

**Leucocin A 유전자의 *Saccharomyces cerevisiae* 세포 표면으로
의 고정화에 의한 항균활성 효모주의 확립.**

**Establishment of a bactericidal yeast strain by immobilizing the leucocin A gene on the cell surface of
Saccharomyces cerevisiae.**

김남영, 이어진, 이동근, 이상현*

(Nam Young Kim, Eo-Jin Lee, Dong-Geun Lee and Sang-Hyeon Lee^{*)}

신라대학교 공과대학 생명공학과

(Department of Bioscience and Biotechnology, Silla University)

617-736 부산시 사상구 괘법동 산 1-1 번지

(San 1-1, Kwaebop-dong, Sasang-gu, Busan, 617-736 KOREA)

In order to develop yeast cells that produce a bacteriocin on their cell surfaces, the 117 bp leucocin A gene with start and stop codons was ligated into pYD1, an yeast vector. The recombinant DNA, pYD1-LeucoA was used to transform yeast (*Saccharomyces cerevisiae*) cells. Yeast cells harboring pYD1-LeucoA showed anti-bacterial activity against *Bacillus subtilis*. To confirm these bacteriocidal yeast cells possess the leucocin A gene, PCR reaction was performed with plasmid prepared from transformed yeast cells as a template and two leucocin A-specific primers. In this study, we developed bacteriocidal yeast cells that can be used as antibiotics or food preservative.