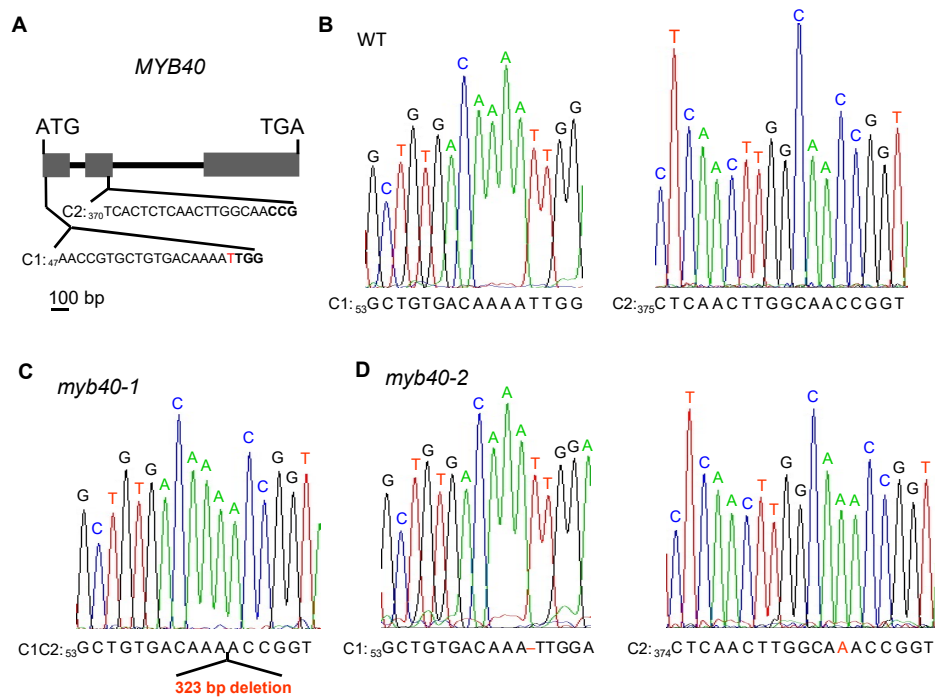


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Supplemental information

The transcription factor MYB40 is a central regulator in arsenic resistance in *Arabidopsis*

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Supplemental Figure 1. The *myb40* Mutant was Generated by CRISPR/Cas9 Technology
(A) Diagram of *MYB40* showing two target sites (C1 and C2) for CRISPR/Cas9 technology. PAM motifs are marked with bold letters. The exons and introns of *MYB40* are indicated by gray boxes and black lines, respectively.
(B and D) Mutation in the *MYB40* gene was evaluated by sequencing. The mutant sites in *MYB40* are indicated by red letters.

Supplemental Table 1. Primer sequences used in this study.

Primer Name	Primer Sequence (5'-3')	Vector Design
For Cloning and Genotyping		
MYB40-F	ATGGGGAGAAAACCGTGCTGTG	pCXS
MYB40-R	TCATAAGAGGAAAAGATTATCAT	
MYB40-F	TCTAGAATGGGGAGAAAACCGTGCTGTG	pCAMBIA1300:GFP
MYB40-R	GGTACCTAAGAGGAAAAGATTATCAT	
MYB40-F	TCTAGAATGGGGAGAAAACCGTGCTGTG	pCAMBIA1300-Myc
MYB40-R	GGTACCTAAGAGGAAAAGATTATCAT	
MYB40-DT1BSF	ATATATGGTCTCGATTGAACCGTGCTGTGACAAAATGTT	pHEE2A-TRI
MYB40-DT1F0	TGAACCGTGCTGTGACAAAATGTTTTAGAGCTAGAAATAGC	
MYB40-DT2R0	AACGTTGCCAAGTTGAGAGTGACAATCTCTTAGTCGACTCTAC	
MYB40DT2-BSR	ATTATTGGTCTCGAAACGTTGCCAAGTTGAGAGTGAC	
For qRT-PCR		
Actin2/8-F	ACGGTAACATTGTGCTCAGTGGTG	
Actin2/8-R	CTTGAGATCCACATCTGCTGGA	
MYB40-F	GGCTACGCACAAACCGATGA	
MYB40-R	TTTCGCCACAAGTTCCTCATCAT	
PHT1;1-F	CCTTTGGGTTCCCTATATGCG	
PHT1;1-R	TAACCTCAGCCTCACCAGAG	
PCS1-F	GGAAGCCATGGACAGTATTG	
PCS1-R	TTCTCCTCTGCGCTGAGATT	
ABCC1-F	CCGCAGAAATCCTCTTGGTCTTGATG	
ABCC1-R	GTGAATCATCACCGTTAGCTTCTCTGG	
ABCC2-F	AATGGCTGGCTTCTTCTCGC	
ABCC2-R	TCGGTTCCTTGCCAATCTGC	
ATQ1/HAC1-F	CTCAAGTGGCATCGGTTTGC	
ATQ1/HAC1-R	CGAATCCAGCGTCAACCCAA	
For EMSA and ChIP		
Actin-F	CCGGTATTGTGCTCGATTCTG	
Actin-R	TTCCCGTTCTGCGGTAGTGG	
PHT1;1 P2-F	GTATAAGGTGTTTCATATTCTGG	
PHT1;1 P2-R	TGAAAAGGAAAGATATGTAAGC	

Continued

Primer Name	Primer Sequence (5'-3')	Vector Design
For EMSA and ChIP		
PHT1;1 P3-F	GTGTACAACGTCTAAATTAGC	
PHT1;1 P3-R	GATACGCCTTCCAGAATATG	
PHT1;1 P4-F	GATTTACACGAAACAATAAATAAAT	
PHT1;1 P4-R	TAAATAGAAGTAGCTAATTTAGACG	
PHT1;1 P5-F	ATCCTATGTTTTTCGAATATGC	
PHT1;1 P5-R	GCTCTAATCATTTATTTATTGTTTC	
PHT1;1 P6-F	ACAACAAAACATTCAAACCA	
PHT1;1 P6-R	ATTTAAAAAAGCATATTCGAAAAA	
PHT1;1 P7-F	ACTTTATTTTTGCGATGCG	
PHT1;1 P7-R	ACGTTAATGTTTTAAATGGTTTG	
PCS1 P1-F	CCTAAAATTTTCGTAATAATGGTC	
PCS1 P1-R	TATACAGACTCACTCAATTATTTG	
PCS1 P2-F	AAATCCGAACTTCCAATAAATA	
PCS1 P2-R	GTTGTAGAATTTTATGAACTAGTAG	
PCS1 P3-F	TTTGCTTCTCCTTTTTCAAC	
PCS1 P3-R	TATTGGAAGTTTCGGATTTTT	
PCS1 P4-F	AAGATTATGTACTIONTTGAGGATG	
PCS1 P4-R	GAGAGTTGAAAAAGGAGAAG	
For Protein Expression in <i>E.coli</i>.		
MYB40-F	GAATTCATGGGGAGAAAACCGTGCTGTG	pET-28a-SUMO
MYB40-R	GAGCTCTAAGAGGAAAAGATTATCAT	