Expression and distribution of extensins and AGPs in susceptible and resistant banana cultivars in response to wounding and *Fusarium oxysporum*.

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Supplementary Figures S1–S4 and Tables S1–S3

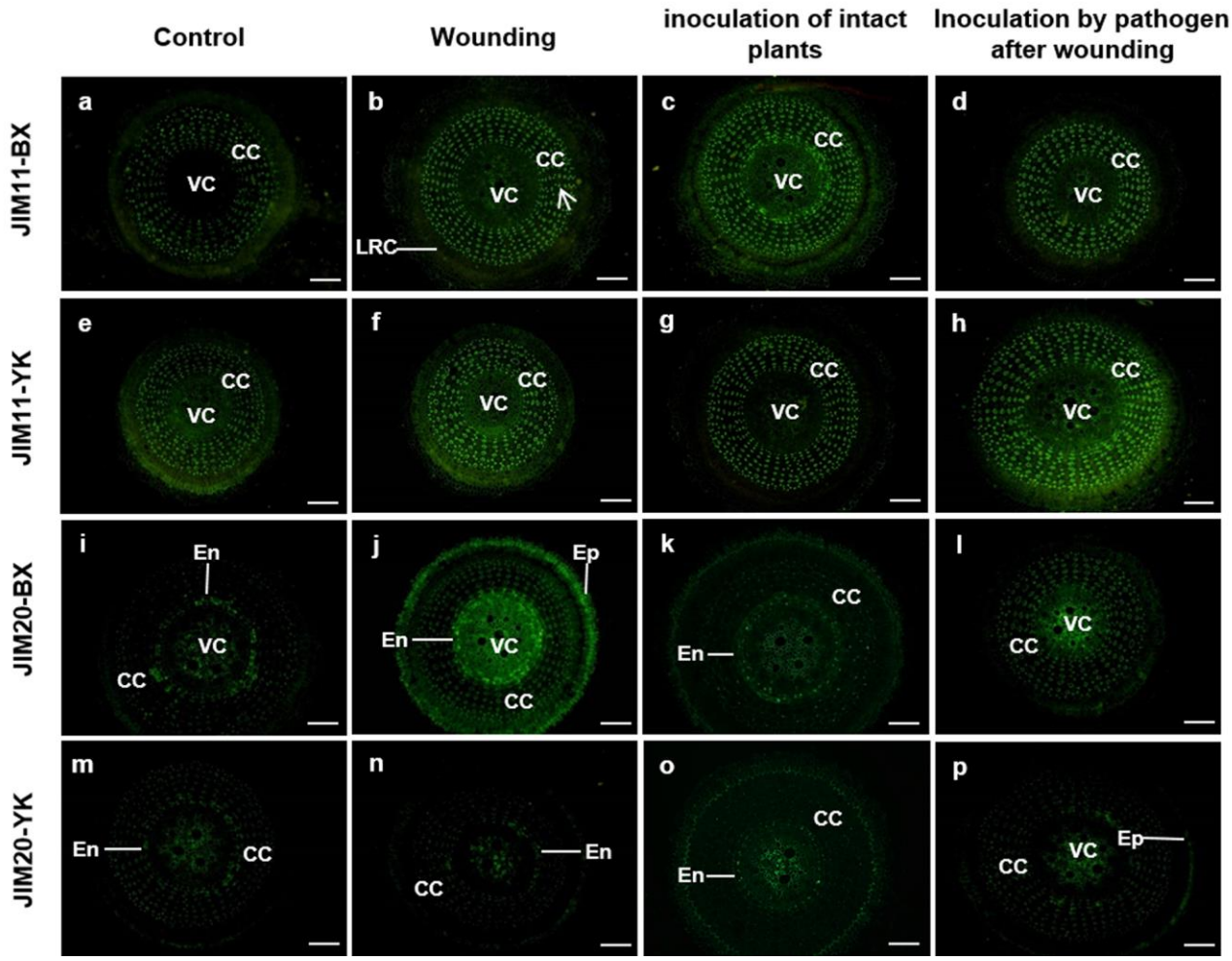

Figure S1. Immunolocalization of JIM11 and JIM20 binding extensins in banana (*Musa* spp. AAA) roots in response to wounding and *Fusarium oxysporum* f. sp. *cubense*. In all cases, cross sections through roots are presented. BX, Baxijiao (susceptible); YK, Yueyoukang 1 (resistant). CC, cortical cells; En, endodermis; Ep, epidermis; LRC, lateral root cap; VC, vascular cylinder. Arrow points to tricellular cell–cell junction. Bars represent 100 μm.

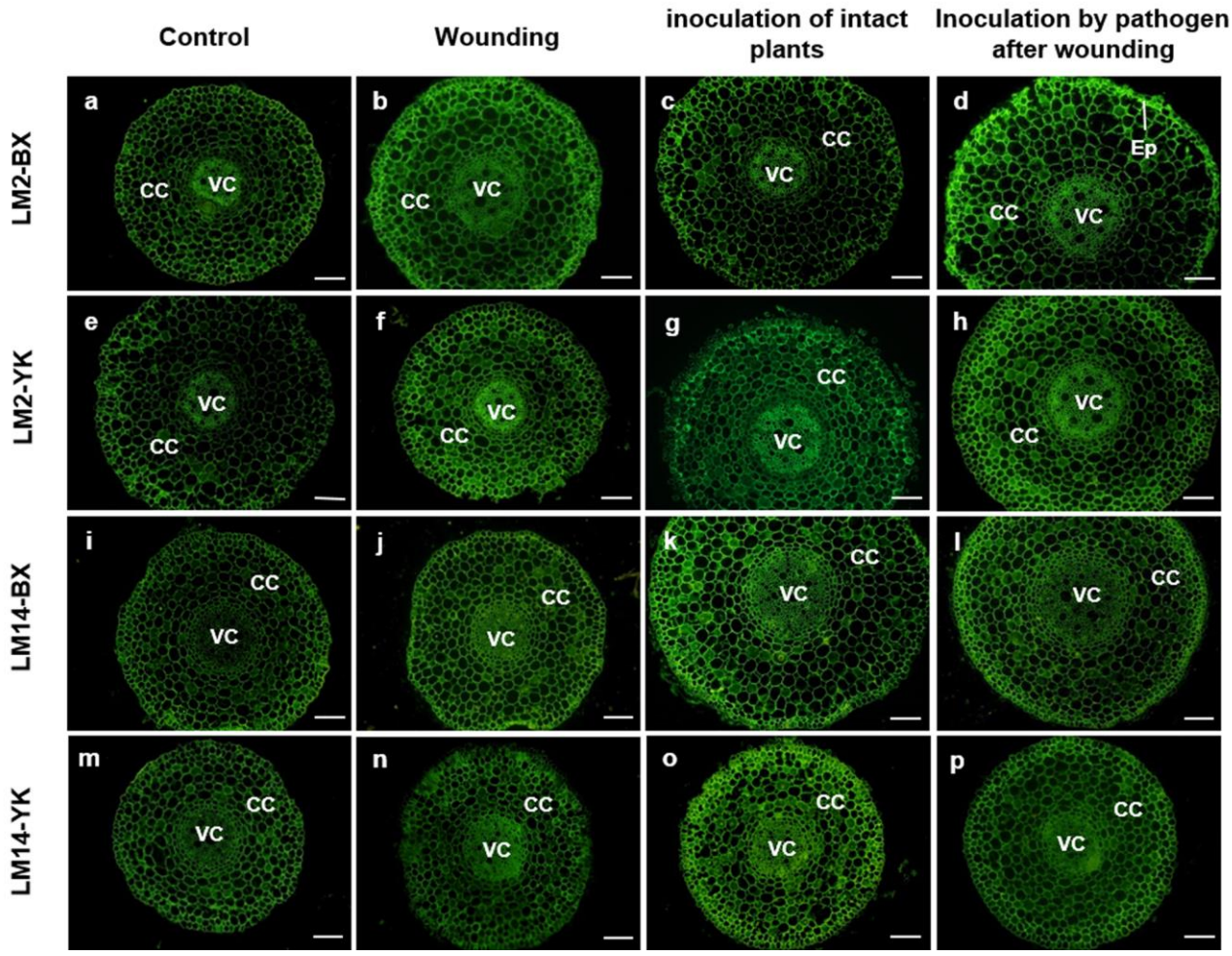

Figure S2. Immunolocalization of LM2 and LM14 binding AGPs in banana (*Musa* spp. AAA) roots in response to wounding and *Fusarium oxysporum* f. sp. *cubense*. In all cases, cross sections through roots are presented. BX, Baxijiao (susceptible); YK, Yueyoukang 1 (resistant). CC, cortical cells; Ep, epidermis; VC, vascular cylinder. Bars represent 100 μm.

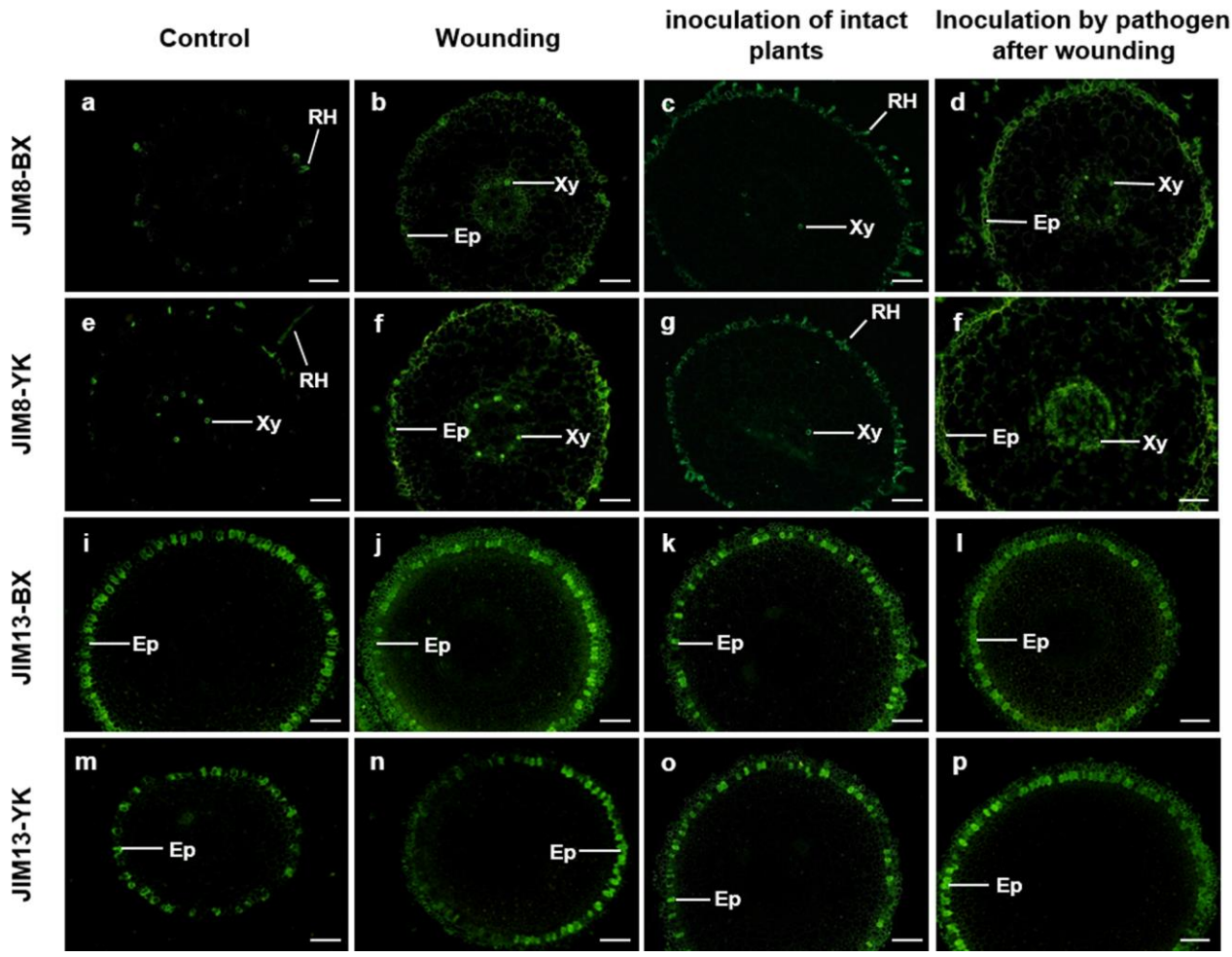

Figure S3. Immunolocalization of JIM8 and JIM13 binding AGPs in banana (*Musa* spp. AAA) roots in response to wounding and *Fusarium oxysporum* f. sp. *cubense*. In all cases, cross sections through roots are presented. BX, Baxijiao (susceptible); YK, Yueyoukang 1 (resistant). Ep, epidermis; RH, root hairs; Xy, xylem. Bars represent 100 μm.

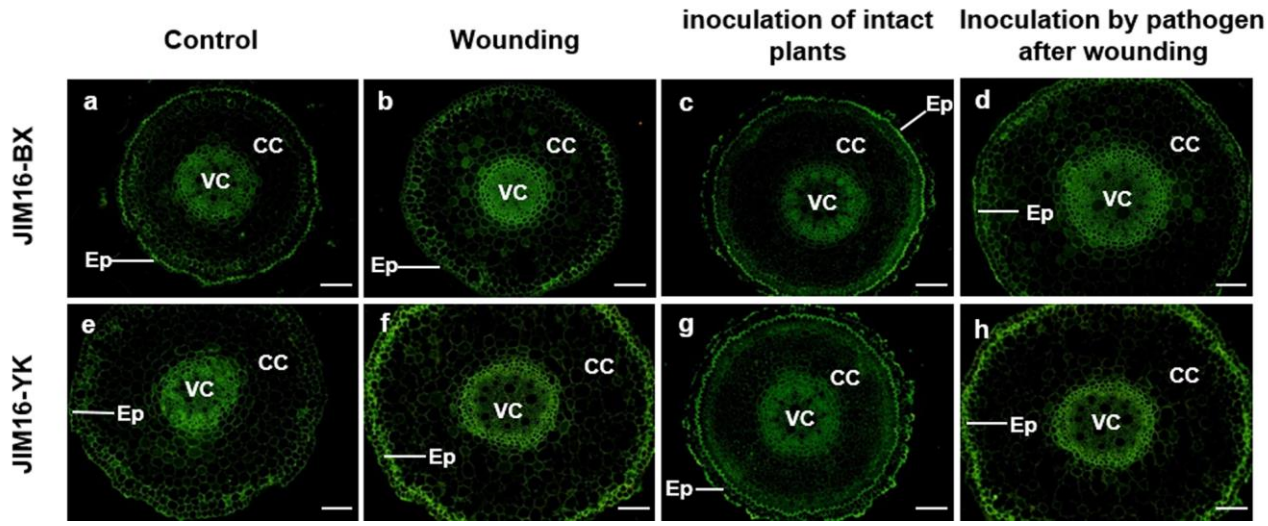

Figure S4. Immunolocalization of JIM16 binding AGPs in banana (*Musa* spp. AAA) roots in response to wounding and *Fusarium oxysporum* f. sp. *cubense*. In all cases, cross sections through roots are presented. BX, Baxijiao (susceptible); YK, Yueyoukang 1 (resistant). CC, cortical cells; Ep, epidermis; VC, vascular cylinder. Bars represent 100 μm.

Table S1. The intensity of immunofluorescence labelling of banana (*Musa* spp. AAA) roots with different extensins and arabinogalactan proteins antibodies.

Antibody used	Root cap	Epidermis	Cortical cells	Endodermis	Root hairs	BLCs	Vascular cylinder		
							Pericycle	Phloem	Xylem and VP
JIM11	++	+	+	++	-	-	±	±	++
JIM20	++	±	±	+	-	-	+	+	++++
LM2	±	±	+++	+	-	-	+	++++	++++
LM14	+	±	++	++	-	-	++	++	++
JIM16	++++	++++	±	+++	-	++++	+++	++++	+
JIM13	++++	++++	-	-	++++	++++	-	-	++++
JIM8	+++	±	-	-	+++	-	-	-	++++
PN16.4B4	++	±	-	-	++	-	-	-	++
CCRC-M134	+	±	-	-	±	-	-	-	±

Increasing intensity of immunolabelling was evaluated as: – (no labelling), ± (very weak), + (weak), ++ (middle), +++ (strong), ++++ (very strong). BLCs, border-like cells, VP, vascular parenchyma.

Table S2. Gene information.

Gene famliy	Gene ID	Gene name	Gene description
Extensins	LOC103994065	*MaELP-1*	extensin-like protein
	LOC103997407	*MaELP-2*	extensin-like protein
	LOC103989053	*MaLRX3*	pollen-specific leucine-rich repeat extensin-like protein 3
	LOC103997909	*MaLRX4*	leucine-rich repeat extensin-like protein 4
	LOC103973738	*MaPELP-1*	pistil-specific extensin-like protein
	LOC103991051	*MaPELP-2*	pistil-specific extensin-like protein
	LOC103996093	*MaPELP-3*	pistil-specific extensin-like protein
AGPs	LOC103975630	*MaAGP4-1*	classical arabinogalactan protein 4-like
	LOC103982666	*MaAGP4-2*	classical arabinogalactan protein 4-like
	LOC103973630	*MaAGP7*	classical arabinogalactan protein 7-like
	LOC104000828	*MaAGP16*	arabinogalactan peptide 16-like
	LOC103979425	*MaAGP18-1*	lysine-rich arabinogalactan protein 18-like
	LOC103992896	*MaAGP18-2*	lysine-rich arabinogalactan protein 18-like
	LOC103975936	*MaAGP19-1*	lysine-rich arabinogalactan protein 19-like
	LOC103978045	*MaAGP19-2*	lysine-rich arabinogalactan protein 19-like
	LOC103991644	*MaAGP20*	arabinogalactan peptide 20-like
	LOC103985508	*MaAGP23-1*	arabinogalactan peptide 23-like
	LOC103997732	*MaAGP23-2*	arabinogalactan peptide 23-like
	LOC103993392	*MaAGP26*	classical arabinogalactan protein 26-like
	LOC103995161	*MaASD1*	alpha-L-arabinofuranosidase 1-like
	LOC103968476	*MaFLA1*	fasciclin-like arabinogalactan protein 1
	LOC103972757	*MaFLA2-1*	fasciclin-like arabinogalactan protein 2
	LOC103998373	*MaFLA2-2*	fasciclin-like arabinogalactan protein 2
	LOC103987751	*MaFLA6*	fasciclin-like arabinogalactan protein 6
	LOC103980339	*MaFLA7*	fasciclin-like arabinogalactan protein 7
	LOC103970284	*MaFLA8*	fasciclin-like arabinogalactan protein 8
	LOC103986177	*MaFLA11*	fasciclin-like arabinogalactan protein 11
	LOC103988759	*MaFLA12*	fasciclin-like arabinogalactan protein 12
	LOC104001024	*MaFLA13*	fasciclin-like arabinogalactan protein 13
	LOC103983519	*MaFLA16*	fasciclin-like arabinogalactan protein 16

AGPs, arabinogalactan proteins

Table S3. Primers for qPCR.

Gene family	Gene name	Primer sequences (Forward/ Reverse)	Production size (bp)
	18S rRNA	CCTGAGAAACGGCTACCACAT CACCAGACTTGCCCTCCA	171
Extensins	*MaELP-1*	TTCCCACCATCATCTCCAAG GGTCTTGTTGAGCTGCCTCTA	119
	MaELP-2	TACAAGACCATCCCTGAGCAC ACACTGCGTCATCTTCAACG	122
	MaLRX3	GTGTCGTTTGTAGCGATCAGG CATGGAGAGAGCGGTTTACAG	134
	MaLRX4	TGTAGGCGTGTCCTATGCTTC AAAGGAAGAGATAGGGGGAGTG	100
	MaPELP-1	CTCTCTACACCGCAGGCTTCT CCTCTCATCAAACGACTACCG	117
	MaPELP-2	GTCCACTGTACTCGAGCTTGC GCTCAAAGGCTCAACACAGAG	132
AGPs	*MaAGP4-1*	CCGTTGCCATTTTGGTCA GTCCATCACAACGGGGATACT	130
	MaAGP7	CCTTACCTTCAGCTGGGTCA AAACCGTGCGATCAGTATCC	121
	MaAGP18-1	GCCGACCAGACAAGTGGT ATGTAGTGTCTCGGGGAGCTT	116
	MaAGP23-1	GCTCTCCTTCTTCGCCTTCTA CTGGTGGAGCTGACAACAATC	104
	MaAGP23-2	GACGGCGAGAGAGTCTGG GCCTGCAAAGGAGAAGAAGA	106
	MaFLA6	CAAGCAAGCCAAAGAGGAAG AGAGAAGGTGACTGCCCAAC	106
	MaFLA11	GCCAAGAAGCAGAAACCAAG CACTCAGAAGCTCCACCACA	159
	MaFLA12	CGGGAATTTCAACTCCTTCA GGTCACGTTGAGCTTGAACA	292
	MaFLA16	GAAGTTGGGTGCAGTTTGCT GGCAGGTGGTAACATTTGGT	130

AGPs, arabinogalactan proteins