

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

Strain	Genotype	Source
Z-3639	<i>Fusarium graminearum</i> wild-type	Bowden & Leslie (1999)
<i>P_{ZEAR}-FgVAC1</i>	<i>HYG-P_{ZEAR}-FgVAC1</i> ; <i>ΔFgvac1::GEN</i>	This study
RFP-FgRab51	<i>HYG-RFP-FgRAB51</i>	This study
RFP-FgRab7	<i>HYG-RFP-FgRAB7</i>	This study
FgVac1-GFP:: <i>RFP-FgRab51</i>	<i>HYG-FgVAC1-GFP</i> ; <i>HYG-RFP-FgRAB51</i>	This study
FgVac1-GFP:: <i>RFP-FgRab7</i>	<i>HYG-FgVAC1-GFP</i> ; <i>HYG-RFP-FgRAB7</i>	This study
FgCpy1-GFP	<i>HYG-FgCPY1-GFP</i>	This study

Table S2. Primers used in this study

Purpose	Name	Sequence
qRT-PCR	CYP1-RT-F	TCAAGCTCAAGCACACCAAGAAGG
	CYP1-RT-R	GGTCCGCCGCTCCAGTCT
	FgVAC1-RT-F	GCTACGAGGCTTGGATGTGTTTG
	FgVAC1-RT-R	AATGGTGTGCGGTGATGAGTTC
	TRI4-RT-F	TCGAGGCACAACAGAAGGGTATCC
	TRI4-RT-R	AATGTCGGCCTTGGTGGTGTCT
	TRI5-RT-F	GCCATTTTGGACCTTTCTGCTCATT
	TRI5-RT-R	GCCATAGAGAAGCCCCAACACAAT
<i>FgVAC1</i> deletion	FgVAC1-5F	CATCCTCTACGCCTTTGTGACG
	FgVAC1-5N	CCATCGAGGGGACTTTGTTAGG
	FgVAC1-5R	gcacaggtagactgttttagagGCTGCAACGCTGTGGGAAGT
	FgVAC1-3F	ccttaatatcatcttctgtcgGACAAATCGGAGTTCTTCACAGGA
	FgVAC1-3N	GAAGGCCAAGCAAGCGTCTCT
	FgVAC1-3R	CGCACCCAACAGTCAAAATACAC
<i>PZEAR-FgVAC1</i> fusion	PZEAR-F	tatagggcgaattgggtactcaaatggttCATGCCCTGGCGTTGAAGTT
	PZEAR-R	CATGGTTACTTTCGTTCTCTCTGGTC
	FgVAC1-F	gagagaacgaaagtaaccatgATGTCGGGCCGCAAGCTG
	FgVAC1-R	cgagaaactaggccagcagtagacacAGGGGGATAGGGTGAATAGTTG
<i>FgVAC1-GFP</i> fusion	FgVAC1-GFP-F	tttcgttaggaaccaatcttcaaaATGTCGGGCCGCAAGCTG
	FgVAC1-GFP-R	aacagctcctcgcccttgtcacgttaattaagcctcgccctccgctccAGTGACACCAT TGCGATATACACCC
<i>FgCPY1-GFP</i> fusion	FgCPY1-GFP-F	tatagggcgaattgggtactcaaatggttCCCTGGTCCATGATGAGCACTTA
	FgCPY1-GFP-R	cccggggaacagctcctcgcccttgtcacGAACCACTCACCCTGAGCCAG
<i>RFP-FgRAB51</i> fusion	RFP-F	ATGGTGAGCAAGGGCGAGG
	RFP-R	CTTGTACAGCTCGTCCATGCCG
	RAB51-P-F	CTGGGTCTCTGAATCGTAAGTTG
	RAB51-P-R	cctcctcgcccttgtcacccatTGTCGCGGGATCGCTCG
	RAB51-P-N	tatagggcgaattgggtactcaaatggttTGGAACATCGACTTCGGTAATAG
	RAB51-ORF-F	cggcatggacgagctgtacaaggaggcggaggcggaggcttaattaacATGGCCGATT CCACCAACG
	RAB51-ORF-R	GTGAGTGCGCGAAAGGAAATAGAT
	RAB51-ORF-N	cgagaaactaggccagcagtagacacTTGCTCTGACGCAAAGGCTAAC
<i>RFP-FgRAB7</i> fusion	RAB7-P-F	GCAAAGCAGCAAGACAGCGTATT
	RAB7-P-R	cctcctcgcccttgtcacccatGGTGAATAATCGTTTGTAAGGGG
	RAB7-P-N	tatagggcgaattgggtactcaaatggttCAAAGGTGGGGTTGATGTGGTT
	RAB7-ORF-F	cggcatggacgagctgtacaaggaggcggaggcggaggcttaattaacATGTCTTCTC GAAAGAAGGTTCTTC
	RAB7-ORF-N	cgagaaactaggccagcagtagacacTGCTCTGGACATGGACAGTTC
	RAB7-ORF-R	AGGTTTCGCGGCTGCTGACTAC