

O4**Exploring organic acid producer microorganisms – Identification, morpho- and physiological characterization of wild yeast strains**

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A broad diversity of yeast species can be found in nature, including in wastes from food industries. The exploration of this biodiversity has captured great interest from food, pharmaceutical and even fuel companies due to the interesting features of these microorganisms [1]. Yeasts can convert sugars present in raw materials into different chemical building-blocks, as well as biofuels, a process more sustainable than those based on fossil fuels and refineries [2]. Among yeasts, *Saccharomyces cerevisiae* is considered the model organism. Characteristics that range from its simple cultivation, short replication period, sporulation efficiency, easy genetic manipulation and rare pathogenicity have turned it in an ideal organism for various biotechnological processes [3]. In this work, a group of isolates from the TransBio collection (Project FP7 KBBE–Nº289603) were selected, based on their ability to grow in organic acids. The microorganisms, were identified by molecular typing (DNA sequencing of the ITS regions) and characterized morpho- and physiologically. Morphological traits and sporulation patterns were evaluated for cell cycle determination. Phenotypically, evaluated yeasts revealed interesting physiological features regarding growth profiles using carboxylic acids as sole carbon and energy source. The full characterization of these yeast strains is currently ongoing.

References

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