F216

Construction of Expressed Sequence Tags of a Higher Plant, Chinese Cabbage in Darkness

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Expressed sequence tags (ESTs) are short, single pass cDNA sequences generated from randomly selected library clones. The EST represented a qualitative advance in gene discovery allowing accelerated progress in applied and basic biology. The ESTs are widely used to clone genes and/or elucidate their structures and/or functions. Chinese cabbage (*Brassica* spp.) is economically important crop in orient (Korea, China and so on). In this study, sixty-two ESTs were generated from the chinese cabbage (*Brassica campestris* L ssp. *pekinensis*) as follows. Poly A^+ Rna were isolated from 10-day-old seedlings germinated in dark. Two cDNA libraries were constructed by employing λ ZAP-cDNA synthesis system (Stratagene, U.S.A). Randomly selected cDNA clones were sequenced by the Sanger, or by using ALFexpress™ DNA Sequencer (ALFexpress™, Phamacia Biotech, Sweden). A number of ESTs showed significant similarity to the protein coding sequences in Genbank and EMBL databases. It is possible that the unmatched ESTs could represent novel genes.

F301

IDENTIFICATION AND ANALYSIS OF A NEW XYLOSE REDUCTASE GENE IN *CADIDA*

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We have identified a new xylose reductase (XR) gene in *Candia tropicalis*. The Southen blot analysis of the genomic DNA revealed there are at least two XR genes in this species. Further detailed Southern analysis shows that the XR genes are different from the two genes reported previously. To isolate the genes we constructed a size-selected library using XhoI and SstI restriction enzymes, and obtained 57 positive colonies from the primary screening. In this communication, we report the isolation and the characterization of the new XR genes from *Candida tropicalis*.