




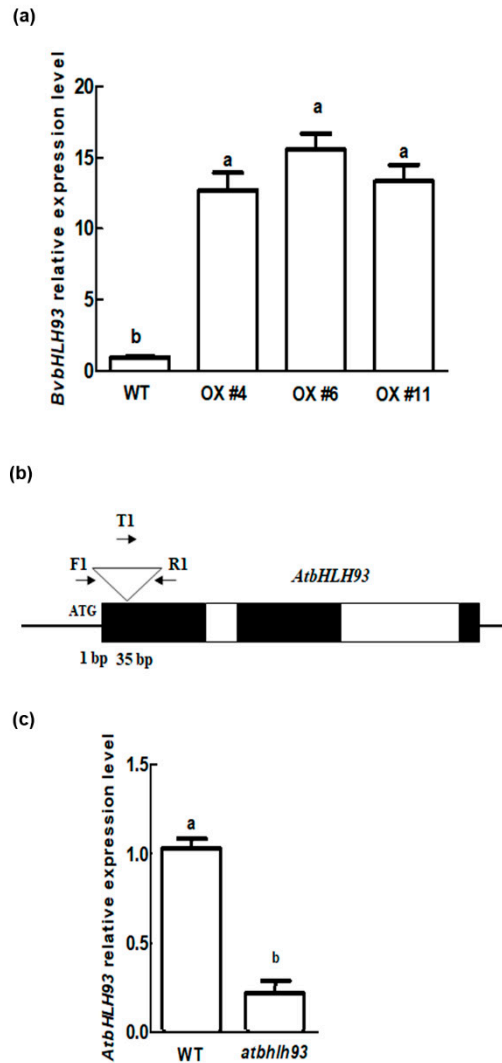
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328 L H K K I I S W L S *
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1441 TTGAATATGAAATGAAATCTCCTCTTACTTTTCTGTAGAGAAGTAGAAATACAGCGTGCCTTCAATTTTCATGGA

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 Basic
  helix
  loop

**Figure S1.** Sequence analysis of a cDNA encoding a *BvbHLH93* isolated from the sugar beet. Nucleotide and deduced amino acid sequence of the *BvbHLH93*.



**Figure S2.** Identification of *atbhlh93* mutant and overexpression of *BvbHLH93* in *Arabidopsis*. (a) QRT-PCR analysis of the expression levels of the overexpressed *BvbHLH93* (OX4, OX6 and OX11) in *Arabidopsis*; (b) Structure of the *AtbHLH93* gene. The T-DNA insertion site was at 35 bp downstream of the start codon. The primers used to identify the T-DNA insertion were marked with arrows (T1, R1 and F1); (c) Real-time PCR analysis of the expression levels of *AtbHLH93* in the *atbhlh93* mutant. Different letters indicate significant difference at  $p < 0.05$ . Three biological replicates were performed. Please refer to supplementary materials for the primers used.

**Table S1.** The list of primers used in this article

Primer name	Primer sequence
<i>BvbHLH93-F</i> (Full length cDNA)	5-TCCACTATATTAGAATCAGAAGATT-3
<i>BvbHLH93-R</i> (Full length cDNA)	5-TCCATGAAAATTGAAGGCACGCTGT-3
<i>BvbHLH93-F</i> (GFP vector construct)	5-CCGGAATTCATGTCTAACCCCTCTTTTGG-3
<i>BvbHLH93-R</i> (GFP vector construct)	5-ACGCGTCGACAGCCAAGAGATTATCTTC-3
<i>BvbHLH93-F</i> (Yeast vector construct)	5-GAATCCCGGGGATCATGTCTAACCCCTTTTGG-3
<i>BvbHLH93-R</i> (Yeast vector construct)	5-GCAGGTCGACGGATCCTAAGACAGCCAAGAGATTA-3
<i>BvbHLH93-F</i> (Overexpression vector construct)	5-CTAGTCTAGAATGTCTAACCCCTCTTTTGG-3
<i>BvbHLH93-R</i> (Overexpression vector construct)	5-ACGCGTCGACAGACAGCCAAGAGTCGAC-3
<i>BvbHLH93-F</i> (QRT-PCR)	5- AAGCAGCAACTCGTTGAACG-3
<i>BvbHLH93-R</i> (QRT-PCR)	5- CATGCACGTTGTGAAGAGCC-3
<i>Bv18S rRNA-F</i> (QRT-PCR)	5-CCCCAATGGATCCTCGTTA-3
<i>Bv18S rRNA-R</i> (QRT-PCR)	5-TGACGGAGAATTAGGGTTCG-3
<i>AtRbohD (At5g47910)-F</i> (QRT-PCR)	5-TCAGGGACGACTCGGTGG-3
<i>AtRbohD (At5g47910)-R</i> (QRT-PCR)	5-GTTTATCGAAACGTTGGTC-3
<i>AtRbohF (At1g64060)-F</i> (QRT-PCR)	5-GTTCGATGCATTGAGTAG-3
<i>AtRbohF (At1g64060)-R</i> (QRT-PCR)	5-TTTAATCTTGATAGCTTATT-3
<i>AtbHLH93 (At1g71200)-F</i> (QRT-PCR)	5-TGGCTCAAGTAGTGGTGCAG-3
<i>AtbHLH93 (At1g71200)-R</i> (QRT-PCR)	5-CCCCCAATTCAAGAACCGAGA-3
<i>β-Actin (At3g53750)-F</i> (QRT-PCR)	5- GAGGCTCCTCTTAACCCAA-3
<i>β-Actin (At3g53750)-R</i> (QRT-PCR)	5-TACAATTTCCCGCTCTGC-3
<i>SOD (At5g18100)-F</i> (QRT-PCR)	5-AACGAGGAAGAGCGTCATG-3
<i>SOD (At5g18100)-R</i> (QRT-PCR)	5-GCGTTTCCAGTTGATTTG-3
<i>SOD (At4g25100)-F</i> (QRT-PCR)	5-ATGAGAAGTTCTATGAAGAG-3
<i>SOD (At4g25100)-R</i> (QRT-PCR)	5-GTCTTTATGTAATCTGGT-3
<i>POD (At1g14550)-F</i> (QRT-PCR)	5-CCATAGGACAATCTCAATGC-3
<i>POD (At1g14550)-R</i> (QRT-PCR)	5-TGATCGGTTACTAATAG-3

*POD (At5g66390)-F* (QRT-PCR)

5-CTCACTAAGTTCAAGCGTC-3

*POD (At5g66390)-R* (QRT-PCR)

5-GAATAGGGTCTGGTCACC-3

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