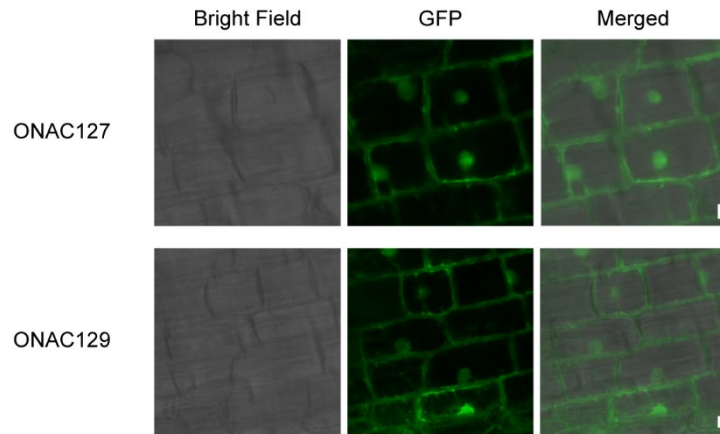


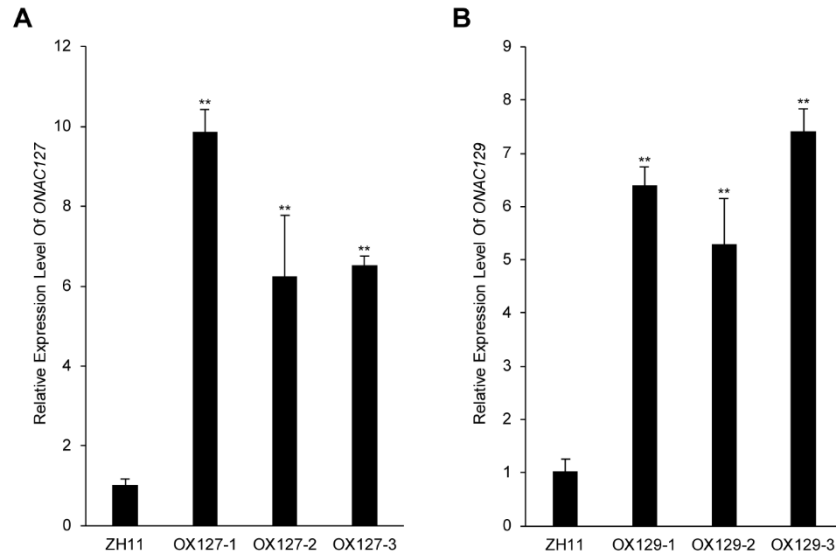
Supplemental Fig. S1 Expression level of mechanical isolation marker in isolated tissue. A. Aleurone layer marker *oleosin*. B. Endosperm marker *SDBE*. 5-14D, total RNA was extracted from caryopses collected during 5-14 DAP. The values in each column are the mean of three technical replicates and the error bars indicate the \pm SD. Ubiquitin is used as the reference gene.



Supplemental Fig. S2 Subcellular localization of the ONAC127 and ONAC129 in the roots of two-week-old rice seedlings of pUbi::ONAC127-GFP and pUbi::ONAC129-GFP transgenic plants. Scale bars are 5 μ m.

ONAC127		ONAC129	
<i>onac127-1</i>	CCTTGG--TTCCACTACGGGAAT	<i>onac129-1</i>	CCCTCTAGAATTCATTTGTGATGT
ZH11	CCTTGGTATTCCACTACGGGAAT	ZH11	CCCTCT-GAATTCATTTGTGATGT
<i>onac127-2</i>	CCTTGGTTATTCCACTACGGGAAT	<i>onac129-2</i>	ACGTTCTTCCTCATA--CCATGG
ZH11	CCTTGG-TATTCCACTACGGGAAT	ZH11	ACGTTCTTCCTCATAACCCATGG
<i>onac127-3</i>	CCCTGTGGACTTCATCACCAACGT	<i>onac129-3</i>	ACGTTCTTCCTCATAA-CCATGG
ZH11	CCCTGT-GACTTCATCACCAACGT	ZH11	ACGTTCTTCCTCATAACCCATGG
<hr/>			
<i>onac127;129-1</i>	CCGTGC-----GATGGGTTCT	<i>onac127;129-1</i>	GGGCATGTCACACCC--CCGAGG
ZH11	CCGTGCTGCTGGTGATGGGTTCT	ZH11	GGGCATGTCACACCCCACCGAGG
<i>onac127;129-2</i>	CCGTGC-GCTGGTGATGGGTTCT	<i>onac127;129-2</i>	GGGCATGTCACACCCCAACCGAGG
ZH11	CCGTGCTGCTGGTGATGGGTTCT	ZH11	GGGCATGTCACACCCC-ACCGAGG
<i>onac127;129-3</i>	CCCTG----TTCATCACCAACGTC	<i>onac127;129-3</i>	CCCCGC--TGGGCATGTCACACC
ZH11	CCCTGTGACTTCATCACCAACGTC	ZH11	CCCCGCTGTGGGCATGTCACACC

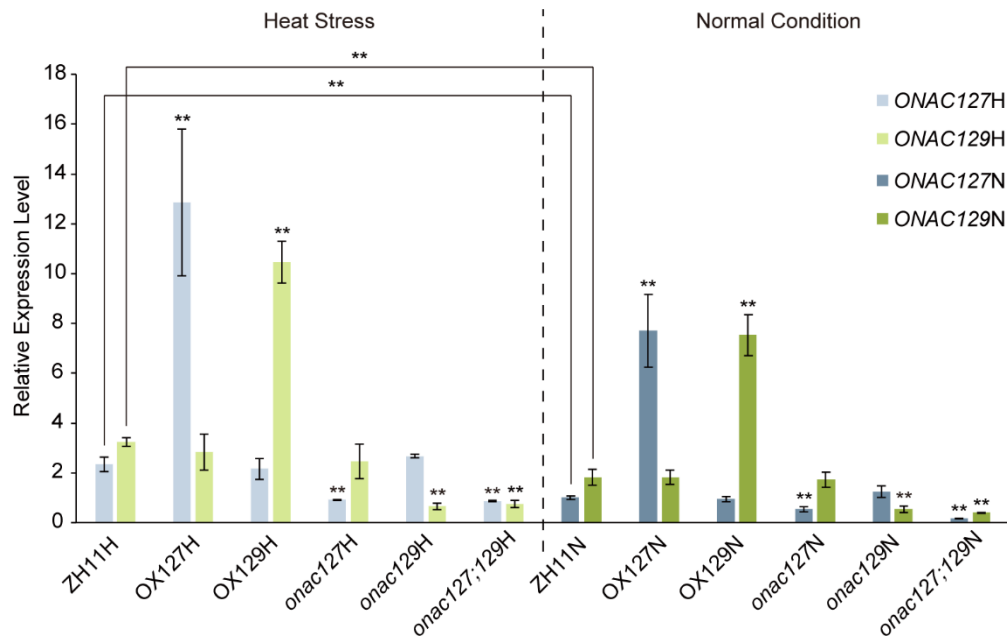
Supplemental Fig. S3 Mutation sites in *onac127*, *onac129* and *onac127;129* lines, as compared with wild-type (ZH11) sequences. The protospacer-adjacent motif sequences are shown in orange and the inserted or deleted nucleotides are indicated in red.



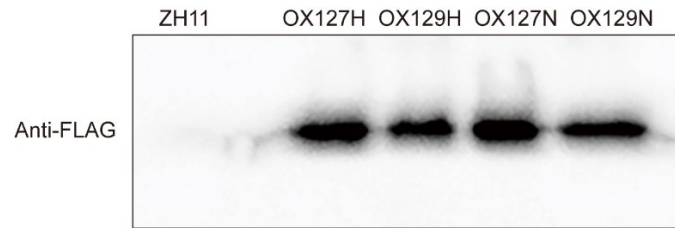
Supplemental Fig. S4 The relative expression level of the overexpression lines of *ONAC127* and *ONAC129*. The values in each column are the mean (\pm SD) of three biological replicates. Ubiquitin is used as the reference gene. Significant differences between the ZH11 and the overexpression lines are determined using Student's t-test (** $P < 0.01$).



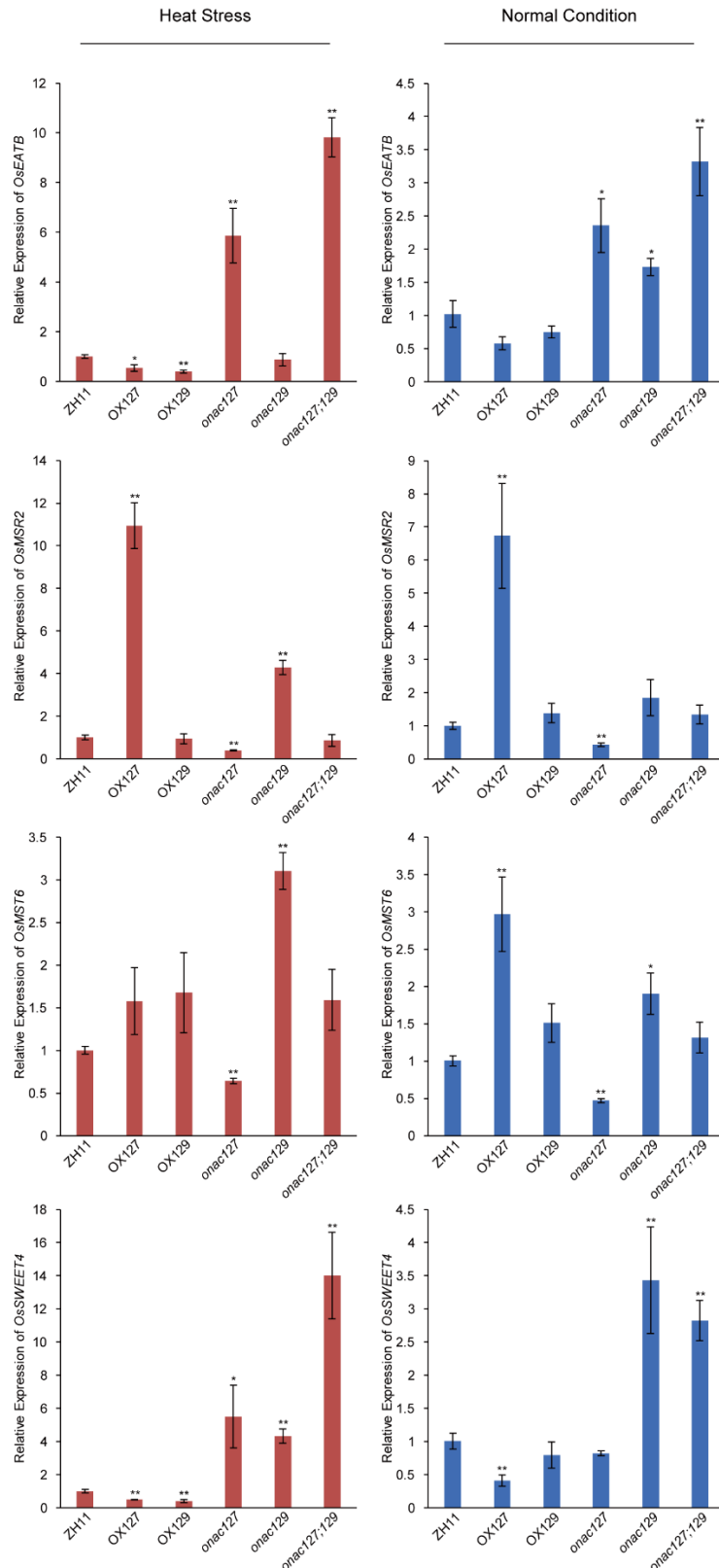
Supplemental Fig. S5 Different stages of caryopses development. Scale bar is 2 mm.



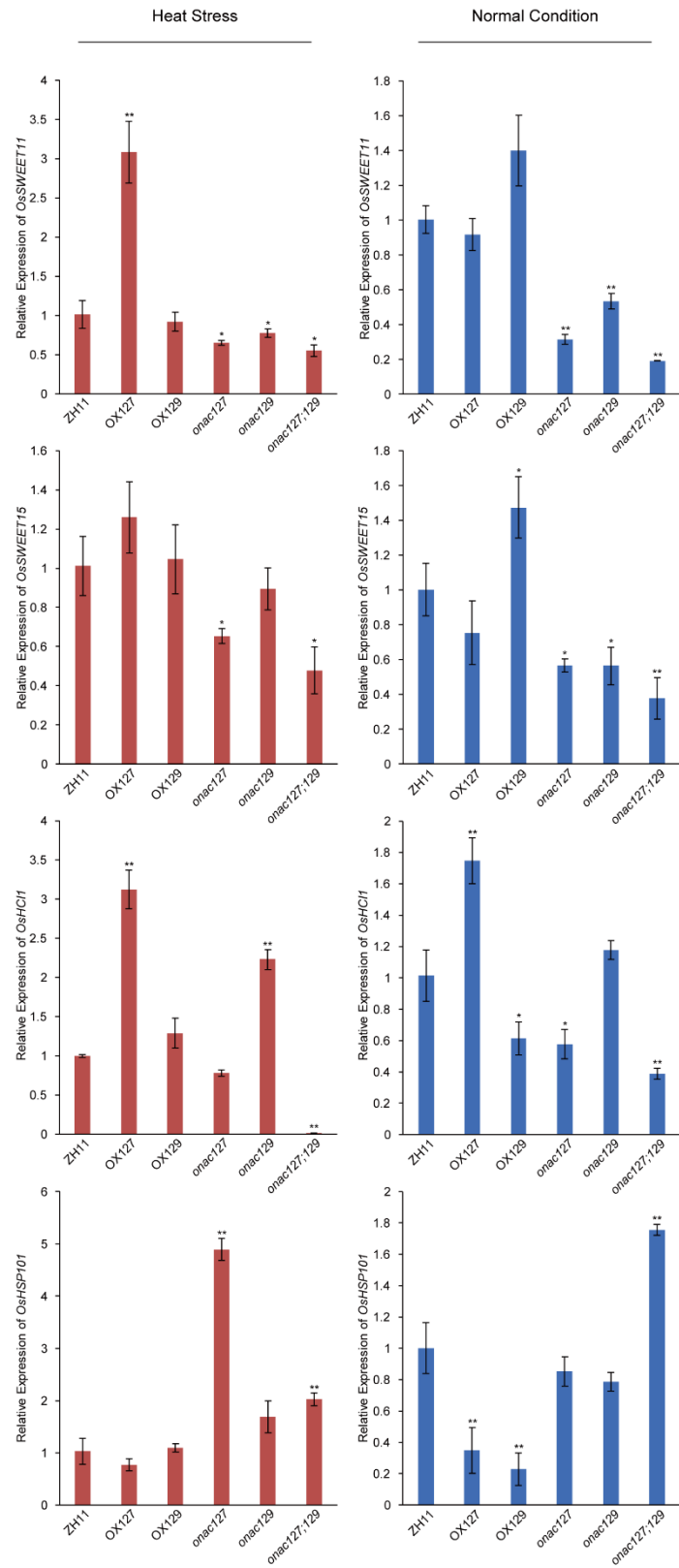
Supplemental Fig. S6 Expression level of *ONAC127* and *ONAC129* in 7 DAP caryopses of transgenic lines compared with that of ZH11. Ubiquitin was used as the reference gene. The values in each column are the mean (\pm SD) of three replicates. Significant differences between the ZH11 and the transgenic lines were determined using Student's t-test (** $P < 0.01$).



Supplemental Fig. S7 Detection of FLAG fusion proteins in the ZH11 and overexpression lines. Total proteins extracted from developing caryopses at 7 DAP were used for western blot analyses with an anti-FLAG antibody.



Supplemental Fig. S8 Expression level of the target genes of ONAC127 and ONAC129 in 7 DAP caryopses of transgenic lines compared with that of ZH11. Ubiquitin was used as the reference gene. The values in each column are the mean (\pm SD) of three replicates. Significant differences between the ZH11 and the overexpression lines were determined using Student's t-test (* $P < 0.05$; ** $P < 0.01$).



Supplemental Fig. S9 Expression level of the indirect target genes of ONAC127 and ONAC129 in 7 DAP caryopses of transgenic lines compared with that of ZH11. Ubiquitin is used as the reference gene. The values in each column are the mean (\pm SD) of three replicates. Significant differences between the ZH11 and the overexpression lines are determined using Student's t-test (* $P < 0.05$; ** $P < 0.01$).