

High-level production of 5-aminovalerate from L-lysine by recombinant *Escherichia coli*

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Production of biomass-driven chemicals has attracted a lot of attentions as global concerns on environmental problems and availability of petroleum resources increase. 5-aminovalerate (5AVA) is a five carbon amino acid that can be used for synthesizing C5 platform chemicals, such as 1,5-propanediol, glutarate, 5-hydroxyvalerate, and valerolactam. Among these chemicals, valerolactam prepared easily by a simple chemical reaction from 5AVA can be used as the monomer of nylon 5. For this reason, 5AVA has been recently receiving attention as one of the promising building-block chemicals for biopolymer synthesis. In this study, we report high-level conversion of L-lysine into 5AVA by employing recombinant *E. coli*, expressing *Pseudomonas putida* *davAB* genes, cultured to high density by fed batch cultivation as a whole cell catalyst. Detailed results will be presented in this presentation.