

Table 4. Digenic epistatic quantitative resistance loci (QRL) pairs affecting lesion length caused by 10 Philippine *Xanthomonas oryzae* pv. *oryzae* (*Xoo*) races in the IR64/Azucena doubled haploid population

Ch	Marker <i>i</i>	Ch	Marker <i>j</i>	Para.	Race 1	Race 2	Race 3	Race 4	Race 5	Race 6	Race 7	Race 8	Race 9	Race 10
1	RG381	6	CDO544	LOD		2.97		2.26	3.36	2.12	3.23	1.92	1.83	
				AA_{ij}		-0.92		-0.88	-1.33	-1.02	-1.49	-1.85	-0.74	
1	RG381	7	CDO418	LOD		2.08	2.43						2.29	
				AA_{ij}		0.66	0.83						1.35	
1	RZ730	6	RZ398	LOD	2.47	1.97	2.82		4.44		3.42	2.54		
				AA_{ij}	-1.70	-0.57	-0.55		-1.60		-1.44	-1.49		
1	RZ276	9	RZ422	LOD		5.59	2.74						3.19	2.62
				AA_{ij}		1.39	1.00						2.11	0.90
1	RZ276	11	RZ536	LOD	3.18	2.91	1.97	1.98	4.37		2.97	2.50	3.72	3.57
				AA_{ij}	-1.26	0.89	0.78	0.87	1.99		1.08	0.91	1.26	1.27
2	RG437	2	RG256	LOD	3.70	1.84	3.00	1.75	4.46		5.35	4.20		3.18
				AA_{ij}	-1.90	-0.84	-0.82	-0.87	-1.82		-2.58	-2.30		-2.01
2	RG437	4	RG190	LOD				2.30			2.33	1.84		3.95
				AA_{ij}				-1.17			-1.35	-1.40		-1.65
2	RG437	6	<i>Pgi2</i>	LOD			2.07		2.23		4.09	2.54		2.64

Ch	Marker <i>i</i>	Ch	Marker <i>j</i>	Para.	Race 1	Race 2	Race 3	Race 4	Race 5	Race 6	Race 7	Race 8	Race 9	Race 10
				AA_{ij}			0.61		-1.11		-2.10	-1.63		-1.14
2	<i>Pall</i>	6	RG162	LOD	4.38			2.02	1.92	3.07	1.78		1.75	
				AA_{ij}	1.88			1.13	1.13	0.95	1.48		-1.06	
2	<i>Pall</i>	8	RZ143	LOD	3.87	2.48	2.06	3.41	4.99	2.65	3.67	4.45		3.96
				AA_{ij}	1.63	0.96	0.70	1.40	2.36	1.35	1.86	2.49		1.33
2	<i>Pall</i>	9	RZ422	LOD	2.58			3.52		3.75	3.13	4.14		
				AA_{ij}	0.87			1.64		1.69	1.89	2.66		
2	RG256	5	RG556	LOD	2.38	1.60	3.58	3.41	5.91	2.58	3.06	4.18	2.45	
				AA_{ij}	-1.56	-0.54	-0.65	-1.03	-1.87	-1.86	-1.38	-2.42	-0.93	
2	RG256	9	RZ422	LOD	1.75		1.81	2.14	3.20		2.54	3.07		1.76
				AA_{ij}	1.13		0.65	1.18	1.73		1.29	2.26		1.21
3	<i>Pgil</i>	4	RG190	LOD	1.73		4.01	1.76	2.22				6.32	
				AA_{ij}	1.59		-0.79	-0.65	1.48				-2.86	
3	<i>Pgil</i>	4	RG143	LOD				2.07	1.93		2.89	3.00	1.74	
				AA_{ij}				-0.61	-73		-1.49	-1.87	1.19	
3	<i>Pgil</i>	8	<i>Amp2</i>	LOD		3.53	3.46		2.38		3.09			
				AA_{ij}		-0.65	-0.58		1.24		1.79			

Ch	Marker <i>i</i>	Ch	Marker <i>j</i>	Para.	Race 1	Race 2	Race 3	Race 4	Race 5	Race 6	Race 7	Race 8	Race 9	Race 10
3	<u>pRD10A</u>	4	RG163	LOD	2.83		4.09	2.27	5.13					
				AA_{ij}	-1.77		-0.92	-1.01	-1.25					
4	RG143	5	CDO105	LOD			2.64					3.32		2.85
				AA_{ij}			-0.64					-0.92		-0.82
4	RG163	9	RG667	LOD		2.00	2.45	8.10	3.90	5.01	3.82	3.01		1.97
				AA_{ij}		0.63	-0.74	1.35	0.72	-2.20	0.87	1.06		1.33
4	RG190	11	RZ536	LOD	2.20	2.30		2.21	1.94	2.86	1.81	2.12		4.01
				AA_{ij}	0.88	0.75		0.97	0.73	1.23	0.75	0.83		1.33
4	RG190	12	RG341	LOD		3.67	1.82	4.36	5.09	5.95	3.00	3.03		
				AA_{ij}		0.67	0.49	0.98	0.78	1.23	0.85	0.84		
5	RZ70	8	RZ143	LOD	4.23	3.42		2.72	3.17	2.05	1.89	1.87		
				AA_{ij}	-1.71	-0.56		-0.89	-0.87	-1.18	-0.89	-1.25		
6	<i>Amy2A</i>	8	RZ143	LOD	4.02	6.46	2.31	3.44	3.87	2.11	2.73	3.56		4.34
				AA_{ij}	-1.30	-1.47	-0.75	-0.72	-1.13	-0.68	-0.89	-1.43		-1.00
7	RG511	10	RZ500	LOD				2.07	1.82	2.61	1.91		2.82	2.24
				AA_{ij}				-1.06	-0.96	-1.16	-1.22		-1.22	-1.38
7	CDO418	12	RG341	LOD	5.19	2.80	2.61	3.52	7.89	5.85	5.65	6.15		

Ch	Marker <i>i</i>	Ch	Marker <i>j</i>	Para.	Race 1	Race 2	Race 3	Race 4	Race 5	Race 6	Race 7	Race 8	Race 9	Race 10
				AA_{ij}	-2.08	-0.79	-0.80	-1.18	-1.16	-1.24	-1.76	-2.45		
8	<i>Amp2</i>	9	RG757	LOD	2.48		2.05	2.17	3.06		3.57			2.51
				AA_{ij}	1.33		0.75	1.07	1.28		1.63			0.95
8	TGMS1.2	9	RG667	LOD	2.72		5.44	5.22		3.10	4.25	5.41	2.66	3.26
				AA_{ij}	-1.69		-0.97	-0.89		-1.60	-2.12	-2.95	-0.73	-1.52
10	RG241	11	RZ536	LOD	24.74	1.86		12.21		1.74	22.67	18.54	1.74	12.84
				AA_{ij}	1.50	0.78		1.01		0.95	0.98	1.63	1.16	0.85
10	RZ500	11	RZ536	LOD	20.69			10.97		4.20	2.21	16.72		16.41
				AA_{ij}	0.84			0.68		1.45	0.75	1.11		0.81

Bold markers are those flanking the detected QRL in Table 1. Underlined are markers flanking QRL detected in the recombinant inbred lines in Table

2. Ch, chromosome; Para., parameters; LOD, logarithm of odds ratio.