Supplemental Table S2. Known genes in the vicinity of significant SNP, di-SNP, and haplotype variants for two virus resistance traits in Arabidopsis.

No.	Trait	Chr	Position (bp)	P-Value	Comparative Genomics Analysis			Methods			
					Known gene[Ref.]	Position (bp)	Function	SNP	di-SNP	Haplotype	Rainbowr
1	RDO5-ELISA	1	11971290-11971415	2.79E-07					✓		
2	RDO5-ELISA	1	11971290-11971420	1.69E-07						✓	✓
3	RDO5-ELISA	1	11971415-11971420	1.06E-07					✓		✓
4	RDO5-ELISA	1	11971415	1.59E-06				✓			
5	RDO5-ELISA	1	11974519-11974799	3.12E-06						✓	✓
6	RDO5-ELISA	4	6745664	3.38E-06				✓			
7	RDO5-ELISA	4	6745898-6746076	1.86E-06					✓		✓
8	RDO5-ELISA	4	6746076	6.52E-07				✓			
9	RDO5-ELISA	4	6746076-6746084	6.86E-07					✓		✓
10	RDO5-ELISA	4	6746084	6.28E-07				✓			
11	RDO5-ELISA	4	6746084-6746090	6.86E-07					✓		✓
12	RDO5-ELISA	4	6746090	6.52E-07				✓			
13	RDO5-ELISA	4	6746090-6746096	2.39E-06					✓		✓
14	RDO5-ELISA	4	6746096-6746097	2.39E-06					✓		✓
15	RDO5-ELISA	4	6746097	6.52E-07				✓			
16	RDO5-ELISA	4	6746097-6746098	6.52E-07					✓		✓
17	RDO5-ELISA	4	6746098	6.52E-07				✓			
18	RDO5-ELISA	4	6746098-6746123	8.02E-07					✓		✓
19	RDO5-ELISA	4	6746098-6746128	8.02E-07						✓	✓
20	RDO5-ELISA	4	6746123	8.98E-07				✓			
21	RDO5-ELISA	4	6746123-6746128	8.98E-07					✓		
22	RDO5-ELISA	4	6746128	8.98E-07				✓			
23	RDO5-ELISA	4	6746128-6746132	8.98E-07					✓		✓
24	RDO5-ELISA	4	6746132	8.98E-07				✓			
25	RDO5-ELISA	4	6746132-6746173	1.01E-06					✓		✓
26	RDO5-ELISA	4	6746132-6746206	2.13E-06						✓	✓
27	RDO5-ELISA	4	6746132-6746308	1.63E-06						✓	✓
28	RDO5-ELISA	4	6746238-6746308	2.82E-06						✓	✓
29	RDO5-ELISA	4	6746274-6746308	2.66E-06					✓		✓

30	RDO5-ELISA	4	6746308	1.84E-06				✓			
31	RDO5-ELISA	4	6746402	1.93E-06				✓			
32	RDO5-ELISA	4	6746410	2.00E-06				✓			
33	RDO5-ELISA	4	6746410-6746464	2.29E-06					✓		✓
34	RDO5-ELISA	4	6747267-6747271	3.24E-06					✓		✓
35	RDO5-ELISA	4	6747267-6747329	3.24E-06						✓	✓
36	RDO5-ELISA	4	6747373-6747447	1.51E-06						✓	✓
37	RDO5-ELISA	4	6747374-6747447	1.51E-06					✓		✓
38	VIR1-RT-qPCR	1	11802067-11802089	2.91E-06	*MYC2*[1]	11798119- 11801407	serves as an evolutionarily conserved target of begomoviruses that suppresses terpene-based resistance and promotes vector performance			✓	
39	VIR1-RT-qPCR	1	11802076-11802089	2.91E-06						✓	
40	VIR1-RT-qPCR	1	11802085-11802089	2.91E-06					✓		
41	VIR1-RT-qPCR	1	11802085-11802092	2.91E-06						✓	
42	VIR1-RT-qPCR	1	11802092-11802110	2.91E-06						✓	
43	VIR1-RT-qPCR	1	12847786-12847809	2.41E-06						✓	
44	VIR1-RT-qPCR	1	12847801-12847809	3.08E-06					✓		
45	VIR1-RT-qPCR	1	12847801-12847831	2.41E-06						✓	
46	VIR1-RT-qPCR	1	16439106-16439194	1.56E-06						✓	
47	VIR1-RT-qPCR	1	16439121-16439194	2.79E-06					✓		
48	VIR1-RT-qPCR	1	22317862-22317904	3.42E-06						✓	✓
49	VIR1-RT-qPCR	1	22477514-22477858	2.43E-06					✓		
50	VIR1-RT-qPCR	1	22479424-22480055	9.74E-07						✓	
51	VIR1-RT-qPCR	1	22479476-22480055	9.74E-07						✓	
52	VIR1-RT-qPCR	1	22479673-22480055	1.20E-07						✓	✓
53	VIR1-RT-qPCR	1	22634655-22634935	1.17E-06						✓	
54	VIR1-RT-qPCR	1	27625141-27625313	2.90E-06						✓	
55	VIR1-RT-qPCR	1	27628535-27628657	2.78E-06					✓		✓
56	VIR1-RT-qPCR	1	27628657	1.66E-06				✓			
57	VIR1-RT-qPCR	1	27628985	1.66E-06				✓			
58	VIR1-RT-qPCR	1	27628972-27629055	3.22E-07						✓	✓
59	VIR1-RT-qPCR	1	29833478-29833558	1.09E-06	*NUA*[2]	29818970-29833016	positively regulates plant immunity through coordination with ESD4 to deSUMOylate TPR1 in Arabidopsis			✓	✓
60	VIR1-RT-qPCR	2	6987064-6987235	7.35E-08					✓		✓

61	VIR1-RT-qPCR	3	3450696-3450704	2.23E-06					✓		
62	VIR1-RT-qPCR	3	11773652-11773660	7.14E-07					✓		✓
63	VIR1-RT-qPCR	3	16313894-16313899	4.37E-07					✓		
64	VIR1-RT-qPCR	3	16313899-16313926	7.50E-07					✓		
65	VIR1-RT-qPCR	3	18590576-18590743	2.47E-06						✓	
66	VIR1-RT-qPCR	4	2008627-2008677	2.89E-06					✓		
67	VIR1-RT-qPCR	4	3698515-3698577	1.55E-07					✓		✓
68	VIR1-RT-qPCR	4	3698577	3.47E-08				✓			
69	VIR1-RT-qPCR	4	3698577-3698579	1.73E-07					✓		✓
70	VIR1-RT-qPCR	4	4299550-4299556	2.80E-06					✓		
71	VIR1-RT-qPCR	4	4782152-4782213	1.25E-06						✓	✓
72	VIR1-RT-qPCR	4	5055383-5056050	1.82E-06					✓		
73	VIR1-RT-qPCR	4	5678530-5678537	3.84E-07					✓		✓
74	VIR1-RT-qPCR	4	8516950-8517043	1.65E-06						✓	
75	VIR1-RT-qPCR	4	8516957-8517043	1.65E-06					✓		
76	VIR1-RT-qPCR	4	8516957-8517053	1.65E-06						✓	
77	VIR1-RT-qPCR	4	9886695-9886717	3.27E-06					✓		
78	VIR1-RT-qPCR	4	9886743-9886777	1.22E-06					✓		✓
79	VIR1-RT-qPCR	4	16911295-16911414	1.20E-07						✓	
80	VIR1-RT-qPCR	4	16911296-16911414	1.20E-07						✓	
81	VIR1-RT-qPCR	4	16911296-16911415	1.20E-07						✓	
82	VIR1-RT-qPCR	4	16911668-16911736	1.80E-06					✓		✓
83	VIR1-RT-qPCR	4	16911668-16911744	1.80E-06						✓	✓
84	VIR1-RT-qPCR	4	18182196-18182287	5.91E-08	*EDS5*[3]	18185437- 18189224	enhances resistance to viruses			✓	
85	VIR1-RT-qPCR	5	1515327-1515329	9.77E-10					✓		
86	VIR1-RT-qPCR	5	1515327-1515437	2.62E-09						✓	✓
87	VIR1-RT-qPCR	5	1515327-1515443	5.22E-09						✓	✓
88	VIR1-RT-qPCR	5	1515443-1515476	1.83E-09						✓	✓
89	VIR1-RT-qPCR	5	1515454-1515476	1.83E-09					✓		✓
90	VIR1-RT-qPCR	5	1515513-1515973	1.65E-09					✓		✓
91	VIR1-RT-qPCR	5	1515973	3.95E-07				✓			
92	VIR1-RT-qPCR	5	1515973-1516024	2.15E-07					✓		

93	VIR1-RT-qPCR	5	1515973-1516046	1.76E-09						✓	✓
94	VIR1-RT-qPCR	5	1516024	1.63E-06				✓			
95	VIR1-RT-qPCR	5	1516024-1516046	1.17E-08					✓		
96	VIR1-RT-qPCR	5	1516024-1516141	5.47E-10						✓	✓
97	VIR1-RT-qPCR	5	1516046	1.25E-06				✓			
98	VIR1-RT-qPCR	5	1516046-1516141	1.60E-10					✓		✓
99	VIR1-RT-qPCR	5	1516141	1.12E-09				✓			
100	VIR1-RT-qPCR	5	1516141-1516142	2.34E-09					✓		
101	VIR1-RT-qPCR	5	1516046-1516142	2.11E-10						✓	✓
102	VIR1-RT-qPCR	5	1516142	1.14E-08				✓			
103	VIR1-RT-qPCR	5	1516142-1516237	3.44E-08					✓		
104	VIR1-RT-qPCR	5	1516046-1516237	7.74E-10						✓	✓
105	VIR1-RT-qPCR	5	1516237	2.00E-07				✓			
106	VIR1-RT-qPCR	5	1516237-1516289	4.61E-07					✓		
107	VIR1-RT-qPCR	5	1516046-1516289	3.46E-09						✓	✓
108	VIR1-RT-qPCR	5	1516046-1516564	1.06E-08						✓	✓
119	VIR1-RT-qPCR	5	6217297-6217407	1.11E-06						✓	
110	VIR1-RT-qPCR	5	7040060-7040060	2.70E-06				✓			
111	VIR1-RT-qPCR	5	10453654-10454207	2.38E-06						✓	
112	VIR1-RT-qPCR	5	10480042-10480078	9.95E-07					✓		✓
113	VIR1-RT-qPCR	5	10480078	1.36E-06				✓			
114	VIR1-RT-qPCR	5	10480042-10480187	2.13E-06						✓	✓
115	VIR1-RT-qPCR	5	10480187	1.88E-06				✓			
116	VIR1-RT-qPCR	5	10480349	1.88E-06				✓			
117	VIR1-RT-qPCR	5	10480473	1.88E-06				✓			
118	VIR1-RT-qPCR	5	10689152-10689156	1.00E-09					✓		✓
119	VIR1-RT-qPCR	5	10772704-10772722	6.89E-07					✓		✓
120	VIR1-RT-qPCR	5	16337071-16337199	3.13E-06						✓	
121	VIR1-RT-qPCR	5	16337071-16337228	3.13E-06						✓	
122	VIR1-RT-qPCR	5	18867227	2.28E-06				✓			
123	VIR1-RT-qPCR	5	18867656	1.62E-06				✓			
124	VIR1-RT-qPCR	5	19226726-19226795	1.69E-06					✓		
125	VIR1-RT-qPCR	5	22145712-22145751	1.36E-06					✓		

126	VIR1-RT-qPCR	5	23643608-23643629	8.31E-07					✓		✓
127	VIR1-RT-qPCR	5	23939404	2.52E-06				✓			
128	VIR1-RT-qPCR	5	23939404-23939407	2.52E-06					✓		
129	VIR1-RT-qPCR	5	23939404-23939419	1.04E-06						✓	✓
130	VIR1-RT-qPCR	5	23939407	2.52E-06				✓			
131	VIR1-RT-qPCR	5	23939407-23939419	1.04E-06					✓		✓

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