levels of 0.01~0.5 mg/kg were 60~130% for pesticides, with relative standard deviations (RSDs) of $\leq 30\%$. The proposed method has possibility to be applied successfully in Korean Food Standards Codex for the residue determination of 344 pesticides in agricultural products. The proposed method was applied successfully for the residue determination of 344 pesticides in agricultural commodities.



Biography

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