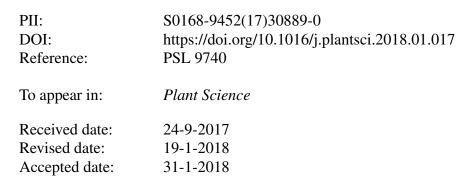
### Accepted Manuscript

Title: *OsERF71* confers drought tolerance via modulating ABA signaling and proline biosynthesis

Authors: Jinjie Li, Xiao Guo, Minghui Zhang, Xin Wang, Yan Zhao, Zhigang Yin, Zhanying Zhang, Yanming Wang, Haiyan Xiong, Hongliang Zhang, Elena Todorovska, Zichao Li



Please cite this article as: Jinjie Li, Xiao Guo, Minghui Zhang, Xin Wang, Yan Zhao, Zhigang Yin, Zhanying Zhang, Yanming Wang, Haiyan Xiong, Hongliang Zhang, Elena Todorovska, Zichao Li, OsERF71 confers drought tolerance via modulating ABA signaling and proline biosynthesis, Plant Science https://doi.org/10.1016/j.plantsci.2018.01.017

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 proof before it is published in its final 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.



### ACCEPTED MANUSCRIPT

# *OsERF71* confers drought tolerance via modulating ABA signaling and proline biosynthesis

Running title: OsERF71 confers drought tolerance and ABA sensitivity in rice

Jinjie Li<sup>1</sup>, Xiao Guo<sup>1</sup>, Minghui Zhang<sup>2</sup>, Xin Wang<sup>1</sup>, Yan Zhao<sup>1</sup>, Zhigang Yin<sup>1</sup>, Zhanying Zhang<sup>1</sup>, Yanming Wang<sup>1</sup>, Haiyan Xiong<sup>1</sup>, Hongliang Zhang<sup>1</sup>, Elena Todorovska<sup>3</sup>, Zichao Li<sup>1</sup>\*

<sup>1</sup> Key Lab of Crop Heterosis and Utilization of Ministry of Education and Beijing Key Lab of Crop Genetic Improvement, China Agricultural University, Beijing, People's Republic of China, <sup>2</sup>College of Life Science, Northeast Agricultural University, Harbin, People's Republic of China, <sup>3</sup>AgroBioInstitute, Sofia, Bulgaria

Author for correspondence:

Zichao Li TEL/ FAX: +86-10-62731414 Email: lizichao@cau.edu.cn

#### Highlights

- *OsERF71* is preferentially responsive to ABA and various abiotic stresses in the UR variety.
- Overexpression of *OsERF71* enhances the tolerance to drought and high salinity stress in rice.
- Overexpression of *OsERF71* increases sensitivity to exogenous ABA and free proline content, thus playing a positive role in drought stress and high salinity tolerance.

Download English Version:

## https://daneshyari.com/en/article/8356634

Download Persian Version:

https://daneshyari.com/article/8356634

Daneshyari.com