

Overexpression of 9-*cis*-Epoxy-carotenoid Dioxygenase Gene, *IbNCED1*, Negatively Regulates Plant Height in Transgenic Sweet Potato

Yuanyuan Zhou, Chunling Zhao, Taifeng Du, AixianLi, ZhenQin, LimingZhang, Shunxu Dong, QingmeiWang* and Fuyun Hou*

Crop Research Institute, Shandong Academy of Agricultural Sciences, Jinan, Shandong, China

* Correspondence: haier-fuyun@163.com; wang-qm@163.com

Supplementary Materials

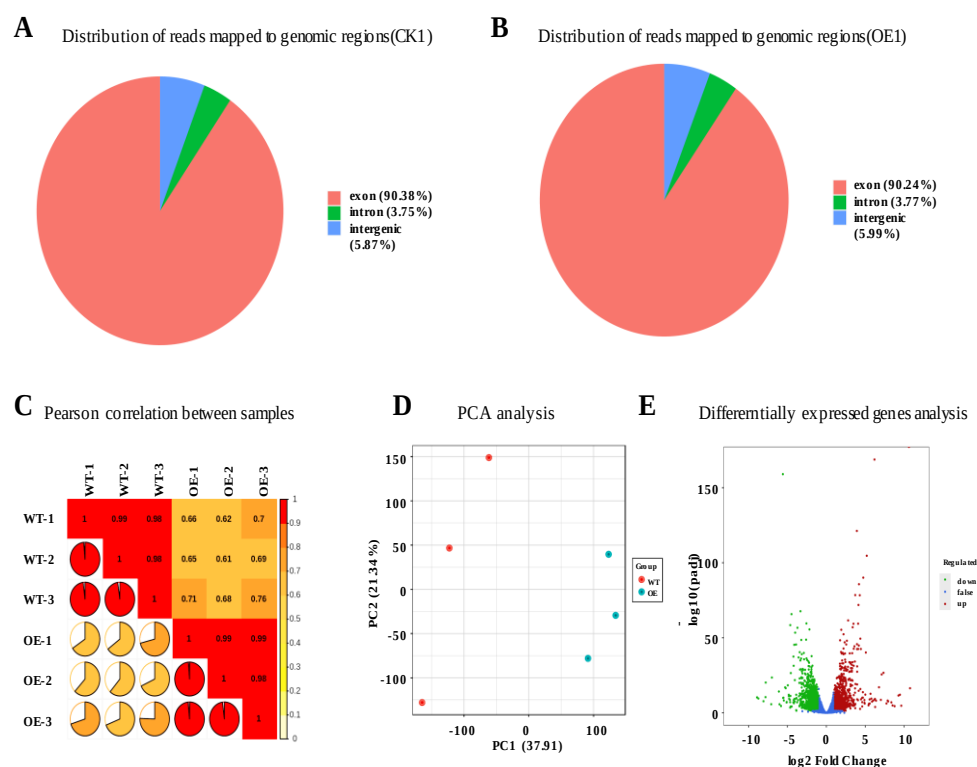


Figure S1. The results of reads mapping (A, B), the correlation analysis of six samples (C), the PCA analysis of six samples (D), and the differentially expressed genes between two parents (E).

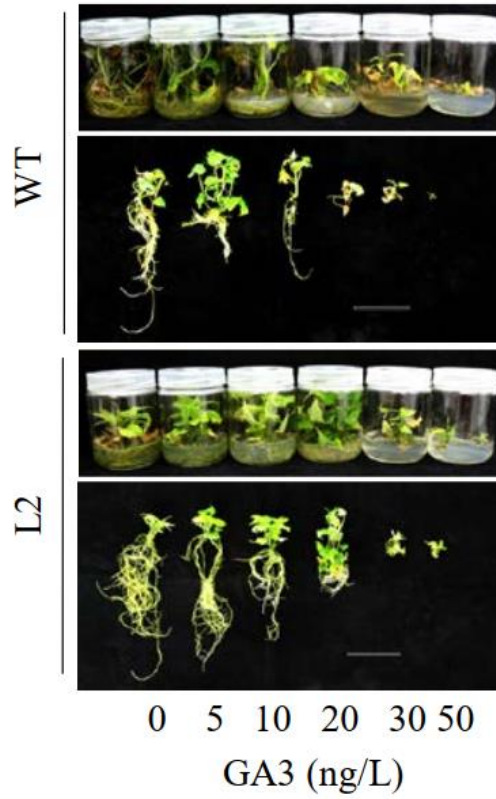


Figure S2. Phenotypes of *in vitro*-grown transgenic sweet potato plants and WT cultured on MS medium with 0, 5, 10, 20, 30 and 50 ng/L GA3 for 4 weeks.

Table S1. The quality summary of RNA-Seq data.

Sample	Raw Reads	Raw Bases(G)	Clean Reads	Clean Base(G)	Error Rate(%)	Q20(%)	Q30(%)	GC Content(%)	Reads mapped
CK-1	107174170	16.08	101388086	15.21	0.03	97.71	93.35	46.52	79452424(78.36%)
CK-2	110935456	16.64	107139790	16.07	0.03	97.48	93.62	46.87	85038225(79.37%)
CK-3	102752088	15.41	100329656	15.05	0.03	97.56	92.93	45.57	79037922(78.78%)
OE-1	117839154	17.67	115148484	17.27	0.03	97.64	93.33	45.86	90357126(78.47%)
OE-2	102118192	15.32	100612266	15.09	0.03	97.69	93.21	45.48	79744707(79.26%)
OE3	90922168	13.64	89665004	13.45	0.03	97.33	92.46	45.32	70566702(78.70%)

Table S2. Primers used in this study.

Primer name	Primer sequence (5'-3')	Application
<i>IbNCED1</i> -F	GGTACCATGGCCAACACCATT	vector construction
<i>IbNCED1</i> -R	GTCGACAGCTTGGGTGGATAG	vector construction and gDNA PCR
35S-F	GACGCACAATCCCACTATCC	gDNA PCR
<i>Ibactin</i> -F	AGCAGCATGAAGATTAAGGTIGTAGCAC	qRT-PCR
<i>Ibactin</i> -R	TGGAATAATTAGAAGCACTTCCTGTGAAC	qRT-PCR
<i>IbNCED1</i> -qF	ATTCCCACTTCAATATCCACTGCC	qRT-PCR
<i>IbNCED1</i> -qR	TTGCCGCCGCTCTTTC	qRT-PCR