FvKex2 is required for development, virulence and mycotoxin production in *Fusarium verticillioides*

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Supplemental Figures

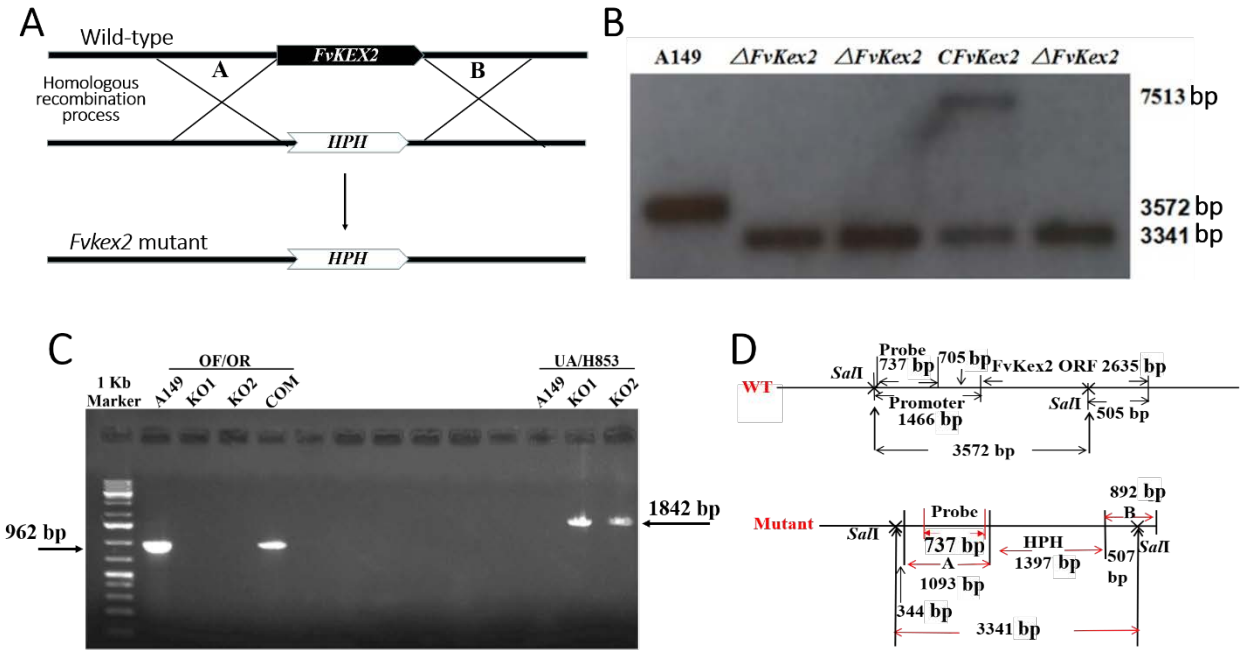

Fig. S1: Targeted *FvKEX2* gene deletion in *F. verticillioides*

(A) Targeted gene deletion strategy for the *FvKEX2* gene. The *FvKEX2* gene (962 bp) was replaced by the hygromycin phosphotransferase (*HPH*) gene in the mutant. (B) Southern blot analysis was used to confirm the *FvKEX2* gene deletion and complementation. Genomic DNA from the indicated strains was digested with *Sal*I and separated on an 1% agarose gel. The target bands of 3572, 3341 and 7513 bp were observed in the wild-type A149, mutant and complemented strain, respectively. **(**C) Confirmation of *FvKEX2* gene deletion by PCR. The FvKOF and FvKOR primers were used to amplify a 962 bp fragment of the gene ORF (open reading frame) using genomic DNA from the indicated strains; the band could not be amplified from the mutant DNA. Also, the primers FvKUA (which anneals upstream of the A fragment) and H853 (which anneals within the *HPH* fragment) gave positive bands of 1842 bp in the mutants, which the band was absent in the wild-type. (D) A map showing the digestion fragments for Southern blot assay. *Sal*I digestion produces 3573 bp and 3341 bp fragments in the wild-type and mutants, respectively.

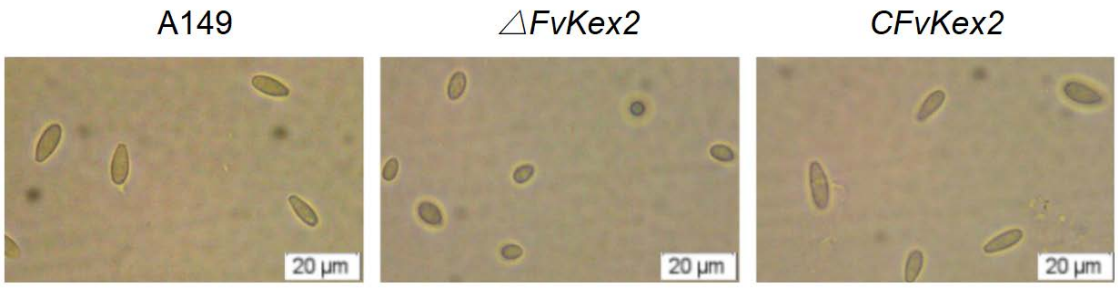

Fig. S2: **Morphology of *Fvkex2* mutant conidia.**

The *ΔFvkex2* mutant has shorter conidia than A149 and *CFvKex2*