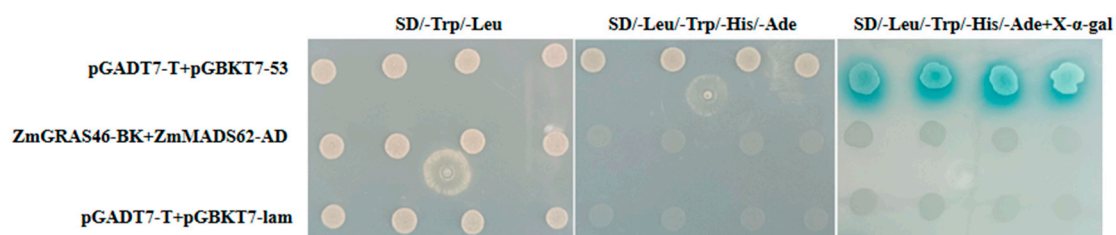
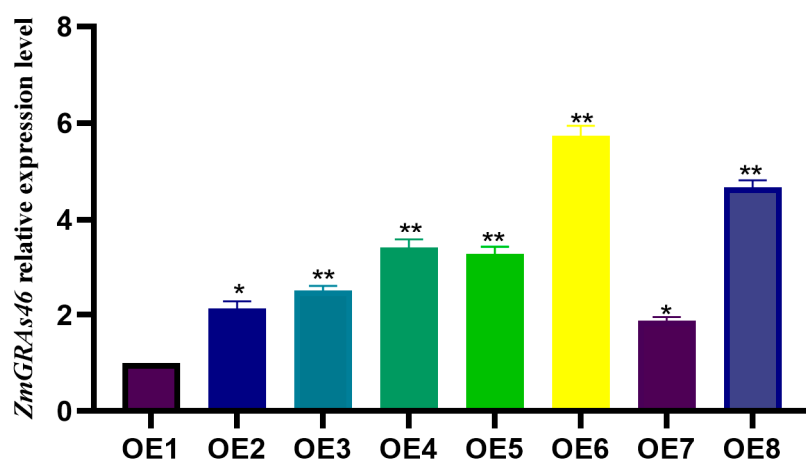


Supplementary Figure S1 Toxicity validation of pGBKT7-ZmGRAS46 prey vector



Supplementary Figure S2 Validation of pGBKT7-ZmGRAS46 prey vector self-activation



Supplementary Figure S3 Analysis of relative expression of ZmGRAS46 in eight T3 generation positive overexpressing Arabidopsis thaliana plants

**Supplementary Table S1** All primer sequences used in this study

Primer name	primer sequence(5'→3')
ZmGRAS46-F	GGCACCTAGCCGCCCTCTC
ZmGRAS46-R	ACCGAAGGAATTTACAGTAAAGTAG
ZmGRAS46-3301F	actcttgaccatggtagatctGGCACCTAGCCGCCCTCTC
ZmGRAS46-3301R	ggggaaattcgagctggtcaccACCGAAGGAATTTACAGTAAAGTAG
ZmGRAS46-BKF	ATGGCCATGGAGGCCGAATTCGGCACCTAGCCGCCCTCTC
ZmGRAS46-BKR	CCGCTGCAGGTCGACGGATCCACCGAAGGAATTTACAGTAAAGTAG
ZmMADS62-ADF	GCCATGGAGGCCAGTGAATTCTCGCCAGGTGCCGATCTC
ZmMADS62-ADR	CAGCTCGAGCTCGATGGATCCTGCCTAAGCAACACCAAATGAA
q-AtActin2-F	CACTGTGCCAATCTACGAGGGT
q-AtActin2-R	CACAAACGAGGGCTGGAACAAG
q-ZmGRAS46-F	CACTCTGCTGACCGCTTGAC
q-ZmGRAS46-R	TCACGTCGTCGAGAACAGGAT
q-AtGA20ox1-F	GGGCTAAGTTTAGGCGT
q-AtGA20ox1-R	GGTGGCGTCACTACTC
q-AtGA20ox2-F	TCCAACGATAATAGTGGCT
q-AtGA20ox2-R	TTGGCATGGAGGATAATGA
q-AtGA3ox1-F	CCATTACCTCCCACACTCT
q-AtGA3ox1-R	GCCAGTGATGGTGAAACCTT
q-AtGA3ox2-F	TGGTCCGAAGGTTTCAC
q-AtGA3ox2-R	GGGTCGAGTCTGTATGG
q-AtGA2ox1-F	TGAGGACGAGAGGTTGTACGA
q-AtGA2ox1-R	TCCTTTCGAATTGTTGAAGCC
q-AtGA2ox2-F	TGGAAGTTGGGTCGCT
q-AtGA2ox2-R	GACAAGGCATGGCAAT
q-AtCO-F	CCGGGTCTGCGAGTCATG
q-AtCO-R	GGCATCATCTGCCTCACACA
q-AtFT-F	CCCTGCTACAACTGGAACAAC
q-AtFT-R	CACCCTGGTGCATACACTG
q-AtSOC1-F	AGCTGCAGAAAACGAGAAGCT
q-AtSOC1-R	GGGCTACTCTCTTCATCACCT
q-AtLFY-F	TTAGAGCTGAACGGAGACGATT
q-AtLFY-R	TCTTCATCTTTCCTTGACCTGC