

## ABSTRAK

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**ISOLASI DAN KARAKTERISASI BAKTERI ASAM LAKTAT  
*Streptococcus thermophilus* DARI SUSU SAPI LOKAL**  
Skripsi, Fakultas Sains dan Teknologi (2022)

(xiii + 75 halaman; 3 gambar; 10 tabel; 31 lampiran)

Penggunaan probiotik sebagai pangan fungsional semakin populer karena diketahui dapat meningkatkan fungsi pencernaan, beserta manfaat lain seperti meningkatkan imunitas tubuh. Secara umum, susu dan produk susu lainnya dianggap sebagai salah satu sumber bakteri asam laktat, yaitu *Streptococcus thermophilus* yang berpotensi sebagai probiotik. Tujuan dari penelitian yang dilakukan adalah untuk isolasi dan karakterisasi bakteri asam laktat (BAL) dari susu sapi lokal. Isolasi dilakukan menggunakan media selektif *Streptococcus thermophilus* (ST) agar. Pada penelitian ini, dilakukan isolasi BAL dari susu sapi lokal, dilanjutkan dengan karakterisasi secara morfologi dan uji biokimia, serta uji ketahanan terhadap garam, pH, dan suhu, serta analisis 16S rRNA. Berdasarkan hasil yang diperoleh, diperoleh sebanyak 5 isolat yang diduga sebagai *Leuconostoc* spp. dan *Enterococcus* spp, serta berdasarkan hasil analisis 16S rRNA, diketahui bahwa salah satu isolat diidentifikasi sebagai *Streptococcus agalactiae*.

Kata Kunci : *Streptococcus thermophilus*, Bakteri Asam Laktat, Isolasi dan Karakterisasi, Susu Sapi, Uji Biokimia

Referensi : 47 (1938-2022)

## ABSTRACT

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### **ISOLATION AND CHARACTERIZATION LACTIC ACID BACTERIA *Streptococcus thermophilus* FROM LOCAL COW MILK**

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(xiii + 75 pages; 3 figures; 10 tables; 31 appendices)

The use of probiotics as functional food is increasingly popular because it is known to improve digestive function, along with other benefits such as increasing body immunity. In general, milk and other dairy products are considered as a source of lactic acid bacteria, namely *Streptococcus thermophilus* which has the potential as a probiotic. The purpose of this research was to isolate and characterize lactic acid bacteria (LAB) from local cow's milk. Isolation was carried out using a selective medium *Streptococcus thermophilus* (ST) agar. In this study, LAB was isolated from local cow's milk, followed by morphological characterization and biochemical tests, as well as salt, pH, and temperature resistance tests, as well as 16S rRNA analysis. Based on the results obtained, there were 5 isolates suspected to be *Leuconostoc* spp. and *Enterococcus* spp, and based on the results of 16S rRNA analysis, it was found that one of the isolates was identified as *Streptococcus agalactiae*.

Keywords : *Streptococcus thermophilus*, Lactic Acid Bacteria, Isolation and Characterization, Cow Milk, Biochemical Test

Reference : 47 (1938-2022)