Short Communication

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Enhancing Linalool Production by Engineering Oleaginous Yeast *Yarrowia lipolytica*

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Abstract

In this study, stepwise increases in linalool production were obtained by combining metabolic engineering and process optimization of an unconventional oleaginous yeast *Yarrowia lipolytica*. The linalool synthetic pathway was successfully constructed by heterologously expressing a codon-optimized linalool synthase gene from *Actinidia arguta* in *Y. lipolytica.* To enhance linalool productivity, key genes involved in the mevalonate pathway were overexpressed in different combinations. Moreover, the overexpression of mutant *ERG20*$^{F88W\text{-}N119W}$ gene resulted in further linalool production. A maximum linalool level of 6.96 ± 0.29 mg/L was achieved in shake flasks, which was