

SKRINING DAN IDENTIFIKASI BAKTERI PENDEGRADASI INULIN DARI SUMBER AIR PANAS PADANG BALIMBIANG DI SOLOK

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ABSTRACT

Thermophilic bacteria and thermotolerant bacteria are potential sources of thermostable of inulin degrading enzyme, an enzyme which converts inulin into fructose and FOS prebiotics. Isolation and identification of 16S rDNA gene inulin degradation bacteria from hot springs of Padang Balimbiang in Solok have been undertaken. Screening of inulin degradation bacteria was done using direct and indirect methods on medium with inulin or inulin-RBB as a sole carbon source. One inulin degradation bacteria have been obtained from 21 isolates. The isolate was designated as UBCT-030. The isolate is able to grow at temperature 23 °C to 60 °C. According to 16S rDNA gene analysis, physiology and morphology bacteria on UBCT-030 isolate was identified as *Bacillus subtilis*.

Keywords: *inulinase bacteria, hot springs, Bacillus subtilis, inulin, 16S rDNA gene*

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