

Isolation and molecular identification of lactic acid bacteria from Iranian traditional apple vinegar-like solution called D.sap

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Traditional apple vinegar is a popular condiment in Iran. Vinegar contains lactic acid bacteria, acetic acid bacteria and yeast. Lactic acid bacteria improve the flavor of vinegar. According to the US Food and Drug Administration, vinegar is a solution that contains not less than 4 grams of acetic acid in 100 mL. But, the subject studied in this article is an apple vinegar-like solution containing 2.5% acetic acid and 1.1% lactic acid because the production process is different from vinegar. This product called Dezhakam sap (D.sap). This study was aimed at isolating and identifying Lactic acid bacteria from the D.sap. 16S rRNA gene sequencing was performed to identify the lactic acid bacteria isolates. The bacterial isolates were identified as *Lactobacillus fructivorans*, *Lactobacillus garri* and *Lactobacillus hilgardi*. *Lactobacillus garri* were isolated from gari, a traditional West African fermented food derived from cassava for the first time. In the present study, we report for the first time the *Lactobacillus garri* isolated from vinegar-like solution (D.sap). Diaz M, Sayavedra L, Atter A, MJ, Saha S, Awua A, Narbad A (2020) *Lactobacillus garii* sp. nov., Isolated from a fermented cassava product, J. Syst. Evol. Microbiol. 70:3012–3017. Won S M, Chen S, Park K W, Yoon J H (2020) Isolation of lactic acid bacteria from kimchi and screening of *Lactobacillus sakei* ADM14 with anti-adipogenic effect and potential probiotic properties. LWT Food Science and Technology 126-109296. Plessas S, Kioussi D E, Rathosi M, Alexopoulos A, Kourkoutas Y, Mantzourani I, Galanis A, Bezirtzoglou E (2020) Isolation of a *Lactobacillus paracasei* Strain with Probiotic Attributes from Kefir Grains. Biomedicines, 8, 594. Sun L, Zhang Y, Guo X, Zhang L, Zhang W, Man C, Jiang Y (2020) Characterization and transcriptomic basis of biofilm formation by *Lactobacillus plantarum* J26 isolated from traditional fermented dairy products LWT Food Science and Technology 125-109333. Dhameliya H A, Mesara S N, Mali H, Shah C, Subramanian R B (2020) Biochemical and Molecular Characterization of Lactic Acid Bacteria (LAB) Isolated from Fermented Pulses. Iran J Sci Technol Trans Sci Feizabadi F, Sharifan Sh, Tajabadi (2020) Isolation and identification of lactic acid bacteria from stored *Apis mellifera* honey. Journal of Apicultural Research Beheshti-Maal K, Shafiee N(2020), Isolation and identification of a novel strain of *Acetobacter ghanensis* KBMNS-IAUF-6 from banana fruit, resistant to high temperature and ethanol concentration, Iran J Med Microbiological: Volume 13, Number 4.

Biography

The subject studied in this article is a vinegar-like solution but the production process is different. This product called Dezhakam sap (D.sap) which is made from high-quality apples, takes 10 months to process and contains many minerals and vitamins that cure a number of diseases. D.Sap is produced by Mr. Hossein Dezhakam and his son Mr. Amin Dezhakam, which is consumed by members of the Human Resuscitation Society Congress60 to treat many diseases. Mr. Hossein Dezhakam, the founder and mastermind of Congress 60 Humane Revivification society, president of kharazmi institute, an Electronic Engineer, graduated from Iran's Science & Technology University in 1976. He is a researcher and author of fundamental writings in the field of addiction and methods of treatment

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