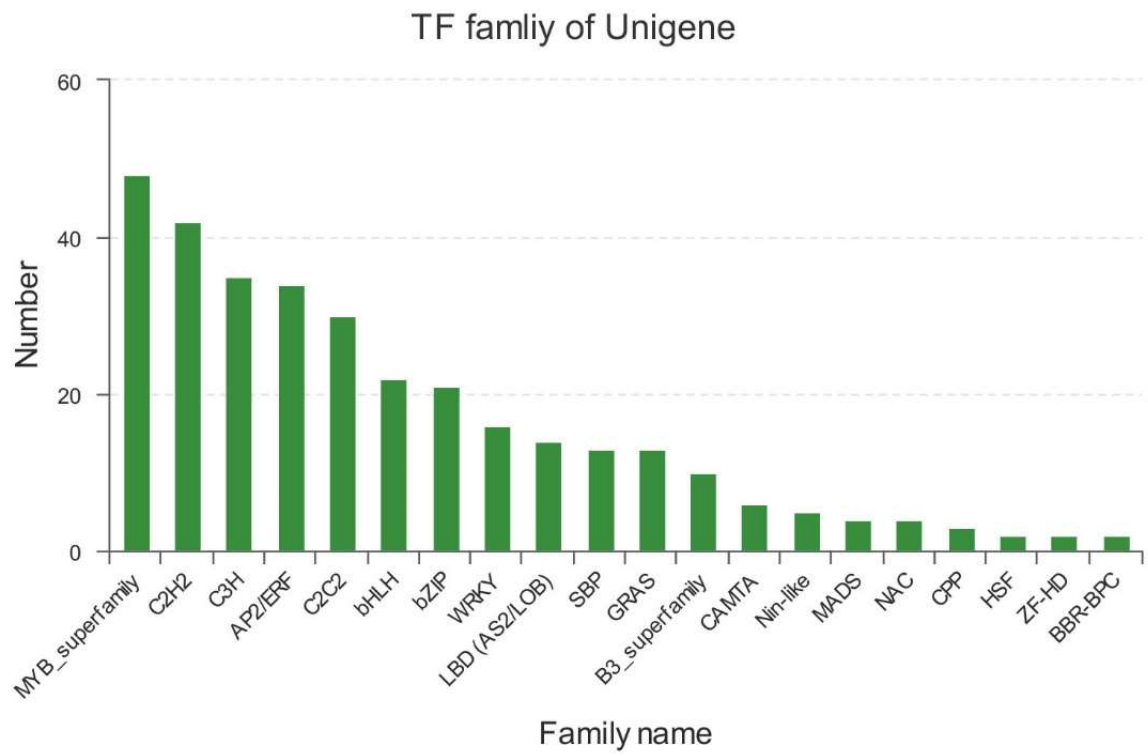


Table S1 Primers used in this study.

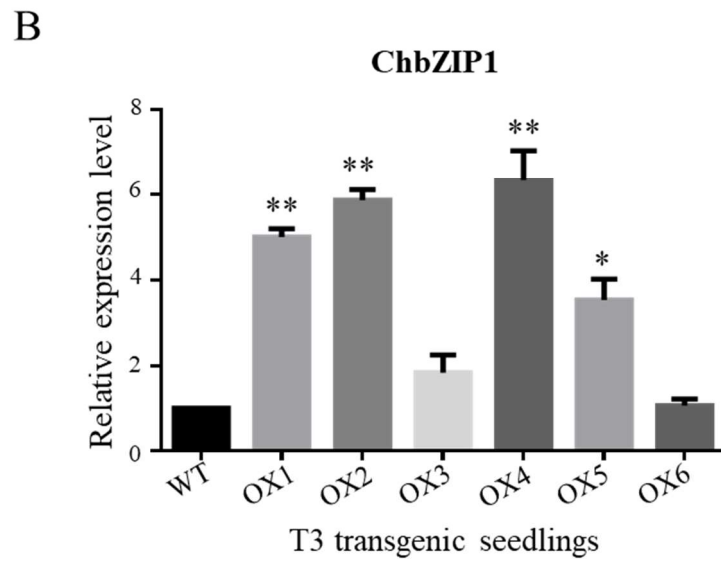
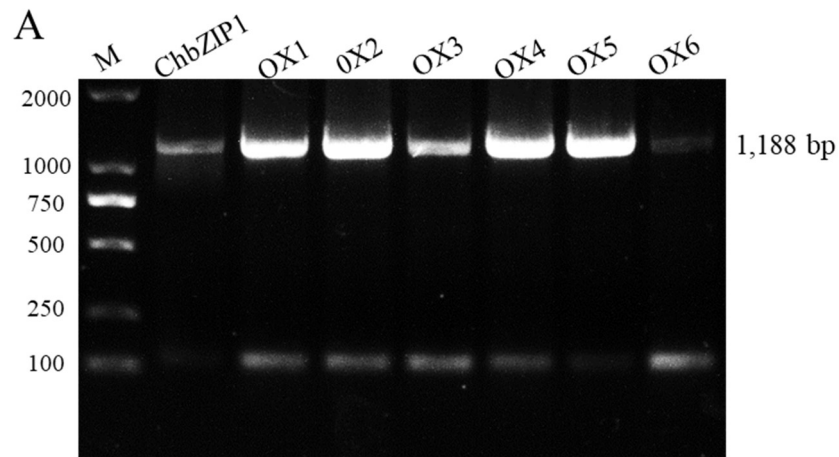
Name	Sequence 5'-3'
$\beta$ -tubulin-F	CAGTACCGTGCCCTGACA
$\beta$ -tubulin-R	ATAGACATGCGGCCCTG
AP2/2-F	GAGCCCCTTGGAGTCGAG
AP2/3-R	TGACGGGGTTGGATCGAC
AP2/3-F	GCGTTCAGGCCCAAATC
AP2/3-R	GGGCCCTCTGAACCGAAT
bZIP1-F	GCGAAAGAAACGGAGGGC
bZIP1-R	GCACCGGTGTTGGGAAAG
E2F1-F	ACGAGTCCCACGAGCTG
E2F1-R	TCCCGAAGCTTTGAGTCG
MYB5-F	CCCATGGGTTCGAGGTGT
MYB5-R	AAGGAGAAACGGACGCGA
SBP1-F	TCCACGCCACGCTATCTC
SBP1-R	TTGATTGGCCCCATCGGT
SBP2-F	TCATATTTGCCCGGCCA
SBP2-R	CGAAGTGGAGGAAGGCGA
ZF2-F	CTGCCATGCTTCAACACG
ZF2-R	GACGTGGAACACCCAAGG
ZF7-F	CGGATGGGGAGCTTGGAA
ZF7-R	TACTTGCGAGACCCAGGC
At-UBQ10-F	AAACCCTAACGGGAAAGACG
At-UBQ11-R	GAGTTCTGCCATCCTCCAAC
At-APX1-F	GCATGGACATCAAACCCTCT
At-APX1-R	AGCAAACCCAAGCTCAGAAA
At-CSD1-F	ACATTTCAACCCCGATGGTA
At-CSD1-R	CCAGTAGCCAGGCTGAGTTC
At-CAT1-F	ACTCCAGACCCGGATCTTCT
At-CAT1-R	CACGATTTCCAGAGCAGACA
At-PER10-F	CGTTTCCTCAGCACTTCTCT
At-PER10	CTCGCTGTACGACTTCACCA
At-GPX-F	ACGAGGAACCGGAACTAAT
At-GPX-R	GAATGTCATCGCCGAAGATT
At-DHAR-F	TAATGACGGATCCGAGAAGG
At-DHAR-R	AAGCTCTCAGGGACAGACCA
At-APXT-F	TGGAGAAGCAGGAGGACAGT
At-APXT-R	GCAGCCACATCTTCAGCATA
At-GST-F	GGCGATGACTTTGGCTATGT
At-GST-R	CTTCTCAGGATCAGGCAAGG
At-GPX1-F	TCCTCAGCAACCTTTCTCGT
At-GPX1-R	CATCCTTCCCATCAATGTCC
At-GPX2-F	CAAATGTGGTCTGACGGATG
At-GPX2-R	GATGGGGAATTCAGCTTTGA
At-PER27-F	GGTTGCACTTGAAGGACCAT
At-PER27-R	GTGTGACCACCCGAGAGAAT
At-DOX1-F	GGAATGAAGAAACCGCAAAA

At-DOX1-R	CCTTGCGACCAATCAAATCT
At-24170-F	TTTTGCGAACACTGCTTTTG
At-24170-R	AGCCTGAGGTGAAGACCAGA
At-PER35-F	AATTCAACGGCATCAACTCC
At-PER35-R	TTTGAGGCCCAAGCATTAAAC
At-TRX1-F	TTGAGACATGGAACGAGCAG
At-TRX1-R	CCTGTATCGCCCAATCACTT
At-EMB2360-F	AAGGCAAAGAAGGTGCTGA
At-EMB2360-R	ACATGCGAAAATCCCTCAAC
At-MSD2-F	ATGGAACCGTGTCTCGAATC
At-MSD2-R	AGTTTGACGACGGAGGAGTG
At-GPX5-F	GTTTTCCAAAAGGTGCGTGT
At-GPX5-R	TTCTTGTGCAAGGGCTTTCT
At-GSTF-F	CAAGGAACCAACCTTCTCCA
At-GSTF-R	GCCTCCTCTTCTGCAACAAC
At-APXS-F	GGTCCTGAGGATTGTCCAGA
At-APXS-R	CTCCAGGTCCTTCTTTTCGTG
At-GPX6-F	ATTCGATTCTGCGAAACCAC
At-GPX6-R	CAAGCCACATTGAGAAGCAA
At-PER45-F	TAGGGAGGAGAGATGGCAGA
At-PER45-R	TCGGGTCGATACGTGTTGTA
At-CAT2-F	CGAGGTATGACCAGGTTTCGT
At-CAT2-R	AGGGCATCAATCCATCTCTG
At-FSD3-F	GGATGTGTGGGAGCACTCTT
At-FSD3-R	GATTGGGATGTTGGGTTTCCAC
At-PAP26-F	ATAGCTGGGGTCGTTTTGTG
At-PAP26-R	CAAAAGGCGAATAGCTGGAG

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**Figure S1.** Transcription factors were founded in *Chlorella* sp. BLD through transcriptome analysis.



**Figure S2. Overexpressed ChbZIP1 in *Arabidopsis*. A. The band of ChbZIP1 was detected with PCR screening in the six T1 (OX1-6) lines. B. The mRNA expression level of ChbZIP1 in T3 transgenic lines.**