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02

ORAL COMMUNICATION

Evaluation of the probiotic potential of a strain of *Saccharomyces cerevisiae*

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According to the World Health Organization (WHO) and the Food and Agriculture Organization of the United Nations (FAO), probiotics are living microorganisms that, when administered in appropriate quantities, can confer a beneficial effect on the health of the host. Probiotic potential has been demonstrated especially for many strains of different species of bacteria. However, there are fewer strains of yeast for which their probiotic properties have been studied, despite their advantages, which include the fact that they are not affected by antibacterial antibiotics or their inability to disperse antibiotic resistance genes. As a result, there is a growing interest in characterizing new yeasts as probiotics. The aim of this study was to evaluate in our laboratories the probiotic potential of a strain of *Saccharomyces cerevisiae* var. *boulardii* (the main species marketed as a probiotic so far), to compare it with that of other yeasts. Strain identification was carried out by analyzing the ITS and D1/D2 regions of the rDNA. Regarding the ability of the strain to survive at 37ºC and resist gastrointestinal conditions, the strain showed 100 % viability at 37ºC and between 95–100 % in synthetic gastric and duodenal juices (pH 2–7.5, 0.3–10 % bile salts, 0.3 % pepsin and 0.1 % pancreatin). In addition, the selfaggregation and hydrophobicity properties shown by the strain allowed inferring the ability to adhere to the intestine, which was confirmed in Caco–2 cells. Additionally, the strain presented other properties of interest for probiotics, including a high antioxidant capacity and pathogen coaggregation, as well as a variable cytotoxic activity against different tumor cell lines.

Keywords: Yeast, probiotics, *Saccharomyces*

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