E323 Isolation, Characterization and Overexpression of the *Candida* Gene, CGR1, Encoding Glutathione Reductase.

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Using degenerate oligodeoxyribonucleotides based on the highly conserved amino acid region of known glutathione reductase(GR) amino acid sequences, the *Candida* gene encoding glutathione reductase(GR), CGR1, was isolated using PCR followed by screening of a *Candida* genomic DNA library. Sequence analysis of the cloned DNA revealed that the enzyme was consisted of 461 amino acid residues and was homologous to the enzymes of *Saccharomyces cerevisiae*, *Schizosaccharomyces pombe*, sharing similarities to the pyridine nucleotide-disulfide oxidoreductase family of flavoenzymes. *Candida* cells transformed with a multicopy plasmid pRC2312 containing the genomic clone overproduced GR activity twofold. It showed the yeast-to-mycelial transition during overnight starvation without inducer, which implicate the potential involvement of GR in the regulation of the dimorphism in *Candida albicans*.

E324 Expression and Purification of Recombinant Toxin Shock Syndrome Toxin I

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Toxic-shock-syndrome toxin I (TSSTI), an exotoxin produced by *staphyloccous aureus*, has been closely associated with the pathogenesis of toxic shock syndrome. We report here a strategy for the high level expression and the simplified purification of TSST I. It has subcloned the coding region of TSST I into a pRSET-B vector contained an inducible T7 promoter sequence and TSST protein in host strain (*Escherichia coli* JM109) were expressed. The recombinant TSST I protein contained 6 squential histidine residues(Histag) at its N-terminals was isolated and purified by using the nickel-agarose-affinity resin effectively. Histag-TSST I(H-TSST I)was further purified by utilizing a Ni-NTA column. Through this course 80~120㎍ of highly purified H-TSST I can be consistently obtained per 50㎖ of culture. It was confirmed by RPLA-SET assay whether H-TSST I was given the effect by Histag or the presence of biological activity.