

Table 1 Suppl. Nucleotide sequences of primers used for reverse transcription quantitative PCR analysis.

| Gene names (sequence ID)     | Forward primers 5' - 3'  | Reverse primers 5' - 3'  |
|------------------------------|--------------------------|--------------------------|
| <i>AtDREB1A</i>              | AGGCGGTGATTATATTCCGACGCT | TCAGCGGTTTGAAATGTTCCGAGC |
| <i>P5CS</i> (NM_001246978.2) | CCATCAGCAATCTCCGTTCT     | TGCACTGGAAGCAAATGAAA     |
| <i>CAT</i>                   | TTCCATCACTGCAGCTTTGCTTCG | TTGTTTGGGCCAGCTTCTCTCTC  |
| <i>SOD</i>                   | CCATCCAGTTCGTCCAAGAT     | GTATCGCCAAGAGCATGGAT     |
| <i>LPO</i>                   | ATCCATCCCACCACACTCGTCAAT | TCCATGTCAAGTCACTCCCAGTGT |
| <i>Actin</i>                 | AAGCTGCAGGTATCCACGAGACTA | ACGGTCAGCAATACCAGGGAACAT |

Table 2 Suppl. Morphological observations of transgenic and wild-type plants under control and cold stress (4 °C for 5 d) applied to 25-d-old wild-type (H86) and transgenic (D86) seedlings. CH86 - wild type cold treated plants, CD86 - transgenic cold treated plants. Means  $\pm$  SEs,  $n = 3$ , values followed by the same letter are not significantly different ( $P > 0.05$ ) according to the Duncan multiple range test.

| Parameters                                       | H86                            | CH86                           | D86                            | CD86                          |
|--------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
| Shoot fresh mass (SFM) [g plants <sup>-1</sup> ] | 9.09 $\pm$ 0.645 <sup>a</sup>  | 7.80 $\pm$ 0.250 <sup>b</sup>  | 7.68 $\pm$ 0.41 <sup>b</sup>   | 8.74 $\pm$ 0.810 <sup>a</sup> |
| Shoot dry mass (SDM) [g plants <sup>-1</sup> ]   | 0.86 $\pm$ 0.027 <sup>bc</sup> | 1.01 $\pm$ 0.060 <sup>b</sup>  | 0.73 $\pm$ 0.067 <sup>c</sup>  | 1.22 $\pm$ 0.074 <sup>a</sup> |
| Ratio (SFM/SDM)                                  | 10.60 $\pm$ 0.888 <sup>a</sup> | 10.50 $\pm$ 1.05 <sup>a</sup>  | 10.50 $\pm$ 1.05 <sup>a</sup>  | 7.19 $\pm$ 0.373 <sup>b</sup> |
| Root fresh mass (RFM) [g plants <sup>-1</sup> ]  | 1.86 $\pm$ 0.090 <sup>b</sup>  | 1.76 $\pm$ 0.090 <sup>c</sup>  | 1.76 $\pm$ 0.090 <sup>c</sup>  | 2.26 $\pm$ 0.130 <sup>a</sup> |
| Root dry mass (RDM) [g plants <sup>-1</sup> ]    | 0.16 $\pm$ 0.004 <sup>b</sup>  | 0.16 $\pm$ 0.008 <sup>b</sup>  | 0.16 $\pm$ 0.008 <sup>b</sup>  | 0.20 $\pm$ 0.030 <sup>a</sup> |
| Ratio (RFM/RDM)                                  | 11.50 $\pm$ 1.170 <sup>a</sup> | 10.90 $\pm$ 0.848 <sup>a</sup> | 10.90 $\pm$ 0.848 <sup>a</sup> | 11.30 $\pm$ 1.26 <sup>a</sup> |
| Root length [cm plants <sup>-1</sup> ]           | 13.20 $\pm$ 0.457 <sup>a</sup> | 12.40 $\pm$ 1.05 <sup>a</sup>  | 12.40 $\pm$ 1.050 <sup>a</sup> | 13.00 $\pm$ 1.33 <sup>a</sup> |
| Shoot length [cm plants <sup>-1</sup> ]          | 13.00 $\pm$ 0.637 <sup>b</sup> | 14.20 $\pm$ 1.79 <sup>b</sup>  | 14.20 $\pm$ 1.79 <sup>b</sup>  | 17.20 $\pm$ 2.34 <sup>a</sup> |