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Low-cost high-resolution genotyping assay for detecting multiple biotic stress resistance genes in rice (*Oryza sativa*)

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Supplementary Table 1. Details of selected allele-specific markers.

Trait	Gene variants/ QTLs	Primer	Forward primer	Reverse primer	Expected size (bp)	References
Blast resistance	*Pi-kh*	RM206	CCCATGCGTTTAACTATTCT	CGTTCCATCGATCCGTATGG	147	Sharma et al. (2005) Tanweer et al. (2015)
	Pi-b	RM208	TCTGCAAGCCTTGTCTGATG	TAAGTCGATCATTGTGTGGACC	173	Wang et al. (1999) Tanweer et al. (2015)
	Pi-1	MRG4766	ATTGCTGCAAAGTGGGAGAC	AAGTGGAGGCAGTTCACCAC	104	Fu et al. (2012)
	Pi-2	AP22	GTGCATGAGTCCAGCTCAAA	GTGTACTCCCATGGCTGCTC	143	
	Pi-7	RM229	CACTCACACGAACGACTGAC	CGCAGGTTCTTGTGAAATGT	116	Tanweer et al. (2015)
	Piz, Pi2, Pi9	RM6836	TGTTGCATATGGTGCTATTTGA	GATACGGCTTCTAGGCCAAA	240	Miah et al. (2017)
	Piz	RM8225	ATGCGTGTTCAGAAATTAGG	TTGTTGTATACCTCATCGACAG	221	
	Pi	RM168	TGCTGCTTGCCTGCTTCCTTT	GAAACGAATCAATCCACGGC	116	Ashkani et al. (2011)
	Pi	RM5961	GTATGCTCCTCCTCACCTGC	ACATGCGACGTGATGTGAAC	129	
Sheath blight resistance	QRlH11	RM209	ATATGAGTTGCTGTCGTGCG	CAACTTGCATCCTCCCCTCC	134	Hossain et al. (2016)
	qSBR9-1	RM257	CAGTTCCGAGCAAGAGTACTC	GGATCGGACGTGGCATATG	147	
	QRlh7b	RM478	CAGCTGGGGAAGAGAGAGAG	TCAGAAACTAAACGCACCCC	205	
	qSBR11-3/QRlh11	RM202	CAGATTGGAGATGAAGTCCTCC	CCAGCAAGCATGTCAATGTA	189	
	qSBR11-1	RM224	ATCGATCGATCTTCACGAGG	TGCTATAAAAGGCATTCGGG	157	
	qshb9.2	RM205	CTGGTTCTGTATGGGAGCAG	CTGGCCCTTCACGTTTCAGTG	122	
	qBR3–3	RM426	ATGAGATGAGTTCAAGGCCC	AACTCTGTACCTCCATCGCC	150	
	qSB-9	RM 6971	TTTGCGAACTAGACAAGGCC	GCGTCATTCTCGACGAGC	202	
	qSB9-2	RM215	CAAAATGGAGCAGCAAGAGC	TGAGCACCTCCTTCTGTAG	148	Wang et al. (2012)
	qShB9-2	RM245	ATGCCGCCAGTGAATAGC	CTGAGAATCCAATTATCTGGGG	150	
	qSB12-1.	RM277	CGGTCAAATCATCACCTGAC	CAAGGCTTGCAAGGGAAG	124	
	5.8S RNA	ITS1F/ITS4	TCCGTAGGTGAACCTG	TCCTCCGTTATTGATAT	600-750	Nadarajah et

		R	CGG	GC		al. (2014)
	5.8S RNA	ITS1F/GMRS-3	TCCGTAGGTGAACCTGCGG	AGTGGAACCAAGCATAACAC	550	
Bacterial leaf blight resistance	*Xa13*	Xa13-prom	GGCCATGGCTCAGTGTTTAT	GAGCTCCAGCTCTCTCCAAATG	220-450	Hajira et al. (2016)
	Xa5	Xa5FM-R	AGCTCGCCATTCAAGTTCTTGAG	TGACTTGGTTCTCCAAGGCTT	134-424	
	Xa5	Xa5FM-S	GTCTGGAATTTGCTCGCGTTCG	TGGTAAAGTAGATACCTTATCAAACTGGA	134-424	
	Xa21	pTA248	AGACGCGGAAGGGTGGTTCCCGGA	AGACGCGGTAATCGAAAGATGAAA	660-1200	Hajira et al. (2016) Kadu et al. (2018)
	Xa21	Xa21	GCTATTTCCTGATCCAGCATATCTGATC	GATCGGTATAACAGCAAAACTATTTCC	467-595	Yap et al. (2016)
	Xa13	Xa13	TACCTCCTGATATGTGAGGTAGTGAGAG	AGAGAGAGGTAACTTGAAGAAAGGGAT	381-391	
	Xa7	Xa7F/Xa7-IR	GGTCGGAAGGTGAGAAAGAGGAGG	GCATGTCTGTGTCGATTCGTCCGTACGA	87-179	
	Xa7	Xa7F/Xa7-2R	GGTCGGAAGGTGAGAAAGAGGAGG	GAGAGCGAACGTGGAGGCTTCTT	87-179	
	Xa5	RM13	TCCAACATGGCAAGAGAGAG	GGTGGCATTCGATTCCAG	219	Singh et al. (2015)
	Xa5	RM122	GAGTCGATGTAATGTCATCAGTGC	GAAGGAGGTATCGCTTTGTTGGAC	230-240	Acharya et al. (2018)

Supplementary Table 2. Sequencing data obtained from the ABI3100 DNA sequencer.

Variety-Primer	Sequence	$(TCT)_n$ or $(CT)_n$
MR219-RM6836	TATTTGTTGNTACCTCATCGAACAGGCCTTTAGCTTATAAGCCGCAGCCAAATTCTTAAGCTGCTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTTCCATTTTCCCATTTTCTAGGTTTTTTTAAGATTGTTAAGACTACAAGTTAAACGTCTTACCCTAAAATCCTTTTTTTTTTTTTTGGCCTAAAAGCCGTATCCAA	$(TCT)_{15}$
Mahsuri Mutant-RM6836	NTTTGTTGTTATACCTCATCGAACAGGCCTTTAGCTTATAAGCCGCAGCCAAATTCTTAAGCTCCTCTTCTTCTTCTTCTTCTTCTTTCCATTTTCCCATTTTCTAGGTTTTTTTTAAGATTGTTAAGACTACAAGTTAAACGTCTTACCCTAAAATCCTTTTTTTTTTTTTTTGGGCCTAAAAGCCGANAAAA	$(TCT)_7$
Pulut Hitam 9-RM6836	NAATTTGTTGTATACCTCATCGACAGGCCTTTAGCTTATAAGCCGCAGCCAAATTCTTAAGCTCCTCTTCTTCTTCTTCTTCTTCTTTCCATTTTCCCATTTTCTAGGTTTTTTTTAAGATTGTTAAGACTACAAGTTAAACGTCTTACCCTAAAATCCTTTTTTTTTTTTTTTGGGCCTAAAACCCGAATCAAAG	$(TCT)_7$
MR219-RM202	TGGAAACAGGTACTCATCCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTTCTAACATACCGTGTCATGGGCGCTATTTTTGCGTGTGTGAGGGATGACTATATCTCCTATCTGAGTATAATCCTTTTTTTTTTTTTTTTGGACTAAAAACCCAATAACCGGCG	$(CT)_{28}$
Mahsuri Mutant-RM202	AAAAACAAAAGTACTTTTTGTCTGGGATACAGGTACTCATCCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTTCTAATATATCGTGCCGCGGGCGCTATATTCGCATGTGTGAGGGAGGACTTTATCTCCAATGTGAGAAAATCCTTTTTTTTTTTTTTTTACCTTAAAACCCAATCCATTGCATT	$(CT)_{16}$
Pulut Hitam 9-RM202	CAATNTACTTTTTTGTCTGGCTACAGGGTACTCATCCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTTCTAACATACCTTGCCATGGCCGCCATAGTTGCATGTGTAAGGAGAGGACTTCATCTCCAATCTGAT	$(CT)_{16}$