

Transcriptome analysis of succinate-resistant mutant in *Mannheimia succiniciproducens*

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A genetically engineered *M. succiniciproducens* strain for succinate production was adapted to improve succinate-resistance. Immediate and delayed responses of the parent strain and the adapted mutant to succinate were analyzed in transcriptome level for further consideration of succinate tolerance of *M. succiniciproducens*. Gene expression levels of the adapted strain were compared with a parent strain and the expression patterns after acid shock were classified refer to function of genes. Several genetic modifications to *M. succiniciproducens* were also tried to enhancing succinate-resistance based on the transcriptome analysis. [This work was supported by the Genome-Based Integrated Bioprocess Development Project (20100002111) of the Ministry of Education, Science and Technology (MEST) through the National Research Foundation of Korea. Further support by WCU (World Class University) program of MEST (R32-2008-000-10142-0) is appreciated.]