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Short Communication

Enhancing Linalool Production by Engineering Oleaginous Yeast Yarrowia lipolytica

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- 16 Abstract

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17 In this study, stepwise increases in linalool production were obtained by combining metabolic engineering and process optimization of an unconventional oleaginous yeast 18 Yarrowia lipolytica. The linalool synthetic pathway was successfully constructed by 19 heterologously expressing a codon-optimized linalool synthase gene from Actinidia 20 arguta in Y. lipolytica. To enhance linalool productivity, key genes involved in the 21 mevalonate pathway were overexpressed in different combinations. Moreover, the 22 overexpression of mutant $ERG20^{F88W-N119W}$ gene resulted in further linalool production. 23 A maximum linalool level of 6.96 ± 0.29 mg/L was achieved in shake flasks, which was 24

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