

High level conversion of L-lysine into cadaverine by recombinant *Escherichia coli* whole cell biocatalyst

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L-lysine is a promising feedstock for the synthesis of various platform chemicals such as cadaverine, 5-aminovaleric acid, glutaric acid and caprolactam. Among these chemicals, cadaverine that can be synthesized by a one-step enzymatic reaction of lysine decarboxylase (LDC) from L-lysine, has drawn much attention for its commercial application since it can be used as a monomer of nylon 5, 10, engineering plastic for industrial applications in the area of automobile, textile, and information and communications technologies (ICT). In this presentation, we report development of recombinant *Escherichia coli* strains expressing different kinds of LDCs derived from various microbial sources for the high-level conversion of L-lysine into cadaverine. Detailed results will be presented.

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