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Identification of some probiotic properties of yeast isolates from Turkish cheeses

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Yeasts not only play an important role in flavor and texture development during the production of cheese, also have shown probiotic effects on human health. In this study, four yeast isolates from Turkish cheeses were characterized to species level by phenotypic criteria using API ID 32 microbial identification kits and 18S rRNA sequence analysis. Three of them identified as *Pichia kudriavzevii* (M16, M17 and M57), while another one was *Kluyveromyces marxianus* (M29). Yeast strains were tested for their ability to survive in simulated gastric juice and intestinal environment. The survival of all tested yeasts was 88.9-145% after 4 hours of

incubation in media with the addition of 1 g/L pancreatin and 46.3-80.4% after 3 hours of incubation in media with the addition of 3 g/L pepsin (pH 1.5). All yeast strains were able to assimilate cholesterol in the range of 9.3-28.8% over 48 hour's incubation. The DPPH radical scavenging activity of yeast strains was ranging between 75.1-80.5%. According to these results, the yeast strains could be considered as co-culture or probiotic in the preparation of fermented dairy products for contributing to the quality and health related functional properties of products.

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