

Thesis Title	Molecular Cloning of Glucoamylase Gene from <i>Cephalosporium eichhorniae</i> .
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ABSTRACT

The *Cephalosporium eichhorniae* glucoamylase-encoding gene (3.1 kb *EcoRI* fragment) was isolated from λ gt10 genomic library using non-radioisotope labelled (enhanced chemiluminescence; ECL) synthetic oligonucleotide oliBT2 as a probe. The sequence of the probe was derived from *Aspergillus niger* glucoamylase gene. The efficiency of *in vitro* packaging was 10^6 pfu/ μ g. From 2×10^5 λ plaques being screened, 8 positive plaques were obtained. The length of these inserts was in the range of 3-5 kb. The positive clones were further probed with oli117 and oli118 whose sequences were taken from 5' upstream and 3' downstream regions of the *A. niger* glucoamylase gene. The insert of 3.1 kb which gave strong signal from Southern blot analysis was further subcloned into pBluescript II KS⁺. The restriction map revealed that this 3.1 kb *EcoRI* fragment contained several unique restriction enzyme sites including *BglII*, *HindIII*, *KpnI*, *NdeI*, *PstI*, two *EcoRV*, and six *Sau3AI* sites.