Metabolomics Approach to Discover Key differences in Cow and Goat Milk Yoghurt Metabolomes

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우유와 산양유 요구르트 대사체의 주요 차이 발견을 위한 접근

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Abstract

This study represents the first utilization of HRMAS-NMR to analyze the metabolomic profiles of yoghurt made from cow and goat milk. These findings provide preliminary information on how NMR-based metabolomics can discriminate the metabolomes of yoghurt prepared from the milk of two different animals.

1. Introduction

NMR profile data of yogurt are unavailable or limited. Our objective was to utilize 1H HRMAS-NMR spectroscopy to derive the metabolite profiles, and to identify the potential metabolic pathways correlated to significant differential metabolites in cow and goat milk yoghurt, which could help protect their uniqueness.

2. Results

2.1 Multivariate analysis











[Fig. 2] Top-ranked metabolites based on area under the ROC curve (AUC) values

References

 S. Kandasamy, "1H HRMAS-NMR based metabolic fingerprints for discrimination of cheese based on sensory qualities", Saudi J. Biol. Sci. 2020, 27, 1446–1461.