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Production of Pullulan by Several Strains of *Aureobasidium pullulans*

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Cell growth and production of pullulan by *Aureobasidium pullulans* HP-2001, KCCM 11994, KCCM 12017, KCCM 12717, KCCM 60122 and KCCM 60148 were compared. Production of pullulan by *A. pullulans* HP-2001 and KCCM 60122 were higher than other strains used in this study. The effect of glucose concentration of cell growth and production of pullulan by *A. pullulans* HP-2001 and KCCM 60122 was investigated. The concentration of glucose ranged from 0 to 30.0% (w/v). The highest concentration and yield (Yp/s) of pullulan by *A. pullulans* HP-2001 were 20.84 g/l and 0.32 and those of pullulan by *A. pullulans* KCCM 60122 were 21.21 g/l and 0.30 when concentrations of glucose were 15.0% (w/v) and 5.0% (w/v), respectively. *A. pullulans* HP-2001 and KCCM 60122 were found to utilize rice bran as well as glucose as a carbon source and produce pullulan.

Key words: *Aureobasidium pullulans*, pullulan, production, rice bran

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Analysis of Tandem Repeat Polymorphism in *MUC6* Gene Related in Gastric Carcinoma

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Mucin tandem repeats are regions of primary sequence thatcontain several tandemly arrayed identical repeats of short sequence elements. Mucin tandem repeat sequences contain a high percentage of serine and threonine residues that are the predominant sites of O-linked glycosylation. In this study, the genomic structure of *MUC6* has been analyzed and eight tandem repeats in the ORF were identified. *MUC6-MS6* was compared with genomic DNA from cancer-free controls and from patients with gastric cancer. As a result, fivealleles of *MUC6-MS6*defined in controls and cases and each allele has a 37 bp repeat unit. A significant association between short rare *MUC6* -MS6 alleles and relative odds were observed 10.7 [95% CI; 1.3-91.9, p=0.007] for gastric cancer. To investigate the function of minisatellites alleles of *MUC6-MS6*, we examined the effects of minsatellites by the luciferase reporter assay with a promoter vector inserted with each minisatellites. Interestingly, when the shortest allele of 7-repeats was inserted in promoter vector, the expression level was decreased over ten-fold in 293T and H1299 cell lines. Therefore, we suggest that the short rare *MUC6-MS6* alleles may be related with gastric cancer development.

Key words: Mucin, tandem repeat, minisatellite