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## The QuEChERS Approach in a Novel Application for the Identification of Antifungal Compounds produced by Lactic Acid Bacteria Cultures.

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### Abstract

Lactic Acid Bacteria (LAB) play an important role as natural food preservatives in many fermented food systems. To-date, characterization of their diverse range of metabolites has been limited. Improved quantitation of low, medium and high concentration antifungal compounds is required, ensuring that both known and unknowns compounds are identified. This manuscript reports the first application of QuEChERS (quick, easy, cheap, effective, rugged and safe) for the extraction of natural antifungal metabolites in LAB cultures. The method provides improved individual recoveries (>78%) for fifteen known antifungal compounds, an improvement of 26% compared to previously reported techniques (>52%). A protocol was developed that allowed LAB cultures to be easily assessed on a fully validated high performance liquid chromatography with ultra violet / diode array detection (HPLC-

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