

Supplementary Material

Table S1 Known *cis*-acting elements in the *pZmSO* using the PlantCARE and PLACE databases.

<i>Cis</i> -elements	Description	No
CAAT-box	Common <i>cis</i> -acting element	17
TATA-box	Core promoter element	20
ABRE	<i>Cis</i> -acting element involved in the abscisic acid responsiveness	3
MBS	MYB binding site involved in drought-inducibility	2
TGACG-motif	<i>Cis</i> -acting regulatory element involved in the MeJA-responsiveness	2
G-box	<i>Cis</i> -acting regulatory element involved in light responsiveness	2
LTR	<i>Cis</i> -acting element involved in low-temperature responsiveness	1
TGA-element	Auxin-responsive element	1

Table S2 PCR primers used for 5' RACE-PCR, qPCR, and expression vectors of *ZmSO* promoter and its mutants in transgenic plants in this study.

Primer name	Primer sequence* (5'--3')
SOP0-F	ACGAATTC CCCGTGCTGTGCTGTCTGTCC
SOP1-F	ACGAATTC CCAATACAAG GGGTGTGTCAG
SOP2-F	ACGAATTC CCTGTACCTGTCTAACCAATGG
SOP3-F	AGGAATTC AATTATTCTATATAAAAATC
SOP4-F	ACGAATTC TCTCGTCTCGTTCTCTTCTCCTCAC
Mutated SOP2-F1	TCGAATTC TAGAGAAATTATTCTATATAAAAATCCGTA GCTAGATTTAG
SOP-R	ACAAGCTT TCTTCGCTAGCCTCCGCGGTGCG
Outer-specific primer	AATAGCCAAGAACCTCTATCC
Inner-specific primer	GGTGAGGCTCAGCATTGAATGG
RD29A-QF	CAGAGGAACCACCACTCAACACA
RD29A-QR	CTCTAGGTTTACCTGTTACGCCTG
DREB2A-QF	CGACTGTTGATTCTCTAT
DREB2A-QR	TTATTCATTCCTGTTGTTAC
Actin2-F	TTGTGCTGGATT CTGGTGATGG
Actin2-R	CCGCTCTGCTGTTGTGGTG

*The underlined nucleotides constitute *Eco*RI (GAATTC), or *Hind*III (AAGCTT) restriction enzyme digestion

sites. The nucleotides in bold indicate the mutated MYB binding site (MBS) sequence.

Fig.S1

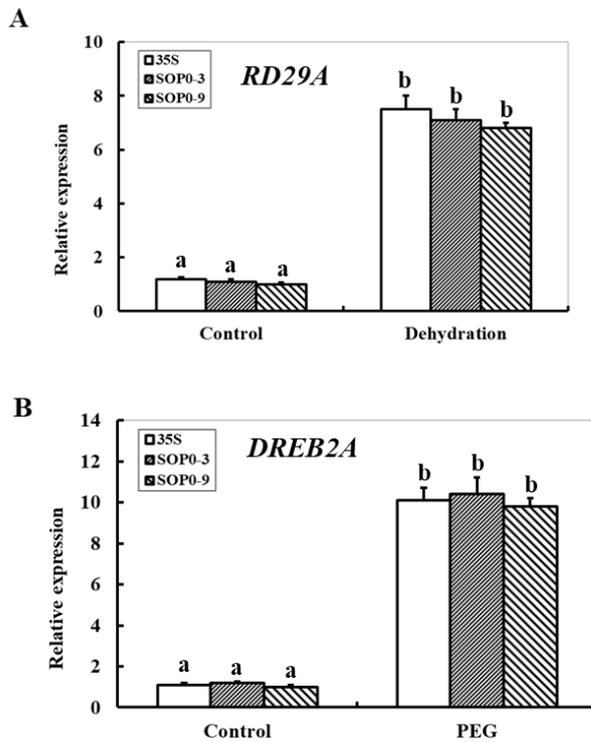


Figure S1. Expression of stress-induced marker genes in transgenic *Arabidopsis* expressing *ZmSopro:GUS* or *CaMV 35S* in response to dehydration and osmotic stresses.

Two-week-old seedlings were incubated in the liquid MS medium supplemented with 10 % (w/v) PEG 6000 to realize osmotic stress for 6 h, or the seedlings were transferred onto filter papers to induce dehydration stress for 2 h. The seedlings grown in the liquid MS medium were treated as controls. After treatments, expression of stress-responsive genes *RD29A* (A) and *DREB2A* (B) was assayed by qPCR in seedlings of *CaMV 35S* and two *ZmSopro:GUS* transgenic lines (SOP0-3 and -9). For each experiment, three technical replicates were conducted. Data shown are Mean \pm SE of three independent experiments. Different lowercase letters above the bars indicate significant differences at $P < 0.05$.