

عنوان مقاله:

Identification of Bifidobacterium Strains Isolated from Kashk-e Zard: A Traditional Iranian Fermented Cereal-Dairy Based Food

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Objectives: The genus Bifidobacterium enjoys considerable significance among the probiotic bacteria for having appropriately adapted to the human gastrointestinal tract. As the properties of Bifidobacteria are strain-oriented and niche-dependent, there is growing interest in studying the different sources of these probiotics. Kashk-e Zard, a traditional fermented food produced from wheat and yogurt through a two-week, two-step fermentation process, is rich in probiotics and is worthy of study in this regard. The present study aimed to identify Bifidobacterium spp. in Kashk-e Zard. **Methods:** Twenty-three samples of Kashk-e Zard were collected and subjected to Bifidobacterium identification experiments. Polymerase chain reaction (PCR) and sequencing methods were applied for bacterial identification. **Results:** Twelve of the isolates obtained were G +, rod-shaped, and catalase-, whereas only three of them identified positive for fructose 6-phosphate phosphoketolase (F6PPK a Bifidobacterium specific test) and mupirocin resistance. These three isolates were then considered for further identification using the 16SrDNA sequencing technique. **Conclusions:** Although carbohydrate fermentation patterns specified these three isolates as B. infantis, B. bifidum, and B. longum, the molecular results did not confirm B. longum, which is still also controversial in the literature. Overall, our results demonstrated that Kashk-e Zard is a rich potential source of probiotic bacteria and further investigations should be undertaken.

کلمات کلیدی:

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