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# Occurrence of aflatoxin M<sub>1</sub> in retail milk samples from Bogotá, Colombia

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## Abstract

A study was conducted to establish the occurrence and levels of contamination of aflatoxin M<sub>1</sub> (AFM1) in retail milk from Bogotá, Colombia. A total of 241 samples were analysed during 2004 and 2005. Samples were cleaned up by an immunoaffinity column and AFM1 was quantified by liquid chromatography with fluorescence detection. A total of 69.2 and 79.4% of the samples analysed during 2004 and 2005, respectively, were found to contain levels of AFM1 above 10 ng l<sup>-1</sup>. Levels of contamination ranged from 10.7 to 213.0 ng l<sup>-1</sup> in 2004, and from 10.6 to 288.9 ng l<sup>-1</sup> in 2005. Despite the high incidence of AFM1 found in the milk samples analysed, all samples complied with current local regulations, which allow AFM1 content in milk up to 400 ng l<sup>-1</sup>. However, due to the high incidence of AFM1 in milk found in the present study, it is recommended that a permanent surveillance programme be established for

milk consumed in Bogotá in order to prevent milk lots containing levels above the regulatory level entering the food chain.

Keywords:

Aflatoxin M<sub>1</sub> survey immunoaffinity clean-up liquid chromatography

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[Analysis of Aflatoxins in Poultry and Pig Feeds and Feedstuffs Used in Colombia](#)

Source: Journal of AOAC International

[Occurrence of aflatoxins in selected colombian foods](#)

Source: Mycotoxin Research

[Occurrence of aflatoxin M<sub>1</sub>in domestic milk in Japan during the winter season](#)

Source: Food Additives & Contaminants

[Liquid Chromatographic Determination of Aflatoxin M1 in Milk Powder Using Immunoaffinity Columns for Cleanup: Interlaboratory Study](#)

Source: Journal of AOAC International

[Occurrence and Stability of Aflatoxin M1 in Milk and Milk Products: A Worldwide Review](#)

Source: Journal of Food Protection

[Mechanisms of Aflatoxin Carcinogenesis](#)

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