Functional analysis of the soybean gene *GmTIR* under biotic and abiotic stresses

Xiaoting Wang[A], *Lu Huang*[A], *Xiaochun Bian*[A], *Zhan Li*[A], *Ruifang Gao*[A], *Xing Zhang*[A], *Xiaoli Zhang*[A], *Xiangnan Li*[A], *Haitang Wang*[A], *Na Guo*[A], *Jianying Feng*[A], *Jinming Zhao*[A,B] *and Han Xing*[A,B]

[A]Soybean Research Institute, National Center for Soybean Improvement, Key Laboratory of Biology and Genetic Improvement of Soybean (General, Ministry of Agriculture), State Key Laboratory of Crop Genetics and Germplasm Enhancement, Jiangsu Collaborative Innovation Center for Modern Crop Production, Nanjing Agricultural University, Nanjing, Jiangsu 210095, China.

[B]Corresponding authors. Email: jmz3000@126.com; hanx@njau.edu.cn
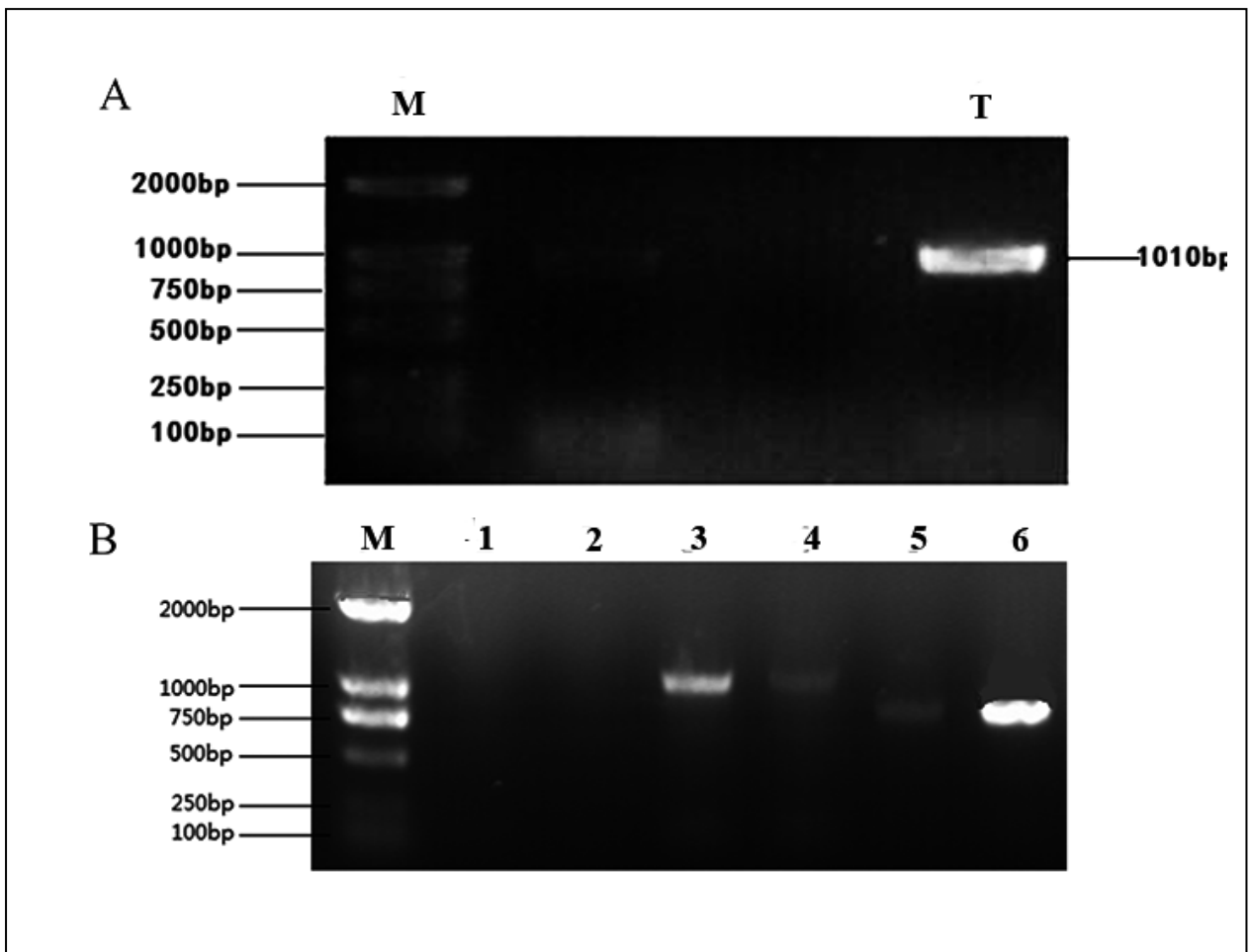
Supplementary Figures

Fig. S1 PCR product electrophoresis in an agarose gel

A. Isolation of *GmTIR*

B. Construction of *GmTIR* plant expression vectors

   M: DL 2000 Marker; T: PCR product of *GmTIR*

   M: DL 2000 Marker; 1-2: H$_2$O; 3-4: 35S+*GmTIR*; 5-6: *GmTIR*

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1                                                                      GA
3    TCTAAAATTTTCACACCTCATTAAGCCCTTTAGCCAAGAGTCCCTAGCCAAAAAATTAAC
63   ATGGCATGGTCAACTTCCTCCTCTAGCACCCCTCATCAAAAGCATGAAGTGTTCCTCAGC
     M  A  W  S  T  S  S  S  T  P  H  Q  K  H  E  V  F  L  S
123  TTCAGAGGTGAGGACACACGCTACACCTTCACTGGGCACCTTCATGCCTCTTTAACAAGA
     F  R  G  E  D  T  R  Y  T  F  T  G  H  L  H  A  S  L  T  R
183  CACCAAGTCAACACATACATTGACTACAACCTTCAGAGAGGTGAAGAGATATCATCCTCA
     H  Q  V  N  T  Y  I  D  Y  N  L  Q  R  G  E  E  I  S  S  S
243  CTTCTTAGGGCCATTGAGGAGGCAAAACTCTCAGTCGTTGTTTTCTCCAAAAACTATGGA
     L  L  R  A  I  E  E  A  K  L  S  V  V  V  F  S  K  N  Y  G
303  AATTCCAAGTGGTGTCTTGATGAGCTTCTGAAAATACTTGAATGTAAGAATATGAGGGGG
     N  S  K  W  C  L  D  E  L  L  K  I  L  E  C  K  N  M  R  G
363  CAGATTGTGTGGCCAATTTTCTATGACATTGATCCCTCGCACGTGCGCAACCAGACGGGA
     Q  I  V  W  P  I  F  Y  D  I  D  P  S  H  V  R  N  Q  T  G
423  ACGTATGCTGAGGCATTTGCTAAACATGAGAAACACTTGCAGGGTCAAATGGTCAAGGTG
     T  Y  A  E  A  F  A  K  H  E  K  H  L  Q  G  Q  M  V  K  V
483  CAAAAGTGGAGGGTGGCTCTCAGAGAAGCAGCTAATCTCTCTGGTTGGGATTGCTCTGTC
     Q  K  W  R  V  A  L  R  E  A  A  N  L  S  G  W  D  C  S  V
543  AACAGGATGGAGTCTGAACTAATCGAGAAAATTGCAAAGGATGTATTAGAAAAACTAAAT
     N  R  M  E  S  E  L  I  E  K  I  A  K  D  V  L  E  K  L  N
603  CGAGTATACGTTGGCGACCTAGATCAGCAGATTGCAAAATTAGAGCAACTTGCACAGCTT
     R  V  Y  V  G  D  L  D  Q  Q  I  A  K  L  E  Q  L  A  Q  L
663  CAGCATCAATTTTTGCAAAACATACCTTCTTTGGAAAATGTGAGAAATCATAGAGCAACT
     Q  H  Q  F  L  Q  N  I  P  S  L  E  N  V  R  N  H  R  A  T
723  GTTCAGCGTATCACGGAACTTAAAATGGAGAGAAGTGTCCGCATGCTTCGTCTCCCTCCC
     V  Q  R  I  T  E  L  K  M  E  R  S  V  R  M  L  R  L  P  P
783  GACATGCTTTCACATTTGGAGAATTCAAACAATAATAATTATTTTCCTTTGTAATGTGCA
     D  M  L  S  H  L  E  N  S  N  N  N  Y  F  P  L  *
843  AAGAAATTAATTGTTGTTGTCACAAGTTTTAATGAGATACGATTTCTTAATTTCAAAGTC
903  CCTTTGTAGTTTATTTTGTATTGAAACCTTTTGGAAAATTTATGTCC
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Fig. S2 The ORF and amino acid sequences of *GmTIR*

Initiation and termination codon are shown in boldface□ the TIR domain is underlined