

PENGHILANGAN GEN *Lacz* DARI PLASMID pUKC 815 UNTUK MEMBENTUK VEKTOR EKSPRESI DI RAGI (*Saccharomyces cerevisiae*)

Ahmad Thontowi¹, Ni Nyoman T.P.² dan Mariatun Loegito²

- 1). Balai Penelitian Bioteknologi Tanaman Pangan
Jl. Tentara Pelajar 3A, Bogor 16111
- 2). Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Airlangga
Jl. Mulyorejo (Kampus C), Surabaya 60115

ABSTRACT

The pUKC 815 plasmid was a shuttle vector. This plasmid had the genetic marker to the urasil (URA3) in yeast and ampicilin resistanced marker in E. coli. The pUKC 815 plasmid also had a promotor gene PGK. The PGK promotor was expected to inducing the expression of amylase gene.

Expression of amylase gene in S. cerevisiae could be do by preparing the pUKC 815 plasmid as an expression vector through reducing the LacZ gene then it would be replace by the amylase gene.

This research used several methods. These methods were isolate the pUKC 815 plasmid, the digestion of the pUKC 815 DNA with the BamHI restriction enzym, electroelution, ligation and the transformation of 8.000 pb fragment pUKC 815 plasmid in to the cell of the E. coli DH5a.

The result shown that the expression vector in yeast (S. cerevisiae) from the pUKC 815 plasmid with the 8.000 pb was formed.

Key words : *LacZ* gene, pUKC 815, expression vector, *Saccharomyces cerevisiae*.