

**ISOLASI DAN PENENTUAN AKTIVITAS ENZIM SELULASE DARI  
LIMBAH BAGLOG JAMUR TIRAM MERAH MUDA  
(*Pleurotus flabellatus*)**

**INTISARI**

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Telah dilakukan isolasi dan penentuan aktivitas enzim selulase. Penelitian ini bertujuan untuk mengetahui aktivitas enzim selulase yang berasal dari limbah baglog jamur tiram merah muda (*Pleurotus flabellatus*). Penelitian ini menggunakan sampel limbah baglog jamur tiram yang diketahui mempunyai kandungan selulosa yang tinggi. Hasil penelitian menunjukkan bahwa enzim selulase dapat diisolasi dari limbah baglog jamur tiram merah muda (*Pleurotus flabellatus*) menggunakan metode sentrifugasi dengan penambahan buffer fosfat pH 5,5. Penentuan aktivitas enzim selulase dilakukan dengan metode *Nelson-Somogyi* berdasarkan gula pereduksi yang dihasilkan. Hasil aktivitas enzim selulase dinyatakan sebagai U/mL yang merupakan banyaknya enzim yang dapat menghasilkan 1 mmol glukosa dalam satuan waktu. Berdasarkan penelitian, aktivitas enzim selulase yang dihasilkan sebesar 0,0175 U/mL. Nilai aktivitas enzim yang didapatkan lebih rendah apabila dibandingkan dengan hasil penelitian terdahulu. Namun adanya nilai aktivitas enzim menunjukkan keberadaan enzim selulase yang terdapat dalam limbah baglog jamur tiram merah muda (*Pleurotus flabellatus*).

Kata kunci : Baglog, Enzim Selulase, Aktivitas Enzim

**ISOLATION AND DETERMINATION OF ENZYME CELLULASE  
ACTIVITY FROM WASTE BAGLOG MUSHROOMS PINK YOUNG  
OYSTER MUSHROOM  
(*Pleurotus flabellatus*)**

**ABSTRACT**

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Isolation and determination of cellulase enzyme activity have been carried out. This study aims to determine the cellulase enzyme activity derived from baglog of pink oyster mushrooms (*Pleurotus flabellatus*). This study uses baglog waste samples which are known to have high cellulose content. The results showed that cellulase enzymes could be isolated from baglog waste pink oyster mushroom (*Pleurotus flabellatus*) using centrifugation method with the addition of phosphate buffer pH 5.5. Determination of cellulase enzyme activity was carried out by the Nelson-Somogyi method based on the reducing sugar produced. The results of cellulase enzyme activity are expressed as U/mL which is the number of enzymes that can produce 1 mmol of glucose in units of time. Based on the research, the cellulase enzyme activity produced was 0,0175 U/mL. The value of enzyme activity obtained is lower when compared with the results of previous studies. However, the value of enzyme activity shows the presence of cellulase enzymes contained in baglog waste pink oyster mushrooms (*Pleurotus flabellatus*).

Keywords: Baglog, Cellulase Enzyme, Enzyme Activity