عنوان مقاله:

Aflatoxin M۱ Determination in Ice Cream Based on Immunoaffinity Column Clean-up Followed by HPLC-FLD

نویسندگان:

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خلاصه مقاله:

Background: Aflatoxin M۱ (AFM۱) in industrial ice cream was analyzed by immunoaffinity column (IAC) clean-up followed by high-performance liquid chromatography (HPLC) with a fluorescence detector (FLD) as a highly-sensitive method to confirm and quantify AFM۱ in the ice cream samples.Methods: A total of ۱۵۰ industrial ice cream samples were randomly collected from supermarkets in seven Iranian cities (Tehran, Tabriz, Karaj, Urmia, Sanandaj, Qazvin, and Khoramabad).Results: AFM۱ was detected in more than ۸۰.۰% of samples. The average AFM۱ concentration in ice cream was ۲۹.۷۹ ng/L. According to the results, in ۱۲.۶۲% of samples, AFM۱ levels exceeded the maximum European Union (EU) limits for adults (۵۰ ng/mL). This study recommends regular monitoring of AFM۱ concentration in ice cream in Iran.Conclusion: Results of this study indicate the need to develop a database to assist law enforcement agencies, traders, and policymakers in local governments to minimize or prevent health-related risks caused by AFM۱.

کلمات کلیدی:

Aflatoxin M۱, Ice cream, Immunoaffinity

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