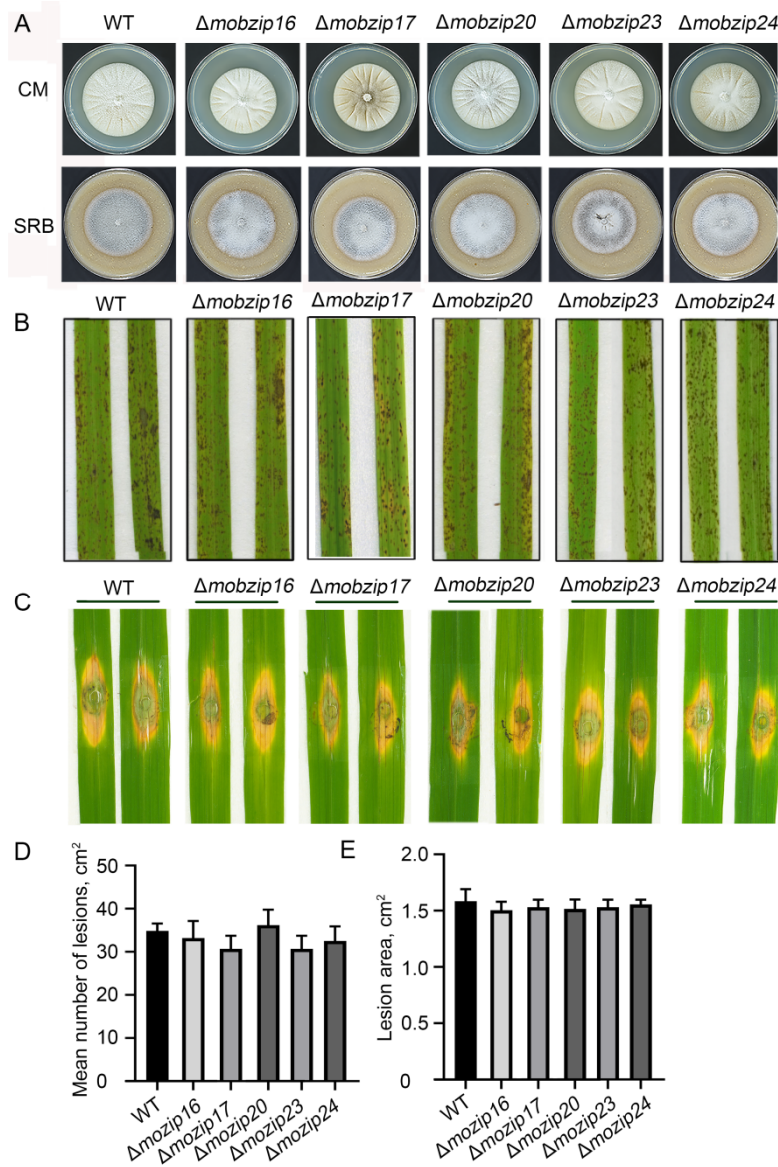


**Figure S1.** Targeted gene deletion in *M. oryzae*

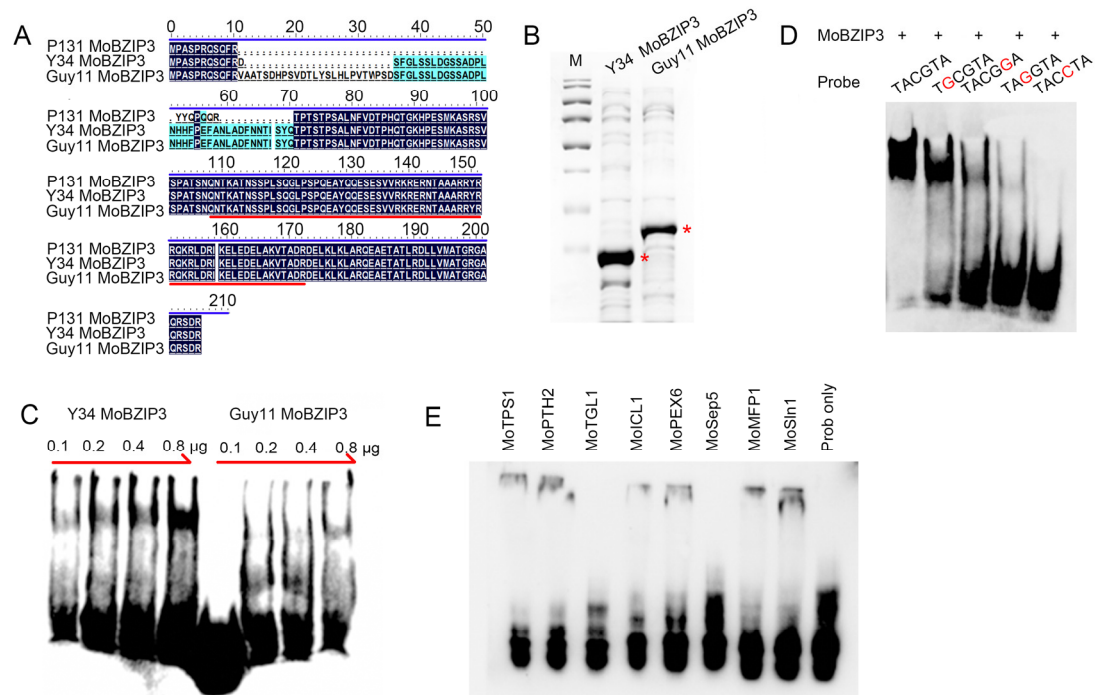
A, Schematic illustration of the gene deletion of *bZIP* genes in *M. oryzae*. (b) PCR analysis of the *bZIP* gene deletion mutants with the indicated four primer pairs. Lanes 1, 2, and 3 indicate the WT, the mutant and the mock control.



**Figure S2.** Pathogenesis analysis of mutants of *bZIP* genes

A, Same numbers of conidia of WT and *bZIP* gene mutants ( $\Delta mobzip16$ ,  $\Delta mobzip17$ ,  $\Delta mobzip20$ ,  $\Delta mobzip23$  and  $\Delta mobzip24$ ) were cultured on the completed mediate (CM) and straw rice bran (SRB) medium. Images showing seven-day-old cultures of the indicated *M. oryzae* on the two types of mediums. B and C, Pathogenesis analysis of these indicated *M. oryzae* using conidia spraying (B) or punched (C) inoculated methods to infect rice leaves (*O. sativa* cv. Nipponbare). Images were obtained from 5 days after inoculation. The experiments were repeated three times with similar results. D and E, Quantification of the lesion numbers (D) and area (E) of the rice leaves

shown in (B) and (C), respectively. Error bars represent SD (n = 20).



**Figure S3.** Biochemical analysis of MoBZIP3

A, Amino acids of MoBZIP3 of *M. oryzae* strain P131, Y34 and Guy11. The amino acids highlighted with a red line indicate the conserved basic region leucine zipper domain; B, *In vitro* expressed MoBZIP3 from Y34 and Guy11; C, EMSA showing the DNA binding activity of MoBZIP3 from Y34 and Guy11. Increasing amount of Y34 and Guy11 MoBZIP3 proteins were incubated with Bio-A-box; D, Y34 MoBZIP3 binds the A-box or the mutants of A-box DNA fragments, the red bases indicate the site mutations of the DNA fragments; E, Y34 MoBZIP3 binding promoters of *MoTPS1*, *MoPTH2*, *MoTGL1*, *MoICL1*, *MoPEX6*, *MoSep5*, *MoMFP1* and *MoSln1*. Promoters of *MoTPS1*, *MoPTH2*, *MoICL1*, *MoPEX6*, *MoMFP1* and *MoSln1* contain an A-box.

**Table S1.** Primers used in this study.

The nucleotides highlighted in red indicate the enzyme site for construction.

MoBZIP3-ORF-F	ATGCCGGCCTCACCAAGACAG
MoBZIP3-ORF-R	CTACCTATCAGAACGTTGCGC
pKNTG-MoBZIP3- GFP-F	CGACGGCCAGTGCC <b>AAGCTT</b> ACTTACATATCGCCGCCTC
pKNTG-MoBZIP3-GFP-R	GCCCTTGCTCACCAT <b>CCCGGG</b> CCTATCAGAACGTTGCGC
MoBZIP3-KO-HPT-5'F	GGTGGCGGCCGC <b>TCTAGA</b> ACTTACATATCGCCGCCTC
MoBZIP3-KO-HPT-5'R	CAAAAATGCTCCTTCAAT <b>TCTAGA</b> GGCACTCAGACAGGGTA
MoBZIP3-KO-HPT-3'F	GGGTTCGCAAAGATAA <b>AAGCTT</b> AGGTGGGATCCGATAGAT
MoBZIP3-KO-HPT-3'R	GGTCGACGGTATCGAT <b>AAGCTT</b> CGATGATATTGCACAACG
MoBZIP3-PET-28a-F	GACAGCAAATGGGTCGC <b>GGATCC</b> ATGCCGGCCTCACCAAG
MoBZIP3-PET-28a-R	GCTCGAGTGCGGCCGC <b>AAGCTT</b> CTACCTATCAGAACGTTG
$\Delta$ <i>mobzip3</i> -test-1	CGTTAAGCGA TATGTCGATG C
$\Delta$ <i>mobzip3</i> -test-2	CATCTCAACGCTCTATTTCGC
$\Delta$ <i>mobzip3</i> -test-3	ATGCTCGCAAGGAGGGGTC
$\Delta$ <i>mobzip3</i> -test-4	TCAGATGTGGCCATAGCTCG
MoBZIP16-KO-HPT-5'F	GGTGGCGGCCGC <b>TCTAGAC</b> GTAAAGGCAT CTGTTATGCT C
MoBZIP16-KO-HPT-5'R	CAAAAATGCTCCTTCAAT <b>TCTAGAT</b> GATGCGACTGGCGATA G
MoBZIP16-KO-HPT-3'F	GGGTTCGCAAAGATAA <b>AAGCTT</b> TGTCGACCTTTTTGGTCC C
MoBZIP16-KO-HPT-3'R	GGTCGACGGTATCGAT <b>AAGCTT</b> AAGGACACGGAAGCTAAC
$\Delta$ <i>mobzip16</i> -test-1	CCATCTCATC CAGAGCAACG
$\Delta$ <i>mobzip16</i> -test-2	GAGAGATCCATTGACTCAGG
$\Delta$ <i>mobzip16</i> -test-3	ATGAGCAGGAGCACCATCAA
$\Delta$ <i>mobzip16</i> -test-4	CTAAGACATGAAATTCAAAG
ELQ40875'	ATGAGGACCTC ATCTCGTAGC
ELQ40875'	CATCTAAGATTGAGCAACCC
ELQ40875-F	ATGACGGGCTCCCGAACAAG
ELQ40875-R	TCAATTGCCAGATCCAAACC
MoBZIP20-KO-HPT-5'F	GGTGGCGGCCGC <b>TCTAGAA</b> CATTTTCAA TCCGGGGCCATG
MoBZIP20-KO-HPT-5'R	CAAAAATGCTCCTTCAAT <b>TCTAGAC</b> GGTGGCTCGACAATCG A
MoBZIP20-KO-HPT-3'F	GGGTTCGCAAAGATAA <b>AAGCTT</b> AGTCTGAGTCTGTCTGGG
MoBZIP20-KO-HPT-3'R	GGTCGACGGTATCGAT <b>AAGCTT</b> TGGTATGTAGCAATTGCAC
$\Delta$ <i>mobzip20</i> -test-1	TTCTAGTGCA AACCGGACAG
$\Delta$ <i>mobzip20</i> -test-2	CAAGGTATTGCCCGAACT

$\Delta$ mobzip20-test-3	ATGGCTTCCACATTTCAAAT
$\Delta$ mobzip20-test-4	TCATTTCATGTGCGTCGTTGT
MoBZIP23-KO-HPT-5'F	GGTGGCGGCCGCTCTAGAGGCCAAGGTA CAGTTCAGTAG
MoBZIP23-KO-HPT-5'R	CAAAAATGCTCCTTCAATCTAGATGTGAATAGACTTCTAGA
MoBZIP23-KO-HPT-3'F	GGGTTCGCAAAGATAAAAGCTTACCGAACGATTTATACTC G
MoBZIP23-KO-HPT-3'R	GGTCGACGGTATCGATAAGCTTCGTATCGGAGTATTTTGGA T
$\Delta$ mobzip23-test-1	CCAACTCTGAAAATAAGCACG
$\Delta$ mobzip23-test-2	CGAAGTTCCC TGTGTGATAT G
$\Delta$ mobzip23-test-3	ATGTCCATCGACAGAAAAGA
$\Delta$ mobzip23-test-4	TCACCTCATGTTGCTTGTGTC
MoBZIP24-KO-HPT-5'F	GGTGGCGGCCGCTCTAGATACGACGTGGCGTAGCTTCT
MoBZIP24-KO-HPT-5'R	CAAAAATGCTCCTTCAATCTAGACTTGTCTGCCATACCTGT
MoBZIP24-KO-HPT-3'F	GGGTTCGCAAAGATAAAAGCTTTACCTCGGCCACTTCAAA
MoBZIP24-KO-HPT-3'R	GGTCGACGGTATCGATAAGCTTGGAGCATTGACTTCAATCT
pKNTG-PTS1-GFP-F	CGACGGCCAGTGCCAGCTTATATGCCTTAACCG ACCTC
pKNTG-PTS1-GFP-R	GCCCTTGCTCACCATCCCGGCGAGCTTCGACATTGTGATG A
pKNTG-MoSLN1-GFP-F	CGACGGCCAGTGCCAGCTTT GAATGTTGTT CCGCCACCT
pKNTG-MoSLN1-GFP-R	GCCCTTGCTCACCATCCCGGCGTCGCCACAGCAGCACCG
pKNTG-MoSEP5-GFP-F	CGACGGCCAGTGCCAGCTTGTTGGAAAGCCGAAATGTC
pKNTG-MoSEP5-GFP-R	GCCCTTGCTCACCATCCCGGG GTTGCCGTCT TCCCCGTTT

Primers used for quantitative RT-PCR

MoActin-F	AG TCCAGGTTAT CACTCACA
MoActin-R	GATTCCAGGTCCATATTCTTGG
RT- MoBZIP3-F	CGACAAACTCATCTCCCTT
RT- MoBZIP3-R	GACCAACAAATCCCTCAG
ELQ41552.1-F	ACCAGTCCCTGCCGTTCT
ELQ41552.1-R	GAGCTCGACCAGCTGCGCAG
ELQ40875.1-F	GCTGACACATACAAGACGCT
ELQ40875.1-R	CAAACCTGACATCAAACCC
ELQ34378.1-F	GCAACGACCTTCTCAGTCA
ELQ34378.1-R	GCATACAGCCCAATGTCA
ELQ33489.1-F	ATCGCATCTCGGAACTTG
ELQ33489.1-R	AACAACCTTCTCACAGCAGCA
ELQ44526.1-F	AAGAAGGCTAAATGCTCTGG
ELQ44526.1-R	CTTGATGAACCAAATCCCAC
ELQ34568.1-F	GCTCGTTGATGCTGCTGAT
ELQ34568.1-R	TGTCTTTCGTGGTGCGTCT
ELQ42748.1-F	ATTCCTCGGGATGTGGTCA

ELQ42748.1-R	GCATAACAAGCCAGATTCAACC
ELQ42426.1-F	CTGTGTCCTCAGCCTCTACA
ELQ42426.1-R	TTTATGGGTCCGACTTCG
ELQ37252.1-F	TGATGGAGGAGTTCGAGGCT
ELQ37252.1-R	CAGGGACCTCATGCTTGGA
ELQ32319.1-F	ACCTATGAGAAGCCCACGA
ELQ32319.1-R	AGCCAGTAGCAAACCGAGA
ELQ36319.1-F	GCCGAAATCAGCAACAGT
ELQ36319.1-R	AAAGGGGAGTAGAGGCATAG
ELQ39141.1-F	TCAATATCCGAGAGCGCATG
ELQ39141.1-R	GACAAAATTTGCCGTCCGTC
ELQ44954.1-F	GCTACACATAACCACCAGTGC
ELQ44954.1-R	TGAGAACCGTAATCGGGT
ELQ43059.1-F	CACCAT CTGCCTGGGC AGC
ELQ43059.1-R	GAGATGGTAC ACTGTTCAAG
ELQ38751.1-F	TGAGCGTGACCACTTCAA
ELQ38751.1-R	CGTGGATGTTCTCGTGTTT
ELQ35717.1-F	CACGACAGCAACATACCAA
ELQ35717.1-R	GCCATAAACGCCTTGTGT
ELQ37205.1-F	AAAGACATTACTCCTTGCCAC
ELQ37205.1-R	TTCGTTCTATGAATACCGCCTC
ELQ3334.1-F	TGACGCCAAGAAGACCTCT
ELQ3334.1-R	GAATGGGTTTGACCAGCA
ELQ40983.1-F	AGCGACCCACAGTATCTGAG
ELQ40983.1-R	ATGCCTCCAGTTCTTCGGT
ELQ38771.1-F	TGGGCAACTATGGCTACA
ELQ38771.1-R	GATAAAGGAGTGGTCGGGT
ELQ41744.1-F	CACGATTGAGCACCTTGA
ELQ41744.1-R	AGAGTGGGTATTTCATCAGTCG
RT-MoPEX6-F	GAGGAGGAAGATAGGCAAGA
RT-MoPEX6-R	TGAGATTTACCCGTCAGAGTC
RT-MoPTH2-F	TTCAACATCGTCTCCAAGG
RT-MoPTH2-R	AAGTCAAAGGAAACCCAGC
RT-MoMFP1-F	TCAAGAACATCAAGGTCCG
RT-MoMFP1-R	TCGGTATTTACGCTACAGA
RT-MoICL1-F	GATGTCGTCAAGCACCAA
RT-MoICL1-R	TGTCTATTGCGGAGTCAGC
RT-MoTPS1-F	TTCGTCGCCGAGCTCAATAG
RT-MoTPS1-R	GGCACGCAAATAGGCAGATG
RT-MoTGL1-F	CATTCAACGCCATACCAGCG
RT-MoTGL1-R	GAGGCAAACGGACCAGAGAA
RT-MoSLN1-F	ACGGGACCAAGTCATCAGT
RT-MoSLN1-R	CCAGACGACAGACGAGATAA

Primers used for EMSA

A-box-EMSA-F-Biotin	ATTACGTATGTACGTATC
A-box-EMSA-R-Biotin	GATACGTACATACGTAAT
A-box-EMSA-F	ATTACGTATGTACGTATC
A-box-EMSA-R	GATACGTACATACGTAAT
MoTPS1-Biotin-F	TTAGCTGGAATAAGGCGGGCA
MoTPS1-Biotin-R	TTGTACCAAGAGATGCAAAGC
MoPTH2-Biotin-F	GAAATCTCCTATGCTCACAAG
MoPTH2-Biotin-R	CACAAAAAACAACCTTCCA
MoTGL1-Biotin-F	CGCTTATTACCCCTTTGTCG
MoTGL1-Biotin-R	CATTAAGTGC AGGGCTAGAA G