Supplementary Table 1. List and details of the rice blast isolates used in this study

Isolates	Location	Cultivars	Korean race differential system	Monogenic lines	PCR for AVR genes
NC20-004	Yeoju	Jinsang	+	+	-
NC20-009	Yeoju	Jinsang	+	+	+
NC20-010	Yeoju	Jinsang	+	+	+
NC20-012	Yeoju	Jinsang	+	+	+
NC20-013	Yeoju	Jinsang	+	-	-
NC20-014	Yeoju	Jinsang	+	-	-
NC20-015	Yeoju	Jinsang	+	+	+
NC20-016	Yeoju	Jinsang	+	+	+
NC20-017	Yeoju	Jinsang	+	+	+
NC20-018	Yeoju	Jinsang	+	+	+
NC20-019	Yeoju	Jinsang	+	+	+
NC20-021	Yeoju	Jinsang	+	+	+
NC20-022	Yeoju	Jinsang	+	+	+
NC20-023	Yeoju	Jinsang	+	+	+
NC20-024	Yeoju	Jinsang	+	+	+
NC20-025	Yeoju	Jinsang	+	-	-
NC20-026	Yeoju	Jinsang	+	+	+
NC20-027	Yeoju	Jinsang	+	-	-
NC20-028	Yeoju	Jinsang	+	+	+
NC20-029	Yeoju	Jinsang	+	+	+
NC20-030	Yeoju	Jinsang	+	+	+
NC20-031	Yeoju	Jinsang	+	+	+
NC20-032	Yeoju	Jinsang	+	+	+
NC20-033	Yeoju	Jinsang	+	+	+
NC20-034	Yeoju	Jinsang	+	+	-
NC20-035	Yeoju	Jinsang	+	+	+
NC20-036	Yeoju	Jinsang	+	+	+
NC20-037	Yeoju	Jinsang	+	+	+
NC20-038	Yeoju	Jinsang	+	+	+
NC20-039	Yeoju	Jinsang	+	+	+
NC20-040	Yeoju	Jinsang	+	+	+
NC20-041	Yeoju	Yeonghojinmi	+	+	-
NC20-042	Yeoju	Yeonghojinmi	+	+	+
NC20-043	Yeoju	Yeonghojinmi	+	+	+
NC20-044	Yeoju	Yeonghojinmi	+	+	+
NC20-045	Yeoju	Yeonghojinmi	+	+	+
NC20-047	Yeoju	Yeonghojinmi	+	+	+
NC20-048	Yeoju	Yeonghojinmi	+	+	+
NC20-049	Yeoju	Yeonghojinmi	+	+	+
NC20-050	Yeoju	Yeonghojinmi	+	-	-
NC20-051	Yeoju	Yeonghojinmi	+	+	+
NC20-052	Yeoju	Yeonghojinmi	+	+	+
NC20-053	Yeoju	Yeonghojinmi	+	+	+
NC20-054	Yeoju	Yeonghojinmi	+	+	+
NC20-055	Yeoju	Yeonghojinmi	+	+	+
NC20-056	Yeoju	Yeonghojinmi	+	+	+
NC20-058	Yeoju	Yeonghojinmi	+	+	+
NC20-059	Yeoju	Yeonghojinmi	+	+	+

NC20-061	Yeoju	Yeonghojinmi	+	+	+
NC20-062	Yeoju	Yeonghojinmi	+	+	+
NC20-063	Yeoju	Yeonghojinmi	+	+	+
NC20-064	Yeoju	Yeonghojinmi	+	+	+
NC20-065	Yeoju	Yeonghojinmi	+	+	+
NC20-066	Yeoju	Yeonghojinmi	+	+	+
NC20-067	Yeoju	Yeonghojinmi	+	+	+
NC20-068	Yeoju	Yeonghojinmi	+	+	+
NC20-069	Yeoju	Yeonghojinmi	+	+	+
NC20-070	Yeoju	Yeonghojinmi	+	+	-
NC20-071	Yeoju	Yeonghojinmi	+	+	-
NC20-072	Yeoju	Yeonghojinmi	+	+	-
NC20-073	Yeoju	Yeonghojinmi	+	+	-
NC20-074	Yeoju	Yeonghojinmi	+	+	-
NC20-077	Yeoju	Yeonghojinmi	+	+	-
NC20-078	Yeoju	Yeonghojinmi	+	+	-
NC20-079	Yeoju	Yeonghojinmi	+	+	-
NC20-080	Yeoju	Yeonghojinmi	+	+	-

Supplementary Table 2. List of Korean differential rice cultivars

Ecotype	Cultivar name
Indica	Tetep
	Taebaeg
Tongil	Tongil
	Yushin
	Kanto51
Japonica	Nongbaeg
	Jinheung
	Nakdong

Supplementary Table 3. Reaction of Korean differential rice cultivars against the Yeoju isolates in 2020

Isolates	Korean differential rice cultivars[a]								Race
	Tetep	Taebaeg	Tongil	Yushin	Kanto51	Nongbaeg	Jinheung	Nakdong	
NC20-004	R	R	R	S	R	S	S	S	KI-409
NC20-009	R	R	R	R	R	S	S	S	KJ-201
NC20-010	S	R	R	R	S	S	S	S	KI-1113
NC20-012	S	R	R	S	R	S	S	S	KI-1105
NC20-013	S	R	R	S	R	S	S	S	KI-1105
NC20-014	R	R	R	R	S	S	S	S	KJ-101
NC20-015	R	R	R	R	S	S	S	S	KJ-101
NC20-016	R	R	R	R	S	S	S	S	KJ-101
NC20-017	R	R	R	R	R	S	S	S	KJ-201
NC20-018	R	R	R	R	S	S	S	S	KJ-101
NC20-019	R	R	R	R	S	S	R	S	KJ-103
NC20-021	R	R	R	R	S	S	S	S	KJ-101
NC20-022	R	R	R	R	R	S	R	S	KJ-203
NC20-023	R	R	R	S	S	S	S	S	KI-401
NC20-024	R	R	R	R	R	S	S	S	KJ-201

NC20-025	R	R	R	S	R	S	S	S	KI-409
NC20-026	R	R	R	R	R	S	S	S	KJ-201
NC20-027	R	R	R	S	R	S	R	S	KI-411
NC20-028	R	R	R	R	R	S	S	S	KJ-201
NC20-029	R	R	R	R	R	S	R	S	KJ-203
NC20-030	R	R	R	R	R	R	S	S	KJ-301
NC20-031	R	R	R	R	R	S	S	S	KJ-201
NC20-032	R	R	R	R	R	S	S	S	KJ-201
NC20-033	R	R	R	R	S	S	S	S	KJ-101
NC20-034	S	R	R	R	R	S	S	S	KI-1121
NC20-035	R	R	R	R	R	S	R	S	KJ-203
NC20-036	R	R	R	R	R	S	S	S	KJ-201
NC20-037	R	R	R	R	R	S	R	S	KJ-203
NC20-038	R	R	R	R	R	S	S	S	KJ-201
NC20-039	R	R	R	R	R	S	R	S	KJ-203
NC20-040	R	R	R	R	R	S	S	S	KJ-201
NC20-041	R	R	R	R	R	S	S	S	KJ-201
NC20-042	S	R	R	R	R	S	S	S	KI-1121
NC20-043	R	R	R	R	S	S	S	S	KJ-101
NC20-044	R	R	R	R	R	S	S	S	KJ-201
NC20-045	R	R	R	R	R	S	S	S	KJ-201
NC20-047	R	R	R	R	R	S	S	S	KJ-201
NC20-048	R	R	R	R	R	S	S	S	KJ-201
NC20-049	S	R	R	R	R	S	S	S	KI-1121
NC20-050	R	R	R	R	R	S	S	S	KJ-201
NC20-051	R	R	R	R	R	S	S	S	KJ-201
NC20-052	R	R	R	R	R	R	S	S	KJ-301
NC20-053	R	R	R	R	R	S	S	S	KJ-201
NC20-054	R	R	R	R	R	S	S	S	KJ-201
NC20-055	R	R	R	R	R	S	S	S	KJ-201
NC20-056	S	R	R	R	R	S	S	S	KI-1121
NC20-058	R	R	R	R	R	S	S	S	KJ-201
NC20-059	R	R	R	R	R	S	S	S	KJ-201
NC20-061	R	R	R	R	R	S	S	S	KJ-201
NC20-062	S	R	R	R	R	S	S	S	KI-1121
NC20-063	S	R	R	R	S	S	S	S	KI-1113
NC20-064	S	R	R	R	R	R	S	S	KI-1125
NC20-065	R	R	R	R	R	S	S	S	KJ-201
NC20-066	R	R	R	R	R	S	S	S	KJ-201
NC20-067	R	R	R	S	R	S	S	S	KI-409
NC20-068	R	R	R	R	R	S	S	S	KJ-201
NC20-069	R	R	R	R	R	S	S	S	KJ-201
NC20-070	R	R	R	R	R	S	S	S	KJ-201
NC20-071	R	R	R	R	R	S	S	S	KJ-201
NC20-072	R	R	R	R	R	S	S	S	KJ-201
NC20-073	R	R	R	R	R	S	S	S	KJ-201
NC20-074	R	R	R	R	R	S	S	S	KJ-201
NC20-077	R	R	R	R	R	S	S	S	KJ-201
NC20-078	R	R	R	R	R	S	S	S	KJ-201
NC20-079	R	R	R	R	R	S	S	S	KJ-201
NC20-080	R	R	R	R	R	S	S	S	KJ-201

[a]R, resistant; S, susceptible.

Supplementary Table 4. List of rice blast monogenic resistant lines

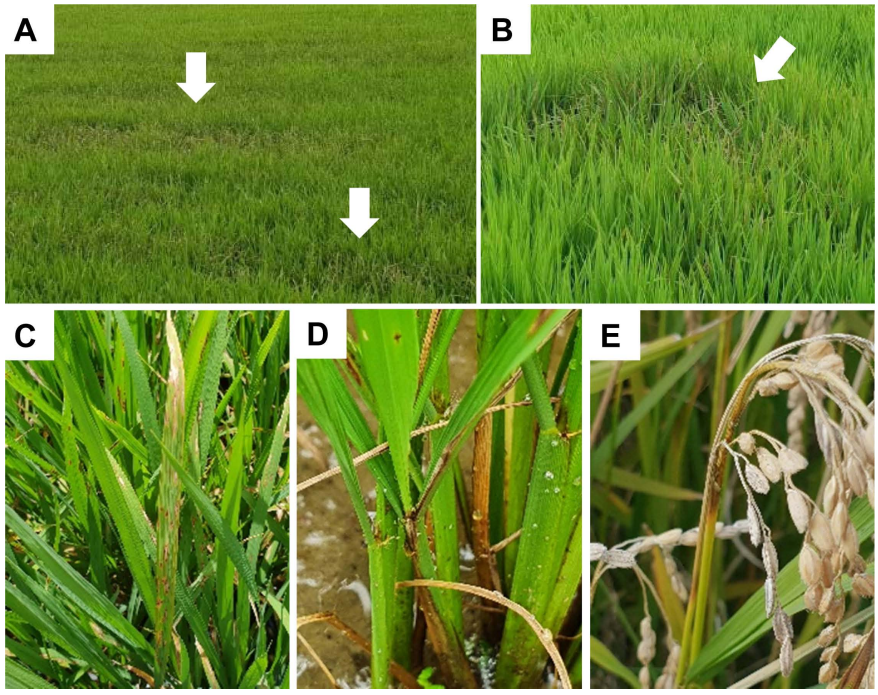
Resistance gene	Monogenic lines
Pish	IRBLsh-B
Pib	IRBLb-B
Pit	IRBLt-K59
Pia	IRBLa-A
Pii	IRBLi-F5
Pi3	IRBL3-CP4
Pi5(t)	IRBL5-M[LT]
Pik-s	IRBLks-F5
Pik-m	IRBLkm-Ts
Pi1	IRBL1-CL[LT]
Pik-h	IRBLkh-K3[LT]
Pik	IRBLk-Ka[LT]
Pik-p	IRBLkp-K60
Pi7(t)	IRBL7-M
Pi9(t)	IRBL9-W
Piz-5	IRBLz5-CA
Piz-t	IRBLzt-T
Pita-2	IRBLta2-Pi[LT]
Pi12(t)	IRBL12-M

Supplementary Table 5. The oligo sequences using in this study

Gene	Name	Sequence (5′→3′)
Avr-Pi9	Avr-Pi9_F1	ATGCAGTTCTCTCAGATCCTC
	Avr-Pi9_R2	CTACCAGTGCGTCTTTTCGAC
Avr-Pita1	Avr-Pita1_F1	GCCGAGTCGTTCTGA
	Avr-Pita1_R2	TGTTAATTGTGCAGAAGTTTTT
Avr-Pita2	Avr-Pita2_F1	TTGGCACCTTTTCATACCCAGTTT
	Avr-Pita2_R2	CAACTTACTTGTGAATCCCATCCC
Avr-Pita3	Avr-Pita3_F1	ACCGACCCAGGAAAAAAG
	Avr-Pita3_R2	AAGAAACAGGCAAACGCA
AvrPiz-t	AvrPiz-t_F1	GTTGCGATTATGATCCGTCG
	AvrPiz-t_R2	GTACTCTAGCAAACGACCGG
Avr-Pik	Avr-Pik_F1	TCCTGCTGCTAACTCCATTC
	Avr-Pita_R1	TCAACCAAGCGTAAACCTCG
Avr-Pikm	Avr-Pikm_F1	CTGTGGACTAAGTAGCATGCTTCT
	Avr-Pikm_R2	TAGGCAATCAAGAGAAAGCCAGTA
Avr-Pia	Avr-Pia_F1	CAGAGAAACGGACTTGGAGG
	Avr-Pia_R2	GGTATACACGTACGGTAGGG
Avr-Pib	Avr-Pib_F1	GGGCTAGCTATGGAACTTTGA
	Avr-Pib_R2	GGACAAGGGAGGCAAATCTAAC
Avr-Pii	Avr-Pii_F1	GGTAGATATCCGCTGACTGG
	Avr-Pii_R2	ACTGTCCGCCGCTCGTTTGG
Avr1-CO39	Avr1-CO39_F1	TGCCGCATTTTGCTAACCG
	Avr1-CO39_R2	GCGAATCCATAGACAAGGAC
PWL2	PWL2_F1	GGTGGCGGGTGGACTAAC
	PWL2_R2	CCTCTTCTCGCTGTTCACGG
ACE1	ACE1_F1	GTTTATCTACGAGGCTGGGGACATT
	ACE1_R2	GGCGAACGGTAAAATGTAGAAGA

Supplementary Table 6. Distribution of avirulence genes in the Yeoju isolates in 2020

No. of isolates	Proportion of avirulence gene (%)												
	Avr-Pi9	*Avr-Pita1*	*Avr-Pita2*	*Avr-Pita3*	*AvrPiz-t*	*Avr-Pik*	*Avr-Pikm*	*Avr-Pia*	*Avr-Pib*	*Avr-Pii*	*Avr1-CO39*	*PWL2*	*ACE1*
49	90.0	86.0	82.0	80.0	74.0	82.0	78.0	0.0	84.0	0.0	0.0	88.0	72.0



Supplementary Fig. 1. Outbreak of rice blast at Yeoju in 2020. Disease symptoms of rice leaf blast on fields (A, B), rice leaf (C), node (D), and neck (E). The white arrow indicates the damage point of rice blast disease.