

Supplementary data table S1 Probes used in BAT93 BAC library screening

Probes	Position in BAT93 scaffolds (base pairs)	Position in G19833 v1.0
M1	scaffold00018: 1535744..1535873 (130bp)	Chr02: 48143220..48142964
M2	scaffold00018: 1567704..1567960 (262bp)	Chr02: 48176114..48176373
M4	scaffold01334: 18077..18331 (255bp)	Chr02: 48177889..48177634
M5	scaffold00140: 761507..761423 (85bp)	Chr02: 48230593..48230773
M7	scaffold00140: 686445..686199 (247bp)	Chr02: 48300627..48300874

Supplementary data table S2 Markers generated from *P. vulgaris* G19833

		PCR amplification product					
	BAT93	JaloEEP558	G19833		Coordinates G19833 v1	Primer sequences	
IG19M100a	-	+	+	Ch02	47010071..47011024	F GGA-TCA-ATT-CAT-CTA-TCT-ATC-TAT-GT R CTT-TCT-GTT-TGT-GTC-TGA-TGG	
IG19M201b	-	+	+	Ch02	48142072..48142936	F CAT-AAA-CCA-GAG-GCC-AGT-TCA R AAT-ATC-CGA-TTT-CTA-GTA-TCC-G	
IG19M300b	-	+	+	Ch02	48173032..48173930	F GTC-ATT-CTC-TTC-CTC-ACA-AGT-TCA R CGT-AGA-CTT-TGG-ATT-TTA-TTC-TTG-C	
T10	+ 1000bp	+ 800bp	+800bp	Ch02	48230801..48231699	F TGT-CTC-TAA-ATG-ACT-TGT-GTT-CCA R CAT-AGT-TTT-GGG-CAC-TCT-CCA	
IG19M301b	-	+	+	Ch02	48204441..48205435	F CTT-CCC-AGA-GTT-GTT-CAA-GAC-G R TGC-TTA-GAA-ATG-CTG-GAG-CTG	
IG19M302a	-	+	+	Ch02	48216873..48217982	F CTT-GGC-CCC-GAG-TAA-TCT-GTA R CAA-AGG-GAC-TGA-GAG-TTG-CAG	
IG19M400a	+	+	+	Ch02	48282169..48283040	F GTT-TCT-TCC-TGC-ACC-CAT-CAT-A R GCC-TTT-TAG-TTG-GGA-TTT-GTT-GT	
IG19M401b	-	+	+	Ch02	48310263 ..48311254	F GCT-TTG-CCG-CAT-CTT-ACT-TG R TCA-ATT-TCC-TTC-ACC-ATT-CAA-A	
IG19M500b	-	+	+	Ch02	49030905..49031809	F ATC-AAT-CAG-TTT-CAT-ACA-CAG-AGA R CCT-CTT-CCC-ATA-CTA-CGT-TGA	

Blue markers: markers co-segregating with *R-BPMV*

Supplementary data table S3 Markers generated from *P. vulgaris* BAT93

	PCR amplification product			Scaffold BAT93v10	Coordinates BAT93v10	Coordinates BAC contigs	Primer sequences
	BAT93	JaloEEP558	G19833				
M11RB10	+	-	-	scaffold00018	1566015..1566614	UTG1: 84371..84969	F GAA-CTC-ACC-ATT-CTT-CAC-TCT-CC R AAT-TCA-GTC-TCC-CTA-ACT-CCA-TTG
M295RB30	+	-	-	scaffold00140	771195..770207	UTG0: 122237..123224	F ACT-TCT-TGG-TTA-TCG-TGC-CAT-T R TAG-TGT-GTT-CAT-CGG-GAA-ACA-A
M295RB50	+	-	-	scaffold00140	760788..759995	UTG0: 134023..134816	F CAT-GCG-GAA-ACA-ACA-CAC-ATA R TGT-TCA-CAT-GCA-ACT-CAC-GAT
MB29540	+	-	-	scaffold00140	727429..726416	UTG0: 164968..165980	F GAA-TTA-ACA-GTC-ACG-CCA-ACA-G R TGG-CAC-ACA-TAT-CAT-TCC-AAA-T
M295RB70	+	-	-	scaffold00140	718965..717945	UTG0: 173461..174480	F TAA-CCT-ATG-CCT-GTC-CCT-GAA R CAT-GCA-CAT-TAA-GCA-ATC-CAC
MB29530	+	-	-	scaffold00140	717965..717006	UTG0: 174461..175416	F TTC-AGG-GAC-AGG-CAT-AGG-TTA-T R TAT-TTA-GAC-ATT-GGC-GGA-GGA-T
MB29520	+	-	-	scaffold00140	696032..695024	UTG0: 195674..196681	F GGA-ACA-AAT-GGA-GAC-ATG-AAC-C R ATC-AAA-GAC-ATC-CTC-GTC-AGG-T
MB29510	+	-	-	scaffold00140	684742..683820	UTG0: 207144..207950	F ATG-ATC-TTA-AAC-CCA-TCG-TCG-T R TCA-TCC-TGT-GAA-AGA-GTT-CAG-C
RB295M10	+	-	-	scaffold00140	683311..682493	UTG0: 208463..209280	F GAT-TCC-CAG-CAG-TTA-AAA-CCG-G R AAC-CAT-GTT-GCC-TCC-AAA-AG
RB295M20	+	-	-	scaffold00140	680345..679494	UTG0: 211429..212279	F TAT-CCG-ATG-ACA-TTG-CTG-AAC R TGC-CAA-TCT-TCT-GAT-GAA-CG
RB295M30	+	-	-	scaffold00140	677616..676696	UTG0: 214158..215077	F CTT-ATA-ACA-ATG-GTC-TTA-TGC-C R CAA-AAC-TGC-ATC-CTC-AAC-CA
RB295M40	+	-	-	scaffold00140	677088..676259	UTG0: 214686..215514	F GCA-AAT-TTA-TTG-CAA-ATC-AGA- GAG
RB295M50	+	-	-	scaffold00140	677013..675818	UTG0: 214761..215955	R CCA-CCA-ATC-TGC-TGG-AGT-CT F CAC-AAG-AGC-GAT-ACG-ATA-CGA
RB295M60	+	-	-	scaffold00140	674106..673002	UTG0: 217944..219303	R CGC-TCA-TGA-GAT-CTT-CAG-TCC F CGA-TAT-CGC-ACC-TAA-ATA-CAT-AGC

Blue markers: markers co-segregating with *R-BPMV*