ABSTRAK

Penelitian tentang Isolasi dan Karakterasi Bakteri Indigenous Pemfermentasi dari Umbi Ubi Kayu Kultivar Lambau dalam Pencarian Isolat Unggul Proses MOCAF dilaksanakan di Laboratorium Mikrobiologi, Jurusan Biologi, Fkultas Matematika dan Ilmu Pengetahuan Alam, Universitas Andalas, dari bulan April sampai Oktober 2015. Penelitian ini dilakukan dengan metoda survey dan data dianalisis secara deskriptif. Bakteri indigenous diisolasi dengan medium GPA + $CaCO_3$, isolat yang didapat ditentukan karakter dan potensi *in vitro*-nya. Hasil penelitian menunjukkan bahwa di dalam ubi kayu kultivar Lambau ditemukan 9,6 x 10^4 cfu/g bakteri indigenous, diantaranya 1,5 x 10^4 cfu/g yang diindikasi sebagai bakteri indigenous pemfermentasi. Ketiga isolat umbi ubi kayu kultivar Lambau (BUL_1, BUL_2 dan BUL_3) memiliki karakteristik sifat Gram positif, berbentuk kokus dan batang, bentuk koloni yang berbeda-beda, katalase bereaksi positif dan negatif, serta motil bereaksi positif dan negatif. Ketiga isolat bakteri indigenous dalam umbi ubi kayu kultivar Lambau dapat tergolong ke dalam bakteri asam laktat. Secara *in Vitro* isolat (BUL_2) merupakan isolat yang memiliki kemampuan potensial fermentatif (2,78), proteolitik (2,23), amilolitik (2,41) dan selulolitik (2,00).

Kata Kunci : Bakteri Indigenous, Isolat, *MOCAF*, Ubi kayu Lambau

ABSTRACT

Research on Isolation and Characterization of Indigenous Fermenting Bacteria of Cassava Tuber cultivars Lambau in finding the proper Isolates for MOCAF Process had been done at the Laboratory of Microbiology, Department of Biology, Faculty of Mathematics and Natural Sciences, University of Andalas, from April to October 2015. The research had been done in survey method and data analyzed descriptively. Indigenous bacteria were isolated by medium *GPA* + $CaCO_3$, the isolates obtained was determined character and in vitro potential. The results showed that its found 9.6 x 10^4 cfu/g of indigenous bacteria, 1.5 x 10^4 cfu/g of them were indicated as indigenous fermenting bacteria. The three isolates (BUL_1, BUL_2 and BUL_3) were Gram-positive, coccus and bacil, different colonies form, positive and negative catalase, motile and non motile. The three isolates indigenous bacteria in tubers of cassava cultivars Lambau can be classified into lactic acid bacteria. In in vitro isolates (BUL2) is an isolate that has the potential ability of fermentative (2,78), proteolytic (2,23), amylolytic (2,41) and cellulolytic (2,00).

Keywords: Indigenous Bacteria, Isolates, MOCAF, Cassava Lambau