

Supplementary Information

The endoplasmic reticulum cargo receptor FgErv14 regulates DON production, growth and virulence in *Fusarium graminearum*

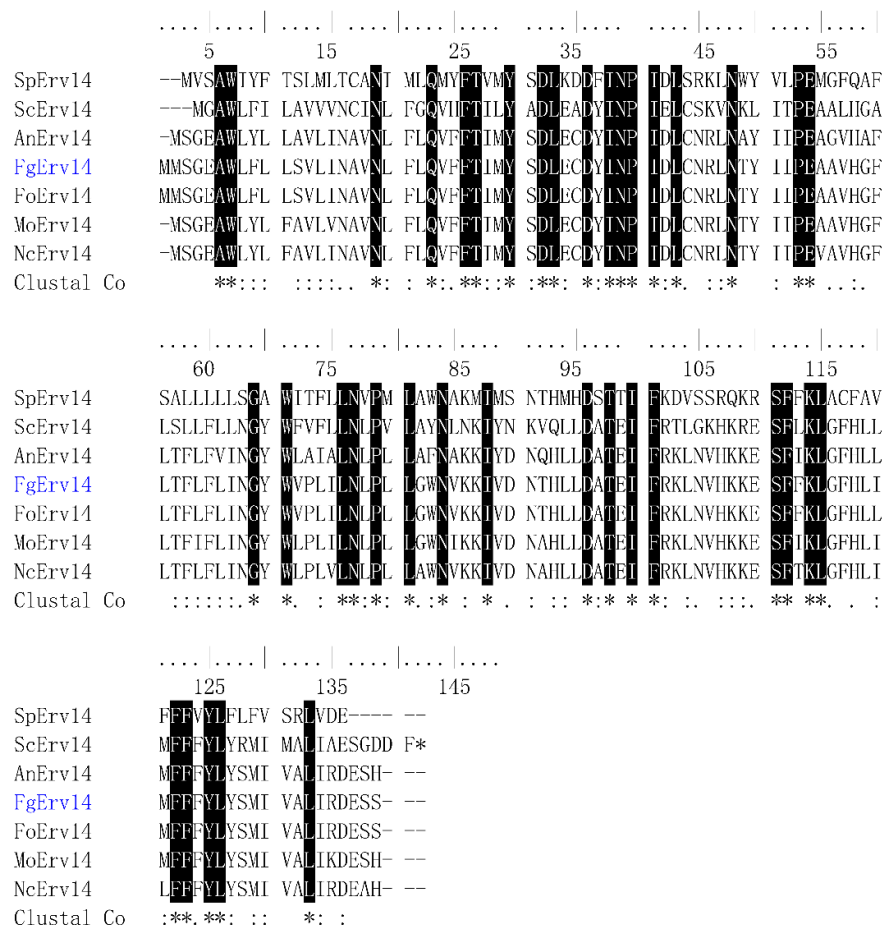
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Table S1. *F. graminearum* strains used in this study

Strain	Genotype	Source	Figures
FDH69	PH-1 (Wide Type)	[70]	Fig.2A-C Fig.3A-D Fig.5A-B Fig.6A-B Fig.S2B Fig.3A-B
FHD655	PH-1, $\Delta Fgerv14::HYG$ #3	This study	Fig.2A-C Fig.4A-D Fig.5A-B Fig.6A-B Fig.S2B Fig.3A-B
FHD657	PH-1, $\Delta Fgerv14::HYG$ #4	This study	Fig.2A-C Fig.S2B
FHD500	FHD657, <i>FgERV14-GFP::KAN</i>	This study	Fig.2A-C Fig.4A-D Fig.5A-B Fig.6A-B Fig.S2B Fig.3A-B
FHD581	PH-1, <i>TRI4-GFP::KAN</i>	This study	Fig.6C
FHD818	FHD657, <i>TRI4-GFP::KAN</i>	This study	Fig.6C
FHD635	PH-1, <i>FgERV14-GFP::KAN</i> , <i>FgSEC61-mCherry::NAT</i>	This study	Fig.7A
FHD651	PH-1, <i>FgERV14-GFP::KAN</i> , <i>TRI4-mCherry::NAT</i>	This study	Fig.7B
FHD551	PH-1, <i>FgRUD3-GFP::KAN</i> , <i>FgSED5-mCherry::NAT</i>	[2]	Fig.8A
FHD808	FHD657, <i>FgRUD3-GFP::KAN</i> , <i>FgSED5-mCherry::NAT</i>	This study	Fig.8A
FHD569	PH-1, <i>mCherry-FgKEX2::KAN</i> , <i>GFP-FgSNC1-PEM::NAT</i>	This study	Fig.8B
FHD960	FHD657, <i>mCherry-FgKEX2::KAN</i> , <i>GFP-FgSNC1-PEM::NAT</i>	This study	Fig.8B

Supplementary Figures

A



B

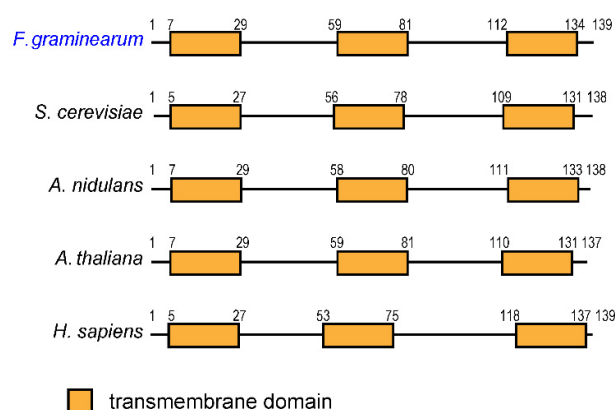


Figure S1. Amino-acid sequence and domain alignment of Erv14. (A) Identical segments are indicated by a black background. The compared sequences were from *F. graminearum*, *F. oxysporum*, *M. oryzae*, *N. crassa*, *A. nidulans*, *S. cerevisiae*, and *S. pombe*. (B) Conserved domains of Erv14 proteins are found in *F. graminearum*, *S. cerevisiae*, *A. nidulans*, *A. thaliana* and *H.sapiens*.

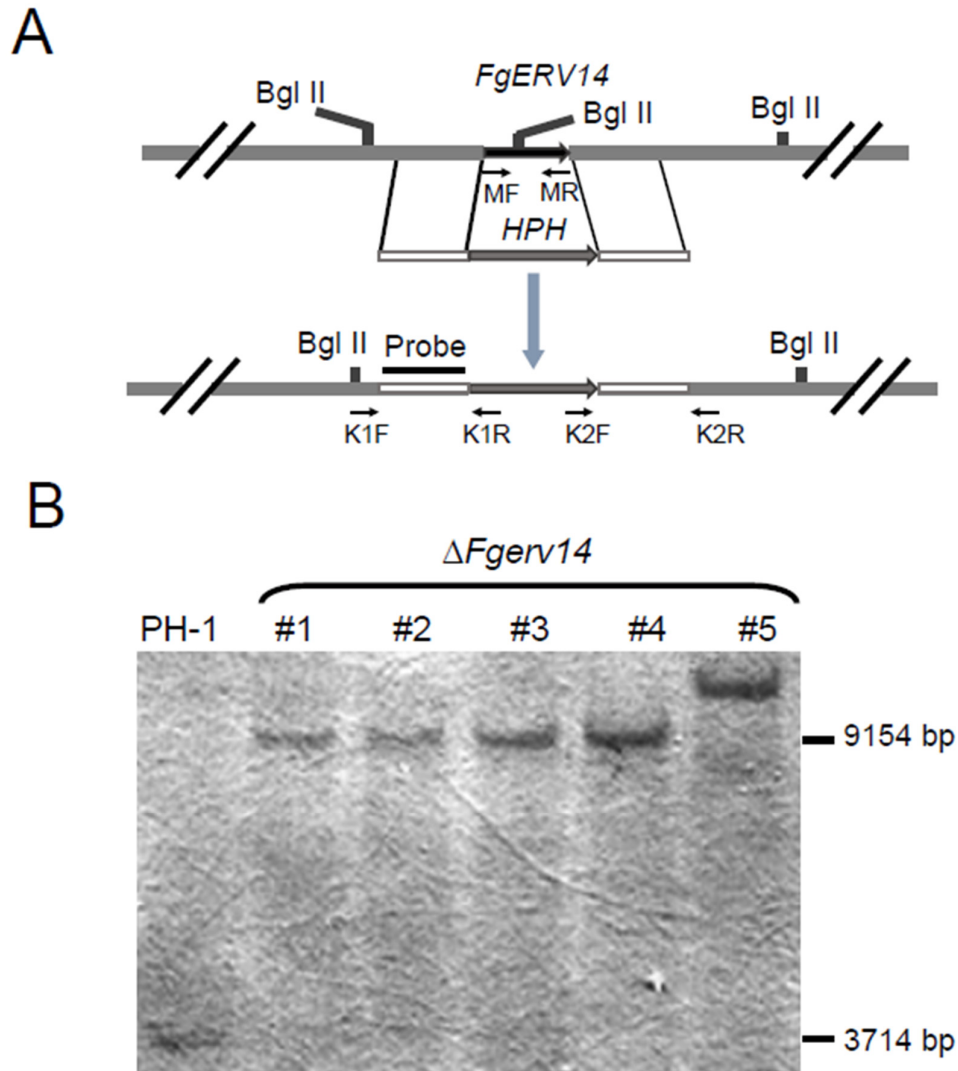


Figure S2. Generation and verification of *FgERV14*-deletion mutants. (A) Strategy for achieving *FgERV14* deletion in *F. graminearum*. The *FgERV14* gene was replaced by a cassette containing a *HPH* gene. (B) Southern blot analysis of WT PH-1 and $\Delta Fgerv14$ mutants (#1–5). Genomic DNA was digested with *Bgl*II.