

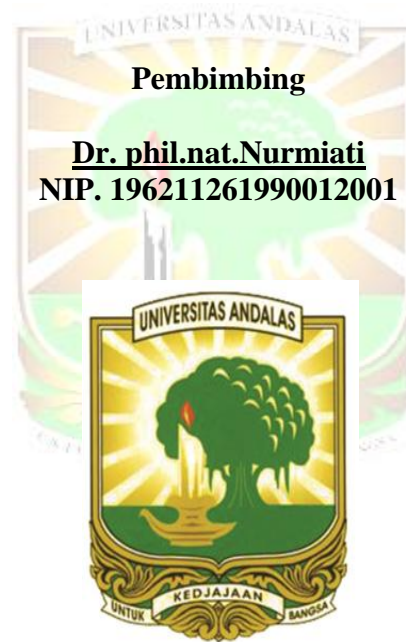
**ISOLASI, POTENSI DAN KARAKTERISASI BAKTERI ALAMI SUSU  
KERBAU SEGAR DARI DAERAH AIA DINGIN KECAMATAN LEMBAH-  
GUMANTI SEBAGAI KANDIDAT PROBIOTIK**

**SKRIPSI SARJANA BIOLOGI**

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## ABSTRAK

Bakteri alami dari tiga produk susu kerbau dari Kecamatan Lembah Gumanti, Kabupaten Solok, Sumatera Barat telah dianalisis dan dibandingkan. Penelitian ini bertujuan untuk menganalisis komposisi bakteri mikroflora dan proteolitik dalam susu kerbau, untuk membandingkan karakter isolat fermentasi asam potensial sebagai kandidat probiotik. Penelitian dilakukan dengan metode survei dan data dianalisis secara deskriptif. Hasil dari penelitian ini meliputi, Proporsional keberadaan bakteri fermentatif di dalam susu kerbau segar dari tiga sampel berbeda yang tertinggi diperoleh pada Sampel B ( $95,5 \times 10^6 \text{ cfu/ml}$ ), diikuti Sampel C ( $88,5 \times 10^6 \text{ cfu/ml}$ ) dan Sampel A ( $83,5 \times 10^6 \text{ cfu/ml}$ ), Isolat-isolat bakteri potensial susu kerbau segar termasuk golongan bakteri *Lactobacillus* (*Lactobacillus* sp1. (SSKA1, SSKB1, SSKC1), *Lactobacillus* sp2. (SSKA2, SSKB2) dan *Lactobacillus* sp3. (SSKC2) dan Indeks Fermentatif tertinggi terdapat pada isolat SSKC2, Indeks Proteolitik tertinggi terdapat pada isolat SSKA1, Indeks Amilolitik dan Lipolitik tertinggi terdapat pada isolat SSKB2. Uji Hemolisis dari keenam isolat (SSKA1, SSKA2, SSKB1, SSKB2, SSKC1, dan SSKC2) tidak bersifat patogen (negatif patogen) yang ditandai dengan tidak terbentuknya daerah zona bening (zona hemolisis) di sekitar isolat, dan SSKA1, SSKA2, SSKB1, SSKB2, SSKC1, dan SSKC2 termasuk golongan bakteri asam laktat.

**Kata kunci: fermentatif, probiotik, susu kerbau**



## ABSTRACT

Natural bacteria from three buffalo milk products from Lembah Gumanti District, Solok Regency, West Sumatra have been analyzed and compared. This study aims to analyze the composition of microflora and proteolytic bacteria in buffalo milk, to compare the character of potential acid fermentation isolates as probiotic candidates. The study was conducted with survey methods and data were analyzed descriptively. The results of this study include, the proportional presence of fermentative bacteria in fresh buffalo milk from the highest three different samples obtained in Sample B ( $95.5 \times 10^6 \text{ cfu/ml}$ ), followed by Sample C ( $88.5 \times 10^6 \text{ cfu/ml}$ ) and Sample A ( $83.5 \times 10^6 \text{ cfu/ml}$ ), potential isolates of fresh buffalo milk including *Lactobacillus* (*Lactobacillus* sp. 1 (SSKA1, SSKB1, SSKC1), *Lactobacillus* sp2. (SSKA2, SSKB2) and *Lactobacillus* sp3. (SSKC2) and the highest Fermentative Index found in SSKC2 isolates, highest Proteolytic Index found in SSKA1 isolates, highest Amilolytic and Lipolytic Index found in SSKB2 isolates. Hemolysis Tests of the six isolates (SSKA1, SSKA2, SSKB1, SSKB2, SSKC1, and SSKC2) were not pathogenic (negative pathogens) which were marked d with no formation of clear zone regions (zone of hemolysis) around isolates, and SSKA1, SSKA2, SSKB1, SSKB2, SSKC1, and SSKC2 including the class of lactic acid bacteria.

**Keyword: buffalo milk, fermentatif, probiotic**

