

Table S4. Candidate genes identified within the regions associated with blast resistance

Region	MSU/TIGR locus	Gene stable ID	Gene start (bp)	Gene end (bp)	Gene name	Gene description	GO term name
D-01	LOC_Os01g27700	OS01G0374600	15,445,662	15,447,633			hydroquinone:oxygen oxidoreductase activity oxidation-reduction process oxidoreductase activity
	LOC_Os01g27740	OS01G0375100	15,474,284	15,478,322			response to stress
	LOC_Os01g27750	OS01G0375200	15,479,968	15,493,392			oxidation-reduction process
	LOC_Os01g27890	OS01G0377000	15,581,833	15,583,686			oxidation-reduction process oxidoreductase activity
	LOC_Os01g27890	OS01G0377000	15,581,833	15,583,686			oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen
Y-01	LOC_Os01g41880	OS01G0603000	23,740,879	23,744,974			peroxisome
	LOC_Os01g41890	OS01G0603100	23,746,840	23,751,713		NB-ARC domain containing protein. (Os01t0603100-01)	defense response
	LOC_Os01g41900	OS01G0603300	23,760,347	23,762,387			transcription coactivator activity transcription factor activity, sequence-specific DNA binding
	LOC_Os01g41910	OS01G0603500	23,770,115	23,771,515		Similar to Cf2/Cf5-like disease resistance protein (Fragment). (Os01t0603500-00)	
	LOC_Os01g41960	OS01G0604150	23,787,960	23,789,747		Leucine-rich repeat domain containing protein. (Os01t0604150-00)	
	LOC_Os01g42040	OS01G0605300	23,843,274	23,846,735			protein ubiquitination ubiquitin protein ligase activity ubiquitin protein ligase binding ubiquitin-protein transferase activity
Y-02	LOC_Os01g44330	OS01G0634500	25,439,082	25,440,898			hydroquinone:oxygen oxidoreductase activity oxidation-reduction process oxidoreductase activity
	LOC_Os01g45200	OS01G0639200	25,640,940	25,647,509			oxidation-reduction process oxidoreductase activity oxidoreductase activity, acting on the CH-OH group of donors, NAD or NADP as acceptor
D-04	LOC_Os02g27500	OS02G0475500	16,270,018	16,277,534		NB-ARC domain containing protein. (Os02t0475500-00)	
	LOC_Os02g27710	OS02G0478300	16,414,631	16,415,662		disease resistance protein, putative, expressed	
Y-03	LOC_Os02g32120	OS02G0520800	18,980,950	18,984,192			oxidation-reduction process oxidoreductase activity oxidoreductase activity, acting on diphenols and related substances as donors
	LOC_Os02g32200	OS02G0521700	19,021,694	19,024,719			peroxisome
	LOC_Os02g32350	OS02G0523500	19,098,871	19,105,461			transcription cofactor activity
Y-04	LOC_Os02g35900	OS02G0567100	21,563,496	21,566,565		Thioredoxin-like 4, chloroplastic	protein disulfide oxidoreductase activity

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D-05	LOC_Os03g42780	OS03G0625933	23,827,633	23,831,445			protein ubiquitination ubiquitin-protein transferase activity protein ubiquitination ubiquitin-protein transferase activity
	LOC_Os03g42790	OS03G0626100	23,836,063	23,839,587			positive regulation of proteasomal ubiquitin-dependent protein catabolic process protein polyubiquitination protein ubiquitination protein ubiquitination involved in ubiquitin-dependent protein catabolic process ubiquitin conjugating enzyme binding ubiquitin ligase complex ubiquitin protein ligase activity ubiquitin-protein transferase activity
	LOC_Os03g42820	OS03G0626600	23,855,253	23,861,941			ubiquitin binding
	LOC_Os03g43360	OS03G0632800	24,174,355	24,180,456			protein ubiquitination ubiquitin-protein transferase activity
	LOC_Os03g43390	OS03G0633100	24,189,817	24,190,437		Similar to Leucine Rich Repeat family protein, expressed. (Os03t0633100-00)	
		OS03G0633400	24,193,288	24,197,393		Similar to Leucine Rich Repeat family protein, expressed. (Os03t0633400-01)	
	LOC_Os03g43480	OS03G0635100	24,252,686	24,256,939	RGG1	Guanine nucleotide-binding protein subunit gamma 1	defense response to fungus, incompatible interaction
	D-06 LOC_Os03g61060	OS03G0825800	34,688,287	34,690,676			systemic acquired resistance
	Y-06 LOC_Os03g62730	OS03G0844500	35,498,877	35,504,493			peroxisome
	LOC_Os04g41250	OS04G0489800	24,471,709	24,479,383		Zinc finger, RING/FYVE/PHD-type domain containing protein. (Os04t0489800-01)	protein ubiquitination ubiquitin ligase complex ubiquitin-protein transferase activity
D-07	LOC_Os04g41260	OS04G0490000	24,480,825	24,481,725			oxidation-reduction process oxidoreductase activity
		OS04G0490100	24,483,127	24,488,727			oxidation-reduction process oxidoreductase activity
		OS04G0491100	24,541,955	24,545,363		NB-ARC domain containing protein. (Os04t0491100-01)	
	LOC_Os04g41470	OS04G0492100	24,584,943	24,588,712			protein polyubiquitination protein ubiquitination protein ubiquitination involved in ubiquitin-dependent protein catabolic process ubiquitin conjugating enzyme binding ubiquitin ligase complex ubiquitin protein ligase activity ubiquitin-protein transferase activity

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D-07	LOC_Os04g41490	OS04G0492300	24,593,234	24,604,107			protein ubiquitination
	LOC_Os04g41620	OS04G0493400	24,687,753	24,689,297		Similar to Chitinase. (Os04t0493400-01)	chitin catabolic process
	LOC_Os04g41640	OS04G0493600	24,692,701	24,693,326			chitinase activity
							chitin binding
	LOC_Os04g41680	OS04G0494100	24,708,801	24,709,910	CHT5	Chitinase 5	carbohydrate metabolic process
							cell wall macromolecule catabolic process
							chitin binding
							chitin catabolic process
							chitinase activity
	LOC_Os04g41810	OS04G0495400	24,766,251	24,769,310			oxidation-reduction process
	LOC_Os04g41870	OS04G0496000	24,810,332	24,811,141			oxidoreductase activity
	LOC_Os04g41875	OS04G0496150	24,815,492	24,816,067			oxidoreductase activity
D-08	LOC_Os04g41960	OS04G0497000	24,858,099	24,859,658			oxidation-reduction process
							oxidoreductase activity
	LOC_Os04g42000	OS04G0497400	24,878,145	24,881,728			jasmonic acid mediated signaling pathway
							oxidation-reduction process
	LOC_Os04g42100	OS04G0498700	24,920,483	24,924,654			oxidoreductase activity
							peroxidase activity
	LOC_Os04g42470	OS04G0503500	25,126,756	25,134,361		Leucine-rich repeat, cysteine-containing subtype containing protein. (Os04t0503500-01);Leucine-rich repeat, cysteine-containing subtype containing protein. (Os04t0503500-02)	
	LOC_Os04g42570	OS04G0504500	25,182,303	25,186,566			transcription factor activity, sequence-specific DNA binding
	LOC_Os04g42670	OS04G0505700	25,244,494	25,245,978		Leucine-rich repeat, cysteine-containing subtype containing protein. (Os04t0505700-01)	
	LOC_Os04g42880	OS04G0507900	25,374,638	25,376,710			Cul4-RING E3 ubiquitin ligase complex
	LOC_Os04g42920	OS04G0508200	25,389,649	25,395,401			oxidation-reduction process
						oxidoreductase activity	
						oxidoreductase activity, acting on the CH-OH group of donors, NAD or NADP as acceptor	
LOC_Os04g42930	OS04G0508300	25,397,069	25,399,815	GRXC6	Glutaredoxin-C6	protein disulfide oxidoreductase activity	
LOC_Os04g43050	OS04G0509300	25,474,093	25,481,475			defense response to virus	
						protein ubiquitination	
LOC_Os04g43170	OS04G0510900	25,554,772	25,556,458			response to abiotic stimulus	
						response to salicylic acid	

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D-08	LOC_Os04g43220	OS04G0511600	25,573,704	25,579,677			proteasome-mediated ubiquitin-dependent protein catabolic process protein polyubiquitination protein ubiquitination involved in ubiquitin-dependent protein catabolic process ubiquitin protein ligase activity
	LOC_Os04g43300	OS04G0512400	25,611,673	25,615,824			protein ubiquitination ubiquitin-protein transferase activity
	LOC_Os04g43340	OS04G0512900	25,633,375	25,636,818		disease resistance RPP13-like protein 1, putative, expressed	defense response
D-09	LOC_Os04g44550	OS04G0527700	26,372,064	26,375,184			peroxisome
	LOC_Os04g44670	OS04G0529100	26,438,670	26,440,540			transcription factor activity, sequence-specific DNA binding
	LOC_Os04g44710	OS04G0529500	26,484,115	26,494,581			response to abiotic stimulus
	LOC_Os04g44830	OS04G0530600	26,540,478	26,542,966		Thioredoxin M2, chloroplastic	protein disulfide oxidoreductase activity
	LOC_Os04g44890	OS04G0531300	26,565,544	26,571,685			oxidation-reduction process oxidoreductase activity
Y-07	LOC_Os05g06750	OS05G0160000	3,529,747	3,530,238			oxidation-reduction process oxidoreductase activity
	LOC_Os05g38120	OS05G0455200	22,354,150	22,358,564			transcription factor activity, sequence-specific DNA binding oxidation-reduction process
	LOC_Os05g38150	OS05G0455500	22,374,029	22,380,820	P5CS	Delta-1-pyrroline-5-carboxylate synthase	oxidoreductase activity oxidoreductase activity, acting on the aldehyde or oxo group of donors, NAD or NADP as acceptor
		OS05G0456200	22,407,153	22,409,001			oxidation-reduction process oxidoreductase activity
	LOC_Os05g38230	OS05G0456300	22,409,907	22,413,310			oxidation-reduction process oxidoreductase activity
D-10	LOC_Os05g38390	OS05G0458300	22,499,463	22,503,475			hydroquinone:oxygen oxidoreductase activity oxidation-reduction process oxidoreductase activity
	LOC_Os05g38410	OS05G0458500	22,526,526	22,528,641			hydroquinone:oxygen oxidoreductase activity oxidation-reduction process oxidoreductase activity
					LAC12	Laccase-12	hydroquinone:oxygen oxidoreductase activity oxidation-reduction process oxidoreductase activity
	LOC_Os05g38420	OS05G0458600	22,533,536	22,536,087			hydroquinone:oxygen oxidoreductase activity oxidation-reduction process oxidoreductase activity
	LOC_Os05g38550	OS05G0460200	22,615,894	22,620,207			protein ubiquitination ubiquitin protein ligase activity ubiquitin protein ligase binding

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D-11	LOC_Os05g38800	OS05G0463400	22,759,059	22,761,884			oxidation-reduction process oxidoreductase activity
	LOC_Os05g38810	OS05G0463600	22,767,271	22,769,264			oxidation-reduction process oxidoreductase activity
	LOC_Os05g38830	OS05G0463900	22,776,072	22,779,105			protein ubiquitination protein ubiquitination involved in ubiquitin-dependent protein catabolic process ubiquitin ligase complex ubiquitin-protein transferase activity
	LOC_Os05g38980	OS05G0465800	22,860,163	22,865,056			oxidation-reduction process oxidoreductase activity oxidoreductase activity, acting on NAD(P)H, oxygen as acceptor peroxidase activity
	LOC_Os05g39240	OS05G0468700	23,009,282	23,013,425	AMT2-1	Ammonium transporter 2 member 1	defense response to bacterium defense response to fungus detection of biotic stimulus negative regulation of defense response systemic acquired resistance, salicylic acid mediated signaling pathway
	LOC_Os06g12190	OS06G0226100	6,534,746	6,535,897			protein disulfide oxidoreductase activity
Y-09	LOC_Os06g12210	OS06G0226500	6,556,697	6,557,748	IL14	Transcription factor IL14	protein dimerization activity
	LOC_Os06g12250	OS06G0226950	6,589,823	6,591,619			oxidation-reduction process oxidoreductase activity
Y-10	LOC_Os08g03676	OS08G0131000	1,749,850	1,752,468			oxidation-reduction process oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen
	LOC_Os08g03682	OS08G0131100	1,753,125	1,755,525			oxidation-reduction process oxidoreductase activity oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen, NAD(P)H as one donor, and incorporation of one atom of oxygen
	LOC_Os08g33340	OS08G0430200	20,797,021	20,801,708			proteasome-mediated ubiquitin-dependent protein catabolic process ubiquitin binding
D-12	LOC_Os08g33460	OS08G0431500	20,873,587	20,874,364			ubiquitin-dependent protein catabolic process
	LOC_Os08g33488	OS08G0431900	20,897,215	20,906,881	MADS23	MADS-box transcription factor 23	transcription factor activity, sequence-specific DNA binding transcription factor binding
Y-12	LOC_Os12g09220	OS12G0194100	4,814,539	4,818,499			defense response
	LOC_Os12g09250	OS12G0194600	4,848,847	4,859,750			transcription factor activity, sequence-specific DNA binding

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Y-13	LOC_Os12g13930	OS12G0242700	7,915,608	7,918,642			oxidation-reduction process oxidoreductase activity
		OS12G0243050	7,931,702	7,935,048		Similar to Leucine Rich Repeat family protein. (Os12t0243050-01) NB-ARC domain containing protein. (Os12t0246700-01) disease resistance protein RPM1, putative, expressed	defense response
	Y-14	LOC_Os12g14699.1	OS12G0249900	8,407,899	8,417,651		defense response
Y-16		OS12G0273900	10,058,775	10,061,686		Leucine-rich repeat domain containing protein. (Os12t0273900-00)	
		OS12G0273980	10,062,718	10,066,028		Similar to Leucine Rich Repeat family protein, expressed. (Os12t0273980-00)	
		LOC_Os12g17600	OS12G0274700	10,080,505	10,081,588	RBCS	Ribulose biphosphate carboxylase small chain, chloroplastic oxidation-reduction process oxidoreductase activity
D-13, Y-16		LOC_Os12g17880	OS12G0277000	10,254,122	10,257,442		protein ubiquitination ubiquitin ligase complex ubiquitin-protein transferase activity
		LOC_Os12g17900	OS12G0277400	10,281,013	10,286,711		protein ubiquitination ubiquitin ligase complex ubiquitin-protein transferase activity
		LOC_Os12g18140	OS12G0279000	10,458,981	10,466,190		protein deubiquitination protein ubiquitination
		LOC_Os12g18220	OS12G0280050	10,530,403	10,530,895		protein disulfide oxidoreductase activity
						Similar to NB-ARC domain containing protein, expressed. (Os12t0281300-01); Similar to Pi-ta protein. (Os12t0281300-02); Similar to NB-ARC domain protein. (Os12t0281300-03)	defense response
		LOC_Os12g18360	OS12G0281300	10,606,359	10,611,917		NB-ARC domain containing protein, expressed
Y-16	LOC_Os12g18374	OS12G0281600	10,624,037	10,635,373		NB-ARC domain containing protein. (Os12t0281600-01); Hypothetical conserved gene. (Os12t0281600-02) NB-ARC domain containing protein, expressed	defense response

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D-15, Y-17	LOC_Os12g19381	OS12G0291100	11,262,587	11,263,636	RBCS-A	Ribulose biphosphate carboxylase small chain A, chloroplastic	oxidation-reduction process
		OS12G0291400	11,277,247	11,278,306			oxidoreductase activity
D-15, Y-17	LOC_Os12g19470	OS12G0292400	11,320,409	11,322,505			oxidation-reduction process
							oxidoreductase activity
D-16		Os12g0405700	12,240,426	12,242,537		Similar to Wound-induced basic protein. (Os12t0405700-01);Similar to Wound- induced basic protein. (Os12t0405700- 02)	