

**SKRINING BAKTERI KANDIDAT PROBIOTIK ISOLAT SUSU SAPI SEGAR
DARI KABUPATEN AGAM DAN KOTA PADANG PANJANG, SUMATERA
BARAT**

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SKRINING BAKTERI KANDIDAT PROBIOTIK ISOLAT SUSU SAPI SEGAR DARI KABUPATEN AGAM DAN KOTA PADANG PANJANG, SUMATERA BARAT

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ABSTRAK

Probiotik merupakan mikroorganisme hidup yang dapat memberikan efek baik bagi inangnya. Penelitian mengenai “Skrining Bakteri Kandidat Probiotik Isolat Susu Sapi Segar dari Kabupaten Agam dan Kota Padang Panjang, Sumatera Barat” telah dilaksanakan pada bulan Februari hingga September 2020 di Laboratorium Mikrobiologi, Jurusan Biologi, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Andalas, Padang. Penelitian ini bertujuan untuk menentukan potensi fermentatif isolat-isolat bakteri alami dalam susu segar sebagai skrining awal kandidat probiotik dan menentukan karakter fermentatif isolat-isolat bakteri alami dalam susu sapi segar melalui pengujian medium-medium spesifik. Penelitian ini menggunakan metode survei yang terdiri dari tahapan isolasi dan penapisan bakteri potensial fermentatif, pemurnian bakteri, serta karakterisasi isolat bakteri kandidat probiotik, dianalisa secara deskriptif. Hasil isolasi bakteri potensial fermentatif pada medium GPACACO₃ didapatkan 8 isolat. Pada uji hemolisis, diperoleh 2 isolat non pathogen dengan hasil *Gamma-hemolisis*. Kedua isolat termasuk bakteri Gram positif basil, yang diduga merupakan salah satu golongan bakteri *Lactobacillus*. Indeks Fermentatif kedua isolat sama, Indeks Proteolitik dan Lipolitik tertinggi terdapat pada SSP5, Indeks Amilolitik tertinggi diperoleh SSP2. SSP2 dan SSP5 merupakan bakteri potensial fermentatif yang dapat dijadikan sebagai kandidat probiotik dan merupakan golongan asam laktat.

Kata kunci : Fermentatif, Probiotik, Susu sapi

SCREENING OF PROBIOTIC CANDIDATE BACTERIA FROM FRESH COW MILK ISOLATE FROM AGAM DISTRICT AND PADANG PANJANG CITY, WEST SUMATRA

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ABSTRACT

Probiotic is living microorganism that gives good effects on their host. Research about "Screening of Probiotic Candidate Bacteria from Fresh Cow Milk Isolate from Agam District and Padang Panjang City, West Sumatra" was conducted from February to September 2020 in Microbiology Laboratory, Department of Biology, Faculty of Mathematics and Natural Sciences, Andalas University, Padang. The aims of this research were 1) to determine the fermentative potential of natural bacterial isolates from fresh cow's milk as an initial screening for probiotic candidates and 2) to determine the fermentative character of natural bacterial isolates from fresh cow's milk through specific medium tests. This study used survey method consist of isolation and screening of bacteria that potentially has fermentatif, purification of bacteria, and characterization of bacterial probiotics candidates, data was analyzed descriptively. Results showed that isolation of fermentative potential bacteria on GPACACO3 obtained 8 isolates. In hemolysis test, 2 non-pathogenic isolates were obtained showing result Gamma-hemolysis. Both of isolates belong to Gram-positive bacilli-form, which was thought to be genus *Lactobacillus*. Fermentative Index of both of isolates was similar, the highest Proteolytic and Lipolytic Index was in SSP2, the highest Amilolytic Index was in SSP2 isolate. SSP2 and SSP5 were fermentative potentials that can be used as probiotic candidates and included to lactic acid groups.

Keywords: Cow's Milk, Fermentative, Probiotic