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Probiotic evaluation of *Enterococcus faecalis* strains isolated from different regions of Iran and TurkeyDerya Onal Darilmaz¹, Gulgun Discioglu² and Yavuz Beyatli²¹University of Aksaray, Turkey²University of Gazi, Turkey

Enterococci belong to the lactic acid bacteria (LAB) and they are of importance in foods due to their involvement in food spoilage and fermentations as well as their utilization as probiotics in humans and slaughter animals. The purpose of this study was to evaluate the probiotic properties of *Enterococcus faecalis* RT 122, RI 6, RI 21 strains isolated from traditional naturally fermented cheese produced in different regions of Iran and Turkey. The ability to autoaggregation and coaggregation are desirable properties for probiotics in health-promoting foods. Therefore, in the current study, we assessed the effect of exopolysaccharides (EPSs) produced by *E. faecalis* strains on the aggregation and hydrophobicity properties. All *E. faecalis* strains tested showed auto and coaggregation ability with *Salmonella enteritidis* ATCC 13076 but the results were strain specific and dependent on exopolysaccharides production. In addition, enterococci strains tested showed affinity to all solvents, suggesting a high complexity of the cell surface. Our results indicate that the ability to autoaggregation, together with cell-surface hydrophobicity and coaggregation abilities with *S. enteritidis* strain can be used for preliminary screening in order to identify potentially probiotic bacteria suitable for human or animal use.

Biography

Derya Onal Darilmaz has completed her PhD from Gazi University, Turkey. She is working as an Associate Professor Doctor in Aksaray University. Her areas of expertise are probiotics, food microbiology and microbial biotechnology. She has published more than 15 papers in reputed journals and serving as an Editorial Board Member and Referee in different reputed journals.

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