## E329

The Cloning and Sequencing of the Gene for Extracellular Aspartic Proteinase from *Candida albicnas* Seong-Il, Lee, Byoung-Kuk, Na, Chul-Yong, Song

Department of Biology, Faculty of Natural Science, Chung-Ang University, Seoul 156-756

The extracellular aspartic proteinase of *Candida albicans* is known to play a significant role in its pathogenesis. Previously, we purified the enzyme by column chromatography technique. In this study, we cloned and sequenced the gene coding the enzyme.

For isolation of this proteinase gene, oligonucleotide primers for polymerase chain reaction (PCR) were synthesized to the deduced sequence of the template strand at the N-terminus of secreted enzyme. This PCR product was cloned to pUC19 plasmid vector.

The nucleotide sequence and deduced amino acid sequence of this proteinase showed a homology with the reportied sequence of PRA 11 also cloned *Candida albicans* ATCC 10261.

## Production ans Characterization of Monoclonal Antibody for Aspartic Proteinase of Candida albicans

Byoung-Kuk, Na, Gyung-Tae, Chung, Seong-Il, Lee, and Chul-Yong, Song

Department of Biology, Faculty of Natural Science, Chung-Ang University, Seoul 156-756, Korea

A monoclonal antibody that was reactive with extracellular aspartic proteinase of *C. albicans* was produced after hyperimmunizing BALB/c mice with a purified proteinase. Isotype analysis showed that the immunoglobulin is IgG1. It reacted with the native and denaturated conformations of the homologous proteinase antigen but showed different patterns of reactivity with other related proteinases. This antibody did not inhibit enzyme activity. In ELISA and slot blot, this antibody was able to detect 1 ng ml<sup>-1</sup> and 17 ng ml<sup>-1</sup> of antigen, respectively. This antibody may be useful in purification and characterization of the proteinase of *C. albicans* and as a probe in the detection of *Candida* antigens in the sera of patients with invasive candidiasis.