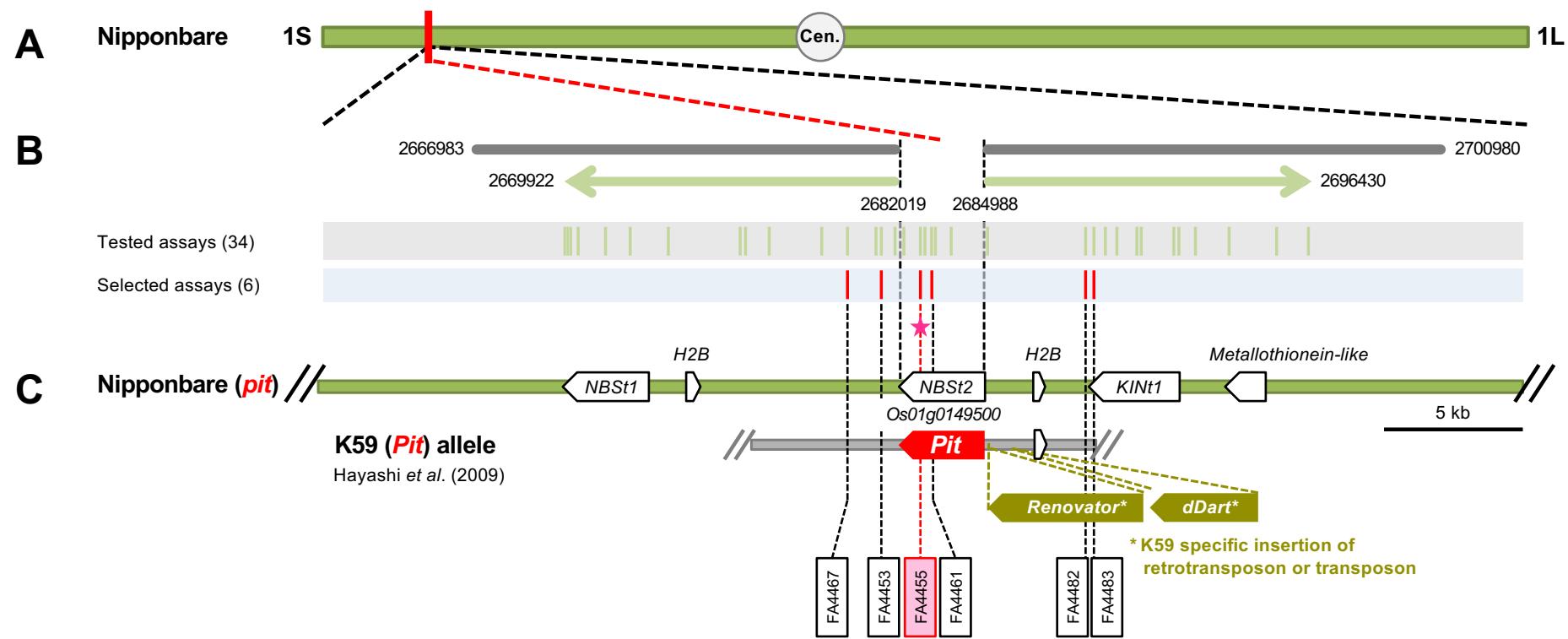
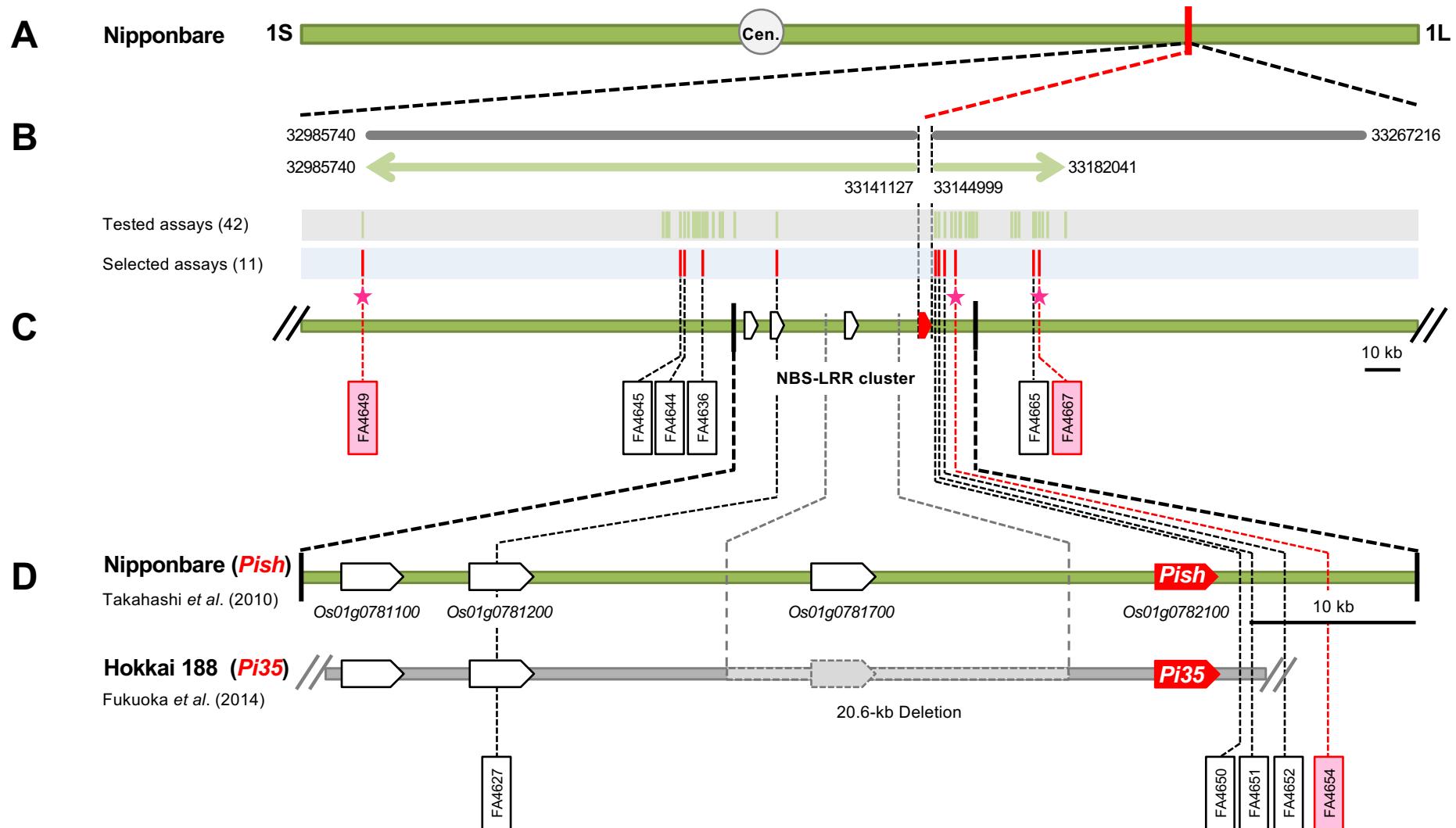


Legends for **Supplemental Figs. 1–10**. SNP genotyping assays for each of the 10 loci.

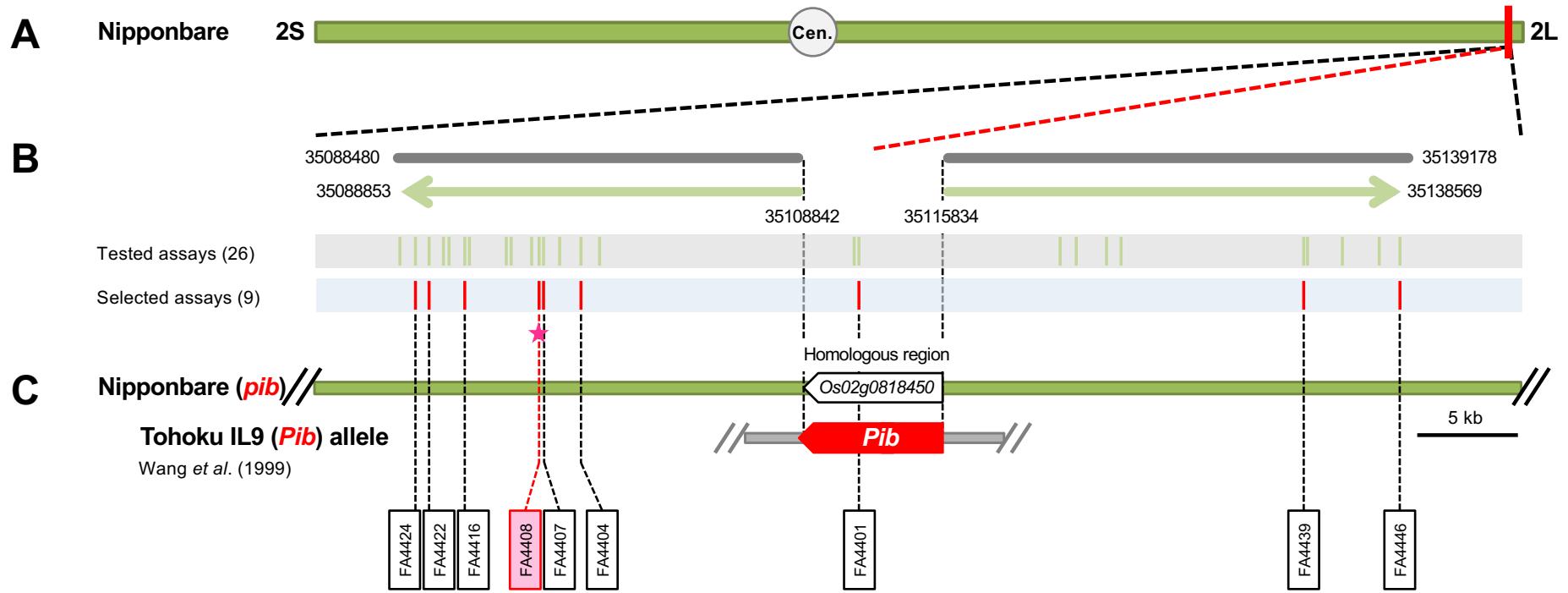
- (A) Positions of the resistance loci on each chromosome in ‘Nipponbare’ IRGSP-1.0. S, short-arm side of the chromosome; L, long-arm side of the chromosome; Cen., centromere. The numbers before the letters L or S represent chromosome number.
- (B) Distribution of SNPs surveyed (horizontal gray bars) and tested (horizontal green arrows) and positions of tested and selected SNP genotyping assays. Positions (bp) on left and right sides of each range refer to the ‘Nipponbare’ reference. The positions of tested and selected assays are indicated by vertical green and red bars, respectively, and their numbers are indicated in parentheses on the left. Pink asterisks indicate “core set” assays that are required to distinguish a certain resistance haplotype from susceptibility haplotype (see Supplemental Table 4 for details).
- (C) Physical maps showing positions of the genes that share similarities with genes encoding proteins with nucleotide-binding site (NBS) or leucine-rich repeat (LRR) domains or have been reported previously to be disease resistance-associated genes in ‘Nipponbare’ and donor varieties of resistance alleles. Cloned resistance genes are indicated by red boxes. The names of SNP genotyping assays in BRA1 are indicated below the maps; those selected in the ‘core set’ are highlighted in red.
- (D) Enlarged views of physical maps showing the region containing the NBS-LRR cluster at the *Pish* locus (Supplemental Fig. 2) and the region harboring two resistance genes in the K-type genome at the *Pik* locus (Supplemental Fig. 8).



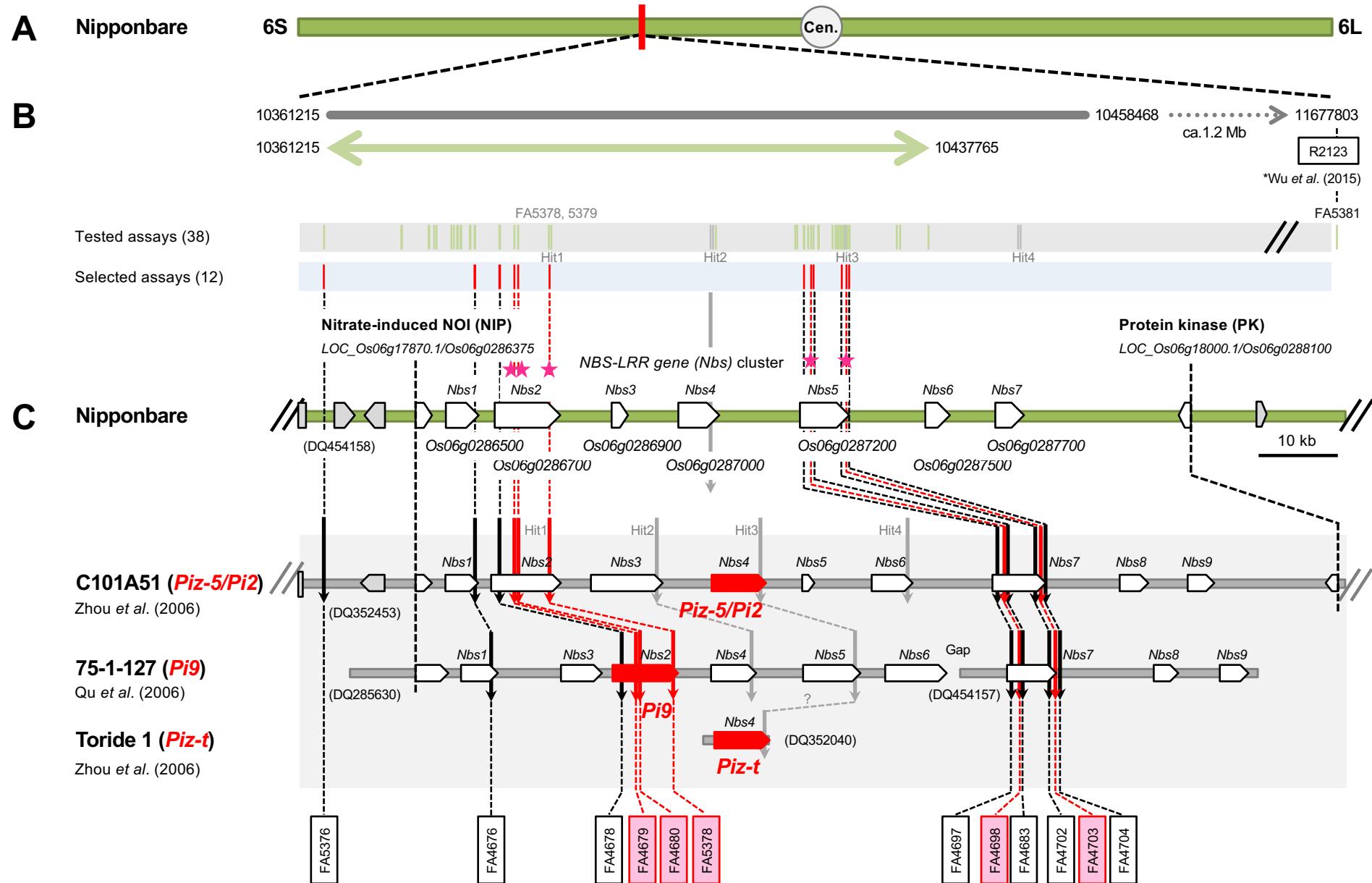
Supplemental Fig. 1. SNP genotyping assays for *Pit* locus



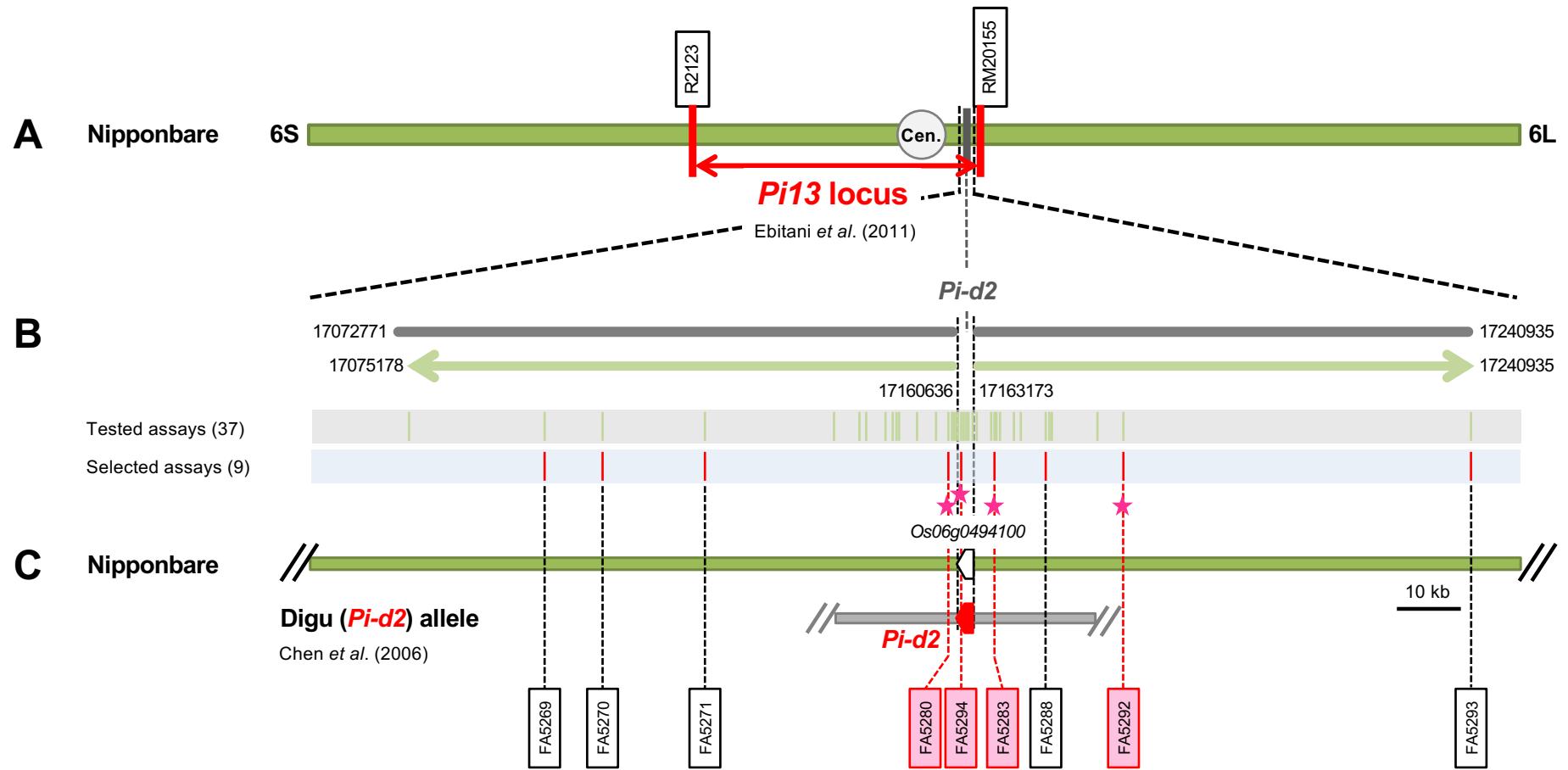
Supplemental Fig. 2. SNP genotyping assays for *Pish* locus



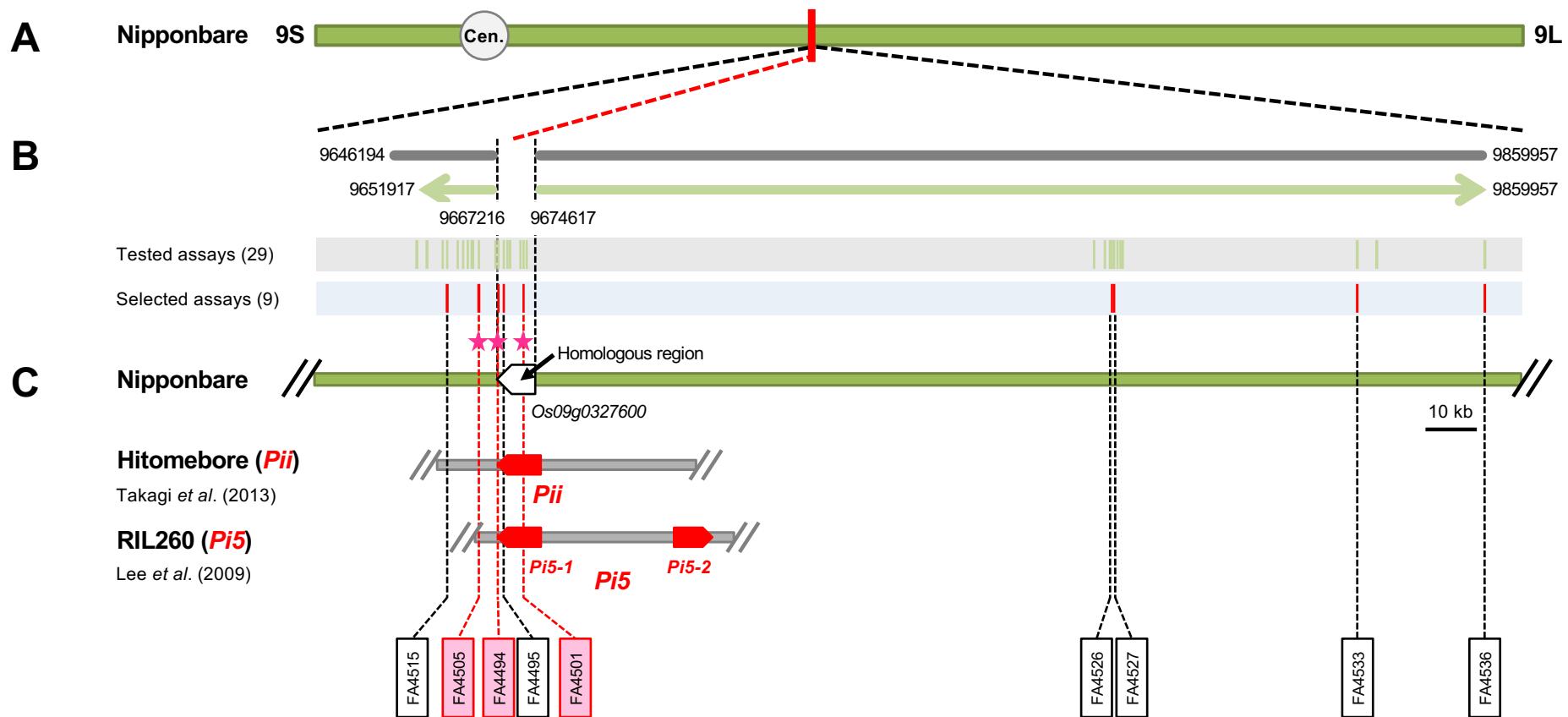
Supplemental Fig. 3. SNP genotyping assays for *Pib* locus



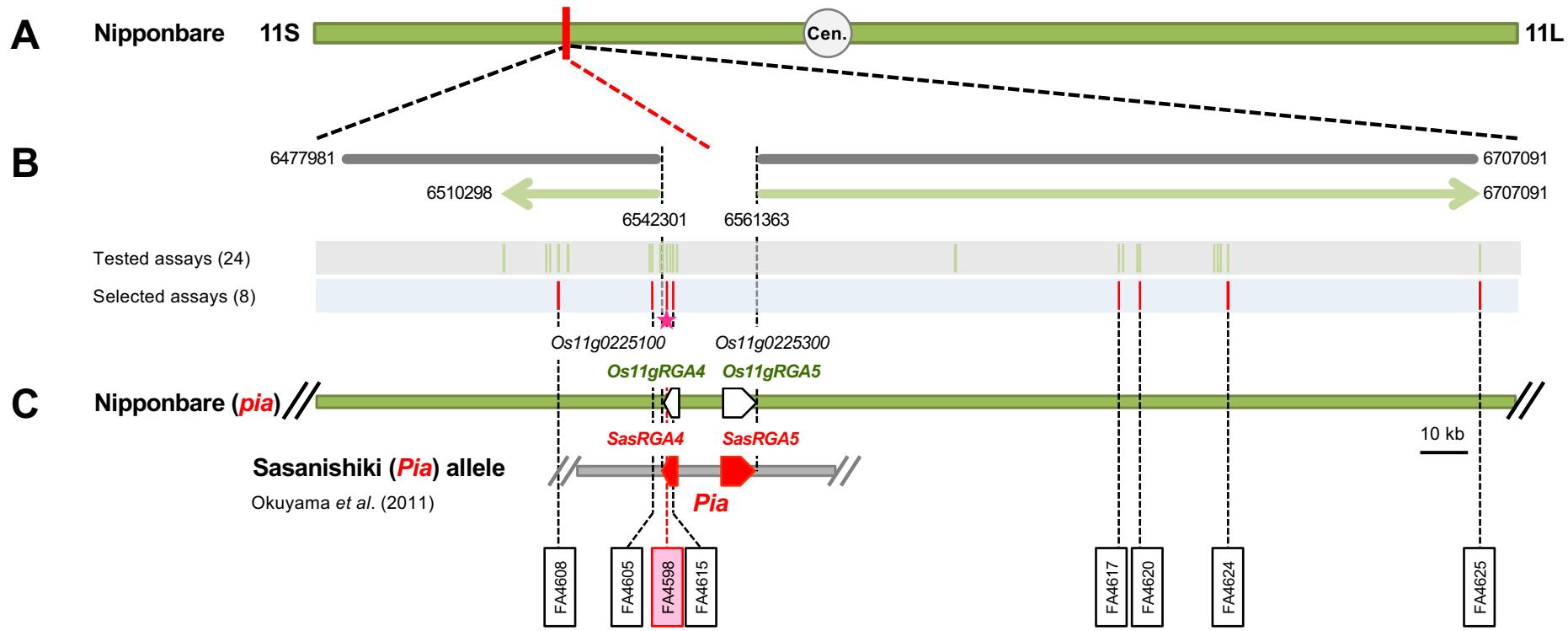
Supplemental Fig. 4. SNP genotyping assays for *Piz* locus



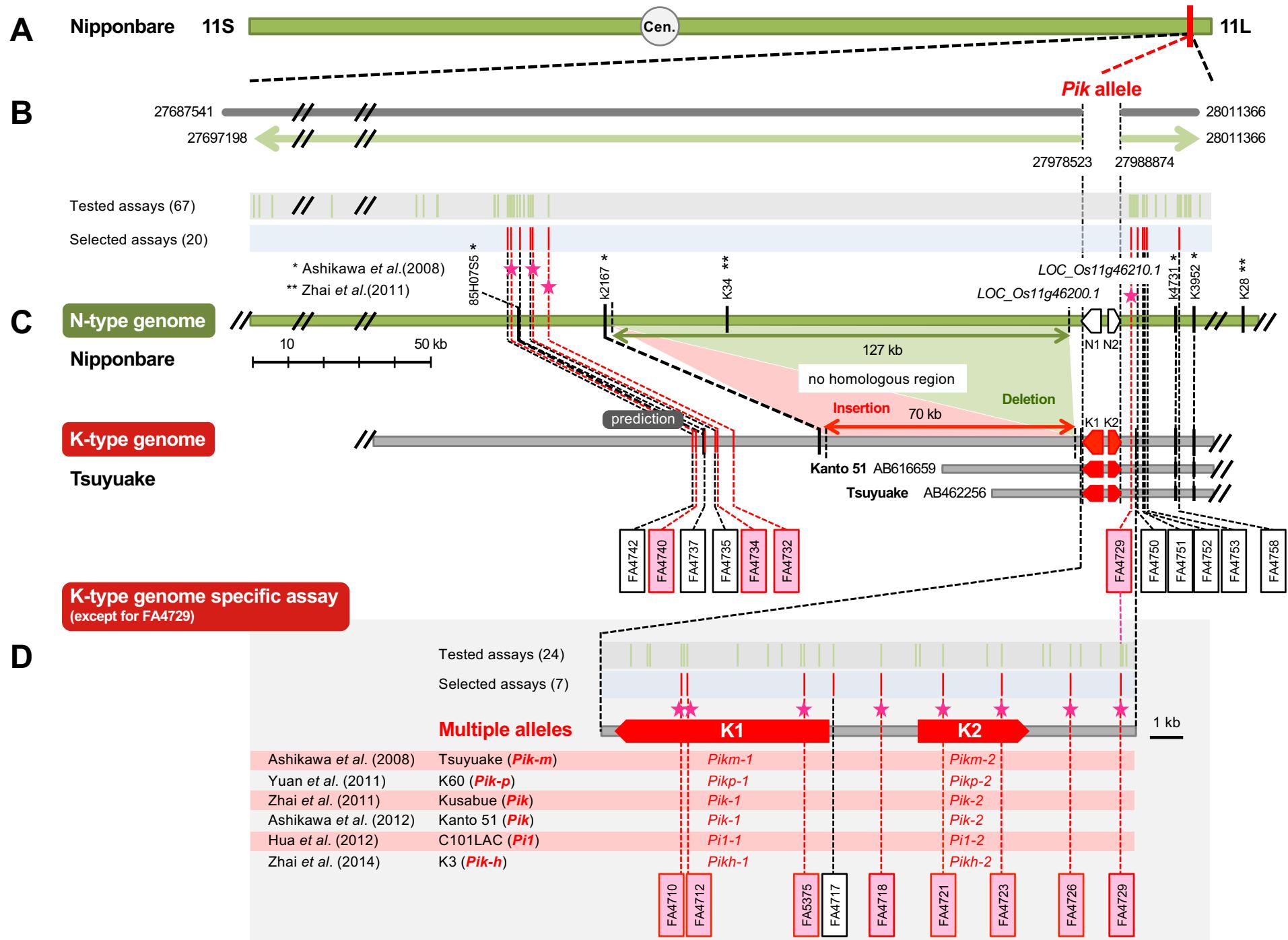
Supplemental Fig. 5. SNP genotyping assays for *Pi13* locus



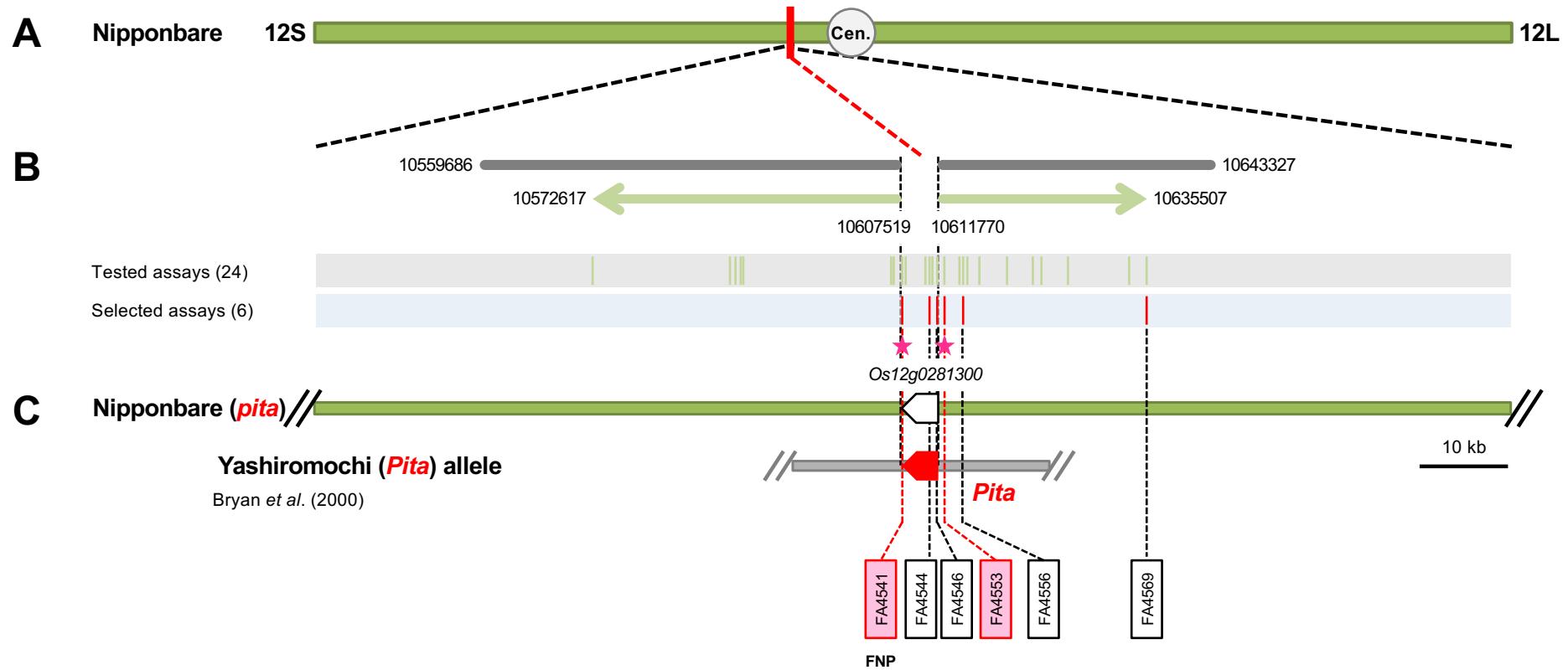
Supplemental Fig. 6. SNP genotyping assays for *Pii* locus



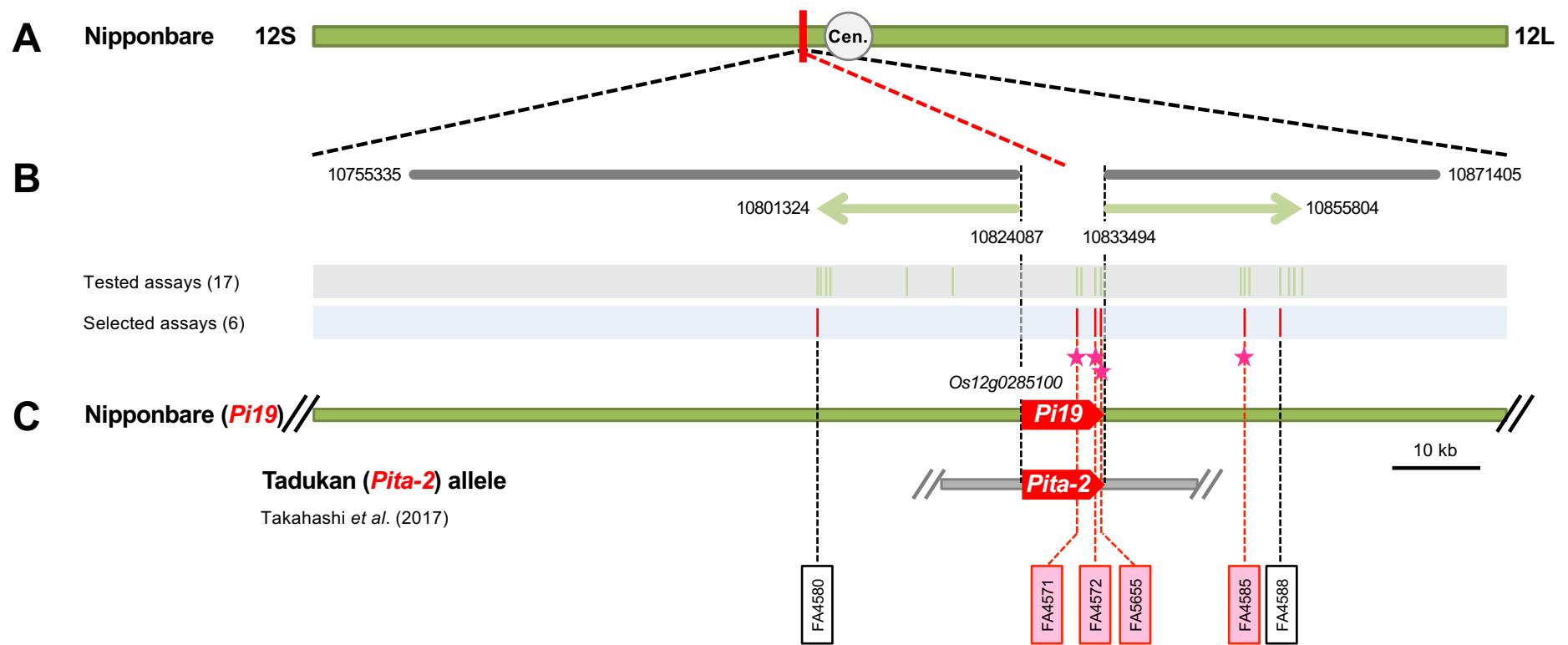
Supplemental Fig. 7. SNP genotyping assays for *Pia* locus



Supplemental Fig. 8. SNP genotyping assays for *Pik* locus



Supplemental Fig. 9. SNP genotyping assays for *Pita* locus



Supplemental Fig. 10. SNP genotyping assays for *Pita-2* locus

Legends for **Supplemental Fig. 11**. InDel marker set for each of the 10 loci.

(A) Genotypes obtained by using the PCR-based markers and SNP genotyping assays. ‘Nipponbare’, donors for respective resistance alleles, and varieties that represent haplotypes obtained by SNP genotyping were selected for each locus.

Genotype A, ‘Nipponbare’ type; B or C, genotypes that differ from ‘Nipponbare’ type; AB, a genotype with amplicons of the same size as those from ‘Nipponbare’ type and the other type; -, no amplicon. For the markers Pik-ID006, Pik-ID007, and Pik-ID010 to ID015 at the Pik locus, ‘Kusabue’ type was denoted as A because of no amplification in ‘Nipponbare’ (Supplemental Fig. 11-8A). The markers in red could distinguish between the resistance allele and other alleles; they consist of a total of 23 PCR-based markers (Table 5) and the “core set” of 35 SNP genotyping assays (Supplemental Table 4). The haplotype IDs are as shown in Supplemental Table 4. The genotypes are based on the results shown in Supplemental Table 4.

(B) Sizes of the amplicons obtained by using the selected PCR-based markers (also see Table 5 for details). The 20-bp ladder lane (Takara Bio Inc., Shiga, Japan), and sizes of two or three reference bands are shown on the left. Blue and red arrows indicate the expected band size for genotype A or B, respectively (see Supplemental Table 6).

A

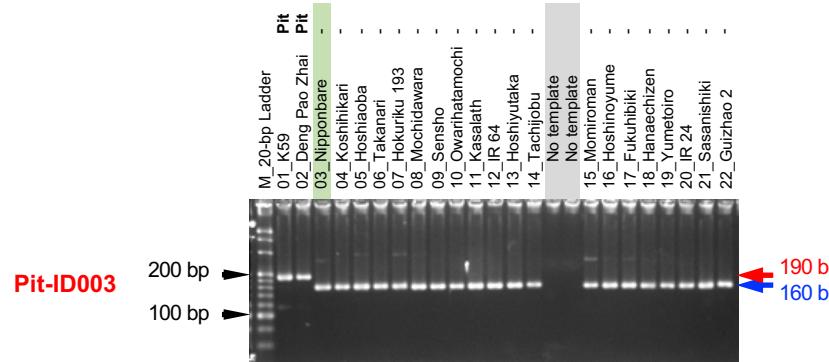
Sample No.	Cultivar/Line name	Target allele	SNP genotyping assays			Marker No.	IRGSP-1.0 Chr.
			Pit_H01	Pit_H02	Pit_H03		
1	K59	<i>Pit</i>	B B A - B B B B	A A A A A A A A	B B A - B B B B	Pit-ID004	1 2588798
2	Deng Pao Zhai	<i>Pit</i>	B B A - B B B B	-	B B A - B B B B	Pit-ID005	2 2593530
3	Nipponbare	-	A A A A A A A A	A A A A A A A A	B B A - A AB A A	Pit-ID006	3 2598062
4	Koshihikari	-	Pit_H03	B B A - A AB A A	B B A - A AB A A	Pit-ID007	4 2627002
5	Hoshiaoba	-	Pit_H03	B B A - A AB A A	B B A - A AB A A	Pit-ID008	5 2673971
6	Takanari	-	Pit_H04	A B A B C B C A	A B A B C B C A	Pit-ID001	6 2675422
7	Hokuriku 193	-	Pit_H04	A B A B C B C A	A B A B C B C A	Pit-ID002	7 2675706
8	Mochidawara	-	Pit_H04	A B A B C B C A	A B A B C B C A	Pit-ID003	8 2676307
9	Sensho	-	Pit_H05	A C B C D - A A	A C B C D - A A	Pit-ID009	9 2724180
10	Owarihatamochi	-	Pit_H05	A C B C D - A A	A C B C D - A A	Pit-ID010	10 2742038
11	Kasalath	-	Pit_H07	B B A A E B A A	B B A A E B A A	Pit-ID011	11 2745995
12	IR 64	-	Pit_H07	B B A A A B A A	B B A A A B A A	Pit-ID012	12 2757976
13	Hoshiyutaka	-	Pit_H06	A B A B C B C A	A B A B C B C A	Pit-ID013	13 2766881
14	Tachijobu	-	Pit_H06	A B A B C B C A	A B A B C B C A	Pit-ID014	14 2769914
15	Momironan	-	Pit_H02	A A A A A A A A	A A A A A A A A	Pit-ID015	15 2770718
16	Hoshinoyume	-	Pit_H03	B B A - A AB A A	B B A - A AB A A	Pit-ID016	16 2781269
17	Fukuhibiki	-	Pit_H03	B B A - A AB A A	B B A - A AB A A		
18	Hanaechizen	-	Pit_H03	B B A - A AB A A	B B A - A AB A A		
19	Yumetoiro	-	Pit_H04	A B A B C B C A	A B A B C B C A		
20	IR 24	-	Pit_H04	A B A B C B C A	A B A B C B C A		
21	Sasanishiki	-	Pit_H03	B B A - A AB A A	B B A - A AB A A		
22	Guizhao 2	-	Pit_H04	A B A B C B C A	A B A B C B C A		

InDel marker genotypes

Pit CDS_Upstream side Pit CDS_Downstream side Pit CDS_Upstream side Pit CDS_Downstream side

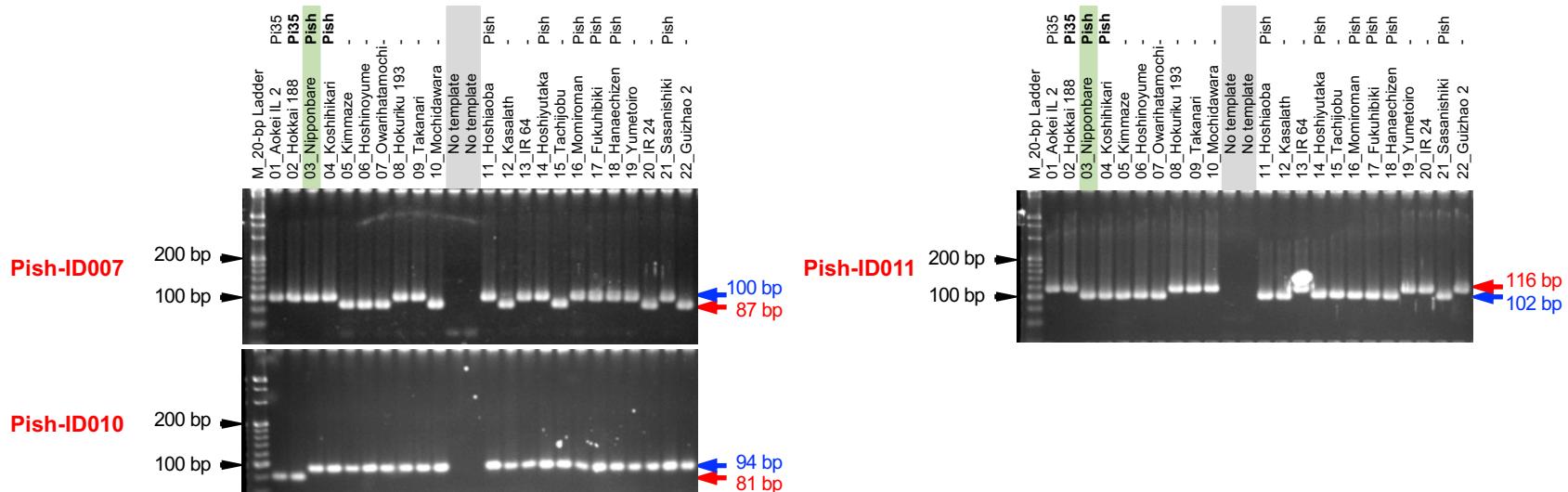
Pit CDS_Upstream side Pit CDS_Downstream side

Pit CDS_Downstream side

**B****Supplemental Fig. 11-1.** InDel marker set for *Pit* locus

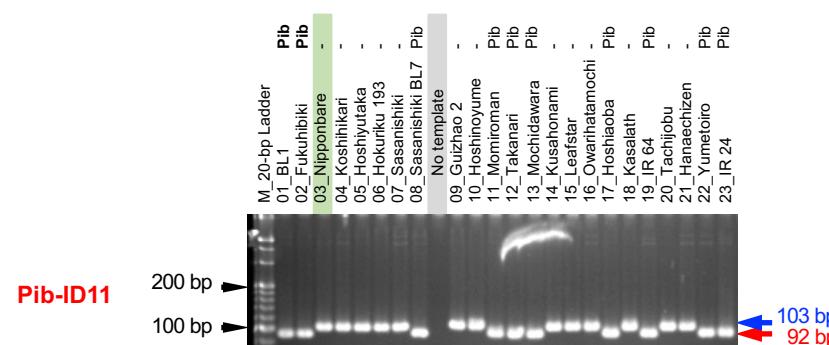
A

Sample No.	Cultivar/Line name	Target allele	SNP genotyping assays Haplotype ID	InDel marker genotypes												SNP-haplotype	
				Marker No. IRGSP-1.0 Chr.				Marker No. IRGSP-1.0 Chr.				Marker No. IRGSP-1.0 Chr.					
				Pish-ID001	Pish-ID002	Pish-ID003	Pish-ID004	Pish-ID005	Pish-ID006	Pish-ID007	Pish-ID008	Pish-ID009	Pish-ID010	Pish-ID011	Pish-ID012	Pish-ID013	
1	Aokei IL2	<i>Pi35</i>	Pish_H02	A	A	A	A	A	A	A	A	A	B	B	A	A	A
2	Hokkai 188	<i>Pi35</i>	Pish_H02	A	A	A	A	A	A	A	A	A	B	B	A	A	A
3	Nipponbare	<i>Pish</i>	Pish_H01	A	A	A	A	A	A	A	A	A	B	B	A	A	A
4	Koshihikari	<i>Pish</i>	Pish_H01	A	A	A	A	A	A	A	A	A	B	B	A	A	A
5	Kimmaze	-	Pish_H03	A	A	A	A	A	A	A	A	A	B	B	A	A	A
6	Hoshinoyume	-	Pish_H03	A	A	A	A	A	A	A	A	A	B	B	A	A	A
7	Owarihatamochi	-	Pish_H04	A	A	A	A	A	A	A	A	A	B	B	B	A	A
8	Hokuriku 193	-	Pish_H07	A	A	B	B	B	B	A	A	A	B	B	B	B	A
9	Takanari	-	Pish_H07	A	A	B	B	B	B	A	A	A	B	B	B	B	A
10	Mochidawara	-	Pish_H06	B	B	B	B	B	B	B	B	B	B	B	B	B	A
11	Hoshiaoba	<i>Pish</i>	Pish_H01	A	A	A	A	A	A	A	A	A	B	B	A	A	A
12	Kasalath	-	Pish_H09	A	A	B	B	B	B	A	A	A	B	B	B	B	A
13	IR 64	-	Pish_H07	A	A	B	B	B	B	A	A	A	B	B	B	B	A
14	Hoshiyutaka	<i>Pish</i>	Pish_H01	A	A	A	A	A	A	A	A	A	B	B	A	A	A
15	Tachijobu	-	Pish_H03	A	A	A	A	A	A	A	A	A	B	B	B	B	A
16	Momiroman	<i>Pish</i>	Pish_H01	A	A	A	A	A	A	A	A	A	B	B	A	A	A
17	Fukuhibiki	<i>Pish</i>	Pish_H01	A	A	A	A	A	A	A	A	A	B	B	A	A	A
18	Hanaechnizen	<i>Pish</i>	Pish_H01	A	A	A	A	A	A	A	A	A	B	B	A	A	A
19	Yumetairo	-	Pish_H07	A	A	B	B	B	B	A	A	A	B	B	B	B	A
20	IR 24	-	Pish_H06	B	B	B	B	B	B	B	B	B	B	B	B	B	A
21	Sasanishiki	<i>Pish</i>	Pish_H01	A	A	A	A	A	A	-	A	A	A	A	A	A	A
22	Guizhao 2	-	Pish_H06	B	B	B	B	A	B	B	B	B	B	B	B	B	A

B**Supplemental Fig. 11-2. InDel marker set for *Pish* locus**

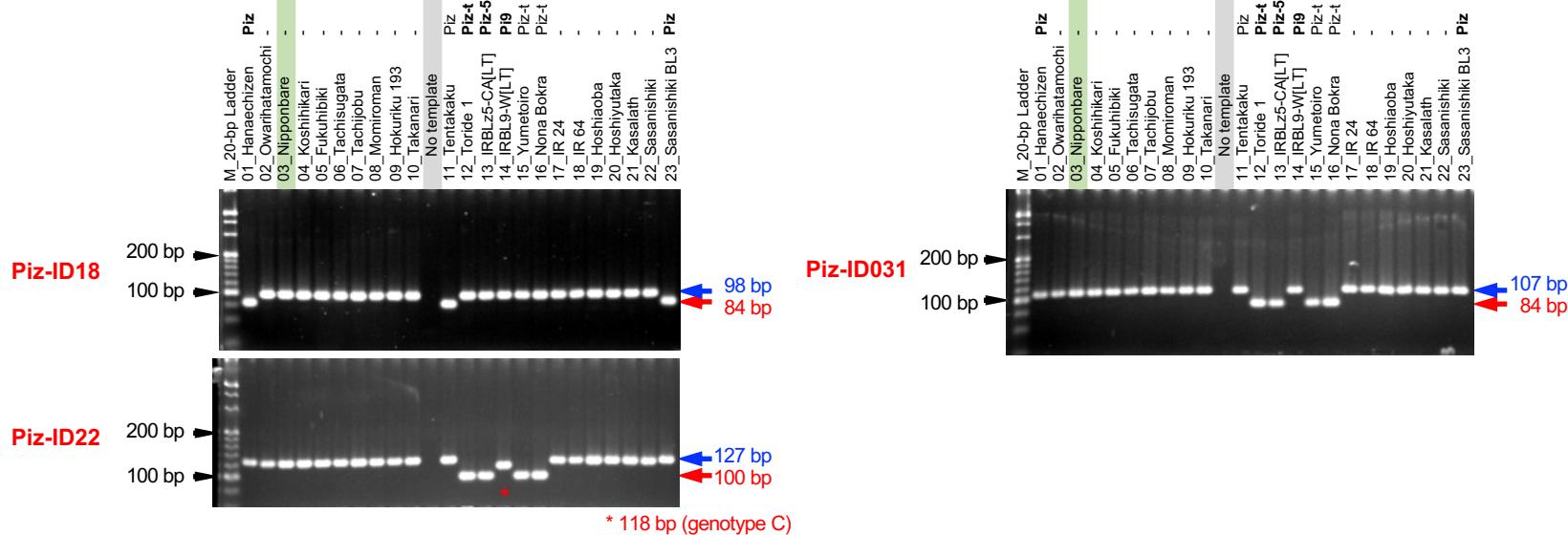
A

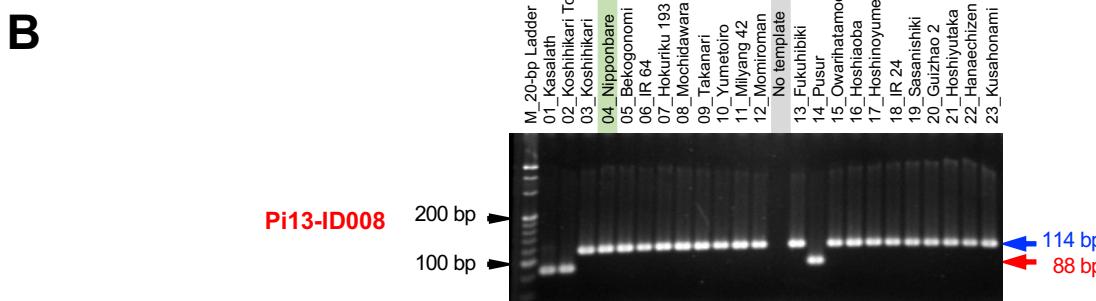
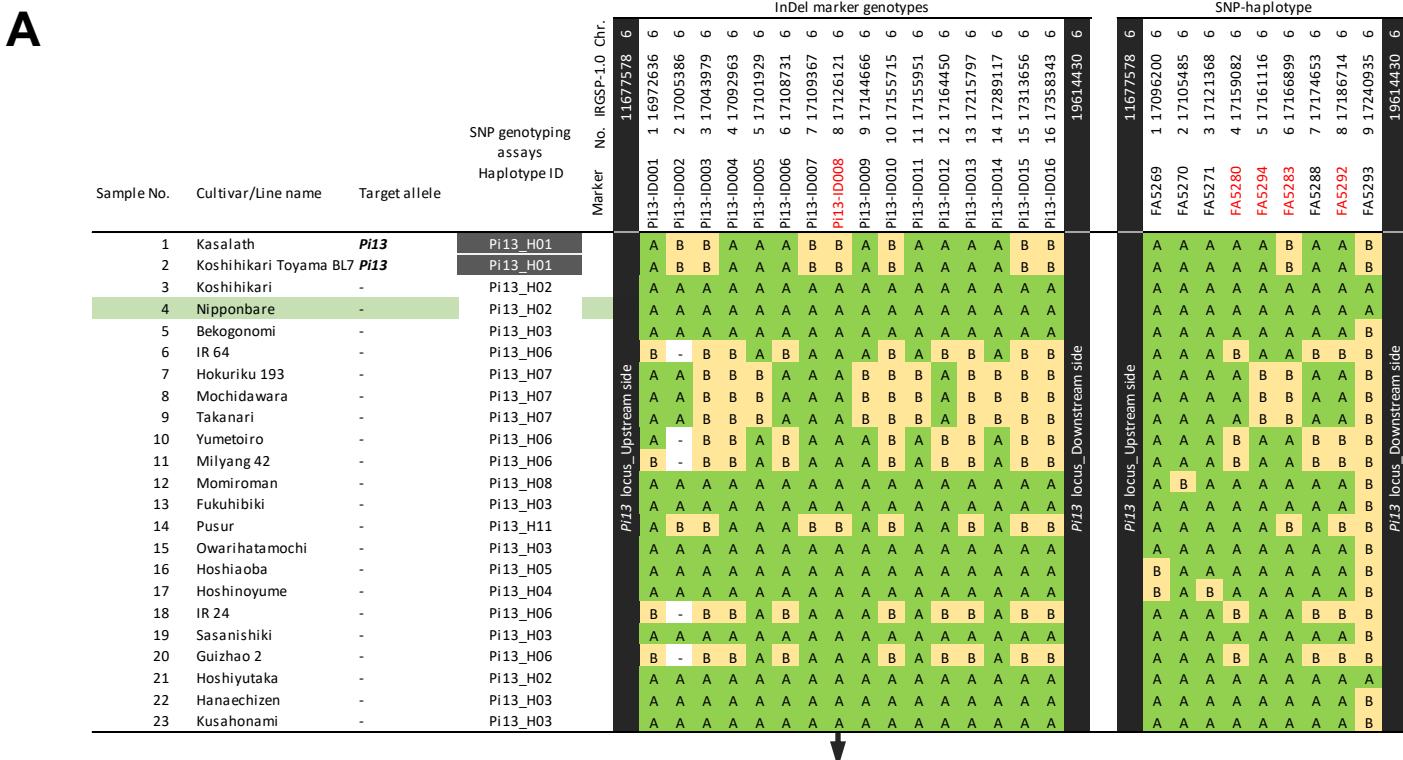
Sample No.	Cultivar/Line name	Target allele	SNP genotyping assays Haplotype ID	Marker No. IRGSP-1.0 Chr.	InDel marker genotypes		SNP-haplotype																					
					Pib-ID07	Pib-ID08	Pib-ID09	Pib-ID10	Pib-ID11	Pib-ID01	Pib-ID12	Pib-ID02	Pib-ID13	Pib-ID14	Pib-ID15	Pib-ID16	Pib-ID17	Pib-ID18	Pib-ID19	Pib-ID20	Pib-ID21	Pib-ID22	Pib-ID23	Pib-ID24				
1	BL1	<i>Pib</i>	Pib_H01	A A A A B B	B B B A B B	-	B B B A A B	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A					
2	Fukuhibiki	<i>Pib</i>	Pib_H01	B B B A B B	-	Pib-ID08	2 35016942	2	3 35020876	2	-	B B B A A B	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A				
3	Nipponbare	-	Pib_H02	A A A A A A	A A A A A A	-	B B B A A B	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A				
4	Koshihikari	-	Pib_H03	A A A A A A	A A A A A A	-	B B B A A B	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A			
5	Hoshyutaka	-	Pib_H04	A A A B A A	A A A B A A	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C		
6	Hokuriku 193	-	Pib_H05	A A B A A A	A A B A A A	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C		
7	Sasanishiki	-	Pib_H02	A A A A A A	A A A A A A	-	B B B A A B	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A	A A A A A A		
8	Sasanishiki BL7	<i>Pib</i>	ND	B B A B B B	-	Pib-ID08	2 35086284	2	3 35090751	2	-	B B A B B B	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A	A A C C C A			
9	Guizhao 2	-	Pib_H05	A A B A A A	A A B A A A	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C		
10	Hoshinoyume	-	Pib_H03	A A A A A A	A A A A A A	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C		
11	Momiroman	<i>Pib</i>	Pib_H01	B B A B B B	B B A B B B	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C		
12	Takanari	<i>Pib</i>	Pib_H01	B B A B B B	B B A B B B	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C		
13	Mochidawara	<i>Pib</i>	Pib_H01	B B A B B B	B B A B B B	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	
14	Kusahonami	-	Pib_H04	A A B A A A	A A B A A A	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	
15	Leafstar	-	Pib_H04	A A B A A A	A A B A A A	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	
16	Owarihatamochi	-	Pib_H03	A A A A A A	A A A A A A	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	
17	Hoshaoba	<i>Pib</i>	Pib_H01	B B A B B B	B B A B B B	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	
18	Kasalath	-	Pib_H08	A A B A A A	A A B A A A	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C
19	IR 64	<i>Pib</i>	Pib_H01	B B A B B B	B B A B B B	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C
20	Tachijobu	-	Pib_H02	A A A A A A	A A A A A A	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C
21	Hanaechizen	-	Pib_H02	A A A A A A	A A A A A A	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C
22	Yumetoiro	<i>Pib</i>	Pib_H01	B B A B B B	B B A B B B	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C
23	IR 24	<i>Pib</i>	Pib_H01	B B A B B B	B B A B B B	-	B B B A A B	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C	B B B B B C

B**Supplemental Fig. 11-3.** InDel marker set for *Pib* locus

A

Sample No.	Cultivar/Line name	Target allele	SNP genotyping assays		Marker No.	IGSP-1.0 Chr.	InDel marker genotypes												SNP-haplotype										
			Haplotype ID	Marker No.			Piz-ID16	Piz-ID17	Piz-ID18	Piz-ID19	Piz-ID20	Piz-ID21	Piz-ID22	Piz-ID23	Piz-ID24	Piz-ID25	Piz-ID26	Piz-ID27	Piz-ID28	Piz-ID29	Piz-ID30	Piz-ID31	Piz-ID32	Piz-ID33	Piz-ID34	Piz-ID35	Piz-ID36	Piz-ID37	Piz-ID38
1	Hanaechizen	Piz	Piz_H01	B B B B C	Piz-ID16	1	10356451	6																					
2	Owarihatamochi	-	Piz_H08	B C A A B	Piz-ID17	2	10358203	6																					
3	Nipponbare	-	Piz_H05	A A A A A	Piz-ID18	3	10358427	6																					
4	Koshihikari	-	Piz_H05	A A A A A	Piz-ID19	4	10370810	6																					
5	Fukuhikiki	-	Piz_H05	A A A A A	Piz-ID20	5	10372159	6																					
6	Tachisugata	-	Piz_H05	A A A A A	Piz-ID21	6	10376083	6																					
7	Tachijobu	-	Piz_H06	B D A A C	Piz-ID22	7	10384422	6																					
8	Momironan	-	Piz_H06	B D A A C	Piz-ID23	8	10381739	6																					
9	Hokuriku 193	-	Piz_H07	B C A A B	Piz-ID24	9	10382105	6																					
10	Takanari	-	Piz_H07	B C A A B	Piz-ID25	10	10382110	6																					
11	Tentakaku	Piz	Piz_H01	B B B B C	Piz-ID26	11	10382995	6																					
12	Toride 1	Piz-t	Piz_H02	B A A A B	Piz-ID27	12	10383080	6																					
13	IRBLz5-CA[LT]	Piz-5	Piz_H03	B A A B B	Piz-ID28	13	10383104	6																					
14	IRBL9-W[LT]	Pi9	Piz_H04	B D A A A	Piz-ID29	15	10418509	6																					
15	Yumetoiro	Piz-t	Piz_H02	B A A B B	Piz-ID30	16	10432418	6																					
16	Nona Bokra	Piz-t	Piz_H02	B A A B B	Piz-ID31	17	10434241	6																					
17	IR 24	-	Piz_H09	B C A A B	Piz-ID32	18	10436065	6																					
18	IR 64	-	Piz_H07	B C A A B	Piz-ID33	19	10446072	6																					
19	Hoshiaoba	-	Piz_H05	A A A A A	Piz-ID34	20	10437522	6																					
20	Hoshiyutaka	-	Piz_H05	A A A A A	Piz-ID35	21	10437523	6																					
21	Kasalath	-	Piz_H05	A A A A A	Piz-ID36	24	10444246	6																					
22	Sasanishiki	-	Piz_H05	A A A A A	Piz-ID37	25	10446600	6																					
23	Sasanishiki BL3	Piz	Piz_H01	B B B B C	Piz-ID38	26	10459030	6																					

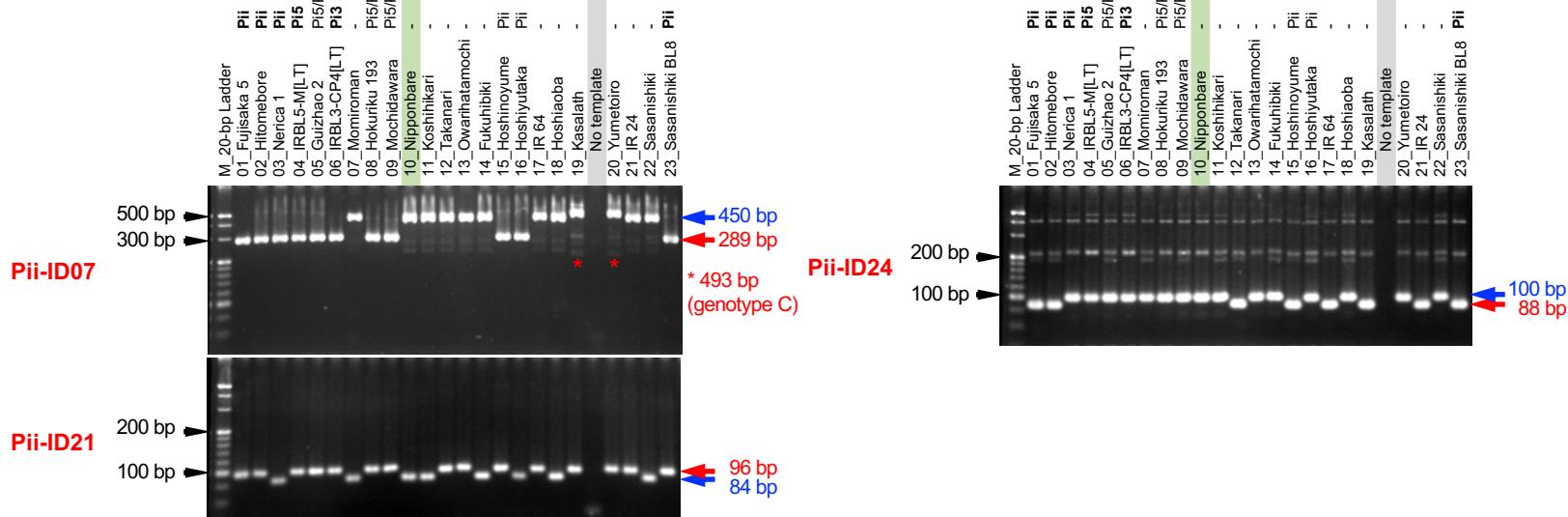
B**Supplemental Fig. 11-4. InDel marker set for *Piz* locus**



Supplemental Fig. 11-5. InDel marker set for *Pi13* locus

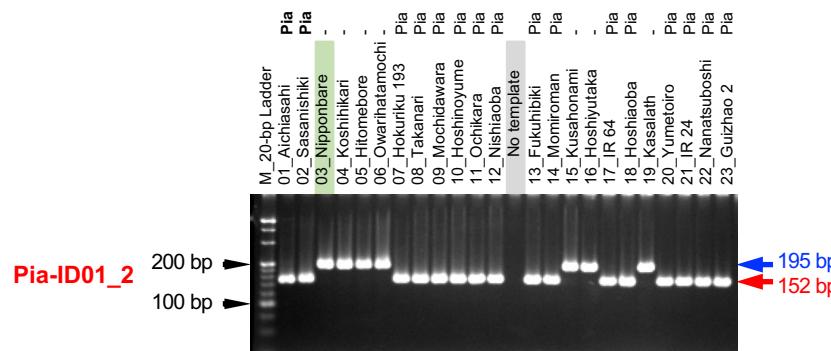
A

Sample No.	Cultivar/Line name	Target allele	SNP genotyping assays Haplotype ID	Marker No. IRGSP-1.0 Chr.								
				Pii-ID02	Pii-ID01	Pii-ID04	Pii-ID18	Pii-ID07	Pii-ID19	Pii-ID20	Pii-ID21	Pii-ID22
1	Fujisaka 5	<i>Pii</i>	Pii_H01-1	B	-	-	-	B	6	97633380	9	-
2	Hitomebore	<i>Pii</i>	Pii_H01-1	B	-	-	-	B	7	9781213	9	-
3	Nerica 1	<i>Pii</i>	Pii_H01-2	A	A	A	B	-	8	9789035	9	-
4	IRBL5-M[LT]	<i>PI5</i>	Pii_H02	B	B	B	B	-	-	-	-	-
5	Guizhao 2	<i>PI5/Pi3</i>	Pii_H02	B	B	B	B	-	-	-	-	-
6	IRBL3-CP4[LT]	<i>PI3</i>	Pii_H02	B	B	B	B	-	-	-	-	-
7	Momiroman	-	Pii_H03	A	A	A	A	-	-	-	-	-
8	Hokuriku 193	<i>PI5/Pi3</i>	Pii_H02	B	B	B	B	-	-	-	-	-
9	Mochidawara	<i>PI5/Pi3</i>	Pii_H02	B	B	B	B	-	-	-	-	-
10	Nipponbare	-	Pii_H03	A	A	A	A	A	9	9674617	9	-
11	Koshihikari	-	Pii_H03	A	A	A	A	A	-	-	-	-
12	Takanari	-	Pii_H04	A	A	A	A	A	-	-	-	-
13	Owarihatamochi	-	Pii_H06	A	A	A	A	A	-	-	-	-
14	Fukuhikiki	-	Pii_H03	A	A	A	A	A	-	-	-	-
15	Hoshinoyume	<i>Pii</i>	Pii_H01-1	B	B	B	B	-	-	-	-	-
16	Hoshiyutaka	<i>Pii</i>	Pii_H01-2	A	A	A	B	-	-	-	-	-
17	IR 64	-	Pii_H04	A	A	A	A	A	-	-	-	-
18	Hoshiaoba	-	Pii_H03	A	A	A	A	A	-	-	-	-
19	Kasaih	-	Pii_H08	B	B	B	C	-	-	-	-	-
20	No template	-	Pii_H09	B	B	B	C	-	-	-	-	-
21	Yumetorio	-	Pii_H04	A	A	A	A	A	-	-	-	-
22	IR 24	-	Pii_H04	A	A	A	A	A	-	-	-	-
23	Sasanishiki	-	Pii_H03	A	A	A	A	A	-	-	-	-
	Sasanishiki BL8	<i>Pii</i>	ND	B	B	B	B	-	-	-	-	-

B**Supplemental Fig. 11-6.** InDel marker set for *Pii* locus

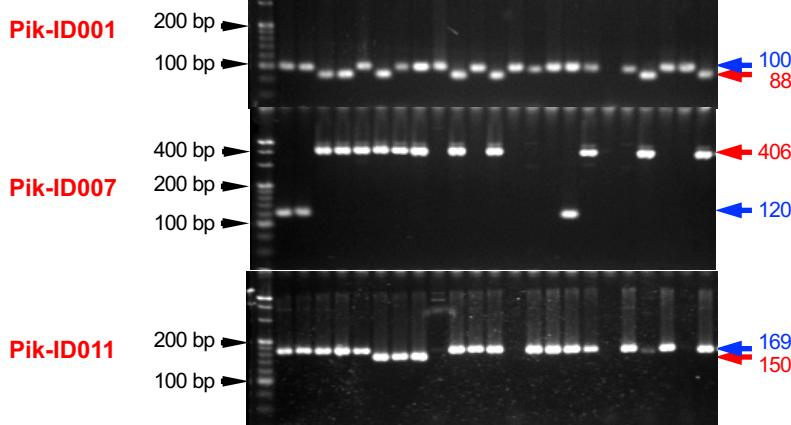
A

Sample No.	Cultivar/Line name	Target allele	SNP genotyping assays			Marker No.	Chr.	
			Haplotype ID					
			Pia-ID02	Pia-ID03	Pia-ID04	Pia-ID05	Pia-ID01_2	
1	Aichiasahi	Pia	Pia_H01-1	A A	B B	-	6375786	11
2	Sasanishiki	Pia	Pia_H01-1	A A	B B	-	6400787	11
3	Nipponbare	-	Pia_H02	A A A A	A A	B	Pia-ID02	4
4	Koshihikari	-	Pia_H03	A A A A	A A	B	FA4598	3
5	Hitomebore	-	Pia_H03	A A A A	A A	B	FA4605	2
6	Owarihatamochi	-	Pia_H06	A A A A	A A	B	FA4615	4
7	Hokuriku 193	Pia	Pia_H04	B B A B	B B	-	FA4617	5
8	Takanari	Pia	Pia_H04	B B A B	B B	-	FA4620	6
9	Mochidawara	Pia	Pia_H04	B B A B	B B	-	FA4624	7
10	Hoshinoyume	Pia	Pia_H01-2	A A B B	B B	-	FA4625	8
11	Ochikara	Pia	Pia_H01-2	A A B B	B B	-	6561363	11
12	Nishiaoba	Pia	Pia_H01-2	A A B B	B B	-	6561363	11
13	Fukuhibiki	Pia	Pia_H01-1	A A B B	B B	-	6561363	11
14	Momironan	Pia	Pia_H01-1	A A B B	B B	-	6561363	11
15	Kusahonami	-	Pia_H03	A A A A	A A	B	6561363	11
16	Hoshiyutaka	-	Pia_H03	A A A A	A A	B	6561363	11
17	IR 64	Pia	Pia_H04	B B A B	B B	-	6561363	11
18	Hoshiaoba	Pia	Pia_H04	B B A B	B B	-	6561363	11
19	Kasalath	-	Pia_H03	A A A A	A A	B	6561363	11
20	Yumetoiro	Pia	Pia_H04	B B A B	B B	-	6561363	11
21	IR 24	Pia	Pia_H04	B B A B	B B	-	6561363	11
22	Nanatsuboshi	Pia	Pia_H01-2	A A B B	B B	-	6561363	11
23	Guizhao 2	Pia	Pia_H07	B B A B	B B	-	6561363	11

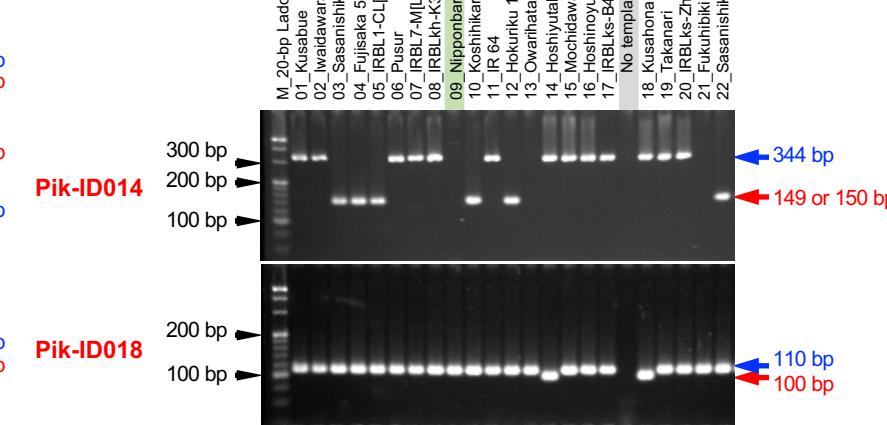
**B****Supplemental Fig. 11-7.** InDel marker set for *Pia* locus

Sample No.	Cultivar/Line name	Target allele	SNP genotyping assays Haplotype ID	Marker	No.	IGSP-1.0 Chr.
					Pik-ID001	1 27743108 11
1	Kusabue	Pik	Pik_H01-1	A A A A A A A A	Pik-ID002	2 27785163 11
2	Iwaidawara	Pik	Pik_H01-2	A A A A A A A A	Pik-ID003	3 27785048 11
3	Sasanishiki BL2	Pik-m	Pik_H02	B B A B A B A B	Pik-ID004	4 27791894 11
4	Fujisaka 5	Pik-s	Pik_H04-1	B B A B A B A B	Pik-ID005	5 27796760 11
5	IRBL1-CL[LT]	Pi1	Pik_H07	A A A B A B B B	Pik-ID006	6 no hit
6	Pusur	Pik-p	Pik_H03	B B A B A B B B	Pik-ID007	7 no hit
7	IRBL7-M[LT]	Pi7	Pik_H06	A - B A B B B B	Pik-ID008	8 27844029 11
8	IRBLkh-K3[US]	Pik-h	Pik_H05	A A A B A B B B	Pik-ID009	9 27844228 11
9	Nipponbare	-	Pik_H08	A A A A A A A A	Pik-ID010	10 no hit
10	Koshihikari	Pik-s	Pik_H04-1	B B A B A B B B	Pik-ID011	11 no hit
11	IR 64	New gene	Pik_H04-3	A - B B A - - B D	Pik-ID012	12 no hit
12	Hokuriku 193	Pik-s	Pik_H04-1	B B A B A B B B	Pik-ID013	13 no hit
13	Owarihatamochi	-	Pik_H08	A A A B B - - AB A	Pik-ID014	14 no hit
14	Hoshiyutaka	New gene	Pik_H12	A - B B A - - C B	Pik-ID015	15 no hit
15	Mochidawara	New gene	Pik_H04-3	A - B B A - - D	Pik-ID016	16 27995163 11
16	Hoshinoyume	Pik	Pik_H01-1	A A A A A A A A	Pik-ID017	17 27996941 11
17	IRBLks-B40[LT]	Pik-I	Pik_H04-2	A - B A B B B B	Pik-ID018	18 27997324 11
18	Kusahonami	New gene	Pik_H12	A - B A - - C	Pik-ID019	19 28002956 11
19	Takanari	Pik-s	Pik_H11	B A B B B B B B	Pik-ID020	20 28004950 11
20	IRBLks-Zh[LT]	New gene	Pik_H04-3	A - B B A - - E	Pik-ID021	21 28004994 11
21	Fukuhibiki	-	Pik_H08	A A A A A A A A	Pik-ID022	22 28005464 11
22	Sasanishiki	Pik-s	Pik_H04-1	B B A B A B B B	Pik-ID023	23 28012610 11

A

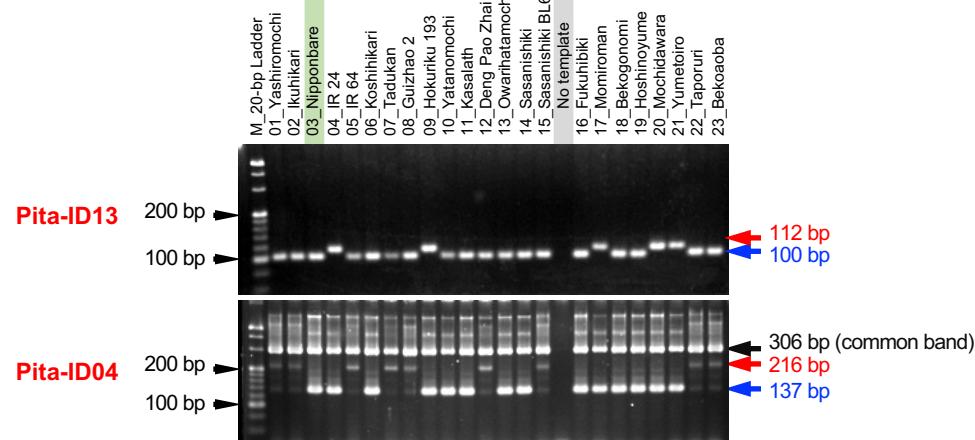


B

Supplemental Fig. 11-8. InDel marker set for *Pik* locus

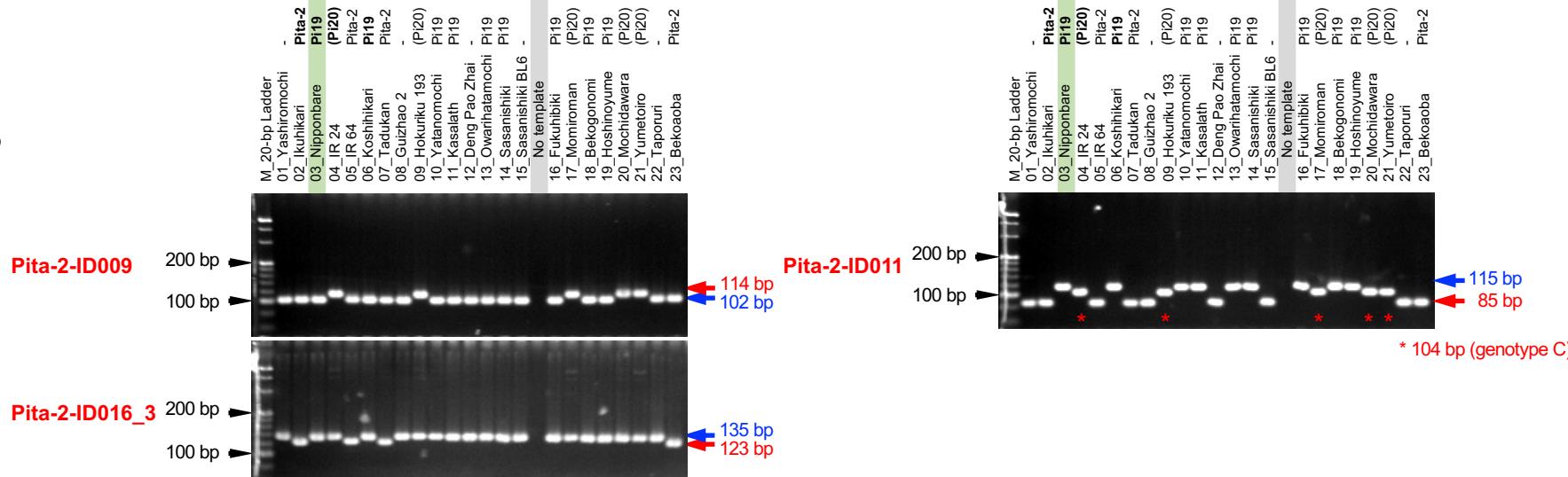
A

Sample No.	Cultivar/Line name	Target allele	SNP genotyping assays		Marker No. IRGSP-1.0 Chr.	InDel marker genotypes												SNP-haplotype		
			Haplotype ID	Marker		Pita-ID13	Pita-ID14	Pita-ID15	Pita-ID16	Pita-ID17	Pita-ID18	Pita-ID19	Pita-ID20	Pita-ID21	Pita-ID22	Pita-ID23	Pita-ID24	10607554	4 10612903	5 10614915
1	Yashiromochi	<i>Pita</i>	Pita_H01	A A	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	1 10607554	12	12
2	Ikuhikari	<i>Pita</i>	Pita_H01	A A	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	2 10607554	12	12
3	Nipponbare	-	Pita_H03	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	3 10607554	12	12
4	IR 24	(P120)	Pita_H02	B B	B A	B A	B A	B A	B A	B B	B B	B B	B B	B B	B B	B B	B B	4 10607554	12	12
5	IR 64	<i>Pita</i>	Pita_H01	A A	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	5 10607554	12	12
6	Koshihikari	-	Pita_H04	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	6 10607554	12	12
7	Tadukan	<i>Pita</i>	Pita_H01	A A	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	7 10607554	12	12
8	Guizhao 2	<i>Pita</i>	Pita_H01	A A	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	8 10607554	12	12
9	Hokuriku 193	(P120)	Pita_H02	B B	B A	B A	B A	B A	B A	B B	B B	B B	B B	B B	B B	B B	B B	9 10607554	12	12
10	Yatanomochi	-	Pita_H06	A A	B A	B A	B A	B A	B A	B B	B B	B B	B B	B B	B B	B B	B B	10 10607554	12	12
11	Kasalath	-	Pita_H07	A A	B A	B A	B A	B A	B A	B B	B B	B B	B B	B B	B B	B B	B B	11 10607554	12	12
12	Deng Pao Zhai	<i>Pita</i>	Pita_H01	A A	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	12 10607554	12	12
13	Owarihatamochi	-	Pita_H05	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	13 10607554	12	12
14	Sasanishiki	-	Pita_H04	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	14 10607554	12	12
15	Sasanishiki BL6	<i>Pita</i>	ND	A A	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	15 10607554	12	12
16	Fukuhibiki	-	Pita_H05	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	16 10607554	12	12
17	Momiroman	(P120)	Pita_H02	B B	B A	B A	B A	B A	B A	B B	B B	B B	B B	B B	B B	B B	B B	17 10607554	12	12
18	Bekogonomi	-	Pita_H04	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	18 10607554	12	12
19	Hoshinoyume	-	Pita_H04	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	19 10607554	12	12
20	Mochidawara	(P120)	Pita_H02	B B	B A	B A	B A	B A	B A	B B	B B	B B	B B	B B	B B	B B	B B	20 10607554	12	12
21	Yumetoiro	(P120)	Pita_H02	B B	B A	B A	B A	B A	B A	B B	B B	B B	B B	B B	B B	B B	B B	21 10607554	12	12
22	Taporuri	<i>Pita</i>	Pita_H01	A A	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	22 10607554	12	12
23	Bekooba	<i>Pita</i>	Pita_H01	A A	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	B B	23 10607554	12	12

B**Supplemental Fig. 11-9.** InDel marker set for *Pita* locus

A

Sample No.	Cultivar/Line name	Target allele	SNP genotyping assays Haplotype ID	Marker	No. IRGSP-1.0 Chr.
1	Yashiromochi	-	Pita-2_H03	Pita-2-ID001	1 10725835 12
2	Ikuhikari	Pita-2	Pita-2_H01	Pita-2-ID002	2 10736661 12
3	Nipponbare	Pi19	Pita-2_H02	Pita-2-ID003	3 10745092 12
4	IR 24	(Pi20)	Pita-2_H04	Pita-2-ID004	4 10760837 12
5	IR 64	Pita-2	Pita-2_H01	Pita-2-ID006	5 10771016 12
6	Koshihikari	Pi19	Pita-2_H02	Pita-2-ID007	6 10797537 12
7	Tadukan	Pita-2	Pita-2_H01	Pita-2-ID008	7 10810754 12
8	Guizhao 2	-	Pita-2_H03	Pita-2-ID009	8 10815778 12
9	Hokuriku 193	(Pi20)	Pita-2_H04	Pita-2-ID016_3	9 10833348 12
10	Yatanomochi	Pi19	Pita-2_H06		10 10833348 12
11	Kasalath	Pi19	Pita-2_H02		11 10853795 12
12	Deng Pao Zhai	-	Pita-2_H03	Pita-2-ID010	12 10862608 12
13	Owarihatafuchi	Pi19	Pita-2_H02	Pita-2-ID011	13 10876975 12
14	Sasanishiki	Pi19	Pita-2_H02	Pita-2-ID012	14 10894020 12
15	Sasanishiki BL6	-	ND	Pita-2-ID013	15 10896196 12
16	Fukuhibiki	Pi19	Pita-2_H02	Pita-2-ID014	16 10894020 12
17	Momiroman	(Pi20)	Pita-2_H03	Pita-2-ID015	17 10894020 12
18	Bekogonomi	Pi19	Pita-2_H04	FA4580	1 10801324 12
19	Hoshinoyume	(Pi20)	Pita-2_H02		18 10830872 12
20	Mochidawara	(Pi20)	Pita-2_H02		19 10833033 12
21	Yumetoiro	-	Pita-2_H04		20 10833370-10833387 12
22	Tapoururi	(Pi20)	Pita-2_H03		21 10833494 12
23	Bekooba	Pita-2	Pita-2_H01		22 10853113 12

B**Supplemental Fig. 11-10. InDel marker set for *Pita-2* locus**