

## Supplementary Information

### Functional integration between defence and IRE1-mediated ER stress response in rice.

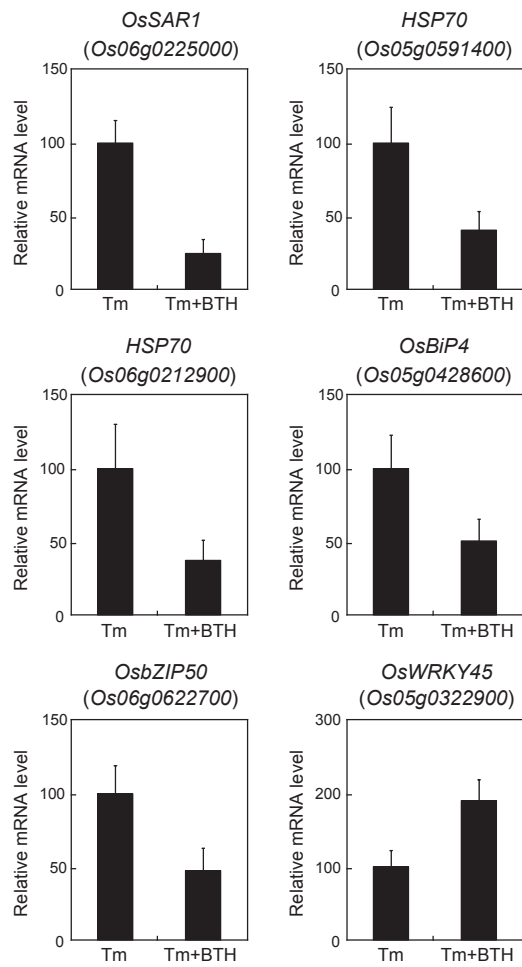
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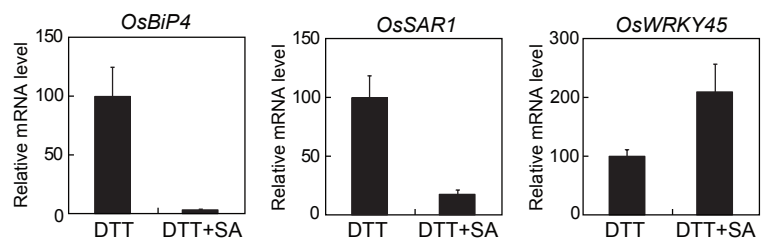
**Figure S1.** Gene expression induced by ER stress is also suppressed by benzothiadiazole.

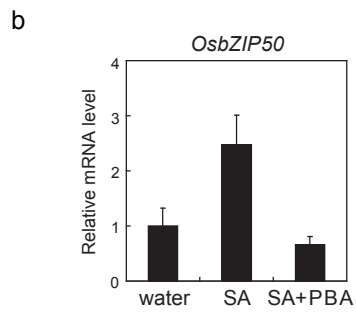
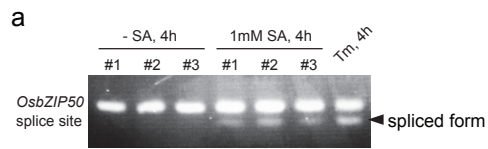
**Figure S2.** Gene expression induced by DTT is also suppressed by SA.

**Figure S3.** SA treatment slightly induces ER stress.

**Table S1.** Oligonucleotides used in this study.







**Table S1. Oligonucleotides used in this study**

Name	Sequence	Purpose
Ubiquitin F	GTGGTGGCCAGTAAGTCCTC	qRT-PCR
Ubiquitin R	GGACACAATGATTAGGGATCA	qRT-PCR
OsWRKY45 F	CGGGTAAAACGATCGAAAGAAG	qRT-PCR
OsWRKY45 R	CGAAAGCGGAAGAACAGGATTAC	qRT-PCR
OsWRKY45pro F	CAGTCCATGGAAACCCCTCGTG	ChIP-PCR
OsWRKY45pro R	CCGAAGGAGATGATGCGTAG	ChIP-PCR
Os07g0418500 F	TTCTATAAGAGTTTGCCACTTCG	qRT-PCR
Os07g0418500 R	CAAATACATTGTCTGAATAACATC	qRT-PCR
Os07g0129200 F	CGTATGCTATGCTACGTGTTTATG	qRT-PCR
Os07g0129200 R	CACTAAGCAAATACGGCTGAC	qRT-PCR
Os02g0115900 F	GGTGACTTACTACTACCTTG	qRT-PCR
Os02g0115900 R	GAAGAGCTGTTCTACTACTCGAC	qRT-PCR
Os03g0710500 F	TACTCCTCTGTTCAGGGTG	qRT-PCR
Os03g0710500 R	GCTTGATGTCGAAGATGGTG	qRT-PCR
Os05g0367800 F	CAAGGAGGAGTACGAGGAGAAG	qRT-PCR
Os05g0367800 R	CTAAAGCTCATCGTGATCGTC	qRT-PCR
Os05g0428600 F	TGCTAAGCTAGCTAGCTCCTG	qRT-PCR
Os05g0428600 R	CACACTTCGATCGAATCCAAAC	qRT-PCR
Os08g0197700 F	AAGGAGGAGTACGAGGAGAAG	qRT-PCR
Os08g0197700 R	CTAGCAGCGACTAAACTAAAG	qRT-PCR
Os06g0225000 F	TTCTACATGCTCTCACAAG	qRT-PCR
Os06g0225000 R	ACCACGTAAACTACTGCATC	qRT-PCR
Os05g0591400 F	TCGACCCTTGCTACGACTAC	qRT-PCR
Os05g0591400 R	AGTTCATCATTTCGATGATGTTG	qRT-PCR
Os06g0212900 F	CTCTCGTGTAGCTTATGCTTTG	qRT-PCR
Os06g0212900 R	AACTAGTAAAACGACTCCAG	qRT-PCR
Os06g0622700 F	TGGATGGCGATGATCCCATGAGC	qRT-PCR
Os06g0622700 R	TGCGCAGCACTGAAGCGCGTAG	qRT-PCR
Os03g0663400 F	GACTACCAGATCGTCTTCTGC	qRT-PCR
Os03g0663400 R	CCAACAAGTGATCACTCAGTGC	qRT-PCR
Os05g0477900 F	TGAGGTGGAAGCAGCACTTTCG	qRT-PCR
Os05g0477900 R	TGGTGATTGATCGGACAAGC	qRT-PCR
Os06g0726100 F	GTTGATATTTGATCCGAGCAGAC	qRT-PCR
Os06g0726100 R	GAATGATCAAATCTTTGTTTATAGAG	qRT-PCR
Os11g0645400 F	CTGCCACGGATGCTACTACTAC	qRT-PCR
Os11g0645400 R	GATAATTGACAAATCTCATG	qRT-PCR
OsbZIP50 splice F	GTGCCGCCACAGCCATGCAG	detection of spliced bZIP50 mRNA
OsbZIP50 splice R	GATGCTCACGAGCCAAAGCAG	detection of spliced OsbZIP50 mRNA

## Supplementary Figure Legends

### **Figure S1. Gene expression induced by ER stress is also suppressed by benzothiadiazole.**

mRNA levels, determined by Quantitative RT-PCR, of representative ER stress-inducible genes in wild type seedlings after treatment with tunicamycin (Tm) or Tm and benzothiadiazole (Tm+BTH) for 4 h. Data are expressed as means  $\pm$  s.d. of four biological replicates.

### **Figure S2. Gene expression induced by DTT is also suppressed by SA.**

mRNA levels, determined by Quantitative RT-PCR, of representative ER stress-inducible genes in wild type seedlings after treatment with DTT and SA for 2 h. Data are expressed as means  $\pm$  s.d. of four biological replicates.

### **Figure S3. SA treatment slightly induces ER stress.**

a) RT-PCR analysis for detection of OsIRE1-mediated mRNA splicing. b) Quantitative RT-PCR analysis of *OsbZIP50* transcripts in wild type plants after treatment for 4 h with SA or SA and 4-phenylbutyric acid (SA+PBA). For SA treatment, 1 mM SA was used. Data are expressed as means  $\pm$  s.d. of three to five biological replicates.