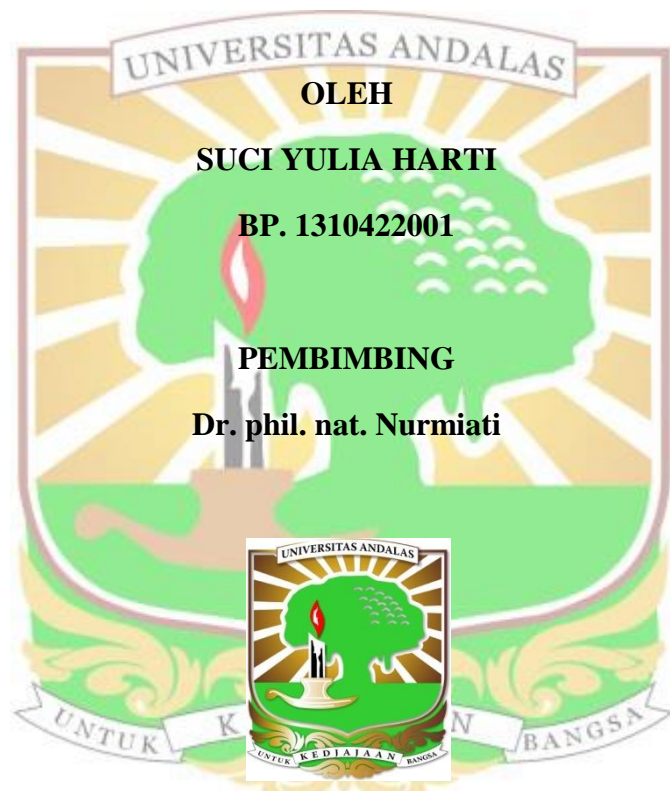


**ISOLASI, KARAKTERISASI DAN POTENSI IN VITRO BAKTERI  
KITINOLITIK DARI BEBERAPA TERASI UDANG**

**SKRIPSI SARJANA BIOLOGI**



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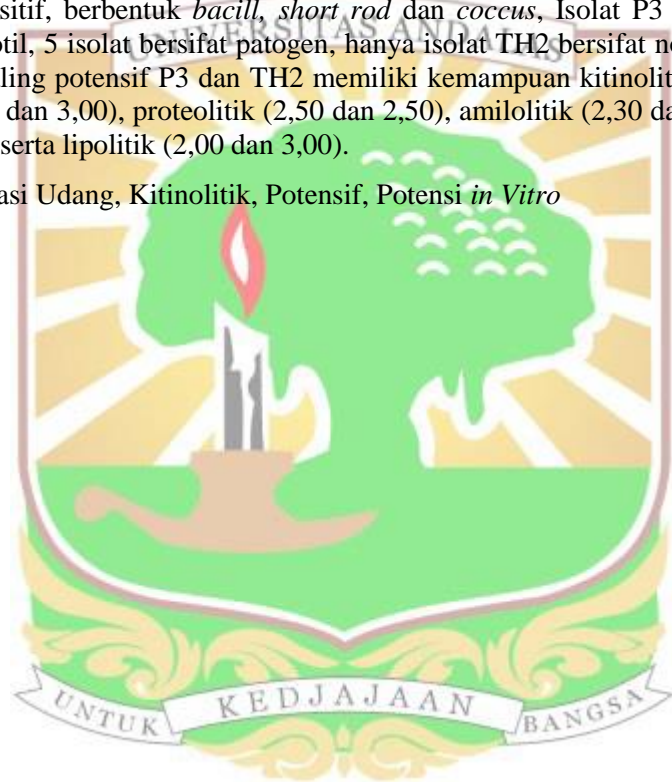
**UNIVERSITAS ANDALAS**

**PADANG, 2017**

## ABSTRAK

Penelitian tentang Isolasi, Karakterisasi dan Potensi *in vitro* Bakteri Kitinolitik dari Beberapa Terasi Udang telah dilaksanakan dari bulan September 2016 sampai Maret 2017, di Laboratorium Riset Mikrobiologi, Jurusan Biologi, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Andalas. Penelitian ini menggunakan metoda survey dengan tahapan isolasi, karakterisasi dan pengujian potensi secara *in vitro*. Dari hasil penelitian diperoleh total keberadaan bakteri kitinolitik tertinggi terdapat pada sampel TB ( $28 \cdot 10^3$  cfu/g) dengan koloni membentuk zona bening sebanyak 28 koloni. Dari 6 sampel terasi udang didapatkan 20 isolat bakteri kitinolitik, 6 isolat terpilih (P3, TL4, TH2, TB1, TSH1, dan TS3) mewakili masing-masing sampel dikarakter, adapun karakter dari 6 isolat tersebut merupakan bakteri Gram positif, berbentuk *bacill*, *short rod* dan *coccus*, Isolat P3 membentuk spora, seluruh isolat motil, 5 isolat bersifat patogen, hanya isolat TH2 bersifat non patogen. Secara *in Vitro* isolat paling potensif P3 dan TH2 memiliki kemampuan kitinolitik (6,00 dan 5,00), fermentatif (2,00 dan 3,00), proteolitik (2,50 dan 2,50), amilolitik (2,30 dan 4,00), selulolitik (4,00 dan 17,00) serta lipolitik (2,00 dan 3,00).

**Kata kunci:** Terasi Udang, Kitinolitik, Potensif, Potensi *in Vitro*



## ABSTRACT

Research about “Isolation Characterization and Potential in vitro of Chitinolytic Bacteria from Several Shrimp paste (terasi udang)” has been done on September 2016 to March 2017, at the Research Laboratory of Microbiology, Department of Biology, Faculty of Mathematics and Natural Sciences, Andalas University. This research used survey method in several step isolation, characterization and in vitro potential test. The data was analyzed descriptively and showed in Tables and Figures. The results of research showed the highest total presence of chitinolytic bacteria was found in the sample of TB ( $28 \cdot 10^3$  cfu / g). From 6 samples of Terasi Udang found 20 chitinolytic isolates, and six isolates of them (P3, TL4, TH2, TB1, TSH1 and TS3) were selected and characterized. All isolates are motil, Gram (+), Bacill, Short Rod or Coccus. One of them (P3) formed endospores, all of isolates were pathogenic except TH2. The most chitinolytic isolates (P3 and TH2) showed the Chitinolytic Index (6.00 and 5.00), Fermentative Index (2.00 and 3.00), Proteolytic Index (2.50 and 2.50), Amilolytic Index (2.30 and 4.00), Cellulolytic Index (4.00 and 17.00) and Lipolytic Index (2.00 and 3.00).

**Keywords:** Terasi Udang, Chitinolytic, Potential, Potential in Vitro

