

Production of lactic acid using metabolically engineered lactic acid bacteria

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Poly-lactic acid (PLA) is an important biodegradable polymer that can be produced from inexpensive, renewable, and abundantly available biomass via bacterial fermentation. Recently, stereocomplex PLA, which is composed of both poly-L- and -D-lactic acid, has been drawn much attention due to its high thermostability. Therefore, production of pure L- or D- enantiomer of lactic acid becomes important. In this presentation, we developed several metabolically engineered strain for the production of pure L- or D- enantiomer and will show the production of lactic acid using these lactic acid bacteria. Detailed results will be presented.