

Supplementary Materials: Genetic Mapping of a Major Resistance Gene to Pea Aphid (*Acyrtosipon pisum*) in the Model Legume *Medicago truncatula*

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Table S1. Overview of the molecular markers used for the genotyping of the Jester x A17 and Jester x A20 F₂ mapping populations.

Molecular Marker Name	Forward Primer	Reverse Primer	A17 Fragment Length (bp)	Jester Fragment Length (bp)	A20 Fragment Length (bp)
001F03	catgtaacgcttgaggctga	caaccctaaccctcaccaaa	242	240	221
002E06	ctgatcaattgaaacaaacg	ctctcacctctcatttgaa	150	150	136
003G03	aagcaagcaatcatcattatcaaa	aacgatgtgttctatgcgga	280	280	255
34TC15	aatgatcattgccaccat	tgtgaatggaacaacaaaaag	285	285	266
003A03	aggagaccggagaatttacatc	tcattgtacaatacatggagcaa	363	364	312
h2_6g9b	cccgatcgagacataaaat	aagcacaatcattgtctga	302	292	317
004H01	tcccaatttatgtgtctctc	ttgttatgaagggaagaga	209	219	219
h2_117n1c	tgcaaacctaatgcaagc	atgaagtcttggcgaggaaa	274	275	285
h2_6i7c	gggaaaaatagttcggagg	accgcataaccaaacacact	304	291	237
DK417L (BbvI)	actcgtcgcttaacaatatcaaccag	gaattccatatccaacacctttagactta	410	180 + 230	180 + 230
h2_124I21d	tcactttagcggtgacag	cttggccctataaacaggta	183	187	164
h2_39a22a	acctcaactccacacaca	gcactgggaagggtaaaag	260	229	236
MTIC51	agtatatgtgatgaagtggtagtgaaca	acaaaaactctccgcttt	151	138	139
h2_151m16a	tgtagtgcctagcatgtgtga	ggcacagctatgatattatagg	231	202	202
h2_34h21a	aaaagcatgtgatgtgggtg	agggtgtgcattttgcagtg	133	138	138
h2_180m21a	tttccccattttgtctac	ccaaacgcaccactctctc	319	316	296
h2_105b15c	tgtgtgttagctctctctctc	agcgggtgtttttgtccaact	208	180	171
h2_174d3b	tgattgcagctttctggga	gcegtaggctactcacaa	178	178	155
h2_7k10e	taaggcaatgtcagtcgcaa	gcattgtttatgcccctctc	244	244	227
h2_34i10a	tgtggcaggtgaatcatattg	tgaacgcagtaacgtggaga	244	245	239

Table S2. Mean aphid population score for selected accessions over a time-course observation following PA infestation. Each value represents the mean and SE of five biological replicates.

Accession	3 dpi (SE)	6 dpi (SE)	9 dpi (SE)	12dpi (SE)	15 dpi (SE)	18 dpi (SE)	21 dpi (SE)	24 dpi (SE)
SA1516	1.10 (0.06)	1.50 (0.14)	1.55 (0.09)	2.00 (0.26)	3.45 (0.22)	3.70 (0.18)	4.20 (0.20)	3.55 (0.20)
SA10733	1.00 (0.00)	1.30 (0.05)	1.50 (0.00)	2.40 (0.29)	3.45 (0.23)	3.50 (0.21)	4.00 (0.00)	3.00 (0.00)
SA10481	1.10 (0.06)	1.60 (0.06)	1.95 (0.05)	2.40 (0.32)	3.70 (0.20)	3.75 (0.14)	4.00 (0.00)	3.25 (0.19)
Jester	1.00 (0.00)	1.55 (0.09)	1.60 (0.10)	3.25 (0.22)	3.65 (0.19)	3.55(0.20)	4.00 (0.00)	3.00 (0.00)
SA27063	1.05 (0.05)	1.50 (0.08)	1.85 (0.10)	3.30 (0.43)	3.75 (0.16)	4.35 (0.27)	4.40 (0.24)	2.80 (0.72)
SA27192	1.05 (0.05)	1.55 (0.24)	2.00 (0.18)	3.30 (0.45)	3.55 (0.20)	4.40 (0.24)	2.80 (1.16)	3.00 (1.22)
SA3047	1.05 (0.05)	1.55 (0.15)	1.95 (0.05)	3.35 (0.47)	3.90 (0.10)	4.00 (0.00)	4.20 (0.20)	2.00 (0.82)
SA28645	1.10 (0.06)	1.55 (0.05)	2.05 (0.18)	3.40 (0.20)	3.65 (0.38)	3.55 (0.18)	4.00 (0.00)	2.55 (0.64)
SA11753	1.05 (0.05)	1.95 (0.31)	2.15 (0.17)	3.50 (0.21)	3.70 (0.34)	3.50 (0.22)	3.70 (0.20)	2.60 (0.68)
A17	1.25 (0.14)	2.00 (0.00)	2.85 (0.13)	3.85 (0.06)	3.85 (0.10)	1.90 (0.78)	0.00 (0.00)	0.00 (0.00)
Cyprus	1.25 (0.08)	1.65 (0.06)	2.60 (0.23)	3.95 (0.32)	2.80 (1.16)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
SA1499	1.25 (0.08)	1.85 (0.10)	3.45 (0.20)	3.80 (0.97)	1.00 (1.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Borong	1.30 (0.09)	1.80 (0.09)	2.70 (0.27)	4.40 (0.24)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00(0.00)
SA1489	1.25 (0.11)	1.75 (0.11)	3.20 (0.24)	4.80 (0.20)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
DZA045	1.20 (0.05)	2.00 (0.27)	3.25 (0.27)	3.40 (0.87)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)

Table S3. Mean plant damage score for selected accessions over a time-course observation following PA infestation. Each value represents the mean and SE of five biological replicates.

Accession	3 dpi (SE)	6 dpi (SE)	9 dpi (SE)	12 dpi (SE)	15 dpi (SE)	18 dpi (SE)	21 dpi (SE)	24 dpi (SE)
SA1516	0.25 (0.11)	1.10 (0.15)	1.10 (0.06)	1.50 (0.18)	2.05 (0.20)	2.85 (0.17)	3.45 (0.05)	3.35 (0.06)
SA28645	0.25 (0.11)	0.70 (0.15)	0.90 (0.15)	1.50 (0.21)	2.45 (0.12)	3.00 (0.14)	3.35 (0.17)	3.35 (0.23)
SA10481	0.40 (0.10)	1.40 (0.10)	1.25 (0.08)	1.75 (0.08)	2.45 (0.18)	3.25 (0.18)	3.45 (0.05)	3.45 (0.12)
SA10733	0.10 (0.06)	0.95 (0.05)	1.20 (0.15)	1.85 (0.15)	2.20 (0.05)	3.05 (0.05)	3.45 (0.05)	3.45 (0.15)
Jester	0.85 (0.10)	1.70 (0.15)	1.80 (0.09)	2.00 (0.00)	2.55 (0.12)	3.45 (0.05)	3.60 (0.06)	3.50 (0.11)
SA11753	0.45 (0.18)	1.65 (0.19)	1.50 (0.39)	2.55 (0.17)	2.95 (0.09)	3.30 (0.15)	3.55 (0.12)	3.55 (0.18)
SA27063	0.55 (0.09)	1.60 (0.19)	1.70 (0.12)	2.45 (0.39)	2.40 (0.13)	3.25 (0.11)	3.60 (0.06)	4.05 (0.15)
SA3047	0.15 (0.06)	1.00 (0.08)	1.10 (0.06)	2.65 (0.46)	2.30 (0.12)	3.30 (0.09)	3.75 (0.08)	4.15 (0.15)
SA27192	0.35 (0.06)	1.20 (0.09)	1.15 (0.10)	2.10 (0.42)	1.95 (0.22)	3.10 (0.28)	4.10 (0.32)	4.30 (0.29)
A17	1.25 (0.11)	2.00 (0.00)	2.40 (0.06)	2.95 (0.05)	3.30 (0.15)	4.05 (0.09)	4.35 (0.10)	4.65 (0.13)
Cyprus	0.50 (0.18)	1.35 (0.19)	1.20 (0.09)	2.90 (0.64)	4.30 (0.22)	4.90 (0.06)	5.00 (0.00)	5.00 (0.00)
SA1499	0.95 (0.05)	1.85 (0.10)	2.10 (0.10)	3.75 (0.29)	4.60 (0.13)	4.95 (0.05)	5.00 (0.00)	5.00 (0.00)
Borong	0.25 (0.08)	1.10 (0.20)	1.70 (0.31)	3.70 (0.44)	4.95 (0.05)	5.00 (0.00)	5.00 (0.00)	5.00 (0.00)
SA1489	0.35 (0.10)	1.55 (0.05)	1.85 (0.23)	4.25 (0.21)	4.90 (0.06)	5.00 (0.00)	5.00 (0.00)	5.00 (0.00)