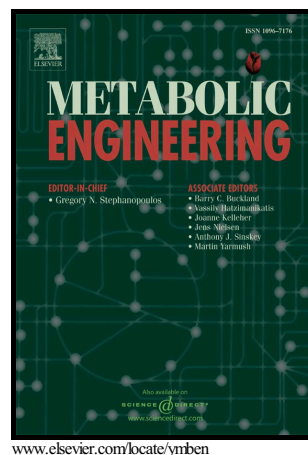


One-Pot Two-Strain System Based on Glucaric Acid Biosensor for Rapid Screening of Myo-inositol Oxygenase Mutations and Glucaric Acid Production in Recombinant Cells

Shuang Zheng, Jin Hou, Yi Zhou, Hao Fang, Ting-Ting Wang, Fei Liu, Feng-Shan Wang, Ju-Zheng Sheng



PII: S1096-7176(18)30207-6  
DOI: <https://doi.org/10.1016/j.ymben.2018.08.005>  
Reference: YMBEN1453

To appear in: *Metabolic Engineering*

Received date: 21 May 2018  
Revised date: 15 August 2018  
Accepted date: 15 August 2018

Cite this article as: Shuang Zheng, Jin Hou, Yi Zhou, Hao Fang, Ting-Ting Wang, Fei Liu, Feng-Shan Wang and Ju-Zheng Sheng, One-Pot Two-Strain System Based on Glucaric Acid Biosensor for Rapid Screening of Myo-inositol Oxygenase Mutations and Glucaric Acid Production in Recombinant Cells, *Metabolic Engineering*, <https://doi.org/10.1016/j.ymben.2018.08.005>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

**One-Pot Two-Strain System Based on Glucaric Acid Biosensor for Rapid Screening of Myo-inositol Oxygenase Mutations and Glucaric Acid Production in Recombinant Cells**

Shuang Zheng<sup>a</sup>, Jin Hou<sup>b</sup>, Yi Zhou<sup>a</sup>, Hao Fang<sup>a</sup>, Ting-Ting Wang<sup>a</sup>, Fei Liu<sup>c</sup>, Feng-Shan Wang<sup>a,d</sup>, Ju-Zheng Sheng<sup>a,d,\*</sup>

<sup>a</sup>Key Laboratory of Chemical Biology of Natural Products (Ministry of Education), School of Pharmaceutical Sciences, Shandong University, Jinan 250012, China

<sup>b</sup>The State Key Laboratory of Microbial Technology, Shandong University, Jinan, 250100, China, China

<sup>c</sup>Key Laboratory of Biopharmaceuticals, Shandong Academy of Pharmaceutical Sciences, Jinan, 250101

<sup>d</sup>National Glycoengineering Research Center, Shandong University, Jinan 250012, China

\*Corresponding Author: Dr. Sheng Juzheng. Tel.: +86-0531-88380288; Fax: +86-0531-88382548. Email: shengjuzheng@sdu.edu.cn

**Abstract**

The development of D-glucaric acid (GA) production in recombinant cells has leapt forward in recent years, and higher throughput screening and selection of better-performing recombinant cells or biocatalysts is in current demand. A biosensor system which converts GA concentration into fluorescence signal in *Escherichia coli* was developed in 2016, but its application has rarely been reported. Herein, an

Download English Version:

<https://daneshyari.com/en/article/10999841>

Download Persian Version:

<https://daneshyari.com/article/10999841>

[Daneshyari.com](https://daneshyari.com)