

**Supplemental Table 1.** Information of the newly designed DNA markers in this study

Chromosome	Marker	Forward primer (5' to 3')	Reverse primer (5' to 3')	Expected size (bp) Nipponbare / <i>L. perrieri</i>
1	Lp01-00504	AGCAAAAGGGATCATTCAACG	GTAGGCATGAACCTGTGAAC	306 / 357
2	Lp02-00510	GAGCTATCTTCTTAACCTGGT	GAATTCGCTTGCTTCCGAA	216 / 258
3	Lp03-00636	ATGATTCGATGGTGCAATCTG	TAGCTCTCATGGTTGTTGCA	360 / 288
4	Lp04-00646	TACCTTGTTTCTGAGATGA	CAACATATTGCCCTTCAAGGT	222 / 255
5	Lp05-00637	TCAGCAAGCAAACATGTTGCA	ACCTGAAGACGGACAACATC	233 / 263
6	Lp06-00631	TGATCAATTGGGACACACTG	GCACTCATTCTGAAAATGAGG	241 / 280
7	Lp07-00701	TTCAGTGGAARGCTTTCTGCA	TCTCCTCCTCACTTCCAGGT	412 / 335
8	Lp08-00703	CTCAAGCTSCTCATCGTCAC	AGCTTCTCCTCGTTCTGATC	261 / 346
9	Lp09-00652	ACCGGCAATGATAAAACTGCT	TGTCGGTTTGTTCGGTTGGT	214 / 170
10	Lp10-00840	GCGAAGACGAAAAATCCAGT	ACTGCTGAAGACCACGAGTG	313 / 265
11	Lp11-28715	GGAGATAATTCTCGGTGTGTG	TGGCTGGTTCGTTCTCTCAC	239 / 268
12	Lp12-27020	CTCTGAATACTTGCAGATGCA	GGTGATTAGGATTAGATGCT	184 / 154