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Supplementary Table S1. List of Fluidigm EP1 SNP type assays used in this study.

Assay No.	Assay name	Primer (5'-3')			
A1	ZymFL-D71G	**S1**	ATCAAAGCTACATCCACGGAAGATCT	**A1 (FAM)**	tgcgactaagaacgctatcagGCACTCTTGGACCTTTTGGTTCGa
		L1	TCCTCAACAGTAGAGAAGGTATAGATC	**B1 (HEX)**	caagtgatccgagaggttgaaCACTCTTGGACCTTTTGGTTCGc
A2	ZymFL-T81P	**S1**	ATCAAAGCTACATCCACGGAAGATCT	**A1 (FAM)**	tgcgactaagaacgctatcagCATCCGCCAAGTCTAAGCAAGCCa
		L1	TCCTCAACAGTAGAGAAGGTATAGATC	**B1 (HEX)**	caagtgatccgagaggttgaaCCGCCAAGTCTAAGCAAGCCc
A3	PRSV-W-CG940	**S1**	TCTTCCAGGGGTGGCTAGAGATC	**A1 (FAM)**	tgcgactaagaacgctatcagTTTGCATTAGTACACATGAAAGTTATCc
		L1	GTTCTCCCCTGTTGTTGTTACTCC	**B1 (HEX)**	caagtgatccgagaggttgaaGTTTTTGCATTAGTACACATGAAAGTTATCt
A4	PRSV-W-CG950	**S1**	TGGTGATAAGAAGAAGCAGGTCCCA	**A1 (FAM)**	tgcgactaagaacgctatcagGTTCGATCCAAAAAGCTTCTCAAATATGTt
		L1	TCAATGCAATAGAAGCCTATGTCCACT	**B1 (HEX)**	caagtgatccgagaggttgaaTCGATCCAAAAAGCTTCTCAAATATGTc
A5	FON1-124	**S1**	TATTGAGCAGTTTCTGCAGTATGCCAA	**A1 (FAM)**	tgcgactaagaacgctatcagCAACACCACCCACTTTGGAGCTt
		L1	TTTAGGGTGAAAATGGGTATTGTAGTATTG	**B1 (HEX)**	caagtgatccgagaggttgaaAACACCACCCACTTTGGAGCTg
A6	FON1-U161	**S1**	TATTGAGCAGTTTCTGCAGTATGCCAA	**A1 (FAM)**	tgcgactaagaacgctatcagGAACCGACAAGCATTGTGATTTCTACt
		L1	TTTAGGGTGAAAATGGGTATTGTAGTATTG	**B1 (HEX)**	caagtgatccgagaggttgaaACCGACAAGCATTGTGATTTCTACc
A7	FON1-S075	**S1**	GAGTGATTATGAGTGAGGAAAGAAAGC	**A1 (FAM)**	tgcgactaagaacgctatcagGAGAAATTCACAACTTGTCGAAGAAGAAAa
		L1	CAAAAATACTCTCATCTCTTCAAACGTGTA	**B1 (HEX)**	caagtgatccgagaggttgaaAGAAATTCACAACTTGTCGAAGAAGAAAg
A8	Pmr21-Cla831	**S1**	TCAAAGAGATAGTGTTAACTAAAGTCCG	**A1 (FAM)**	tgcgactaagaacgctatcagGTTCATACAACACTGCACAAATGTCg
		L1	GAGATTCTATTCTGGGTTCTGAGAAAGA	**B1 (HEX)**	caagtgatccgagaggttgaaCTTGTTCATACAACACTGCACAAATGTCa
A9	PM-r2-CG490	**S1**	CTTCACGGCTTCTATCAAAAGCTTCT	**A1 (FAM)**	tgcgactaagaacgctatcagCTAAGACTTCATCTTTGTTTACAGCAGCt
		L1	ATTCACCGAGACATCTGGGGACTT	**B1 (HEX)**	caagtgatccgagaggttgaaTAAGACTTCATCTTTGTTTACAGCAGCc
A10	PM-r2-CG450	**S1**	CTCTGACCCAAAAGCAGAGGTGAAT	**A1 (FAM)**	tgcgactaagaacgctatcagCTGACATTATGGCGCCTGGTGATt
		L1	CAAGACATAGAAGTTCCTGACATTACATTA	**B1 (HEX)**	caagtgatccgagaggttgaaTGACATTATGGCGCCTGGTGATg
A11	ClGBS-J168	**S1**	CATCTCGAGGATCACAACCATAGG	**A1 (FAM)**	tgcgactaagaacgctatcagATTTGTCCTTGATTATCGAGCTCTATCg
		L1	TAGGTTAGATGCCCTTGTGATAAGAC	**B1 (HEX)**	caagtgatccgagaggttgaaCATTTGTCCTTGATTATCGAGCTCTATCa
A12	GBS-GC230	**S1**	CCGATGCTGGTTAGGCAGTTGA	**A1 (FAM)**	tgcgactaagaacgctatcagTTATTAATCGGTTTTATAAGGAACTGCGg
		L1	CAATTTTCAACCAATTGGAGGCCAC	**B1 (HEX)**	caagtgatccgagaggttgaaATTTATTAATCGGTTTTATAAGGAACTGCGa
A13	AN-r1-Cl017	**S1**	GATAGTCACGTGTTTCAGAATAAGATCA	**A1 (FAM)**	tgcgactaagaacgctatcagCTATTGTTTTGCTTTATAATTTGCAGACATTGAA
		L1	GTTGAGGCATTTGCTCAATTGAAGTTG	**B1 (HEX)**	caagtgatccgagaggttgaaTGTTTTGCTTTATAATTTGCAGACATTGAg
A14	BFB-CG700	**S1**	ATTAAATCACGCTAGATTTCCATTTATCCC	**A1 (FAM)**	tgcgactaagaacgctatcagCATGTTTAGCTTTCAGCAGCAGGGt
		L1	GTGCAAACTGACAGAAACCCCTAC	**B1 (HEX)**	caagtgatccgagaggttgaaCATGTTTAGCTTTCAGCAGCAGGGa
A15	BFB-CG910	**S1**	CAATAAGGGAGTCAAATCATTGGAGATA	**A1 (FAM)**	tgcgactaagaacgctatcagGGGAGATTTGGCATGTTGGTGACAt
		L1	CAAGATTGAAAATTACCAGCCAAGCTC	**B1 (HEX)**	caagtgatccgagaggttgaaGGAGATTTGGCATGTTGGTGACAc
A16	ClLcyb	**S1**	TGAAGCTAAAGTTATTAAAGTTATACATGAGG	**A1 (FAM)**	tgcgactaagaacgctatcagCATTGTTCTTGATGCCACTGGCg
		L1	ATAAGCTACCTGGTAGCCTGGATTGTA	**B1 (HEX)**	caagtgatccgagaggttgaaCCATTGTTCTTGATGCCACTGGCt
A17	ClCRTISO-L659P	**S1**	TACTTTGACAGGGCTCGAAAAGAAGTC	**A1 (FAM)**	tgcgactaagaacgctatcagGATGCTGCCCTTCTTCGGCTACt
		L1	AAACTATTGCGGCACGACGGATATG	**B1 (HEX)**	caagtgatccgagaggttgaaATGCTGCCCTTCTTCGGCTACc

Supplementary Table S1. Continued.

Assay No.	Assay name	Primers (5'-3')			
A18	Qbrix2-2-Cl792	**S1**	ACCAGTTTGCTCAGTTGGTCGATG	**A1 (FAM)**	tgcgactaagaacgctatcagTAAAGAGTGGAAGGGCACTGTTGg
		L1	CATTCGTACCAATATACCTTGGACAG	**B1 (HEX)**	caagtgatccgagaggttgaaTAAAGAGTGGAAGGGCACTGTTGc
A19	ClTST2-1368	**S1**	ACACACGCTTCAAACACTAGGTAGAAT	**A1 (FAM)**	tgcgactaagaacgctatcagACTCAAAACCCTCTTTAAATTTTACTGAc
		L1	ATTCAAAACGAAGAATTATCACACTGACCA	**B1 (HEX)**	caagtgatccgagaggttgaaCAACTCAAAACCCTCTTTAAATTTTACTGAa
A20	Bt-Cl508	**S1**	GCGAGGAGTTAAGCGTTTTTGCCATA	**A1 (FAM)**	tgcgactaagaacgctatcagAGCTCATCTCTTTTATCAGACAATTGTTa
		L1	GGTCAATATCCGACCATATACATGAGA	**B1 (HEX)**	caagtgatccgagaggttgaaGCTCATCTCTTTTATCAGACAATTGTTg
A21	Cit-CG770	**S1**	GTTTTCTTGGTTGAATGCAGCAGCTT	**A1 (FAM)**	tgcgactaagaacgctatcagCCCACTTCCAACATTAACTTCTCGATAa
		L1	GACGGATTGACAATTTAGAAACTTCTGT	**B1 (HEX)**	caagtgatccgagaggttgaaCCACTTCCAACATTAACTTCTCGATAg
A22	Cit-Cl781	**S1**	ACTATAATCTGTTCTCAAGCCAGTGAG	**A1 (FAM)**	tgcgactaagaacgctatcagCAGAGATAAATTGGCTGCGGAGAAGa
		L1	TCTATATTGATCGATCACTGTTCTTATGC	**B1 (HEX)**	caagtgatccgagaggttgaaCAGAGATAAATTGGCTGCGGAGAAGt
A23	Arg-Cl154	**S1**	GTATGAAATCGACTCTGTAAAGCGTTC	**A1 (FAM)**	tgcgactaagaacgctatcagCTTGGCCTCAGGCTGCTTGGAa
		L1	CTCAGTTGCTTCTGTACTCATTTCACT	**B1 (HEX)**	caagtgatccgagaggttgaaTTGGCCTCAGGCTGCTTGGAg
A24	SS-chr2-1	**S1**	AAATGGGCATTTTCCAGCAGATCTC	**A1 (FAM)**	tgcgactaagaacgctatcagGGAATCAGGATTTAAGTTCTTTCTTACTCt
		L1	GCAAATCTGCAAGACAAATCTTCGAC	**B1 (HEX)**	caagtgatccgagaggttgaaGAATCAGGATTTAAGTTCTTTCTTACTCc
A25	ClERF4-M3	**S1**	AAATCTGACCTCAATCTCAATCGCTC	**A1 (FAM)**	tgcgactaagaacgctatcagATCCTCCGGTGAAATTGACGATCc
		L1	ACAGAGTCGAAACCGTCAATAGGGA	**B1 (HEX)**	caagtgatccgagaggttgaaCAAATCCTCCGGTGAAATTGACGATCt
A26	ClFirm-NW011	**S1**	CATTTGTTAACAAGCAATACGAGTTTGTTTAT	**A1 (FAM)**	tgcgactaagaacgctatcagGTAGCTATCATAGGATTTCGTTGAGTAg
		L1	GAGTGTCTTACCTATTCAACTATATTCG	**B1 (HEX)**	caagtgatccgagaggttgaaGTGTAGCTATCATAGGATTTCGTTGAGTAa
A27	ClACS7-C364W	**S1**	CGGTTTTTAGCGTCCATGTTGTCGA	**A1 (FAM)**	tgcgactaagaacgctatcagGGAAGGGAATGCCGGTTTATTTTGc
		L1	ACTTCCTTCAAAATCCGCTTCCAAATC	**B1 (HEX)**	caagtgatccgagaggttgaaGGAAGGGAATGCCGGTTTATTTTGg
A28	ClSUN-336	**S1**	AATTAGGCGAGGAAAGCACTGAGAG	**A1 (FAM)**	tgcgactaagaacgctatcagCTCTTCATAGTATGCAAGCTTTAATCAGAa
		L1	ACCATTGATTTTCTGGCTCGGATTTC	**B1 (HEX)**	caagtgatccgagaggttgaaCTTCATAGTATGCAAGCTTTAATCAGAg
A29	RSP-CG040	**S1**	ATGACATACCTCTCTCCTTGTCTCCA	**A1 (FAM)**	tgcgactaagaacgctatcagGACAACTCCTTTAACAGATACTCTGCa
		L1	TGGCAAACGGTGATCGTGTCAAAG	**B1 (HEX)**	caagtgatccgagaggttgaaGACAACTCCTTTAACAGATACTCTGCt
A30	RSP-CG030	**S1**	AGGTAGCTCAACAAGAGGCTGAG	**A1 (FAM)**	tgcgactaagaacgctatcagGAGAGCGAGTCAGCTAAGTTGATTTCa
		L1	ACGTGATACGAGTTCATCACATTACC	**B1 (HEX)**	caagtgatccgagaggttgaaGAGAGCGAGTCAGCTAAGTTGATTTCt
A31	ClCoat-R	**S1**	GCAGCAACAATTCCATCCCTTCCTT	**A1 (FAM)**	tgcgactaagaacgctatcagCCCTCCTTAGCTTTCACCATTAAAATTc
		L1	AGTTAGGGATTTGTTTCAAAATGGGTTTG	**B1 (HEX)**	caagtgatccgagaggttgaaTTCCCTCCTTAGCTTTCACCATTAAAATTa
A32	ClCoat-T	**S1**	TTGCTGATCCAATAGAATCAAGCGGT	**A1 (FAM)**	tgcgactaagaacgctatcagGGCTTGTGAAATCAAAGATATGGACCAa
		L1	TACCTTACAATCATCTGCTATATATCTAGC	**B1 (HEX)**	caagtgatccgagaggttgaaGCTTGTGAAATCAAAGATATGGACCAg
A33	ClCoat-D	**S1**	AATGGTTGGATTGGAGATGCAGTGC	**A1 (FAM)**	tgcgactaagaacgctatcagCATGTCACAATTTAGGCACATCATTGTTTa
		L1	GAAAAATGAATCCTTCCTTTAGCCAGAG	**B1 (HEX)**	caagtgatccgagaggttgaaCATGTCACAATTTAGGCACATCATTGTTTt

Supplementary Table S2. Position of SNP markers on various chromosomes of watermelon.

Assay No.	Assay name	Location of SNP	Chromosome	Position	Ref. Genome
A1	ZymFL-D71G	eIF4E gene, nucleotide at position 171	3	32,395,231	97103
A2	ZymFL-T81P	eIF4E gene, nucleotide at position 241	3	32,395,281	97103
A3	PRSV-W-CG940		2	30,317,732	Charleston Gray
A4	PRSV-W-CG950		8	12,489,188	Charleston Gray
A5	FON1-124		1	502,124	97103
A6	FON1-U161		1	502,161	97103
A7	FON1-S075		1	421,075	97103
A8	Pmr21-Cla831		2	26,751,854	97103
A9	PM-r2-CG490		2	30,985,693	Charleston Gray
A10	PM-r2-CG450		8	28,818,938	Charleston Gray
A11	ClGBS-J168		8	11,995,922	97103
A12	GBS-GC230	*ClCG07G013230* gene, nucleotide at position 598	7	29,622,685	Charleston Gray
A13	AN-r1-Cl017		8	11,761,530	97103
A14	BFB-CG700		10	32,565,842	97103
A15	BFB-CG910		10	32,897,777	97103
A16	ClLcyb	Lcyb gene, nucleotide at position 676	4	15,442,987	97103
A17	ClCRTISO-L659P	CRTISO gene, nucleotide at position 1976	10	31,017,594	97103
A18	Qbrix2-2-Cl792		2	30,498,704	97103
A19	ClTST2-1368	ClTST2(Cla000264) gene, nucleotide at position 1368	2	19,425,783	97103
A20	Bt-Cl508	Cla011508 gene, nucleotide at position 382	1	3,168,898	97103
A21	Cit-CG770		2	33,508,197	97103
A22	Cit-Cl781		6	30,991,451	97103
A23	Arg-Cl154		8	24,452,498	Charleston Gray
A24	SS-chr2-1		2	33,367,895	97103
A25	ClERF4-M3		10	2,682,700	97103
A26	ClFirm-NW011		6	13,046,756	97103
A27	ClACS7-C364W		3	29,538,292	97103
A28	ClSUN-336		3	26,847,336	97103
A29	RSP-CG040		6	30,167,639	Charleston Gray
A30	RSP-CG030		6	30,155,873	Charleston Gray
A31	ClCoat-R		3	5820136	97103
A32	ClCoat-T		5	4591724	97103
A33	ClCoat-D		2	19771115	97103

Supplementary Table S3. List of watermelon genetic sources used in this study.

Sl. No.	Species	Flesh color	Brix	Rind thickness	Fruit shape	Stripes	Origin
W001	*C. lanatus*	Red	12	1.2	Oval	Thin	Korea
W002	*C. lanatus*	Red	11.5	1.4	Oblong	Medium	Japan
W003	*C. lanatus*	Red	13	1.5	Oval	Medium	Japan
W004	*C. lanatus*	Red	11	0.9	Blocky	Wide	Korea
W005	*C. lanatus*	Red	12	1	Oval	Medium	Korea
W006	*C. lanatus*	Red	12	1	Blocky	Medium	Japan
W007	*C. lanatus*	Red	12	1.4	Oval	Thin	Korea
W008	*C. lanatus*	Red	12	0.9	Oval	Medium	Korea
W009	*C. lanatus*	Red	13	1.1	Globe	Thin	Korea
W010	*C. lanatus*	Red	13	1.3	Blocky	Wide	Japan
W011	*C. lanatus*	Red	13	1.2	Oval	Thin	Japan
W012	*C. lanatus*	Red	13	1.1	Oblong	Medium	Japan
W013	*C. lanatus*	Red	12	1.5	Globe	Thin	Korea
W014	*C. lanatus*	Red	11	1.3	Oblong	Medium	Korea
W015	*C. lanatus*	Red	12	1.4	Globe	Medium	Korea
W016	*C. lanatus*	Red	11	1.3	Globe	Medium	Korea
W017	*C. lanatus*	Red	13	1.6	Oblong	Wide	Korea
W018	*C. lanatus*	Red	12	0.8	Oval	Medium	Korea
W019	*C. lanatus*	Red	12	1.8	Oblong	Medium	Japan
W020	*C. lanatus*	Red	12	1.3	Oblong	Medium	Japan
W021	*C. lanatus*	Red	13	1.3	Globe	Medium	Korea
W022	*C. lanatus*	Red	12	1.4	Globe	Thin	Korea
W023	*C. lanatus*	Red	10	1.3	Globe	Thin	Korea
W024	*C. lanatus*	Red	12.5	1.1	Oval	Thin	Korea
W025	*C. lanatus*	Red	12	1.2	Blocky	Absent	Korea
W026	*C. lanatus*	Red	11	1	Oval	Medium	Korea
W027	*C. lanatus*	Red	12	1.3	Oblong	Medium	Japan
W028	*C. lanatus*	Red	10	1.3	Oval	Absent	Korea
W029	*C. lanatus*	Red	13	1.2	Blocky	Absent	Thailand
W030	*C. lanatus*	Red	11	1.1	Oval	Absent	Korea
W031	*C. lanatus*	Red	10	0.9	Oval	Medium	Korea
W032	*C. lanatus*	Red	11.5	1	Oval	Medium	Japan
W033	*C. lanatus*	Red	11.5	1.3	Oblong	Medium	Japan
W034	*C. lanatus*	Red	11	0.9	Blocky	Medium	Korea
W035	*C. lanatus*	Red	13	0.6	elongated	Medium	Japan
W036	*C. lanatus*	Red	14	0.4	Oval	Absent	Japan
W037	*C. lanatus*	Red	12	0.8	Oblong	Medium	Korea
W038	*C. lanatus*	Red	13	0.3	Oval	Absent	South-East Asia
W039	*C. lanatus*	Red	13	0.5	Oblong	Absent	Korea
W040	*C. lanatus*	Red	12	0.8	Oblong	Medium	Korea
W041	*C. lanatus*	Red	10.5	0.8	Oval	Wide	Thailand
W042	*C. lanatus*	Red	12	0.7	Oblong	Absent	Korea
W043	*C. lanatus*	Red	12	1.3	Oblong	Wide	South-East Asia
W044	*C. lanatus*	Red	11	0.7	Oblong	Absent	South-East Asia
W045	*C. lanatus*	Red	13	0.9	Oblong	Wide	South-East Asia
W046	*C. lanatus*	Red	12	0.8	Oblong	Wide	South-East Asia
W047	*C. lanatus*	Red	12	0.7	Oblong	Thin	Korea
W048	*C. lanatus*	Red	11	0.7	Oblong	Thin	Korea
W049	*C. lanatus*	Red	13	1	Oblong	Wide	South-East Asia

W050	*C. lanatus*	Red	12	0.7	Oblong	Absent	Korea
W051	*C. lanatus*	Red	12	0.7	Blocky	Wide	South-East Asia
W052	*C. lanatus*	Red	12.5	0.6	Oval	Thin	Korea
W053	*C. lanatus*	Red	12	0.4	Oblong	Absent	Korea
W054	*C. lanatus*	Red	12	0.5	Blocky	Wide	South-East Asia
W055	*C. lanatus*	Red	12	0.4	Oblong	Absent	Korea
W056	*C. lanatus*	Red	11.5	0.6	Globe	Wide	Europe
W057	*C. lanatus*	Red	10.5	1	Oval	Wide	Europe
W058	*C. lanatus*	Red	11	0.8	Oblong	Wide	Europe
W059	*C. lanatus*	Red	10.5	1.1	Globe	Wide	Europe
W060	*C. lanatus*	Red	10	0.9	Oval	Absent	Europe
W061	*C. lanatus*	Red	10	0.8	Oblong	Wide	Europe
W062	*C. lanatus*	Red	10.5	1	Oblong	Wide	Europe
W063	*C. lanatus*	Red	10	1.2	Oval	Wide	Europe
W064	*C. lanatus*	Red	10	1.3	Oval	Absent	Europe
W065	*C. lanatus*	Red	10	1	Oblong	Wide	Europe
W066	*C. lanatus*	Red	11	1.1	Oval	Medium	Europe
W067	*C. lanatus*	Red	11	0.8	Oval	Medium	Europe
W068	*C. lanatus*	Red	10.5	0.8	Oblong	Wide	Europe
W069	*C. lanatus*	Red	9	0.7	Oval	Medium	Europe
W070	*C. lanatus*	Red	11	1.2	Oblong	Wide	Europe
W071	*C. lanatus*	Red	9	0.9	Oval	Medium	Europe
W072	*C. lanatus*	Red	10.5	0.7	Oval	Wide	Europe
W073	*C. lanatus*	Red	10.5	1	Oval	Medium	Europe
W074	*C. lanatus*	Red	10.5	0.8	Oval	Medium	Europe
W075	*C. lanatus*	Red	10	1.1	Oblong	Wide	Europe
W076	*C. lanatus*	Red	10	0.8	Oval	Medium	Europe
W077	*C. lanatus*	Red	11	0.8	Oblong	Wide	Europe
W078	*C. lanatus*	Red	11	0.9	Oblong	Wide	Europe
W079	*C. lanatus*	Red	11	0.7	Oblong	Wide	Europe
W080	*C. lanatus*	Red	11	1.1	Oblong	Wide	Europe
W081	*C. lanatus*	Red	11	1	Oblong	Wide	Europe
W082	*C. lanatus*	Red	10.5	1	Oblong	Wide	Europe
W083	*C. lanatus*	Red	11	1.2	Oblong	Wide	Europe
W084	*C. lanatus*	Red	10	0.8	Oblong	Wide	Europe
W085	*C. lanatus*	Red	9	1	Globe	Medium	Europe
W086	*C. lanatus*	Red	11	0.8	Oblong	Wide	Europe
W087	*C. lanatus*	Pinkish red	9	0.7	Oval	Wide	Europe
W088	*C. lanatus*	Red	10.5	0.8	Globe	Wide	Europe
W089	*C. lanatus*	Pinkish red	11	0.9	Oblong	Wide	Europe
W090	*C. lanatus*	Red	10.5	1	Oval	Wide	Europe
W091	*C. lanatus*	Red	11	0.8	Oblong	Wide	Europe
W092	*C. lanatus*	Red	11	0.9	Oblong	Wide	Europe
W093	*C. lanatus*	Red	11	0.8	Oval	Wide	Europe
W094	*C. lanatus*	Red	10	0.8	Oval	Wide	Europe
W095	*C. lanatus*	Red	11	0.8	Oblong	Wide	Europe
W096	*C. lanatus*	Red	11.5	0.8	Oblong	Wide	Europe
W097	*C. lanatus*	Red	11	1.1	Oblong	Wide	Europe
W098	*C. lanatus*	Red	10	0.9	Oblong	Wide	Europe
W099	*C. lanatus*	Red	10.5	0.8	Oblong	Wide	Europe
W100	*C. lanatus*	Red	11	0.8	Blocky	Wide	Europe

W101	*C. lanatus*	Pinkish red	10.5	0.7	Oval	Wide	Europe
W102	*C. lanatus*	Red	10	0.8	Oblong	Wide	Europe
W103	*C. lanatus*	Red	12	1.2	Oval	Thin	Korea
W104	*C. lanatus*	Red	12	1	Oval	Thin	Korea
W105	*C. lanatus*	Red	12	1	Oval	Thin	Korea
W106	*C. lanatus*	Red	11	1	Oval	Medium	Japan
W107	*C. lanatus*	Red	12.5	1.1	Oval	Medium	Japan
W108	*C. lanatus*	Red	12	0.8	Oval	Thin	Japan
W109	*C. lanatus*	Red	13	0.9	Oval	Thin	Japan
W110	*C. lanatus*	Red	13	0.9	Oval	Medium	Japan
W111	*C. lanatus*	Red	13	0.9	Oval	Medium	Japan
W112	*C. lanatus*	Red	13	1.1	Oblong	Medium	Korea
W113	*C. lanatus*	Red	12	0.8	Oblong	Medium	Korea
W114	*C. lanatus*	Red	12	0.8	Oblong	Medium	Korea
W115	*C. lanatus*	Red	12.5	0.9	Oblong	Wide	Korea
W116	*C. lanatus*	Red	12	0.8	elongated	Wide	Korea
W117	*C. lanatus*	Red	12	1	Blocky	Medium	Korea
W118	*C. lanatus*	Red	12	0.7	Blocky	Medium	Korea
W119	*C. lanatus*	Red	12	0.7	Blocky	Medium	Korea
W120	*C. lanatus*	Red	11.5	0.7	Oval	Thin	Korea
W121	*C. lanatus*	Red	11.5	0.5	Oval	Thin	Korea
W122	*C. lanatus*	Red	13	0.7	Oval	Thin	Japan
W123	*C. lanatus*	Red	14	0.8	Oval	Thin	Thailand
W124	*C. lanatus*	Yellow	10	0.7	Oval	Medium	Korea
W125	*C. lanatus*	Yellow	11	0.8	Oval	Medium	Korea
W126	*C. lanatus*	Yellow	9	0.7	Blocky	Medium	Thailand
W127	*C. lanatus*	Yellow	12	0.6	Globe	Medium	Korea
W128	*C. lanatus*	Yellow	12	0.5	Oval	Thin	Korea
W129	*C. lanatus*	Yellow	12	0.4	Globe	Thin	Korea
W130	*C. lanatus*	Yellow	11.5	0.4	Oval	Thin	Korea
W131	*C. lanatus*	Pinkish red	8	1	Blocky	Wide	Thailand
W132	*C. lanatus*	Pinkish red	8	0.9	Blocky	Wide	Thailand
W133	*C. lanatus*	Pinkish red	8	0.8	Oblong	Wide	Thailand
W134	*C. lanatus*	Pinkish red	7	0.8	Blocky	Wide	Thailand
W135	*C. lanatus*	Red	7	1	Oblong	Wide	Thailand
W136	*C. lanatus*	Yellow	6	0.7	Blocky	Wide	Thailand
W137	*C. lanatus*	Red	10	0.8	Oblong	Absent	Thailand
W138	*C. lanatus*	Red	11	0.6	Blocky	Absent	Thailand
W139	*C. lanatus*	Red	11	0.8	Oblong	Absent	Thailand
W140	*C. lanatus*	Red	10	0.8	Oval	Thin	Thailand
W141	*C. lanatus*	Red	12	0.7	Oblong	Thin	Thailand
W142	*C. lanatus*	Red	11	1	Oblong	Medium	Thailand
W143	*C. lanatus*	Red	11	0.7	Oval	Thin	Thailand
W144	*C. lanatus*	Red	11	0.9	Oblong	Absent	Thailand
W145	*C. lanatus*	Red	12	0.8	Oblong	Absent	Thailand
W146	*C. lanatus*	Red	11	0.8	Oval	Thin	Thailand
W147	*C. lanatus*	Red	11	0.7	Oblong	Absent	Thailand
W148	*C. lanatus*	Red	11.5	0.8	Oblong	Absent	Thailand
W149	*C. lanatus*	Pinkish red	14.5	0.3	Globe	Thin	Korea
W150	*C. lanatus*	Red	11	0.4	Globe	Medium	Korea
W151	*C. lanatus*	Pinkish red	11.5	0.3	Globe	Thin	Korea

W152	*C. lanatus*	Red	12	0.4	Globe	Thin	Korea
W153	*C. lanatus*	Pinkish red	12	0.3	Globe	Thin	Korea
W154	*C. lanatus*	Yellow	12	0.4	Oval	Absent	Korea
W155	*C. lanatus*	Yellow	11	0.5	Globe	Thin	Korea
W156	*C. lanatus*	Orange	12	0.5	Globe	Thin	Korea
W157	*C. lanatus*	Yellow	11	0.5	Oval	Medium	Korea
W158	*C. lanatus*	Yellow	11	0.5	Oval	Medium	Korea
W159	*C. lanatus*	Red	11	0.6	Oval	Thin	Korea
W160	*C. lanatus*	Red	10	0.5	Globe	Thin	Korea
W161	*C. lanatus*	Pinkish red	10	0.2	Globe	Medium	Korea
W162	*C. lanatus*	Red	8	0.5	Globe	Thin	Korea
W163	*C. lanatus*	Pinkish red	5	1	Oblong	Absent	Liberia
W164	*C. mucosospermus*	White	5	0.8	Oval	Wide	Liberia
W165	*C. amarus*	White	3	0.6	Globe	Absent	Congo
W166	*C. amarus*	White	3	0.5	Globe	Medium	Transvaal
W167	*C. lanatus*	White	3	1.2	Globe	Wide	Senegal
W168	*C. lanatus*	White	5	0.7	Oval	Absent	Transvaal
W169	*C. lanatus*	Yellow	5	1	Globe	Absent	Japan
W170	*C. amarus*	White	3	0.5	Globe	Absent	Cape Province
W171	*C. lanatus*	Pinkish red	5	1	Globe	Absent	Spain
W172	*C. lanatus*	Pinkish red	5	0.7	Globe	Absent	Spain
W173	*C. lanatus*	Pinkish red	5	0.7	Globe	Medium	Zimbabwe
W174	*C. amarus*	White	4	0.8	Oval	Wide	Eswatini
W175	*C. amarus*	Pinkish red	4	0.7	Globe	Absent	Zimbabwe
W176	*C. amarus*	White	3	0.9	Globe	Absent	Congo
W177	*C. amarus*	White	4	0.8	Oval	Absent	Cape Province
W178	*C. amarus*	White	3	0.9	Oval	Absent	Cape Province
W179	*C. lanatus*	White	3	0.8	Globe	Absent	United States
W180	*C. lanatus*	Pinkish red	5	1.1	Oval	Absent	India
W181	*C. lanatus*	Pinkish red	5	0.9	Oval	Absent	Turkey
W182	*C. lanatus*	Pinkish red	5	0.7	Globe	Absent	North Macedonia
W183	*C. lanatus*	Red	5	0.9	Oblong	Absent	Congo
W184	*C. lanatus*	Pinkish red	5	1	Oval	Medium	Kenya
W185	*C. amarus*	White	3	1	Oval	Absent	Zimbabwe
W186	*C. lanatus*	White	3	1	Globe	Absent	Venezuela
W187	*C. lanatus*	Pinkish red	5	1	Globe	Medium	Zambia
W188	*C. lanatus*	Pinkish red	5	0.5	Globe	Absent	Spain
W189	*C. lanatus*	Pinkish red	5	1	Globe	Medium	Spain
W190	*C. lanatus*	White	3	1	Globe	Absent	Egypt
W191	*C. mucosospermus*	White	3	0.8	Globe	Absent	Senegal
W192	*C. mucosospermus*	White	3	0.9	Globe	Absent	Liberia

Supplementary Table S4. Marker types of 18 SNP type assays in 192 watermelon F1 hybrids breeding lines.

Plant material	Flesh color		Sugar content		Bitterness	Citrulline content		Arginine content	Seed size	Rind hardness	Flesh firmness	Monoecious or Andromonoecious	Fruit shape	Rind Strip Pattern		Seed coat color		
	A16[z]	A17	A18	A19	A20	A21	A22	A23	A24	A25	A26	A27	A28	A29	A30	A31	A32	A33
A001	A	A	H	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A002	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A003	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A004	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A005	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A006	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A007	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A008	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A009	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A010	A	A	B	A	H	H	A	H	B	A	H	M	B	H	H	A	A	A
A011	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A012	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A013	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A014	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A015	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A016	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A017	A	A	B	A	H	H	A	H	B	A	H	M	B	H	H	A	A	A
A018	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A019	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A020	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A021	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A022	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A023	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A024	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A025	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A026	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A027	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A028	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A029	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A030	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A031	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A032	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A033	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A034	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A035	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A036	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A037	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A038	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A039	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A040	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A041	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A042	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A043	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A044	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A045	A	A	H	A	H	H	A	H	B	A	H	M	B	A	A	A	A	A
A046	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A047	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
A048	A	A	B	A	H	H	A	H	B	A	A	M	B	A	A	A	A	A
B001	A	A	A	A	H	H	A	H	B	A	B	M	H	B	B	A	A	A

B002	A	A	A	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
B003	A	A	A	A	H	H	A	H	B	A	B	M	H	B	B	A	A	A
B004	A	A	A	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
B005	A	A	A	A	H	H	A	H	B	A	H	M	H	B	B	A	A	A
B006	A	A	A	A	H	H	A	H	B	A	H	M	H	B	B	A	A	A
B007	A	A	A	A	H	H	A	H	B	A	H	M	H	B	B	A	A	A
B008	A	A	A	A	H	H	A	H	H	A	H	M	H	B	B	A	A	A
B009	A	A	A	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
B010	A	A	A	A	H	H	A	H	B	A	H	M	H	B	B	A	A	A
B011	A	A	H	A	H	H	A	H	H	A	H	M	H	B	B	A	A	A
B012	A	A	A	A	H	H	A	H	B	A	H	M	B	B	B	A	A	A
B013	A	A	A	A	H	H	A	H	B	A	H	M	H	B	B	A	A	A
B014	A	A	A	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
B015	A	A	H	A	H	H	A	H	H	A	H	M	H	B	B	A	A	A
B016	A	A	H	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
B017	A	A	A	A	H	H	A	H	H	A	B	M	H	B	B	A	A	A
B018	A	A	A	A	H	H	A	H	H	A	H	M	B	B	B	A	A	A
B019	A	A	A	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
B020	A	A	A	A	H	H	A	H	H	A	B	M	H	B	B	A	A	A
B021	A	A	A	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
B022	A	A	H	A	H	H	A	H	B	A	B	M	H	B	B	A	A	A
B023	A	A	A	A	H	H	A	H	B	A	H	M	H	B	B	A	A	A
B024	A	A	A	A	H	H	A	H	H	A	H	M	H	B	B	A	A	A
B025	A	A	A	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
B026	A	A	A	A	H	H	A	H	H	A	H	M	H	B	B	A	A	A
B027	A	A	A	A	H	H	A	H	H	A	H	M	B	B	B	A	A	A
B028	A	A	A	A	H	H	A	H	B	A	A	M	H	B	B	A	A	A
B029	A	A	A	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
B030	A	A	A	A	H	H	A	H	B	A	H	M	H	B	B	A	A	A
B031	A	A	A	A	H	H	A	H	H	A	H	M	H	B	B	A	A	A
B032	A	A	A	A	H	H	A	H	H	A	H	M	H	B	B	A	A	A
B033	A	A	A	A	H	H	A	H	H	A	H	M	B	B	B	A	A	A
B034	A	A	A	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
B035	A	A	A	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
B036	A	A	H	A	H	H	A	H	A	A	B	M	H	B	B	A	A	A
B037	A	A	A	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
B038	A	A	A	A	H	H	A	H	H	A	H	M	B	B	B	A	A	A
B039	A	A	A	A	H	H	A	H	B	A	A	M	H	B	B	A	A	A
B040	A	A	A	A	H	H	A	H	H	A	H	M	H	B	B	A	A	A
B041	A	A	A	A	H	H	A	H	H	A	H	M	H	B	B	A	A	A
B042	A	A	H	A	H	H	A	H	B	A	B	M	H	B	B	A	A	A
B043	A	A	A	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
B044	A	A	A	A	H	H	A	H	B	A	H	M	H	B	B	A	A	A
B045	A	A	A	A	H	H	A	H	H	A	H	M	B	B	B	A	A	A
B046	A	A	A	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
B047	A	A	A	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
B048	A	A	A	A	H	H	A	H	H	A	B	M	H	B	B	A	A	A
C001	A	A	A	A	H	H	A	H	B	H	B	M	H	A	A	A	A	A
C002	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C003	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C004	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C005	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C006	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C007	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A

C008	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C009	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C010	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C011	A	A	A	A	H	H	A	H	B	H	B	M	H	A	A	A	A	A
C012	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C013	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C014	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C015	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C016	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C017	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C018	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C019	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C020	A	A	A	A	H	H	A	H	B	H	B	M	H	A	A	A	A	A
C021	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C022	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C023	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C024	A	A	A	A	H	H	A	H	B	H	B	M	H	A	A	A	A	A
C025	A	A	A	A	H	H	A	H	B	H	B	M	H	A	A	A	A	A
C026	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C027	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C028	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C029	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C030	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C031	A	A	A	A	H	H	A	H	H	H	H	M	B	A	A	A	A	A
C032	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C033	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C034	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C035	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C036	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C037	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C038	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C039	A	A	A	A	H	H	A	H	B	H	B	M	H	A	A	A	A	A
C040	A	A	A	A	H	H	A	H	B	H	B	M	H	A	A	A	A	A
C041	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C042	A	A	A	A	H	H	A	H	H	H	H	M	B	A	A	A	A	A
C043	A	A	A	A	H	H	A	H	B	H	B	M	H	A	A	A	A	A
C044	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C045	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C046	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C047	A	A	A	A	H	H	A	H	B	H	B	M	B	A	A	A	A	A
C048	A	A	A	A	H	H	A	H	B	H	B	M	H	A	A	A	A	A
D001	A	A	B	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
D002	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D003	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D004	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D005	A	A	B	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
D006	A	A	B	A	H	H	A	H	H	A	B	M	B	H	H	A	A	A
D007	A	A	H	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D008	A	A	H	A	H	H	A	H	B	A	B	M	H	H	H	A	A	A
D009	A	A	B	A	H	H	A	H	H	A	B	M	B	H	H	A	A	A
D010	A	A	B	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
D011	A	A	B	A	H	H	A	H	H	A	B	M	B	H	H	A	A	A
D012	A	A	H	A	H	H	A	H	B	A	B	M	H	H	H	A	A	A
D013	A	A	H	A	H	H	A	H	B	A	B	M	H	H	H	A	A	A

D014	A	A	H	A	H	H	A	H	B	A	B	M	H	H	H	A	A	A
D015	A	A	H	A	H	H	A	H	B	A	B	M	H	H	H	A	A	A
D016	A	A	B	A	H	H	A	H	H	A	B	M	H	H	H	A	A	A
D017	A	A	H	A	H	H	A	H	B	A	B	M	H	H	H	A	A	A
D018	A	A	B	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
D019	A	A	H	A	H	H	A	H	B	A	B	M	H	H	H	A	A	A
D020	A	A	B	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
D021	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D022	A	A	H	A	H	H	A	H	B	A	B	M	H	H	H	A	A	A
D023	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D024	A	A	H	A	H	H	A	H	H	A	B	M	H	H	H	A	A	A
D025	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D026	A	A	H	A	H	H	A	H	B	A	B	M	H	H	H	A	A	A
D027	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D028	A	A	B	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
D029	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D030	A	A	B	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
D031	A	A	B	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
D032	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D033	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D034	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D035	A	A	B	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
D036	A	A	B	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
D037	A	A	B	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
D038	A	A	B	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
D039	A	A	B	A	H	H	A	H	H	A	B	M	B	H	H	A	A	A
D040	A	A	H	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D041	A	A	B	A	H	H	A	H	B	A	B	M	B	B	B	A	A	A
D042	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D043	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D044	A	A	H	A	H	H	A	H	A	A	B	M	B	B	B	A	A	A
D045	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D046	A	A	B	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D047	A	A	H	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A
D048	A	A	H	A	H	H	A	H	H	A	B	M	B	B	B	A	A	A

[z]A16, ClLcyb; A17, ClCRTISO-L659P; A18, Qbrix2-2-CL792; A19, CLTST2-1368; A20, Bt-Cl508; A21, Cit-CG770; A22, Cit-Cl781; A23, Arg-Cl154; A24, SS-chr2-1; A25, ClERF4-M3; A26, FON1-U161; A27, ClACS7-C364W; A28, ClSUN-336; A29, RSP-CG040; A30, RSP-CG030; A31, ClCoat-R; A32, ClCoat-T; A33, ClCoat-D.

[y]A, reference allele; B, alternative allele; H, heterozygous for A16-A33.

Supplementary Table S5. Marker types of 15 SNP type assays in 192 watermelon genetic sources.

Plant material	Zucchini yellow mosaic virus		Papaya ring spot virus		Fusarium wilt			Powdery mildew			Gummy stem blight		Anthracnose	Bacterial fruit blotch	
	A1[z]	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15
W001	S[y]	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W002	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W003	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W004	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W005	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W006	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W007	S	S	S	S	S	S	S	R	S	S	S	S	R	S	S
W008	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W009	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W010	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W011	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W012	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W013	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W014	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W015	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W016	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W017	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W018	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W019	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W020	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W021	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W022	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W023	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W024	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W025	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W026	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W027	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W028	S	S	S	S	S	R	R	S	S	S	S	S	S	S	S
W029	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W030	S	S	S	S	S	R	R	S	S	S	S	S	S	S	S
W031	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W032	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W033	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W034	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W035	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W036	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W037	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W038	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S

W039	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W040	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W041	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W042	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W043	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W044	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W045	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W046	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W047	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W048	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W049	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W050	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W051	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W052	S	S	S	S	S	H	S	S	S	S	S	S	R	S	S
W053	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W054	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W055	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W056	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W057	S	R	S	S	S	R	R	S	S	S	S	S	R	S	S
W058	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W059	S	R	S	S	S	R	R	R	S	S	S	S	R	S	S
W060	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W061	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W062	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W063	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W064	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W065	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W066	S	R	S	S	S	R	R	R	S	S	S	S	R	S	S
W067	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W068	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W069	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W070	S	R	S	S	S	S	R	S	S	S	S	S	S	S	S
W071	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W072	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W073	S	R	S	S	S	R	R	R	S	S	S	S	R	S	S
W074	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W075	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W076	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W077	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W078	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W079	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W080	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S

W081	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W082	S	R	S	S	S	R	R	R	S	S	S	S	R	S	S
W083	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W084	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W085	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W086	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W087	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W088	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W089	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W090	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W091	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W092	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W093	S	R	S	S	S	R	R	S	S	S	S	S	R	S	S
W094	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W095	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W096	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W097	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W098	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W099	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W100	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W101	S	S	S	S	S	R	R	H	S	S	S	S	R	S	S
W102	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W103	S	S	S	S	S	S	S	R	S	S	S	S	R	S	S
W104	S	R	S	S	S	R	R	R	S	S	S	S	R	S	S
W105	S	R	S	S	S	R	R	H	S	S	S	S	R	S	S
W106	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W107	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W108	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W109	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W110	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W111	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W112	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W113	S	S	S	S	S	S	S	R	S	S	S	S	R	S	S
W114	S	S	S	S	S	S	S	R	S	S	S	S	R	S	S
W115	S	S	S	S	S	R	R	S	S	S	S	S	H	S	S
W116	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W117	S	S	S	S	S	R	H	S	S	S	S	S	H	S	S
W118	S	S	S	S	S	R	S	S	S	S	S	S	R	S	S
W119	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W120	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W121	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W122	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S

W123	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W124	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W125	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W126	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W127	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W128	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W129	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W130	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W131	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W132	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W133	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W134	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W135	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W136	S	S	S	S	S	R	R	H	S	S	S	S	R	S	S
W137	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W138	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W139	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W140	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W141	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W142	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W143	S	S	S	S	S	S	S	S	S	S	S	S	H	S	S
W144	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W145	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W146	S	S	S	S	S	R	H	H	S	S	S	S	R	S	S
W147	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W148	S	S	S	S	S	R	R	R	S	S	S	S	R	S	S
W149	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W150	S	S	S	S	S	R	R	S	S	S	S	S	S	S	S
W151	S	S	S	S	S	R	R	S	S	S	S	S	H	S	S
W152	S	S	S	S	S	R	R	S	S	S	S	S	R	S	S
W153	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W154	S	S	S	S	S	S	R	S	S	S	S	S	S	S	S
W155	S	S	S	S	S	S	H	S	S	S	S	S	S	S	S
W156	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W157	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W158	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W159	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W160	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W161	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W162	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W163	S	S	S	S	S	S	S	R	S	S	S	S	S	S	S
W164	S	S	H	S	S	S	S	S	H	H	S	S	S	R	R

W165	S	S	R	R	S	S	S	S	S	R	R	R	S	R	R
W166	S	S	R	R	S	S	S	S	S	R	R	R	S	R	R
W167	S	S	R	S	S	S	S	S	R	R	S	S	R	R	R
W168	S	S	S	H	S	S	S	S	S	R	S	S	S	S	S
W169	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W170	S	S	R	R	S	S	S	S	S	R	R	R	S	R	R
W171	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W172	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W173	S	S	R	S	S	S	S	S	S	R	S	S	R	R	R
W174	S	S	H	S	S	S	S	H	S	S	S	R	S	H	H
W175	S	S	S	S	S	S	S	H	S	S	S	S	S	S	S
W176	S	S	R	R	S	S	S	S	S	R	R	R	S	R	R
W177	S	S	R	R	S	S	S	S	S	R	R	R	S	R	R
W178	S	S	S	S	S	S	S	S	S	S	S	S	H	S	S
W179	S	S	S	S	S	S	S	S	S	R	S	S	S	S	S
W180	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W181	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W182	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W183	S	S	S	S	S	S	S	R	S	S	S	S	S	H	H
W184	S	S	S	S	S	S	S	S	S	S	S	S	R	S	S
W185	S	S	H	H	S	S	S	H	S	R	H	H	H	R	R
W186	S	S	S	S	S	S	S	S	S	R	S	S	S	S	R
W187	S	S	R	S	S	S	S	R	R	R	S	S	R	R	R
W188	S	S	S	S	S	R	R	S	S	S	S	S	S	S	S
W189	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W190	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
W191	S	S	R	S	S	S	S	S	S	R	S	S	R	R	R
W192	S	S	R	S	S	S	S	S	R	R	S	S	R	R	R

[z]A1, zymFL-D71G; A2, zymFL-T81P; A3, PRSV-W-CG940; A4, PRSV-W-CG950; A5, FON1-124; A6, FON1-U161; A7, FON1-S075; A8, Pmr21-Cla831; A9, PM-r2-CG490; A10, pm-r2-CG450; A11, ClGSB-J168; A12, GSB-GC230; A13, AN-r1-Cl017; A14, BFB-CG700; A15, BFB-CG910.

[y]R, resistant; S, susceptible; H, heterozygous for A1-A15.

Supplementary Table S6. Marker types of 18 SNP type assays in 192 watermelon genetic sources.

Plant material	Flesh color		Sugar content		Bitterness	Citrulline content		Arginine content	Seed size	Rind hardness	Flesh firmness	Monoecious or Andromonoecious	Fruit shape	Rind Strip Pattern		Seed coat color		
	A16[z]	A17	A18	A19	A20	A21	A22	A23	A24	A25	A26	A27	A28	A29	A30	A31	A32	A33
W001	A[y]	A	A	A	A	A	A	A	B	B	B	A	B	A	A	A	A	A
W002	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W003	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W004	A	A	A	A	A	A	A	A	A	A	B	A	B	A	A	A	A	A
W005	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W006	A	A	A	A	A	B	A	A	B	A	B	A	A	A	A	A	A	A
W007	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W008	A	A	A	A	A	B	A	A	B	A	B	A	B	A	A	A	A	A
W009	A	A	A	A	A	A	A	A	B	A	A	A	B	A	A	A	A	A
W010	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W011	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W012	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W013	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W014	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W015	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W016	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W017	A	A	A	A	A	A	A	A	A	A	B	A	B	A	A	A	A	A
W018	A	A	A	A	A	B	A	A	B	A	B	A	B	A	A	A	A	A
W019	A	A	A	A	A	B	A	A	B	A	B	A	B	A	A	A	A	A
W020	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W021	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W022	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W023	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W024	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W025	A	A	H	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W026	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W027	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W028	A	A	B	A	A	A	A	A	B	A	B	A	B	B	B	A	A	A
W029	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W030	A	A	B	A	A	A	A	A	B	A	B	A	B	B	B	A	A	A
W031	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W032	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W033	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W034	A	A	B	A	A	A	A	A	H	A	B	A	A	A	A	A	A	A
W035	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W036	A	A	B	A	A	A	A	A	B	A	B	A	B	B	B	A	A	A
W037	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W038	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W039	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W040	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W041	A	A	A	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W042	A	A	B	A	A	A	A	A	A	A	A	A	B	B	B	A	A	A
W043	A	A	A	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W044	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W045	A	A	A	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W046	A	A	A	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W047	A	A	B	A	A	A	A	A	A	A	B	A	B	A	A	A	A	A
W048	A	A	B	A	A	A	A	A	H	A	A	A	B	A	A	A	A	A
W049	A	A	A	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A

W050	A	A	B	A	A	A	A	A	B	A	B	A	B	B	B	A	A	A
W051	A	A	A	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W052	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W053	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W054	A	A	A	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W055	A	A	B	A	A	A	A	A	A	A	A	A	B	B	B	A	A	A
W056	A	A	A	A	A	A	A	A	B	A	A	A	B	B	B	A	A	A
W057	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W058	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	A	A	A
W059	A	A	A	A	A	A	A	A	B	A	B	A	B	B	B	A	A	A
W060	A	A	A	A	A	A	A	A	B	A	B	A	B	B	B	A	A	A
W061	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W062	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W063	A	A	B	A	A	A	A	A	B	A	A	A	B	B	B	A	A	A
W064	A	A	A	A	A	A	A	A	B	A	B	A	B	B	B	A	A	A
W065	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W066	A	A	A	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W067	A	A	A	A	A	B	A	A	B	A	B	A	B	B	B	A	A	A
W068	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W069	A	A	A	A	A	A	A	A	B	A	A	A	B	B	B	A	A	A
W070	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W071	A	A	A	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W072	A	A	A	A	A	A	A	A	B	A	A	A	B	B	B	A	A	A
W073	A	A	A	A	A	A	A	A	B	A	A	A	B	B	B	A	A	A
W074	A	A	A	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W075	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	A	A	A
W076	A	A	A	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W077	A	A	A	A	A	B	A	A	B	A	A	A	B	B	B	A	A	A
W078	A	A	A	A	A	H	A	A	H	A	A	A	B	B	B	A	A	A
W079	A	A	A	A	A	A	A	A	B	A	A	A	B	B	B	A	A	A
W080	A	A	A	A	A	B	A	A	B	A	A	A	B	B	B	A	A	A
W081	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	A	A	A
W082	A	A	A	A	A	A	A	A	B	A	A	A	A	B	B	A	A	A
W083	A	A	A	A	A	H	A	A	B	A	A	A	B	B	B	A	A	A
W084	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W085	A	A	A	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W086	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	A	A	A
W087	A	A	A	A	A	A	A	A	B	A	B	A	B	B	B	A	A	A
W088	A	A	A	A	A	A	A	A	B	A	A	A	B	B	B	A	A	A
W089	A	A	A	A	A	A	A	A	B	A	A	A	B	B	B	A	A	A
W090	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	A	A	A
W091	A	A	A	A	A	B	A	A	B	A	A	A	B	B	B	A	A	A
W092	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	A	A	A
W093	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W094	A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	A	A	A
W095	A	A	A	A	A	A	A	A	B	A	B	A	A	B	B	A	A	A
W096	A	A	A	A	A	B	A	A	B	A	A	A	B	B	B	A	A	A
W097	A	A	A	A	A	B	A	A	A	A	A	A	B	B	B	A	A	A
W098	A	A	A	A	A	B	A	A	B	A	B	A	A	B	B	A	A	A
W099	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W100	A	A	A	A	A	A	A	A	B	A	A	A	B	B	B	A	A	A
W101	A	A	A	A	A	A	A	A	B	A	B	A	B	B	B	A	A	A
W102	A	A	A	A	A	A	A	A	B	A	B	A	A	B	B	A	A	A
W103	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A

W104	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W105	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W106	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W107	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W108	A	A	A	A	A	B	A	A	B	A	B	A	B	A	A	A	A	A
W109	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W110	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W111	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W112	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W113	A	A	A	A	A	A	A	A	B	A	A	A	B	A	A	A	A	A
W114	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W115	A	A	A	A	A	A	A	A	H	A	B	A	B	A	A	A	A	A
W116	A	A	A	A	A	A	A	A	B	A	B	A	A	A	A	A	A	A
W117	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W118	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W119	A	A	A	A	A	A	A	A	B	A	B	A	A	A	A	A	A	A
W120	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W121	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W122	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W123	A	A	A	A	A	A	A	A	A	A	B	A	B	A	A	A	A	A
W124	B	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W125	B	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W126	B	A	B	A	A	A	A	A	B	A	B	A	A	A	A	A	A	A
W127	B	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W128	B	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W129	B	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W130	B	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W131	A	A	A	A	A	B	A	A	B	A	B	A	A	B	B	A	A	A
W132	A	A	A	A	A	B	A	A	B	A	B	A	A	B	B	A	A	A
W133	A	A	A	A	A	B	A	A	B	A	B	A	A	B	B	A	A	A
W134	A	A	A	A	A	B	A	A	B	A	B	A	A	B	B	A	A	A
W135	A	A	A	A	A	B	A	A	B	A	B	A	A	B	B	A	A	A
W136	H	A	B	A	A	H	A	A	B	A	B	A	A	A	A	A	A	A
W137	A	A	B	A	A	A	A	A	B	A	B	A	B	B	B	A	A	A
W138	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W139	A	A	B	A	A	A	A	A	B	A	B	A	B	B	B	A	A	A
W140	A	A	B	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W141	A	A	A	A	A	A	A	A	A	A	B	A	B	A	A	A	A	A
W142	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W143	A	A	A	A	A	A	A	A	A	A	H	A	B	A	A	A	A	A
W144	A	A	A	A	A	A	A	A	B	A	B	A	B	B	B	A	A	A
W145	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W146	A	A	H	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W147	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W148	A	A	B	A	A	A	A	A	A	A	B	A	B	B	B	A	A	A
W149	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W150	A	A	B	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W151	A	A	B	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W152	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W153	A	A	A	A	A	A	A	A	B	A	B	A	B	A	A	A	A	A
W154	B	A	B	A	A	A	A	A	B	A	B	A	B	B	B	A	A	A
W155	B	A	B	A	A	A	A	A	B	A	A	A	B	A	A	A	A	A
W156	B	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
W157	B	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A

W158	B	A	B	A	A	A	A	A	B	B	A	A	B	A	A	A	A	A
W159	A	A	B	A	A	A	A	A	B	A	A	A	B	A	A	A	A	A
W160	A	A	A	A	A	A	A	A	B	A	A	A	B	B	B	A	A	A
W161	A	A	A	A	A	A	A	A	B	A	A	A	B	A	A	A	A	A
W162	A	A	A	A	A	A	A	A	B	A	A	A	B	H	H	A	A	A
W163	A	A	A	A	A	A	A	A	B	A	A	A	B	H	H	A	A	A
W164	H	A	A	A	A	A	A	A	B	A	B	H	B	H	H	A	A	A
W165	B	A	A	B	B	B	B	B	B	A	B	A	B	A	A	B	B	A
W166	B	A	A	B	B	B	B	B	B	A	B	A	B	A	A	B	B	A
W167	B	A	A	A	A	A	A	A	B	A	A	B	B	B	B	A	A	A
W168	B	A	A	A	A	B	A	A	B	H	B	B	B	B	B	B	A	A
W169	H	A	A	A	A	A	A	A	B	B	H	B	B	B	B	A	A	A
W170	B	A	A	B	B	B	B	B	B	A	B	A	B	A	A	B	B	A
W171	A	A	A	A	A	A	A	A	B	A	A	B	B	B	B	A	A	A
W172	A	A	A	A	A	A	A	A	B	A	A	B	B	B	B	A	A	A
W173	A	A	A	A	A	A	A	A	B	A	A	H	B	B	B	A	A	A
W174	A	A	A	A	H	H	H	A	B	A	H	A	B	B	B	A	A	A
W175	A	A	A	A	A	B	A	A	B	A	B	A	B	B	B	A	A	A
W176	B	A	A	B	B	B	B	B	B	A	B	A	B	A	A	B	B	A
W177	B	A	A	B	B	B	B	B	B	A	B	A	B	A	A	B	B	A
W178	A	A	A	A	A	B	A	A	B	A	A	B	B	B	B	A	A	A
W179	B	A	B	A	A	B	A	A	B	A	A	B	B	B	B	A	A	A
W180	A	A	A	A	A	H	A	A	B	A	A	B	B	H	H	A	A	A
W181	A	A	H	A	A	A	A	A	B	A	A	A	B	B	B	A	A	A
W182	A	A	A	A	A	A	A	A	B	A	B	B	B	H	H	A	A	A
W183	A	A	A	A	A	A	A	A	B	A	B	A	A	B	B	A	A	A
W184	A	A	A	A	A	A	A	A	B	A	B	A	A	A	A	A	A	A
W185	H	A	A	H	H	H	H	H	B	A	A	H	B	H	H	B	A	A
W186	A	A	A	A	A	B	A	A	B	A	A	A	B	B	B	A	A	A
W187	A	A	A	A	A	B	A	A	B	A	A	B	B	B	B	A	A	A
W188	A	A	B	A	A	A	A	A	B	A	A	A	B	A	A	A	A	A
W189	A	A	A	A	A	A	A	A	B	A	A	B	B	B	B	A	A	A
W190	A	A	A	A	A	A	A	A	B	A	A	B	B	B	B	A	A	A
W191	B	A	A	A	A	A	A	A	B	A	A	B	B	B	B	A	A	A
W192	B	A	A	A	A	B	A	A	B	A	B	A	B	B	B	A	A	A

[z]A16, ClLcyb; A17, ClCRTISO-L659P; A18, Qbrix2-2-CL792; A19, CLTST2-1368; A20, Bt-Cl508; A21, Cit-CG770; A22, Cit-Cl781; A23, Arg-Cl154; A24, SS-chr2-1; A25, ClERF4-M3; A26, FON1-U161; A27, ClACS7-C364W; A28, ClSUN-336; A29, RSP-CG040; A30, RSP-CG030; A31, ClCoat-R; A32, ClCoat-T; A33, ClCoat-D.

[y]A, reference allele; B, alternative allele; H, heterozygous for A16-A33.

Supplementary Table S7. Marker types of 15 SNP type assays in 192 watermelon F1 hybrids breeding lines.

Plant material	Zucchini yellow mosaic virus		Papaya ring spot virus		Fusarium wilt			Powdery mildew			Gummy stem blight		Anthracnose	Bacterial fruit blotch	
	A1[z]	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15
A001	[y]S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A002	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A003	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A004	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A005	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A006	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A007	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A008	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A009	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A010	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
A011	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A012	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A013	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A014	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A015	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A016	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A017	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
A018	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A019	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A020	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A021	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A022	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A023	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A024	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A025	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A026	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A027	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A028	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A029	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A030	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A031	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A032	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A033	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A034	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A035	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A036	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A037	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A038	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S

A039	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A040	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
A041	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A042	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A043	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A044	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A045	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A046	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A047	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
A048	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
B001	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B002	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B003	S	H	S	S	S	H	H	H	S	S	H	S	H	S	S
B004	S	H	S	S	S	H	H	H	S	S	H	S	H	S	S
B005	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
B006	S	H	S	S	S	H	H	H	S	S	H	S	H	S	S
B007	S	H	S	S	S	H	R	S	S	S	H	S	H	S	S
B008	S	H	S	S	S	H	R	R	S	S	H	S	H	S	S
B009	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B010	S	H	S	S	S	H	R	R	S	S	H	S	H	S	S
B011	S	H	S	S	S	H	H	H	S	S	H	S	H	S	S
B012	S	H	S	S	S	H	H	H	S	S	H	S	H	S	S
B013	S	H	S	S	S	H	H	H	S	S	H	S	H	S	S
B014	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
B015	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
B016	S	H	S	S	S	H	H	H	S	S	H	S	H	S	S
B017	S	H	S	S	S	H	R	R	S	S	H	S	H	S	S
B018	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B019	S	H	S	S	S	H	R	R	S	S	H	S	H	S	S
B020	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B021	S	H	S	S	S	H	R	H	S	S	H	S	S	S	S
B022	S	H	S	S	S	H	H	H	S	S	H	S	H	S	S
B023	S	H	S	S	S	H	H	H	S	S	H	S	H	S	S
B024	S	H	S	S	S	H	H	H	S	S	H	S	H	S	S
B025	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B026	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B027	S	H	S	S	S	H	R	R	S	S	H	S	H	S	S
B028	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B029	S	H	S	S	S	H	H	H	S	S	H	S	H	S	S
B030	S	H	S	S	S	H	H	R	S	S	H	S	H	S	S
B031	S	H	S	S	S	H	H	R	S	S	H	S	H	S	S
B032	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S

B033	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B034	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B035	S	H	S	S	S	H	R	R	S	S	H	S	H	S	S
B036	S	H	S	S	S	H	R	S	S	S	H	S	H	S	S
B037	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B038	S	H	S	S	S	H	R	R	S	S	H	S	H	S	S
B039	S	H	S	S	S	H	H	R	S	S	H	S	H	S	S
B040	S	H	S	S	S	H	R	R	S	S	H	S	H	S	S
B041	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
B042	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B043	S	H	S	S	S	H	R	S	S	S	H	S	H	S	S
B044	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B045	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B046	S	H	S	S	S	H	R	H	S	S	H	S	H	S	S
B047	S	H	S	S	S	H	R	R	S	S	H	S	H	S	S
B048	S	H	S	S	S	H	R	R	S	S	H	S	H	S	S
C001	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C002	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C003	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C004	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C005	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C006	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C007	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C008	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C009	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C010	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C011	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C012	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C013	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C014	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C015	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C016	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C017	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C018	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C019	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C020	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
C021	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C022	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C023	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C024	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C025	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C026	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S

C027	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C028	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C029	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C030	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C031	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C032	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C033	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C034	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C035	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C036	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C037	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C038	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C039	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C040	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
C041	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C042	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C043	S	H	S	S	S	H	H	S	S	S	H	S	H	S	S
C044	S	H	S	S	S	S	H	S	S	S	H	S	H	S	S
C045	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C046	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C047	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
C048	S	H	S	S	S	S	H	S	S	S	H	S	S	S	S
D001	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D002	S	H	S	S	S	H	H	H	S	S	H	S	S	S	S
D003	S	H	S	S	S	H	H	H	S	S	H	S	S	S	S
D004	S	H	S	S	S	H	H	H	S	S	H	S	S	S	S
D005	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D006	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D007	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S
D008	S	H	S	S	S	H	R	H	S	S	H	S	S	S	S
D009	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D010	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D011	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D012	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D013	S	H	S	S	S	H	R	H	S	S	H	S	S	S	S
D014	S	H	S	S	S	H	R	H	S	S	H	S	S	S	S
D015	S	H	S	S	S	H	R	H	S	S	H	S	S	S	S
D016	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D017	S	H	S	S	S	H	R	H	S	S	H	S	S	S	S
D018	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D019	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D020	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S

D021	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S
D022	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D023	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D024	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D025	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S
D026	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D027	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S
D028	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D029	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S
D030	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D031	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D032	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S
D033	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S
D034	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S
D035	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D036	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D037	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D038	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D039	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D040	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S
D041	S	H	S	S	S	H	R	S	S	S	H	S	S	S	S
D042	S	H	S	S	S	H	H	H	S	S	H	S	S	S	S
D043	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S
D044	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S
D045	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S
D046	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S
D047	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S
D048	S	H	S	S	S	H	H	S	S	S	H	S	S	S	S

[z]A1, zymFL-D71G; A2, zymFL-T81P; A3, PRSV-W-CG940; A4, PRSV-W-CG950; A5, FON1-124; A6, FON1-U161; A7, FON1-S075; A8, Pmr21-Cla831; A9, PM-r2-CG490; A10, pm-r2-CG450; A11, ClGSB-J168; A12, GSB-GC230; A13, AN-r1-Cl017; A14, BFB-CG700; A15, BFB-CG910.

[y]R, resistant; S, susceptible; H, heterozygous for A1-A15.