10.1071/FP22243

Functional Plant Biology

Supplementary Material

Identification and functional analysis of calcium sensor calmodulins from heavy metal hyperaccumulator *Noccaea caerulescens*

Lu Han^{A,B}, Xiaohua Wu^{A,B}, Kailin Hou^{A,C}, Hongshan Zhang^{A,C}, Xueshuang Liang^{A,C}, Cheng Chen^D, Zhijing Wang^D, and Chenjia Shen^{A,C,*}

^ACollege of Life and Environmental Sciences, Hangzhou Normal University, Hangzhou 310036, China.

^BZhejiang Key Laboratory of Organ Development and Regeneration, College of Life and Environmental Sciences, Hangzhou Normal University, Hangzhou, Zhejiang 310036, China.

^cZhejiang Provincial Key Laboratory for Genetic Improvement and Quality Control of Medicinal Plants, Hangzhou Normal University, Hangzhou 310036, China.

^DCollege of Pharmacy, Hangzhou Normal University, Hangzhou 311121, China.

*Correspondence to: Chenjia Shen College of Life and Environmental Sciences, Hangzhou Normal University, Hangzhou 310036, China Email: shencj@hznu.edu.cn

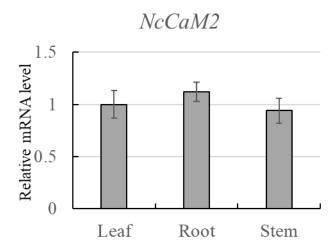


Figure S1 **Tissue-specific expression analysis of** *NcCaM2*. The expression of *NcCaM2* in leaf was set as 1. The relative expression levels of *NcCaM2* in different tissues were calculated compared with that in leaf.



Figure S2 Genetic transformation of NcCaM2 in tobacco seedings. (a) The growth process of tobacco materials after Agrobacterium-mediated genetic transformation. (d) GUS staining of the root from positive tobacco lines expressing NcCaM2:GUS fusion protein. (c) GUS staining of the leaf from positive tobacco lines expressing NcCaM2:GUS fusion protein.

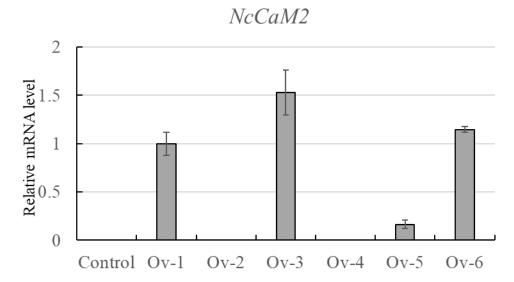


Figure S3 **qRT-PCR** checking the expression level of *NcCaM2* in tobacco seedlings. The expression of *NcCaM2* in wild type seedlings was treated as negative control. The relative expression levels of *NcCaM2* in Ov-1 line was set as 1. The expression level of *NcCaM2* in different over-expressing lines was calculated compared with that in Ov-1. 'Ov' means over-expressing line.