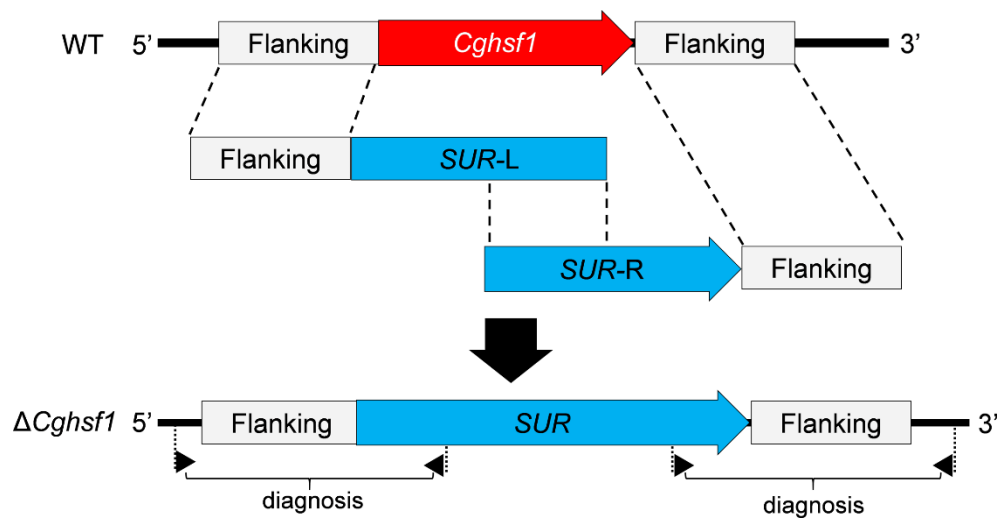
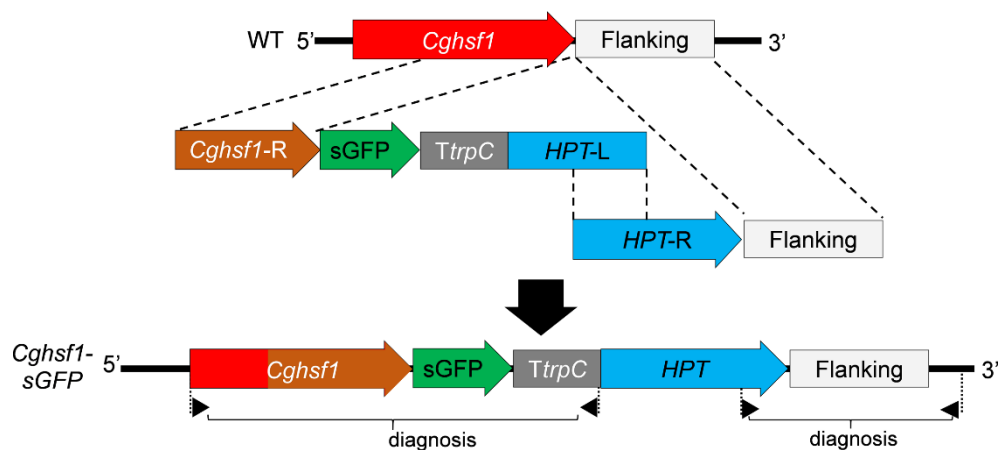


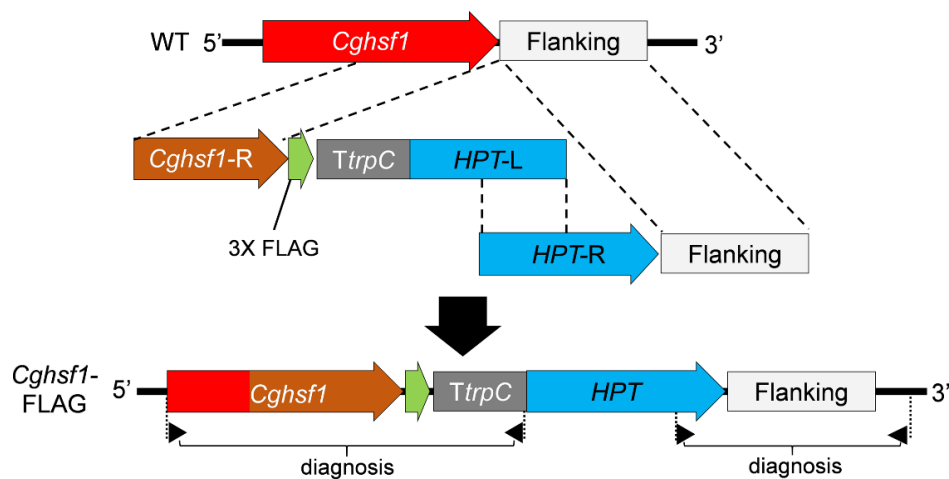
## Supplementary files



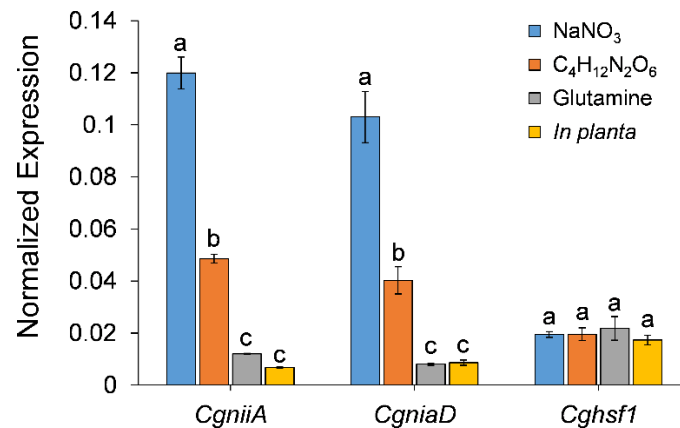
**Figure S1.** Split-Marker Strategy for construction of *CgHsf1* knock-out mutants. The acetolactate synthase gene (*SUR*) cassette from *Magnaporthe oryzae*, which confers resistance to chlorimuron ethyl, was used as selective marker. Diagnostic primers for integrations of the recombinant fragments are marked with black triangles. WT: wide type;  $\Delta CgHsf1$ : the knock-out mutants.



**Figure S2.** Strategy for construction of *CgHsf1*-sGFP mutant. The hygromycin B resistance cassette (*HPT*) was used as the selective marker. Diagnostic primers for integrations of the recombinant fragments are marked with black triangles. *CgHsf1*-R: The 700 bp nucleotides of 3' part of *CgHsf1* without stop codon.



**Figure S3.** Strategy for construction of *CgHsf1*-FLAG mutant. The hygromycin B resistance cassette (*HPT*) was used as the selective marker. Diagnostic primers for integrations of the recombinant fragments are marked with black triangles. *Cghsf1*-R: The 700 bp nucleotides of 3' part of *Cghsf1* without stop codon.



**Figure S4.** Relative expression levels of *CgniiA*, *CgniaD*, and *Cghsf1* of WT strain cultured *in vitro* on nitrogen sources of NaNO<sub>3</sub> (20 mmol L<sup>-1</sup>), ammonium tartrate (C<sub>4</sub>H<sub>12</sub>N<sub>2</sub>O<sub>6</sub>) (10 mmol L<sup>-1</sup>), and Glutamine (10 mmol L<sup>-1</sup>) and during *in planta* stage. The  $\beta$ 2-tubulin coding gene was used as an endogenous control for normalization. Columns with different letters indicate significant difference at  $p < 0.05$ .

**Table S1.** Nucleotide sequence of *Cghsf1* and the amino acid sequence of CgHsf1. The red letters indicate the intron.

**>CgHsf1 Nucleotide sequence**

ATGCCGATGCCAGCAGTTCAGCAGTCTTTTCCCAGCCCGACGGGCGATCAGTTT  
 TTGCGATGGGGAGGAGCAGACGGGACCGCCCTTGTCGACGGAACCGCACCCC  
 CAGCCGTGAATTCGTATGGCATTGTCCCCGGCCAACAACAGCAATTCGTGCAG  
 CCCACGCCGAGCCCCAACAATGCTCTTGACGAAGACAGATGAACAGAGCGC  
 TTGTGCCACCGCTGCCAGGCCAAATTTGATTCTGCCGCCGACCCCTGGTTTCG  
 TTGGTGACGACAACGCCCTTCTGCAACAGCAGCAGCAACAACCAACGGCAA  
 CATGACTGCCACCGATAACATCGAGGCGCTGGAGGAGATGGCTCGCAAGGCC  
 ATGAGAGAGGCGCAGCAGAAGAGGAAGCAAATTCGCCCTTCGTCCAGAAGC  
 TCAGCAGGTCAGAGATTTCCGTGCCCTCCCAAGCGATGCGATCAGCACGCTG  
 AGTGTGGGGATTGTTTACTGTGTGACGTACTGACCTTTGCGTAGCTTTTTGGACG

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ACGACAAGAACTCCGACCTGATTTCGATGGTCCGAGAAGGGTGATTTCGTTTCATC  
GTTCTCGACGAGGACGAGTTTCGCGAAGAAGCTCATTCCCGATCTGTTCAAGCA  
CAACAACACTACGCCTCATTTGTGCGACAACCTCAACATGTACGGCTTCCACAAGC  
GCGTTGGCTTGTTCGGACAACCTCCATGCGCGCGAGCGAGCGGAAGAACAAGAG  
CCCCAGCGAGTACTCGAACCCGTTCTTCCGTGCGCGGCCACCCGAATCTGCTGTG  
GCTCATCAACAAGCCCAAGAGCGGCAACAAGGGCAAGAAAGGCGCCAAGAA  
TGTAAGAGATCGAGGGCGACAGCGAGGAGGATGTTGTTATCGATGACGGGGTC  
ACACAAGGACTCGGCGCCACCAGCGCTCCGTCTAGCAGAGCCCTCCCGCCTGC  
GGGGGACATGCCCATCCAGAAGAAGGAGATGGCCCTCATTTCGCGAAGAGTTG  
GCCAAGCTGCGGGATCAGCAAAGGTTGATTATGTCGGCCATCCAGCGGATCCA  
GCAAGATAACTCGGCACTATAACAATCAGGCCGTCGTCTTCCAGAGCCAGCACG  
ATCGTCACCAAAATTCTATCAACGCCATCCTCAACTTCCTGGCCAACGTCITTA  
GGAAGACGCTCGAAGATCAGGCAGGCGCTCAAAGCGTGAACGACTTGCTGGC  
GAGCATCATCCCCAATGCCAACAACAACAGCTCTGTGCCTCAGGGCAGTGTGG  
TGGACCTTGGAGACTACATCCAGTCGCAGTCTGCGGCGAATAACAACATGAAC  
CTCGCGAAGCGTAGACAAGCGCTTCTGCCGCCAATTCCAAACGGCCGTGCCAA  
CACGGTTTCTCCATCCCCAGCATCTAGCGCGCCCACGCCCCAGCCGTACAACA  
ACCGTGAGATGGGCACAGTAACAGAGCTCTTCGACACGTACCTGGAGACCAT  
GCATCCTCCCCCAGCAACTACCTGGCTCAGGAGCTTGAGACCAACCCCCACGA  
GAGCATGATGAAGATCATCAACAACACCAACGCAAACCATGCAAACCAATCG  
TCCAACATTGACCTGCCCCGAGGTCGTGAACAACACCCCTGTACCATGAGCAA  
TGACCAGCGCACCAAGATGCTCAACATCATGGCTGGCCGTTCCGCGACGCCCA  
CCAGCAACACGCCAACAACAAGGCCCTCCGTCTCCGCTTCTCCCAGACCGCCG  
GCTCCATCTGTCAGCGCTACCACCGACGCGCCTTCCATGCCCCGCCACATCAGG  
CCTTTCACCTCTCGCCTATCATGGGTTACGCCGAACCTCCGCCTTCCCTGCAGCA  
TATCCAATACAACCAAGCCGACTTGGCCGCTCTTCAGCGGATGCAAGAAGAGC  
AAGCTGCCAAGCTGGACCACCTTTCAAGCATGCTGGGCCCCCTGAGCCCCCTCC  
GGTCGGATTCTTGGCATTGACGAGAACGGCAACATCAATCACCAGAACGGCT  
ACTTTGGGTCTGACCTTGACATTGACCAGTTCCTCAACCAAGATGCTTTCCAAG  
GTGATGATGCCTTCCAAGGGGGCGTCTTCCCGGGAGATGGAACCGACTTCAAC  
TTTTCCCTGGACGCTGCTACACCCAACGGCGGTGTTGCGGCTGCCAATGCAACC  
AACACTCCTAGTGAGAGCAGTGGAACGGAAGAAATCGCACGCGACGGCTTTG  
ACCCGTACACTGGCAGTCCTGATCGTGGCACTAAAAGGCGGCGCGTCCGCTGA

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**>CgHSF1 Amino acid sequence**

MPMPAVQQSFPSPTGDQFLRWGGADGTALVDGTAPPAVNSYGIVPGQQQQFVQP  
TPSPNNALARRQMNRLVPTAARPNFDSAADPWVFGDDNALLQQQQQQPNGN  
MTATDNIEALEEMARKAMREAQQKRKQIPPFVQKLSSFLDDDKNSDLIRWSEKGD  
FIVLDEDEF AKKLIPDLFKHNNYASFVRQLNMYGFHKRVGLSDNSMRASERKNKSP  
SEYSNPFRRGHPNLLWLINKPKSGNKGKKGAKNVEIEGDSEEDVVIDDGVTQGLG  
ATSAPSSRALPPAGDMPIQKKEMALIREELAKLRDQQRLIMSAIQRIQQDNSALYNQ  
AVVFQSQHDRHQNSINAILNFLANVFRKTLEDQAGAQSVNDLLASIIPNANNNSSV  
PQGSVVDLGDYIQSQAANNNMNLAARRQALLPPIPNGRANTVSPSPASSAPTPQP  
YNNREMGTVTELFDTSPGDHASSPSNYLAQELETNPHESMMKIINNTNANHANQS  
SNIDLPEVVNNTPTVMSNDQRTKMLNIMAGRSATPTSNTPTTRPSVSASPRPPAPSV  
SATTDAPSPMATSGLSLSPIMGSAEPPPSLQHIQYNQADLALQRMQEEQA AKLDH  
LSSMLGPLSPSGRIPGIDENGNIHQNGYFGSDLDIDQFLNQDAFQGDDAFQGGVF  
PGDGTDFNFSLDAATPNGGVAAANATNTPSESSGTEEIARDGFDPYTGSPDRGTR  
RRVG

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