

# Identification and Evaluation of Probiotic Potential in Yeast Strains Found in Kefir Drink Samples from Malaysia

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## ABSTRACT

Kefir drink is a source of probiotic microorganism with remarkable functional and technological properties. The objective of this work is to isolate yeast strains from Malaysian kefir drink and evaluate them for probiotic potentials. In the present study, nine strains of probiotic yeast were isolated from a Malaysian kefir drink and identified according to their 16S rDNA sequences. Furthermore, their probiotic potential was evaluated. The probiotic properties were tested for aspects of antibiotic susceptibility, antimicrobial activity, and gastrointestinal condition tolerance (pH and temperature). Five isolated strains, M3, Y5, Y9, Y11 and A1, showed good tolerance towards low pH condition while three strains, A1, M1, and M3, showed antimicrobial activity against *E. coli*, *P. aeruginosa*, and *Salmonella* sp. Most isolates were resistant to penicillin, streptomycin, and ampicillin, and grew well at human body temperature. The result of this test indicates that the yeast strains isolated from Malaysian kefir drink have excellent potential for use as probiotics in various products. Lastly, kefir milk is one of the excellent source of probiotic yeast strains and could be used as a new yeast probiotic formulation or in food supplements.

**KEYWORDS:** kefir; yeast; probiotic; evaluation; antimicrobial

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