

Accessory Publication

Table S1. The specific primers used in RT-PCR analysis

Gene	Primers
<i>DREB2A</i>	Fw-2A 5'-ATGGCAGTTTATGATCAGAGTGG-3'
	Rw-2A 5'-ATGCTTATCCGCTTTAACACCTC-3'
<i>RD29A</i>	Fw-RD 5'-TCACTAAACATGGACAAAGCAA-3'
	Rw-RD 5'-CAATCTCCGGTACTCCTCCA-3'
<i>COR15A</i>	Fw-COR 5'-ATGGCGATGTCTTTCTCA-3'
	Rw-COR 5'-CTACTTTGTGGCATCCTTAG-3'
<i>KIN1</i>	Fw-KIN 5'-ATGTCAGAGACCAACAAGA-3'
	Rw-KIN 5'-CTACTTGTTTCAGGCCGG-3'
<i>GhDBP1</i>	Fw-A 5'-GGATCCATGGAGCTAGGTGAT-3'
	Rw-A 5'-GAGCTCTCAATCTTCATCAGAAC-3'
<i>AtEm6</i>	Fw-Em 5'- ATGGCGTCTCAACAAGAGAAG -3'
	Rw-Em 5'- TTAGGTCTTGGTCCTGAATTTG -3'

Table S2. Regulatory motifs found in the *GhDBP1* promoter region

Sequence ^a	Position ^b	Name and function	References
ACGTG	-309(+), -493(-)	ABRE, ABA-responsive element	Hobo <i>et al.</i> 1999
RCCGAC	-348(-), -636(+)	DRE/CRT, ehydration-responsive element/C-repeat, response to drought and low temperature stress	Baker <i>et al.</i> 1994; Yamaguchi-Shinozaki and Shinozaki, 1994
TAACAAR	-839(+), -847(+), -1276(+),	GARE, Gibberellin-responsive element, involved in seed germination	Ogawa <i>et al.</i> 2003
TGACY	-666(+), -988(-), -1121(-), -1309(-)	W box, elicitor-responsive elements, involved in defense, wounding response and sugar response	Sun <i>et al.</i> 2003; Yamamoto <i>et al.</i> 2004
CNGTTR	-809(+), -818(+), -1102(+), -1397(+)	MYB, MYB recognition sequence, involved in dehydration-response	Urao <i>et al.</i> 1993
CANNTG	-273(+), -479(+), -920(+), -1141(+), -1404(+)	MYC (E-box), MYC recognition site, seed-specific, regulating transcription of many drought or cold-induced genes	Stalberg <i>et al.</i> 1996; Chinnusamy <i>et al.</i> 2003; Abe <i>et al.</i> 2003; Lee <i>et al.</i> 2005
ACGT	-131(+)	ACGT motif, required for etiolation-induced genes expression	Simpson <i>et al.</i> 2003

^a : R indicates A or T ; Y indicates C or T ; N indicates A, T, G or C.

^b : +, normal sequence; -, complementary sequence.

References

- Abe H, Urao T, Ito T, Seki M, Shinozaki K, Yamaguchi-Shinozaki K (2003) Arabidopsis AtMYC2 (bHLH) and AtMYB2 (MYB) function as transcriptional activators in abscisic acid signaling. *The Plant Cell* **15**, 63-78 doi: 10.1105/tpc.006130
- Chinnusamy V, Ohta M, Kanrar S, Lee BH, Hong X, Agarwal M, Zhu JK (2003) ICE1: a regulator of cold-induced transcriptome and freezing tolerance in Arabidopsis. *Genes & Development* **17**, 1043-1054. doi: 10.1101/gad.1077503
- Lee BH, Henderson DA, Zhu JK (2005) The Arabidopsis cold-responsive transcriptome and its regulation by ICE1. *The Plant Cell* **11**, 3155-3175. doi: 10.1105/tpc.105.035568
- Ogawa M, Hanada A, Yamauchi Y, Kuwahara A, Kamiya Y, Yamaguchi S (2003) Gibberellin biosynthesis and response during Arabidopsis seed germination. *The Plant Cell* **15**, 1591-1604. doi: 10.1105/tpc.011650
- Simpson SD, Nakashima K, Narusaka Y, Seki M, Shinozaki K, Yamaguchi-Shinozaki K (2003) Two different novel *cis*-acting elements of *erd1*, a *clpA* homologous Arabidopsis gene function in induction by dehydration stress and dark-induced senescence. *The Plant Journal* **33**, 259–270 doi: 10.1046/j.1365-313X.2003.01624.x
- Stalberg K, Ellerstrom M, Ezcurra I, Ablov S, Rask L (1996) Disruption of an overlapping E-box/ABRE motif abolished high transcription of the *napA* storage-protein promoter in transgenic *Brassica napus* seeds. *Planta* **199**, 515-519. doi: 10.1007/BF00195181
- Sun C, Palmqvist S, Olsson H, Boren M, Ahlandsberg S, Jansson C (2003) A novel WRKY transcription factor, SUSIBA2, participates in sugar signaling in barley by binding to the

sugar-responsive elements of the *iso1* promoter. *The Plant Cell* **15**, 2076-2092.

Yamamoto S, Nakano T, Suzuki K, Shinshi H (2004) Elicitor-induced activation of transcription via W box-related *cis*-acting elements from a basic chitinase gene by WRKY transcription factors in tobacco. *Biochimica et Biophysica Acta* **1679**, 279-287.
doi:10.1016/j.bbaexp.2004.07.005

```

-1482                AGTTTGGAGCCAAAATAGCTGATGGTCCACTTTTTGTTTTCA
-1440 TTGTATAAATATAGGACTTTTTGTCTTGTAAATAATTCAAATGGCGGTTAGAATGTTGCAC
                                MYC    MYB
-1380 CCCCCCCCCCAAAAAAAAAAACTGGTTTTAAATAAACCTGGCCGGCTGGCTGGTTGGATT
-1320 GAAGGGTTAATAGTCAATAAATGAAAAAGTGATGGGTTGGCTTTAACAGTGTGAAACA
        W-box                                GARE
-1260 ATGAAGGAACCAAAGAAGAGAAACCACATCATGGATTAATCACCCAGAAGATGTGGAAT
-1200 TACTTAACACCACTCTTTTCAATATATATAAATAAATAAAAAAGGGGGGGTTATTAATC
-1140 AGATGATAAAGATTGAGATTTGACACCAAAGAATCAACGGTTTGCACCATACTAATTA
        MYC                                W-box    MYB
-1080 AAAACCAATTTGGTAATTCATTCATTCCACTACCAAAAAGGAAGCCCAAGGAAGGAATGG
-1020 ATGATCATTTTTATTGCGTGGACTGGACGAAAGTCAACACACCATCCCCATCCCCACCCG
                                W-box
-960  ACTTTTTTTTTCCATTGCCTCCATTTCTCAAATGGATCCCACTTGCTTGCCAAACTAG
                                MYC
-900  CTACCCACCCATAACCCTCAATCCAGGCCATTATTATTATTAGATATCCTAAATAACAAA
                                GARE
-840  CTAACAAACAACCTCAAATATCCAGTTATTTCTGTTAACACAAAACCAGCTTTTTACTT
        GARE                                MYB    MYB
-780  CTTTTCAAAAAAAAAAAGAAAAAGAAGAAGAAAATTTGGGGTTTAAACATAAAGTTATT
-720  TTAAGGTAATTAATAATGTAGAGTACATACTACATACCAGTAACCGGGAAACTGACCT
                                W-box
-660  AAGACTAATTTGTTTGTAGGAAATGCCGACTTTGTTTATTCAGGATTTTGTAAATGAAACA
                                DRE
-600  GTAGCATATTTGAAGTTAAAAAGAAAGGGACAAAAAATGATTA AAAAAGAAGAAGACTA
-540  AAGATGGAATAAACAAGGATGTTGGGGTCTTGGAATATAGTAGAACCCACGTCTGCTGG
                                ABRE
-480  TCACATGCTTACCATTACAAACCGATAACCGCGAGAGTAAGAGAGAGAAATAGTATGTG
        MYC
-420  TAGAGTGCAATGGCTATATCATAATAAATTGTATAGGCTTTTTTAGAGATATATCGGAA
-360  GTGATGGATTATGTCGGCCCAATTTGGATTTATCTAAAGCTAGATCGATCAACGTGGCGG
                                DRE                                ABRE
-300  CCGTGCCAGACGACAGACTAGCAGCCAAGTGGGTA ACTAATACTGCTTCTGCCTCTCT
                                MYC
-240  TTCTCTCTCTATCTTCAATATATTATTTATTTATTTATTTATATATCCTTTCTACTTAT
                                TATA box
-180  ATATAACAATAGAGAATAGCTTTTAGAGCAAAGAGTATTCGTTGATTAAACGTAGCTAGA
        TATA box                                ACGT
-120  ATCTGTTCCCTTTCTTTTTCTCCTTCTTATGGCTTACAAGTTATAGTTTCCAGAAACAAG
-60   GGGAAATAAAAAAAAAATCCATTTGTTTTAGGATTTTGGTCTTCTTTTATCTTTTGGTTC
+1   ATGGAGCTAGGTGATTGTTGTTAACATCAAGTCCAGCAAGCGGAGAGAAGCGAAAGCTG
        M E L G D C C L T S S P A S G E K R K L

```

Figure S1. Nucleotide sequence of the *GhDBP1* promoter region. The ATG codon was designated as +1. The putative TATA boxes were shown in bold and boxed. The other deduced cis-acting elements were shaded and annotated below.