

Supplementary information

Characterization of a small cysteine-rich secreted effector, TcSCP_9014, in *Tilletia*

controversa

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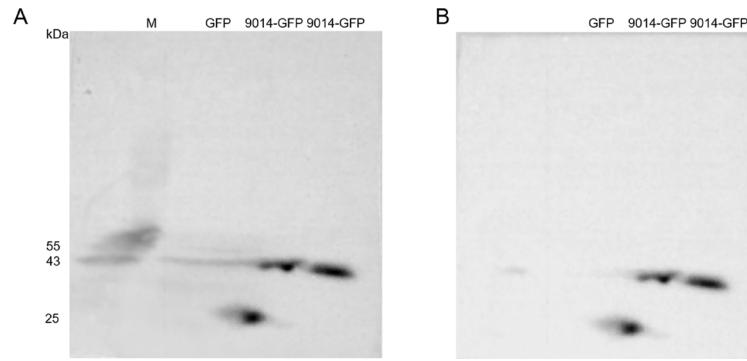
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Supplementary Figure S1. Original image of western blotting.

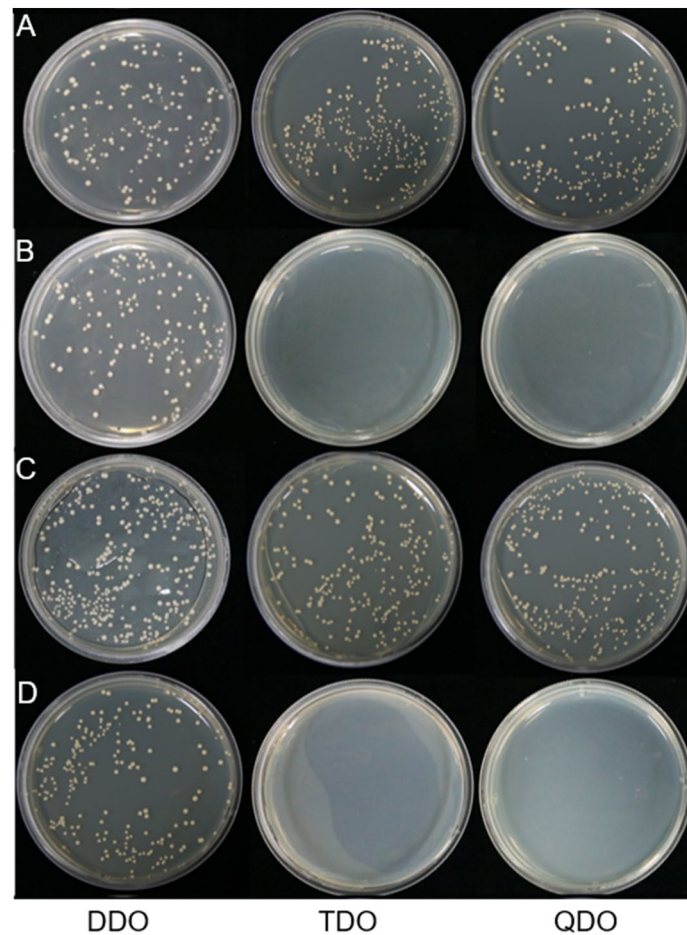
Supplementary Figure S2. Functional detection of bait vector pDHB1-TcSCP_9014

Supplementary Table S1. Specific primers used in this study.

Supplementary Table S2. Yeast growth on QDO plates for screening of 3-AT concentration



Supplementary Figure S1. Original image of western blotting. (A) Original, uncropped and unadjusted image with marker and protein samples. (B) To better show the GFP and 9014-GFP bands, we also provided the image with protein samples only.



Supplementary Figure S2. Functional detection of bait vector pDHB1-TcSCP_9014. (A) Transformants of positive control group pDHB1-Large T and pDSL-p53 on DDO, TDO and QDO media. (B) Transformants of negative control group pDHB1-Large T and pDSL-p53 on DDO media. (C) Transformants of PDHB1-TcSCP_9014 and pOst1-Nub I on DDO, TDO and QDO media. (D) Transformants of pDHB1-TcSCP_9014 and pPR3-N on DDO media. The

results indicated that the bait vector PDHB1-TcSCP_9014 expressed normally after transformation in yeast and showed no interaction with the empty library plasmids.

Supplementary Table S1. Specific primers used in this study.

Specific primers for construction of pGR107 recombinant vector	
Primers	Sequence (5'-3')
<i>TcSCP_9014</i> -F	TCAGCACCAGCTAGCATCGATATGTCGCACACGATCAACTTTTC
<i>TcSCP_9014</i> -R	AACCGTTCATCGGCGGTTCGACCTAGCACGAGATGTCGATGT
Bax-F	TCAGCACCAGCTAGCATCGATATGGACGGGTCCGGGGAG
Bax-R	AACCGTTCATCGGCGGTTCGACGCCCATCTTCTTCCAGATGG
Specific primers for construction of pBin-GFP recombinant vector	
Primers	Sequence (5'-3')
<i>TcSCP_9014</i> -F	ATTACGAACGATAGGGTACCATGTCGCACACGATCAACTTTTC
<i>TcSCP_9014</i> -R	GCCCTTGCTCACCATGGATCC GCACGAGATGTCGATGTTG
Specific primers for construction of pSUC2 recombinant vectors	
Primers	Sequence (5'-3')
9014SP-F	CGGAATTTTAATTAAGAATTCATGTTGCCCCGCTTCGCC
9014SP-R	CACTATAGGGAGAACCTCGAGTGCCAGAGCGGAGGTGGC
9014-F	CGGAATTTTAATTAAGAATTCATGTTGCCCCGCTTCGCC
9014-R	CACTATAGGGAGAACCTCGAGGCACGAGATGTCGATGTTGA
9014ΔSP-F	CGGAATTTTAATTAAGAATTCATGTCGCACACGATCAACTTT
9014ΔSP-R	CACTATAGGGAGAACCTCGAGGCACGAGATGTCGATGTTGA
Specific primers for construction of bait vector	
Primers	Sequence (5'-3')
<i>TcSCP_9014</i> -F	ATGGCCATTACGGCCATGTCGCACACGATCAACTTTTC
<i>TcSCP_9014</i> -R	ATGGCCGAGGCGGCCGCACGAGATGTCGATGTTG
Specific primers for construction of p2YC and p2YN recombinant vectors	
Primers	Sequence (5'-3')
<i>TcSCP_9014</i> -F	TTTTCGCCAAAAGTTTAAATTA ATGTCGCACACGATCAACTTT
<i>TcSCP_9014</i> -R	TCATTTGGAGAGGACCTCGAG GCACGAGATGTCGATGTTGA
<i>TaMTAN</i> -F	TCATTTGGAGAGGACCTCGAGATGGCTCCGCCGTCCTCT
<i>TaMTAN</i> -R	TTTTCGCCAAAAGTTTAAATTAAGAGATCAGAGATACATTGCCC
<i>TaGAPDH</i> -F	TCATTTGGAGAGGACCTCGAGATGAAGCCACGTCTCTCTCC
<i>TaGAPDH</i> -R	TTTTCGCCAAAAGTTTAAATTAAGTGGTGCTGTGCATGTG

Supplementary Table S2. Yeast growth on QDO plates for screening of 3-AT concentration

3-AT (mM)	The number of clones growing on QDO plates
0	>150
1	>15
2.5	>15
5	>15
7.5	>15
10	>10
12.5	>5
15	0