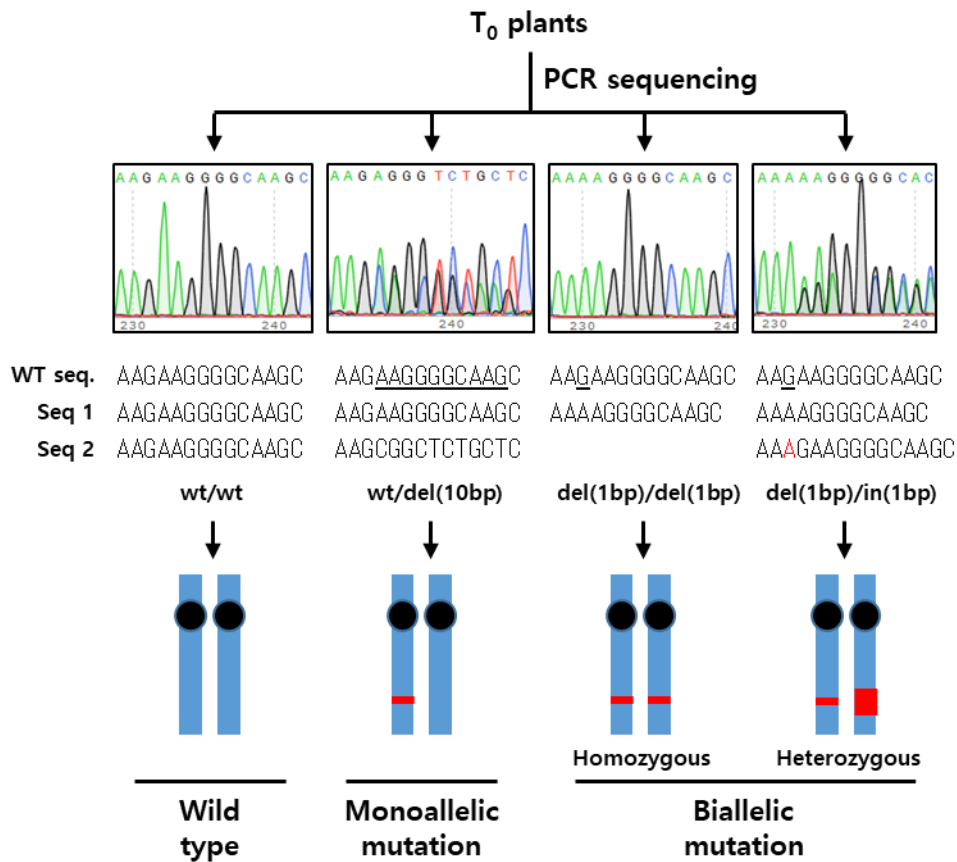
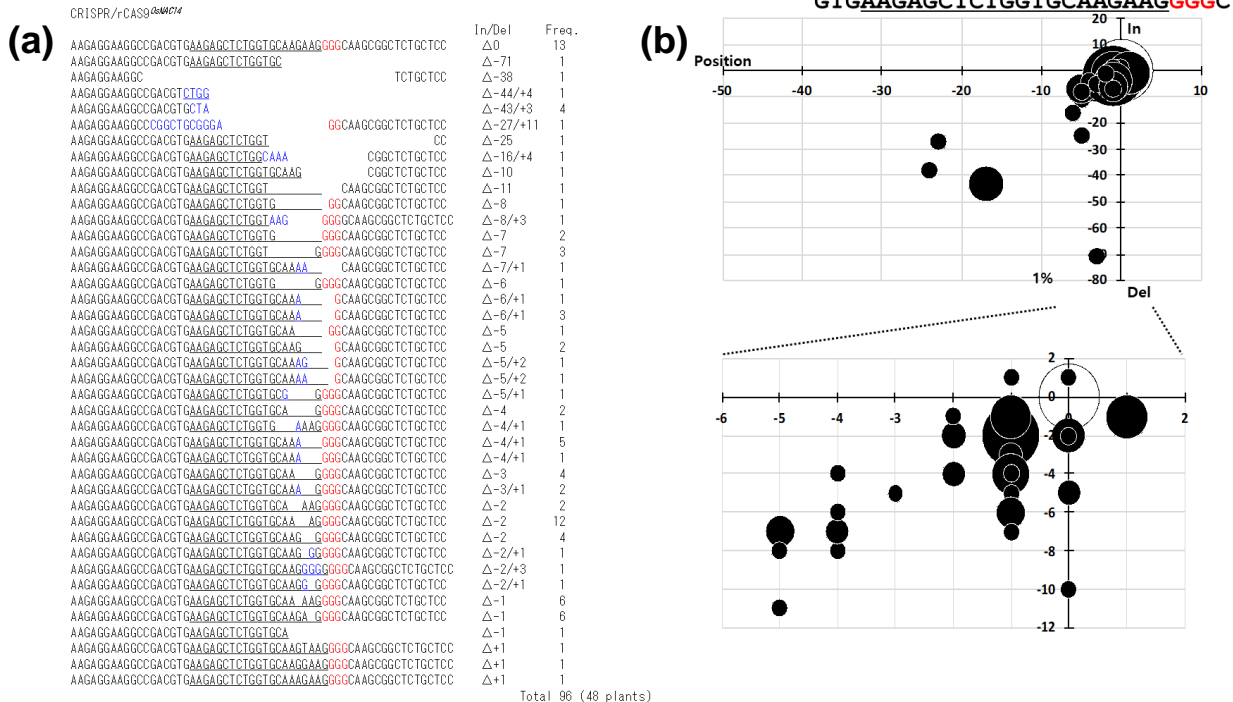


**Table S1.** The primer list used in this study

Genes	Forward primer	Reverse primer	Experiments	
<i>OsU3 pro(HindIII) F</i>	① <u>AAGCTTAAGGAATCTTTAAACATACGA</u>			
<i>gRNA ter (XbaI) R</i>	④ <u>TCTAGAAAAACAAAAAGCACCCGACTCGGTGC</u>			
<i>miR399d</i>	③ <u>TCACAAAAACGGCCTGCCAAGTTTTAGAGCTAGAAATAGC</u>	② <u>TTGGCAGGCCGTTTTTGSTGAGCCACGGATCATCTGCA</u>		
<i>miR418</i>	③ <u>AATTCACCCGTGGTCCCTGGSTTTTAGAGCTAGAAATAGC</u>	② <u>CCAGGGACCACGGTGGAAATGCCACGGATCATCTGCA</u>		
<i>miR156d</i>	③ <u>AGAGTGAGCACACGGCGTGAGTTTTAGAGCTAGAAATAGC</u>	② <u>TCACGCCGTGTGCTCACTCTGCCACGGATCATCTGCA</u>		
<i>miR399e</i>	③ <u>TGCCACGAATGCAAACTTTGTTTTAGAGCTAGAAATAGC</u>	② <u>CAAAGTTGCATTGCTGGGCACGCCACGGATCATCTGCA</u>		
<i>miR399i</i>	③ <u>TGCTAGCCTTTCCTCGCCAAGTTTTAGAGCTAGAAATAGC</u>	② <u>TTGGCAGGAAAGGCTAGCAGCCACGGATCATCTGCA</u>		
<i>miR169f</i>	③ <u>AAGAGCTGATTCGGTAGCCAGTTTTAGAGCTAGAAATAGC</u>	② <u>TGGCTACCGAATCAGCTCTTGCCACGGATCATCTGCA</u>	For construction of CR ISPR/rCas9	
<i>miR171f</i>	③ <u>TTGGCATGGTTCATCAAACTTTTAGAGCTAGAAATAGC</u>	② <u>GTTTGATTGAACCATGCCAAGCCACGGATCATCTGCA</u>		
<i>OsNAC14</i>	③ <u>AAGAGCTCTGGTGCAGRAAGSTTTTAGAGCTAGAAATAGC</u>	② <u>GTTCTTGCAACAGAGCTCTTGCCACGGATCATCTGCA</u>		
<i>miR156g</i>	③ <u>GAAGAGAGTGAGCACACAGCSTTTTAGAGCTAGAAATAGC</u>	② <u>GCTGTGTGCTCACTCTCTTGCCACGGATCATCTGCA</u>		
<i>miR399k</i>	③ <u>GGTTACCAGACTACTGCCAAGTTTTAGAGCTAGAAATAGC</u>	② <u>TTGGCAGTAGTCTGGTAAACGCCACGGATCATCTGCA</u>		
<i>miR818b</i>	③ <u>ATATTTATGGGACGGAGGGATGTTTTAGAGCTAGAAATAGC</u>	② <u>ATCCCTCCGTCCCATATAATGSCACGGATCATCTGCA</u>		
<i>miR814a</i>	③ <u>ACTTCATAGTACAACGAATCGTTTTAGAGCTAGAAATAGC</u>	② <u>GATTCGTTGTACTATGAAGTGCCACGGATCATCTGCA</u>		
<i>miR816</i>	③ <u>ATATTTACTACAACGAATCGTTTTAGAGCTAGAAATAGC</u>	② <u>GATTCGTTGTAGTAAAATATGCCACGGATCATCTGCA</u>		
<i>miR399d</i>	(CACC) GCACAAGAGGCACACTAC	GTTGCCGCCAGACTTCGTTTAC		Genomic DNA PCR TA Cloning PCR sequencing
<i>miR418</i>	(CACC) GGGTCACGGAAAAGGTC	GTGGGGATAACGATATTGGACCC		
<i>miR156d</i>	(CACC) GCTGAATTTCTCTGTACCAAAG	CCGCTCACCGGATCCAAAGAAG		
<i>miR399e</i>	(CACC) GGTGGAAGAGGAGGAG	GTCCAAAACACATATACAGGAACC		
<i>miR399i</i>	(CACC) GCTGCTCAAGCATTTGTCAG	GTACACCCCTCAGGCCCTTAAGTC		
<i>miR169f</i>	(CACC) CGTTGCAATCCATGGACATC	GGGGAGATATGGGTATCTAGGAC		
<i>miR171f</i>	(CACC) GTTTCGCTTCCCATGTC	GGCAGGCATGTGAAATAACACGC		
<i>OsNAC14</i>	(CACC) CCTCCGACGAGCTTGTCTGTG	CGGGTAACGCATGATTTGGGG		
<i>miR156g</i>	(CACC) GAGACCTCCCCAGATCTGG	TGAGGAGGACAGTAGTAGCCG		
<i>miR399k</i>	(CACC) AGAAAGGCCGTGTAGCTG	AGATTGCTCTCTCCCAATTCCTC		
<i>miR818b</i>	(CACC) GATCGATCTCGTCGTG	GAACCTTGCAATGACTTCAGCTAG		
<i>miR814a</i>	(CACC) TTTCTGCCAGTGTCTCTAGC	CCCTCTGTGGTTTTAAGGGCAG		
<i>miR816</i>	(CACC) GATTCTGTACTACTAGAACGTC	GGCTGGCAGTGGCTCAGATC		
<i>Universal_R</i>	GTGCAGGTTCCGAGGT		Stem-loop RT-PCR	
<i>miR171f-5p_RT</i>	GCGCCGGTGTGGCATGGTTCAATC	GTCGTATCCAGTGCAGGGTCCGAGGTATTGCACTGGATACGAATTTGATTTG		
<i>MiR818b_RT</i>	GCGCCGGAATCCCTTATATTATGGG	GTCGTATCCAGTGCAGGGTCCGAGGTATTGCACTGGATACGAACCCGTCCTCCATA		



**Figure S1.** Determination of mutation types from PCR products. Genomic DNA extracted from T<sub>0</sub> transgenic plants was used for PCR-amplification of the single guide RNA (sgRNA) targeting site. The PCR products were analyzed by the Sanger sequencing method, and resultant chromatograms were used for the determination of mutation types. Wild type, non-mutated transgenic plants; Monoallelic mutation, one allele is mutated; Biallelic mutation, the two alleles are mutated; Homozygous, the two alleles have the same mutations; Heterozygous, the two alleles have different mutations.



**Figure S2.** Analysis of CRISPR/rCas9-mediated base insertion and deletion (indel) patterns in CRISPR/rCas9<sup>OsNAC14</sup> transgenic plants. **a.** Indel mutation patterns and frequency. **b.** The graph showing the correlation between the degree of indel (y-axis) and the position where indel occurs (x-axis). The graph in the bottom is an enlarged image of the area where spots are concentrated. The white circle at the origin indicates the frequency of non-mutated plants.