

61-67

## ISOLASI, KARAKTERISASI DAN UJI EKSPRESI GEN *ALP1* DI *ESCHERICHIA COLI* DH5 $\alpha$

Ni Nyoman Tri Puspaningsih\*, Akhmaloka\*\*, Sofyan Hadi\*,  
Y. Sriwulan Manuhara\*, Bambang Irawan\*

\*FMIPA Universitas Airlangga

\*\*FMIPA Institut Teknologi Bandung

### ABSTRACT

*Amylase gene (ALP1) insertion in YCp 50 cloning vector was detected by Direct Screening PCR. Result of Direct Screening PCR showed one transformants which assumed have amylase gene insert. Characterization of recombinant DNA by *StuI* and *EcoRI* restriction enzymes indicated nucleotide sequence of insert gene. Digestion by *BamHI*, *ClaI* and *EcoRV* restriction enzymes showed only one band that assumed size of insert gene is about 1500 bp. Gene expression showed that amylase enzyme activity by using Somogyi-Nelson method was 88,0265 Unit. This activity was 10% higher than transformant control (*Escherichia coli* DH5a which content YCp50).*

**Keywords:** *ALP1* gene, Direct Screening PCR, gene expression