

Characteristics of Lactic Acid Bacteria Isolated from Dadih Batu Bajanjang, Lembang Jaya, Solok District, West Sumatra

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Dadiah is a fermented product from buffalo milk using bamboo tubes. It is one of the innovative product that provides positive effects for human health with probiotics as requirements of fungsional food. The study aimed to characterize and determine the species of lactic acid bacteria isolated from dadih which has proven produced the best quality of probiotics located in Batu Bajanjang, Lembang Jaya, Solok District, West Sumatra, Indonesia. The research had been performed using the sample from different location (AN, AS, KI). This method identifying by macroscopic, microscopic and molecular using 16S rRNA technique. Furthermore, this research also determine nutritional content such as protein, fat, water content, pH and acidity. The result of nutritional content was not significant different for all sampel. The protein content are AN 5.58%, AS 6.08%, KI 6.68%, fat content are AN 6.4%, AS 7.0%, KI 7.2%, water content are AN 80%, AS 73%, KI 65%, pH are AN 4.14, AS 4.07, KI 4.02 and acidity are AN 1.35%, AS 1.71%, KI 2.12%, respectively. The number of lactic acid bacteria are AN 20.8×10^7 CFU/g, AS 15.3×10^7 CFU/g, KI 3.8×10^7 CFU/g. However, the number of aerobic bacteria are AN 14.8×10^4 CFU/g, AS 46.4×10^4 CFU/g, KI 50×10^4 CFU/g. The results showed the isolate is namely *Lactobacillus fermentum strain NCC2970* with morphology bacil, gram-positive with catalase negative. It was potential a commercial starter to produce another fermented food.

Keywords: Dadih, fungsional food, lactic acid bacteria, 16S rRNA, probiotik