

Figure S1

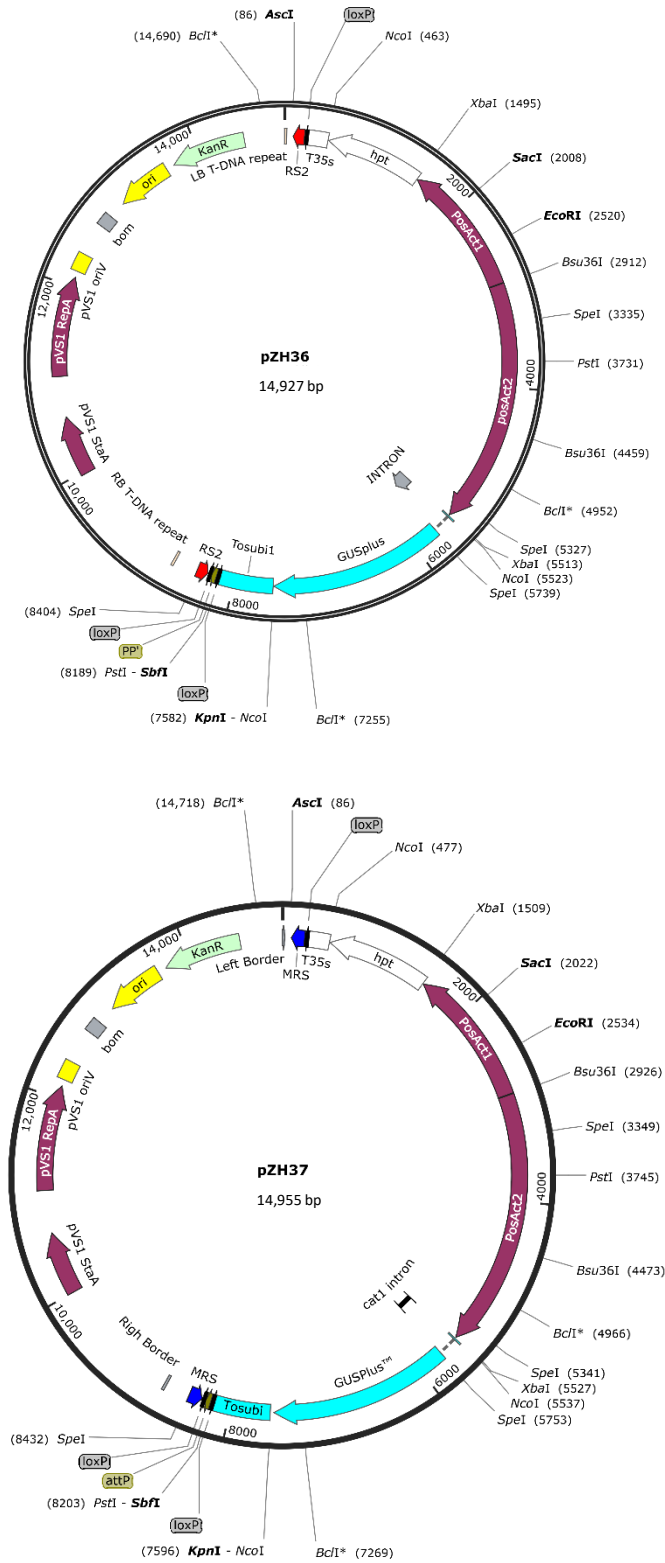


Figure S1. Map of pZH36 and pZH37.



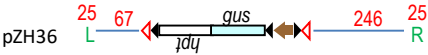
**Figure S2.** Flanking DNA of the target line insertion sites. **(A)** Flanking DNA for pZH37-derived insertion sites. **(B)** Flanking DNA for pZH36-derived insertion sites. Chromosome position numbers according to <http://rapdb.dna.affrc.go.jp/> Database. Due to orienting the target construct as depicted in Figure 1A (left border left, right border right), the chromosome position numbers may increase or decrease from left to right. Purple lettering indicates deleted host nucleotide bases. Pink lettering indicates insertion of DNA that does not originate from the insertion site or from the vector. Green lettering indicates sequences corresponding to the T-DNA borders. Blue lettering indicates sequences corresponding to pZH36 or pZH37 vector sequences. Red lettering indicates sequences corresponding to recombination site RS2. Black dot indicates the overlaps with the host DNA. Dot below nucleotide indicates the same nucleotide whether from host or transgenic DNA

Figure S3



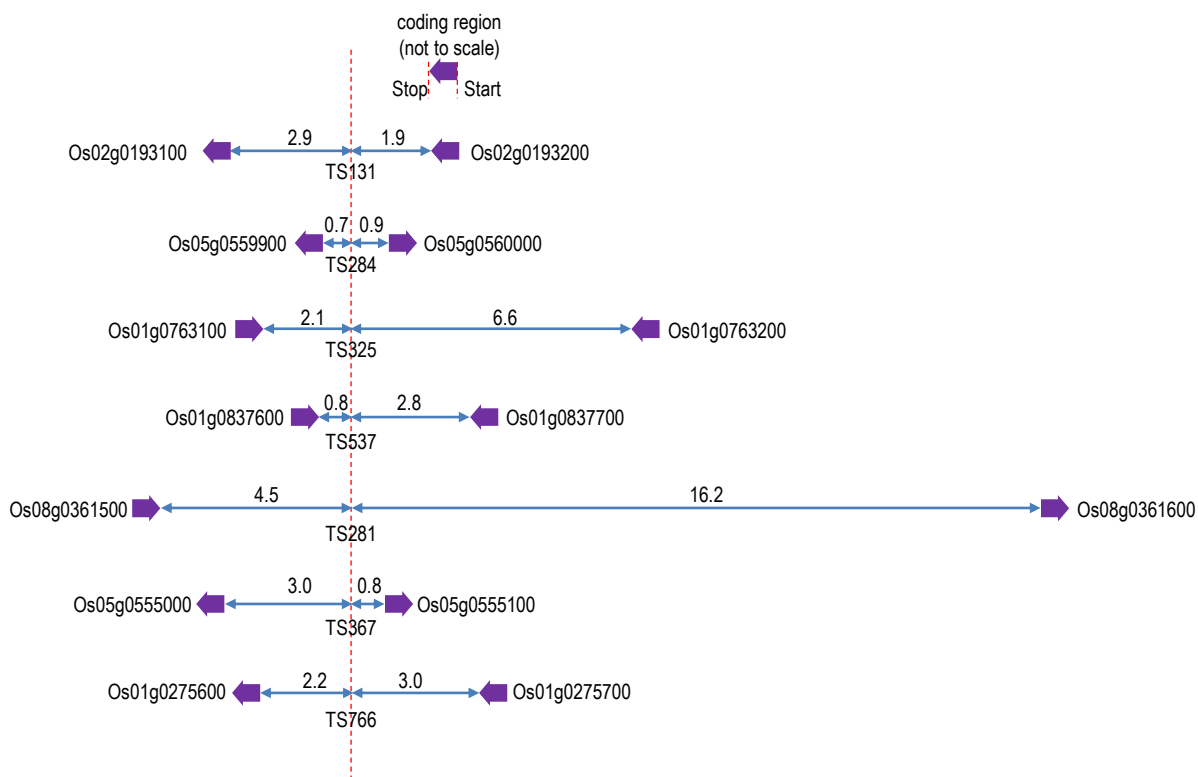
**Figure S3.** pZH37-derived target site sequences from left and right end of the T-DNA to the innermost lox sites. Gray bars show sequence rangeto pZH37 vector sequences. Blue, bold black and brown lettering indicates sequences corresponding to. Green lettering indicates sequences corresponding to the T-DNA borders. Black lettering indicates sequences corresponding recombination site *MRS*, *lox* and *attP* sites, respectively. Right border vector sequence contains the *E. coli lacZ* alpha fragment coding sequence. Black dot below nucleotide indicates the same nucleotide whether from host or T-DNA left border DNA.

Figure S4

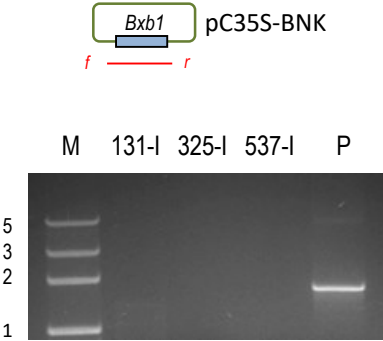


	<b>Left border</b>		<b>RS2</b>
PZH36	—TGGCAGGATATATTGTGGTGAACAAATTGACGCTTAGACAACCTTAATAACACATTGCGGACGTTTTTAATGTACTGAATTAAGGCGCGCC		CGTAAATTATAAATCTTAAATATCAA
281	TAAGAACTTTTATATTGTGGTGAACAAATTGACGCTTAGACAACCTTAATAACACATTGCGGACGTTTTTAATGTACTGAATTAAGGCGCGCC		CGTAAATTATAAATCTTAAATATCAA
367	-----		-----GCCCGTAAATTATAAATCTTAAATATCAA
766	-----TAAACAAATTGACGCTTAGACAACCTTAATAACACATTGCGGACGTTTTTAATGTACTGAATTAAGGCGCGCC		CGTAAATTATAAATCTTAAATATCAA
			<b>lox</b>
PZH36	AGTTACATGTTATATATGGTTAAAAATCATTAAATGTTACATAGTTTTAAGAACTTTTATATTGTAACCTTAGGGTATACCCCAAAGTAACGTTAATTAATAA		ATAAAGTTCGTATAGCATAC
281	AGTTACATGTTATATATGGTTAAAAATCATTAAATGTTACATAGTTTTAAGAACTTTTATATTGTAACCTTAGGGTATACCCCAAAGTAACGTTAATTAATAA		ATAAAGTTCGTATAGCATAC
367	AGTTACATGTTATATATGGTTAAAAATCATTAAATGTTACATAGTTTTAAGAACTTTTATATTGTAACCTTAGGGTATACCCCAAAGTAACGTTAATTAATAA		ATAAAGTTCGTATAGCATAC
766	AGTTACATGTTATATATGGTTAAAAATCATTAAATGTTACATAGTTTTAAGAACTTTTATATTGTAACCTTAGGGTATACCCCAAAGTAACGTTAATTAATAA		ATAAAGTTCGTATAGCATAC
PZH36	ATTATACGAAGTTAT		
281	ATTATACGAAGTTAT		
367	ATTATACGAAGTTAT		
766	ATTATACGAAGTTAT		
	<b>lox</b>	<b>attP</b>	<b>lox</b>
PZH36	ATAAAGTTCGTATAGCATACATTATACGAAGTTATCCTGACAGGGGGTTTGTACCGTACACCACTGAGACCGCGGTGGTTGACCAGACAACCACTG		ATAAAGTTCGTATAGCATAC
281	ATAAAGTTCGTATAGCATACATTATACGAAGTTATCCTGACAGGGGGTTTGTACCGTACACCACTGAGACCGCGGTGGTTGACCAGACAACCACTG		ATAAAGTTCGTATAGCATAC
367	ATAAAGTTCGTATAGCATACATTATACGAAGTTATCCTGACAGGGGGTTTGTACCGTACACCACTGAGACCGCGGTGGTTGACCAGACAACCACTG		ATAAAGTTCGTATAGCATAC
766	ATAAAGTTCGTATAGCATACATTATACGAAGTTATCCTGACAGGGGGTTTGTACCGTACACCACTGAGACCGCGGTGGTTGACCAGACAACCACTG		ATAAAGTTCGTATAGCATAC
			<b>lox</b>
	<b>RS2</b>		
PZH36	CGAAGTTATCCCGGGCGTAAATTATAAATCTTAAATATCAAAGTTACATGTTATATATGGTTAAAAATCATTAAATGTTACATAGTTTTAAGAACTTTTATATTGTAACCTTAGGGTAT		
281	CGAAGTTATCCCGGGCGTAAATTATAAATCTTAAATATCAAAGTTACATGTTATATATGGTTAAAAATCATTAAATGTTACATAGTTTTAAGAACTTTTATATTGTAACCTTAGGGTAT		
367	CGAAGTTATCCCGGGCGTAAATTATAAATCTTAAATATCAAAGTTACATGTTATATATGGTTAAAAATCATTAAATGTTACATAGTTTTAAGAACTTTTATATTGTAACCTTAGGGTAT		
766	CGAAGTTATCCCGGGCGTAAATTATAAATCTTAAATATCAAAGTTACATGTTATATATGGTTAAAAATCATTAAATGTTACATAGTTTTAAGAACTTTTATATTGTAACCTTAGGGTAT		
	<b>lacZ alpha</b>		
PZH36	ACCCCAAAGTAACGACTAGTATGCAGGCATGCAAGCTTGGCACTGGCCGTCGTTTTACAACGTCGTGACTGGGAAAACCCCTGGCGTTACCCAACTTAATCGCCTTGACGACATCCCCCT		
281	ACCCCAAAGTAACGACTAGTATGCAGGCATGCAAGCTTGGCACTGGCCGTCGTTTTACAACGTCGTGACTGGGAAAACCCCTGGCGTTACCCAACTTAATCGCCTTGACGACATCCCCCT		
367	ACCCCAAAGTAACGACTAGTATGCAGGCATGCAAGCTTGGCACTGGCCGTCGTTTTACAACGTCGTGACTGGGAAAACCCCTGGCGTTACCCAACTTAATCGCCTTGACGACATCCCCCT		
766	ACCCCAAAGTAACGACTAGTATGCAGGCATGCAAGCTTGGCACTGGCCGTCGTTTTACAACGTCGTGACTGGGAAAACCCCTGGCGTTACCCAACTTAATCGCCTTGACGACATCCCCCT		
PZH36	TTCGCCAGCTGGCGTAATAGCGAAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGTAGAGCAGCTTGAGCTTGGATCAGATTGTCGTTTCCCGCCTT		
281	TTCGCCAGCTGGCGTAATAGCGAAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGTAGAGCAGCTTGAGCTTGGATCAGATTGTCGTTTCCCGCCTT		
367	TTCGCCAGCTGGCGTAATAGCGAAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGTAGAGCAGCTTGAGCTTGGATCAGATTGTCGTTTCCCGCCTT		
766	TTCGCCAGCTGGCGTAATAGCGAAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGTAGAGCAGCTTGAGCTTGGATCAGATTGTCGTTTCCCGCCTT		
	<b>Right border</b>		
PZH36	CAGTTTAAACTATCAGTGTGACAGGATATATTGGCGGTAAC		
281	CAGTTTAAACTATCAGTGTGACAGGATATATTGGCGGTAAC		
367	CAGTTTAAACTATCAGTGTGACAGGATATATTGGCGGTAAC		
766	CAGTTTAAACTATCAGTGTGACAGGATATATTGGCGGTAAC		

**Figure S4.** pZH36-derived target site sequences from left and right boundaries of the T-DNA to the innermost *lox* sites. Green lettering indicates sequences corresponding to T-DNA borders. Pink lettering indicates insertion of DNA not from the insertion site or the vector. Black lettering indicates sequences corresponding to pZH36 vector sequences. Red, bold black and brown lettering indicates sequences corresponding to recombination site *RS2*, *lox* and *attP* sites, respectively. Right border vector sequence contains the *E. coli lacZ* alpha fragment coding sequence. Black dot below nucleotide indicates the same nucleotide whether from host or transgenic DNA.



**Figure S5** Rice target sites and nearest coding regions.



**Figure S6.** Lack of PCR detection of Bxb1 integrase DNA in T2 integrants 131-I, 325-I and 537-I. Primers *f* and *r* correspond to Bxb1 integrase coding region. P: positive control with pC35S-BNK DNA diluted to 1 copy per diploid rice genome; M: molecular markers in kb.